

**PUBLIC NOTICE
INVITATION FOR BIDS
E-RATE PRODUCTS AND
SERVICES NOTICE**

Sealed bids will be received by the Smith County School District up to and no later than 1:00 p.m. March 4th, 2020, in the office of the Superintendent, 212 Sylvarena Avenue, Raleigh, Mississippi 39153 for the procurement of Category 1 and Category 2 products and services via E-Rate funding. A copy of the Request for Proposals (RFP) can be obtained by emailing Millie Rodabough at millie.regroup@gmail.com. If a response is not received within 24 hours, it is the responsibility of the respondent to call Millie Rodabough at 662-630-0118 to confirm receipt of the RFP request.

All interested bidders must attend a mandatory vendor meeting on February 21st, 2020 beginning at 11:00 a.m. at the office of the Superintendent, 212 Sylvarena Avenue, Raleigh, Mississippi 39153. Bidders not attending the mandatory vendor meeting will not be considered.

Bids will be opened at 1:00 p.m. March 4th, 2020 in the office of the Superintendent, 212 Sylvarena Avenue, Raleigh, Mississippi 39153. Bids must be submitted in a sealed envelope clearly marked as follows: "2020 E-Rate Bid"

Bid Opening: March 4th, 2020 1:00 p.m. Envelopes not so marked will not be considered.

As an alternate submission mechanism for Category 2 products and services, bids may be submitted through secure electronic submission. Vendors wishing to submit their proposal via secure electronic bidding should email Millie Rodabough for electronic submission instructions using QuestCDN. If a response is not received within 4 hours, it is the responsibility of the respondent to call Millie Rodabough at 662-630-0118 to confirm receipt of the request. The Smith County School District has the right to accept or reject any or all bids. Publish by order of the Smith County School District.
Director of Technology, Larry Bryant
Smith County School District

(4826)
February 12, 19

**The State of Mississippi,
County of Smith**

PERSONALLY CAME before me, the undersigned a Notary Public in and for SMITH COUNTY, MISSISSIPPI the OFFICE CLERK of the SMITH COUNTY REFORMER, a newspaper published in the Town of Raleigh, Smith County, in said State, who being duly sworn, deposes and says that the SMITH COUNTY REFORMER is a newspaper as defined and prescribed in § 13-3-31 of the Mississippi Code 1972 Annotated and that the publication of a notice, of which the annexed is a copy, in the matter of

BOE E-rate

has been made in said paper 2 times consecutively, to-wit:

On the 12 day of February 2020

On the 19 day of February 2020

On the _____ day of _____ 20_____

On the _____ day of _____ 20_____

Felicia Earnest

OFFICE CLERK

SWORN to and subscribed before me, this the

20th day of

February 2020

Martina Jones

NOTARY PUBLIC



Words

Cost



Millie Rodabough <documentation.regroup@gmail.com>

MPTAP Bid Submission -- 02/05/2020 12:33 PM

1 message

Agency Bid Bank <agencybidbank@mississippi.org>
To: documentation.regroup@gmail.com

Wed, Feb 5, 2020 at 12:33 PM

Thank you for your bid submission on 02/05/2020 12:33 PM.**Please Keep this Confirmation for your Records**User: documentation.regroup@gmail.com (Margaret Rollins)

Agency: Rodabough Education Group, Inc

Division: E-Rate

Bid Number: 8362-20200205123239

Alternate Bid Number (if applicable): Smith County Schools E-Rate C2 2020

Bid Due Date and Time: 3/4/2020 1:00:00 PM

NIGP Number: 20413

NIGP Description: Microcomputers, Cables: Printer, Disk, Network, etc.

Major Procurement Category: INFORMATION TECHNOLOGY (IT)

Sub Procurement Category: EQUIPMENT - TECHNOLOGY

Pre-Bid Conference: True

Pre-Bid Conference Date and Time: 2/21/2020 11:00:00 AM

Pre-Bid Description (if applicable): All interested bidders must attend a mandatory vendor meeting on February 21st, 2020 beginning at 11:00 a.m. at the office of the Superintendent, [212 Sylvarena Avenue, Raleigh, Mississippi 39153](#). Bidders not attending the mandatory vendor meeting will not be considered.

Bid Description: E-Rate Category 2 Products and Services

File attached: True

File Attachment Generated File Name: 8362-20200205123239.docx

File Attachment Description (if applicable): Notice to Paper

Thank you for your bid submission. Your bid has been registered with our system, and the MPTAP administrator has been notified of your bid.

Confidentiality Note: The Mississippi Development Authority (MDA) is committed to ensuring complete confidentiality of information for our customers. To this end, the information contained in this e-mail and/or document(s) attached is for the exclusive use by the individual named above and/or their organization and may contain confidential, privileged and non-disclosable information. If you are not the intended recipient, please refrain from reading, photocopying, distributing or otherwise using this e-mail or its contents in any way. If you have received this transmission in error, please notify me immediately. {MDA-2012}

documentation.regroup@gmail.com [Logout](#)

Thank you for your bid submission. Your bid has been submitted as listed here:

Username: documentation.regroup@gmail.com

Contact First Name: Margaret

Contact Last Name: Rollins

Agency Name: Rodabough Education Group, Inc

Division Name: E-Rate

Bid Number: 8362-20200205123239

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Pre-Bid Due Date: 2/21/2020 11:00:00 AM

Bid Description: E-Rate Category 2 Products and Services

File Attachment: True

File Attachment Name: 8362-20200205123239.docx

File Attachment Description: Notice to Paper

If you would like to submit another bid, please select the values you would like to keep and click "Submit Another Bid".

- Alternate Bid Number -- Smith County Schools E-Rate C2 2020
- Bid Due Date -- 03/04/2020 01:00 PM
- NIGP Code and Description -- 20413: Microcomputers, Cables: Printer, Disk, Network, etc.
- Pre-Bid Conference Description -- All interested bidders must attend a mandatory vendor meeting on February 21st, 2020 beginning at 11:00 a.m. at the office of the Superintendent, 212 Sylvarena Avenue, Raleigh, Mississippi 39153. Bidders not attending the mandatory vendor meeting will not be considered.
- Pre-Bid Due Date and Time -- 02/21/2020 11:00 AM
- Bid Description -- E-Rate Category 2 Products and Services

Request for Proposals E-Rate Category 2 Project Smith County School District

Notice to Bidders

Notice is hereby given to interested bidders that the Smith County School District will receive written, sealed bids until the hour of **1:00 p.m., March 4th, 2020**, at which time bids will be opened in the Board Room of the Smith County School District at 212 Sylvarena Avenue, Raleigh, Mississippi 39153.

Bid Timeline

Letter of Intent to Bid Due Date	February 20th, 2020 11:59 p.m.
Mandatory Vendor Meeting	February 21st, 2020 11:00 a.m.
Bid Due Date and Opening	March 4th, 2020 1:00 p.m.

E-Rate Category 2 Project (Description)

The Smith County School District wishes to upgrade its E-Rate eligible category 2 Equipment, Cabling, and Managed Services.

In order to be eligible to bid, all prospective bidders must attend the mandatory vendor meeting. The vendor meeting will be held at the Smith County School District Office located at 212 Sylvarena Avenue, Raleigh, Mississippi 39153 on February 21st, 2020 at 11:00 a.m. Proposals from vendors who do not attend the vendor meeting WILL NOT be considered.

At the time of the vendor meeting, all bidders will be expected to complete and turn in the “Site Visit Information Form” furnished in this document.

The RFP will consist of Cabling, Equipment, and Managed Services. Vendors may bid on one, two, or all parts. Any discounts for bundled pricing or winning more than one portion of the RFP will be considered and allowed.

The RFP will establish a 2 Year Contract to cover the E-Rate 2020 Funding Year and the E-Rate 2021 Funding Year. The contract may be extended until co-terminate with the service delivery deadline for E-Rate Funding Year 2021.

Intent to Bid

Smith County School Districts requests that all vendors interested in submitting a proposal complete the Letter of Intent to Bid that is provided at the end of this document. The Letter of Intent to Bid should be emailed to Millie Rodabough at millie.regroup@gmail.com prior to February 20th, 2020 11:59 p.m. If an email reply is not received within 24 hours, it is the responsibility of the respondent to call Millie Rodabough at 662-630-0118 to confirm receipt of your Letter of Intent to Bid.

Submitting a Letter of Intent to Bid does not commit you to bidding. The Letter of Intent to Bid is not a requirement to submit a proposal, however the mandatory vendor meeting is a requirement to bid.

In the case of inclement weather or other unforeseen circumstances, all vendors who have submitted the Letter of Intent to Bid will be notified of a change to the mandatory vendor meeting date or time.

General

The specifications herein are provided to convey the intent of the District and do not indicate every cable or component necessary for the complete system that the proposing vendor shall provide. Technical specifications of all equipment and necessary components proposed should be provided with the bid.

Prices quoted shall be an all-inclusive solution including all applicable taxes, shipping costs, installation of equipment, configuration of equipment, any necessary cabling, training, technical support and trash removal, and represent complete installation and integration with the existing network where necessary. All equipment included in vendor’s proposal must be new equipment purchased from an authorized reseller. No grey market, third party, or used equipment will be considered. Prices quoted in the vendor’s response will remain in effect for a period of twenty four (24) months from the time of the contract signing.

Omissions in the proposal of any provision described herein shall not be construed as to relieve the vendor of any responsibility or obligation to the complete and satisfactory delivery, operation and support of any services.

Should the vendor have questions or find discrepancies in, or omissions from this RFP, or be in doubt to its meaning, the vendor shall at once notify Smith County School District. All questions should be addressed to Millie Rodabough and sent via email to millie.regroup@gmail.com.

If a response is not received within 24 hours, it is the responsibility of the respondent to call Millie Rodabough at 662-630-0118 to confirm receipt of the questions. All questions and answers will be emailed to all vendors attending the mandatory vendor meeting.

Bid Submission Instructions

Bids may be hand delivered or mailed to the Smith County School District located at 212 Sylvarena Avenue, Raleigh, Mississippi 39153.

Bids must be submitted in a sealed envelope clearly marked as follows:

“2020 E-Rate Bid”

Bid Opening: March 4th, 2020 1:00 p.m.

Envelopes not so marked will not be considered. The Smith County School District Board of Trustees reserves the right to reject any and/or all bids and waive any informality.

As an alternate submission mechanism, bids may be submitted through secure electronic submission. Vendors wishing to submit their proposal via secure electronic bidding should email Millie Rodabough for electronic submission instructions. If a response is not received within 4 hours, it is the responsibility of the respondent to call Millie Rodabough at 662-630-0118 to confirm receipt of the request. Please note that bids submitted through Quest CDN should be uploaded as 1 document.

Bidders must submit one (1) original and two (2) copies of their full response along with one (1) electronic copy.

The first page in the bid submission packet must be the Bid Worksheet. The worksheet will show the vendor’s total cost for ALL schools. In addition to the Bid Worksheet, Vendors MUST provide quotes submitted on the vendor’s standard quote form and broken down by school to facilitate the new E-Rate C2 Requirements. Failure to comply may result in bid disqualification.

Bids must include the following:

The “Bid Worksheet” completed and signed by the bidder. Note, the “Bid Worksheet” is a total for all schools. Individual quotes divided by school must be provided to accommodate the new E-Rate C2 budget requirements. In the occurrence of discrepancies between the total costs and line item costs, the line item cost will be deemed to be the correct cost.

(THE BID WORKSHEET MUST BE THE FIRST PAGE IN THE BID SUBMISSION DOCUMENTATION)

Required Documents as listed in this RFP.

It is the sole responsibility of the respondents to ensure their responses arrive in a timely manner. Late arrivals will be rejected. The Smith County School District is not responsible for delays of any commercial carrier or delays incurred by the respondents. Oral, telephone, or electronically transferred bids will not be considered. Signatures on the proposals must be in longhand and executed by a principal duly authorized by the vendor to make a contract.

PLEASE NOTE: Common Carriers, UPS and FedEx, in the Raleigh Mississippi area generally do not deliver overnight packages on time. The Smith County School District will not be responsible for nor will it accept bid responses delivered after the deadline.

Evaluation Methodology

The Smith County School District Board of Trustees will award a contract based on the vendor submission that best meets the needs of the Smith County School District with regard to the current Technology Plan, future growth, RFP specifications, and not necessarily the lowest price even though price will be the primary factor. The following factors will be considered when evaluating responses:

- Price, based on 5-year cost of ownership estimate (to include base price, renewal fees and additional support fees)
- Adherence to Technical Specifications
- Technical Certifications of Vendor Staff
- Number of Service Staff within close proximity to Raleigh, MS
- Vendor response time
- Turnkey Solution
- Ease of Use
- Experience with Vendor (includes Vendor-supplied customer references and recent (7 years) District experience with Vendor (if any); may also include any publicly available reports or testimonials regarding recent Vendor performance)

The above is not an exclusive list.

Vendor Qualifications

The Smith County School District may make such investigations as deemed necessary to determine the ability of the bidder or subcontractors or suppliers to perform the work, and the bidder shall furnish to the Smith County School District all such information and data for this purpose as the Smith County School District may request. The Smith County School District reserves the right to reject any bid if the evidence submitted by or investigation of such Bidder fails to satisfy the Smith County School District that such bidder is properly qualified to carry out the obligations of the contract and/or to complete the work contemplated therein within the time required.

The bidder is specifically advised that any person, firm or other party to whom it proposes to award a subcontract or purchase order under this contract must be acceptable to the Smith County School District.

The successful vendor (contractor) must have or be certified with the following:

- Be able to supply all products and services
- Be an authorized dealer in the State of Mississippi for all products

- Have current liability insurance and workers compensation insurance (certificates of insurance must be furnished by winning bidder within 10 days of award)
- Provide documentation of the vendor's employee certifications
- Participate in the mandatory vendor meeting. Any bid submitted by a vendor who does not attend the mandatory vendor meeting will not be considered. There will be no exceptions.
- Provide an E-Rate SPIN
- Provide at least 3 references for projects of the same scope and size

Financing

This project will be subsidized by the E-Rate program and is therefore subject to funding availability and contingent upon E-Rate funding. Due to the extended period of time it could take for the District to receive a funding commitment from USAC for this project and possible unforeseen financial circumstances, any contract arising from this RFP will also be contingent upon the District's availability of funds at the time of funding for the non-E-Rate portion of the project. The District also reserves the right to increase or decrease quantities requested in this RFP to adhere to the District's needs at the time of funding.

The Smith County School District requires that the winning bidder provide the USAC Service Provider Invoice (SPI) method for invoicing.

Disqualification of Bidder:

The Smith County School District reserves the right to award to other than the lowest bidder when, in the judgment of The District administration, it is in the best interest of The District to do so. A Bidder may be disqualified for any substantial non-compliance with the terms of this RFP, including:

1. Bidder's failure to sign Bidder's Proposal Form or to otherwise properly complete the Proposal Form
2. Bidder's failure to attend and complete the mandatory vendor meeting
3. Bidder's failure to include documentation for required certifications and authorizations

A Bidder may also be disqualified for the following reasons:

1. Bidder being in litigation or dispute with the Smith County School District
2. Bidder having defaulted on a previous contract
3. Bidder having preformed unsatisfactorily on a previous contract, including but not limited to the Bidder's failure to fulfill the warranty obligations of a previous contract with the Smith County School District

The Smith County School District will strictly adhere to the rules and regulations of the E-Rate program when evaluating bid responses.

Cabling and Rack Specifications

Cabling

All copper cable and cabling components including jacks and patch panels used in this proposal will be Category 6 rated.

- Bid must include cabling and all necessary components (patch cables, patch panels, jacks and mounts, crimp ends, racks, etc.)
- If the racks in the IDF or MDF are not large enough to accommodate the additional Cat 6 Patch Panel, racks should be quoted. All racks and/or cabinets should be of sufficient size to accommodate the proposed switches and E-Rate eligible equipment.
- Racks should be wall mount enclosed racks unless otherwise specified at the vendor meeting.
- Bid must include cost of labor and installation.
- Any cables run by the vendor will be terminated into a patch panel and labeled.
- Colors of Cabling and Patch Cabling will be supplied at the Vendor Conference.
- Vendor must supply 20-year manufacturer's warranty.
- Proposed fiber runs should be Multimode unless distance requires Singlemode.
- Fiber run proposals should include all necessary components for termination, connection to equipment and full functionality of the fiber connection
- Closet Cleanup and Closet Relocation will be addressed at the mandatory vendor meeting

Wiring Information

Drop Ceilings

Cable can be bundled without any conduit but it must be off the ceiling using hooks or cable trays

Open Ceilings

The cable may be run out-of-sight along the beams if needed or in cable trays.

Walls

If cable is run along an open wall, it must be in Panduit or similar enclosure to match wall.

Cable

New, additional Cable must be rated as Cat 6. Fiber types will support 1G with 10G option quoted as an alternative.

Equipment Specifications

The Smith County School District is requesting an all-inclusive solution including all applicable taxes, shipping costs, installation of equipment, configuration of equipment, training, technical support and trash removal, and represent complete installation and integration with the existing network where necessary. All equipment included in vendor's proposal must be new equipment purchased from an authorized reseller. No grey market, third party, or used equipment will be considered. Prices quoted will establish a 2 year contract for use during the FY2020 and FY 2021 E-Rate Funding Years. The contract may be voluntarily extended if necessary until the Service Delivery Deadline for Funding Year 2021.

The vendor will be required to configure all equipment in this proposal. They will configure VLANs to the specifications of the Smith County School District Information Technology Department as part of this proposal. Currently there are multiple VLANS operating on the District network. The Vendor will also be required to communicate and work with the WAN and Internet vendor at time of installation so that the WAN and Internet vendor at time of installation owned and controlled WAN switch works properly with the VLAN configurations on the proposed switches.

The below specified equipment does not include every part, piece, and accessory necessary for the system to be fully functional. Please ensure that all bids include all support, warranty, cables, power cords, etc necessary for a total solution. Please ensure any ineligible items are clearly marked as ineligible on the bid. If any item quoted is partially eligible, please provide cost allocation showing the eligible amount and the ineligible amount with justification for the cost allocation method.

Bids for all equipment must include cost of configuration, installation and training on configuration and maintenance for the Smith County School District Information Technology Department. Bids should also include any necessary accessories, parts or components required to make the system work, i.e., patch cables, SFPs, support, licenses, etc.

Switches

Proposed Switches must be Extreme or EQUIVALENT. Any alternative equipment quoted must be fully compatible with the District's existing network equipment. Proposal should include all switches, SFPs, licensing, cabling, support and startup service needed for the project upgrades. Quantities per school will be available at the mandatory site visit.

UPSs

Proposed UPSs must be APC or EQUIVALENT. Any alternative equipment quoted must be fully compatible with the District's existing network equipment. Proposal should include all licensing, support and startups service needed for the project upgrades. Quantities per school will be available at the mandatory vendor meeting.

Access Points

Proposed Access Points must be Aerohive or EQUIVALENT. Any alternative equipment quoted must be fully compatible with the District's existing network equipment. Proposal should include all access

points, licensing, cabling, support and startup service needed for the project upgrades. Quantities per school will be available at the mandatory vendor meeting.

Controller

Proposed Controller must be Aerohive or EQUIVALENT. Any alternative equipment quoted must be fully compatible with the District's existing network equipment. Proposal should include all licensing, support and startup service needed for the project upgrades. All ineligible items and functions must be clearly noted on the vendor's quote.

Firewall

Proposed Firewall must be Watchguard or EQUIVALENT. Any alternative equipment quoted must be fully compatible with the District's existing network equipment. Proposal should include all licensing, support and startup service needed for the project upgrades. All ineligible items and functions must be clearly noted on the vendor's quote. Please include a quote for 1 year, 3 year and 5 year license.

Caching

Proposed Caching Solution must be CacheBox or EQUIVALENT. Any alternative equipment quoted must be fully compatible with the District's existing network equipment. Proposal should include all licensing, support and startup service needed for the project upgrades. All ineligible items and functions must be clearly noted on the vendor's quote.

Managed Internal Broadband Services

Smith County School District is seeking proposals for Managed Internal Broadband Services as defined in the 2020 E-Rate Eligible Services List for the Wired and Wireless LAN infrastructure including all new and existing access points, controller, switches, routers, firewall, etc.

Please indicate any E-Rate eligible costs and all E-Rate ineligible costs in proposal.

The Managed Services portion of the Contract will have a 5-year term from July 1, 2020 through June 30, 2025. If the project is not funded until after July 1, 2020, the contract will be in effect from the day of notification of funding from USAC until June 30, 2025. The Smith County School District will not be responsible for any charges for months prior to a funding commitment from USAC. The contract is also contingent upon annual funding by USAC. If at any time during the contract term, USAC denies funding, the contract may be terminated without penalty.

Please provide a narrative describing your Managed Services to include remote network monitoring capabilities, reporting capabilities, trouble ticketing procedures, availability and response time if an engineer is required on site.

If proposal is totally or mostly on site support, please include estimated or guaranteed (indicating whether hours are estimated or guaranteed) number of hours per month an engineer will be on site.

Other Considerations

The Smith County School District welcomes proposals that may not meet these specifications exactly. However, such proposals must explain in detail how the alternative proposal will meet the general specifications of this RFP and why the District should consider such an alternative. If the explanation and reasoning satisfies both the District Administration and members of the IT department of the Smith County School District, then the proposal will be considered as if it meets specifications.

Due to the fast pace of technology, equipment and new technology is constantly emerging. Since the earliest the Smith County School District expects to receive funding for their Category 2 project is August 1, 2020, and because many things can change with technology and within the School District, the Smith County School District will require that the awarded vendor or vendors complete a new walkthrough of all facilities after funding notification to reassess the technologies quoted and the schools' needs. If technology and needs have changed from the time of acceptance of the winning proposal, Service Provider agrees to work with the School to submit a service substitution to USAC for updated equipment and services.

Current Equipment

- All current equipment will remain the property of the Smith County School District regardless of its use or non-use in the successful proposal.
- The vendor will be responsible for reconfiguration of the Smith County School District's existing switches if any switch configuration is required to make the new wired or wireless system function properly or to integrate the LAN Switch upgrade with the existing equipment

Current Network Bandwidth and WAN Configuration

The Smith County School District is currently using CSpire Fiber WAN Circuits and CSpire Internet.

The winning vendor for the Category 2 project must be willing to work with the Category 1 providers to ensure that the Category 2 equipment will integrate and work seamlessly with the Category 1 services and demarcation equipment.

E-Rate

This proposal request is for services to be subsidized under the Universal Services E-Rate Program for Schools and Libraries. No purchase order will be issued, no installation will occur and no services will be provided until approval of the form 471 application AND approval by Smith County School District for the District's non-E-Rate portion. If District funds are not available for the District portion, all contracts will become null and void and the project will not be implemented.

Right to Reject

The Smith County School District reserves the right to accept or reject all proposals or sections thereof when the rejection is in the best interest of the District. The Smith County School District reserves the right to award without further discussion. Therefore, responses should be submitted initially with the most favorable terms the vendor proposes. The Smith County School District reserves the right to reject the proposal of a vendor who has previously failed to perform properly or completed on time contracts and to reject the proposal of any vendor who in the opinion of the Smith County School District, is not in a position to adequately perform the contract. The Smith County School District reserves the right to reject

any and all proposals, any part or parts of a proposal, waive any technicalities/informalities, increase or reduce quantities, make modifications or specifications, and award any or the entire contract in a manner that is in the best interest of the Smith County School District. Contracts will be awarded for each part of the RFP to the vendor or vendors submitting the proposal determined to be in the best interests of the Smith County School District.

SITE VISIT INFORMATION FORM
(Type or Print ONLY)
(Vendors should bring this completed to the site visit)

NAME OF COMPANY	
ADDRESS OF HOME OFFICE	
CITY OF HOME OFFICE	
STATE OF HOME OFFICE	
COUNTY OF HOME OFFICE	
9 DIGIT HOME OFFICE ZIP	
PHONE # OF HOME OFFICE	
Federal EIN	
DUNS Number	
E-Rate SPIN number	

CONTACT Name _____

CONTACT Phone Number _____

CONTACT Email Address _____

By signing below, the vendor acknowledges that the prices listed on this sheet are the prices being bid for this project and that the vendor understands that portions of this Project may be funded from E-Rate Funds. This project is subject to funding availability and contingent upon E-Rate funding.

PRINTED NAME _____ TITLE _____

SIGNED _____ DATE _____

BID WORKSHEET

PRICING INFORMATION (Total Cost for ALL Schools)

(THIS DOCUMENT MUST BE THE TOP PAGE OF YOUR SUBMISSION)

You must submit a standard quotation for EACH school in addition to this worksheet.

MUST FILL IN THE TOTAL PRICE FOR THE ENTIRE E-RATE ELIGIBLE PORTION OF THE PROJECT BELOW.

E-Rate Eligible PROJECT TOTAL PRICE for Cabling _____

(This is the total of all schools)

E-Rate Eligible PROJECT TOTAL PRICE for Equipment _____

(This is the total of all schools)

E-Rate Eligible PROJECT TOTAL PRICE for MIBS _____

(This is the total of all schools)

DO NOT INCLUDE INELIGIBLE COSTS IN THE ABOVE TOTALS. PRICING ON THIS PAGE IS FOR E-RATE ELIGIBLE PRODUCTS AND SERVICES ONLY

In the occurrence of discrepancies between the total costs listed above and costs from the itemized quotes per school, the costs from the itemized quotes will be deemed to be the correct cost.

Please submit a line item pricing sheet with your bid showing quantity of 1 for each item proposed.

Required Documents

Bid Worksheet and Service Provider Quotes broken down by School

Specifications for the proposed hardware and software

References

Documentation of the vendor's certifications

E-Rate SPIN number

Qualifications and training of vendor technical staff

Trouble Ticketing Procedures and Escalation Process

Any other documentation required previously in this document

If the proposal does not meet the stated specifications, the vendor must include a detailed proposal along with a detailed explanation as to why the vendor believes the proposal will meet the stated needs of the Smith County School District and why the District should consider their proposal.

DISTRICT BUILDING INFORMATION

Name	Address	City/State/Zip
Smith County District Office	212 Sylvarena Avenue, Suite C	Raleigh, MS 39153
Smith County Bus Barn	337 Magnolia Drive	Raleigh, MS 39153
Community Learning Center	469 Magnolia Drive	Raleigh, MS 39153
Mize Attendance Center	125 School Drive	Mize, MS 39116
Raleigh Elementary School	201 White Oak Avenue	Raleigh, MS 39153
Raleigh Middle-High School	491 Magnolia Drive	Raleigh, MS 39153
Smith County Career Center	469 Magnolia Drive	Raleigh, MS 39153
Smith County School District Maintenance Shop	201 White Oak Avenue	Raleigh, MS 39153
Smith County Special Services	212 Sylvarena Avenue, Suite D	Raleigh, MS 39153
Taylorsville School	324 Hester Street	Taylorsville, MS 39168

LETTER OF INTENT TO BID

Millie Rodabough
Rodabough Education Group, Inc.
millie.regroup@gmail.com
662-630-0118

Reference: Smith County School District 2020 E-Rate Bid

This letter is to notify you that it is our present intent to submit a proposal in response to the above referenced RFP. The individual to whom information regarding this RFP should be transmitted is:

Name: _____

Company: _____

Address: _____

City, State & Zip: _____

Phone Number: _____

E-mail Address: _____

Sincerely,

Signature

Title



Smith County School District

**212 Sylvarena Avenue
Raleigh, MS 39153**

Attention: Larry Bryant

“2020 E-Rate Bid”

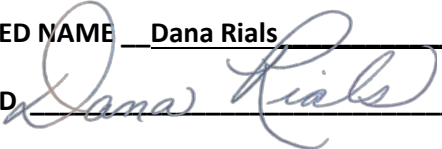
Bid Opening: March 4, 2020 1:00 p.m.

ORIGINAL

Certification of Responsibility: 13585-MC

SPIN Number: 143004683

By signing below, the vendor acknowledges that the prices listed on this sheet are the prices being bid for this project and that the vendor understands that portions of this Project may be funded from E-Rate Funds. This project is subject to funding availability and contingent upon E-Rate funding.

PRINTED NAME Dana Rials TITLE South Mississippi Sales Manager
SIGNED  DATE 03/04/2020

BID WORKSHEET

PRICING INFORMATION (Total Cost for ALL Schools)

(THIS DOCUMENT MUST BE THE TOP PAGE OF YOUR SUBMISSION)

You must submit a standard quotation for EACH school in addition to this worksheet.

MUST FILL IN THE TOTAL PRICE FOR THE ENTIRE E-RATE ELIGIBLE PORTION OF THE PROJECT BELOW.

E-Rate Eligible PROJECT TOTAL PRICE for Cabling \$6881.00
(This is the total of all schools)

E-Rate Eligible PROJECT TOTAL PRICE for Equipment \$98,615.36
(This is the total of all schools)

E-Rate Eligible PROJECT TOTAL PRICE for MIBS – See pricing sheet for breakdown- \$122.00/hour for engineer level

E-Rate Eligible PROJECT TOTAL PRICE for Firewall \$580.00
E-Rate Eligible PROJECT TOTAL PRICE for Caching \$21,689.00

(This is the total of all schools)

DO NOT INCLUDE INELIGIBLE COSTS IN THE ABOVE TOTALS. PRICING ON THIS PAGE IS FOR E-RATE ELIGIBLE PRODUCTS AND SERVICES ONLY

In the occurrence of discrepancies between the total costs listed above and costs from the itemized quotes per school, the costs from the itemized quotes will be deemed to be the correct cost.

Please submit a line item pricing sheet with your bid showing quantity of 1 for each item proposed.



March 04, 2020

Smith County School District
212 Sylvarena Avenue
Raleigh, MS 39153

Thank you for allowing Synergetics the opportunity to submit a proposal for the Smith County School System for the E-Rate Funding Year 2020-2021.

Enclosed are the proposals for equipment and services you requested in your Form 470. This proposal is valid for the 2020-2021 E-Rate funding year and contingent upon E-Rate Funding.

- All attached proposals are valid for the E-Rate Funding Year 2020-2021 with an eighteen month agreement to allow for the E-Rate funding process
- All products and services proposed are E-Rate eligible except where specified
- Synergetics acknowledges and complies with all Universal Service E-Rate program rules and all Mississippi state purchasing and procurement laws
- E-Rate SPIN# – 143004683
- Certifications of Synergetics' Professional Staff and resumes pertaining to proposal are attached
- Synergetics provides discount billing
- All work will be performed by Synergetics and there will be no subcontractors used
- Synergetics DCS, Inc. attended the mandatory walk through
- Synergetics is a certified partner with each manufacturer proposed
- Synergetics is listed on the State of Mississippi EPL

Synergetics has been in business for over 26 years working with K-12 school districts and libraries. Synergetics DCS, Inc. has participated in the E-Rate program since its inception in 1998. During that time, we have completed E-Rate projects for over 100 separate school districts and/or library systems. Synergetics DCS, Inc. has been chosen as the service provider on 3,032 separate FRNs, for projects or services totaling more than \$70 million.

Synergetics has professional certified installers, technicians, and engineers that can install, configure, support and train for a diverse network product list to include

CREATING SYNERGY BETWEEN PEOPLE AND TECHNOLOGY

WWW.SYNERGETICSDCS.COM



Extreme, Cisco, Microsoft, Novell and various other solutions. All of Synergetics' professional staff are required to acquire product and solution certifications to ensure the highest quality of customer service is provided.

Synergetics DCS, Inc. offers an electronic help desk that allows service calls to be electronically entered, prioritized for levels of urgency, details of the event are entered by the technician, and notification is sent to the appropriate customer contact when an event has been completed. Various reports can be generated from the help desk application customized to meet the customer's requirements.

Synergetics DCS, Inc has provided products and services in similar size and scope for other K-12 school districts and libraries for over 26 years. Included you will also find references from this community. We invite you to contact these references.

Synergetics DCS, Inc appreciates the opportunity to submit a proposal response to your wireless network and cabling request. We are very excited about the possibility to work with the Smith County School District on this project.

If you have any questions or require any additional information, please contact me at (601) 454-1023 or drivals@synergeticsdcs.com.

Sincerely,

Dana Rials
Sales Account Manager
Synergetics DCS, Inc.



Smith County School District Summary

Equipment Eligible Sites	
Raleigh Elementary School	\$ 20,374.49
Raleigh High School	\$ 16,921.94
Mize Attendance Center	\$ 24,565.72
Taylorsville	\$ 23,774.66
Alternative School	\$ 7,084.27
Vocational Technology	\$ 5,894.27
	\$ 98,615.36

Equipment Ineligible Sites	
Central Office	\$ 5,894.27
Special Services	\$ 5,894.27
Child Nutrition	\$ 5,894.27
	\$ 17,682.82

Smith County School District - Raleigh Elementary School

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
2	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 2,200.00
				\$ 2,200.00
Aerohive AP's				
18	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 4,662.00
18	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 1,925.00
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

34	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	3,636.11
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	10,223.11

AP Drops and Patch Cables

18	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	1,260.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	1,339.75

Total of Equipment \$ **17,414.49**

Installation

18	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	1,350.00
18	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	810.00
2	SERV-CABLING04	Installation of UPS	\$	150.00	\$	300.00
2	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	500.00

TOTAL OF LABOR \$ **2,960.00**

GRAND TOTAL \$ **20,374.49**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Raleigh High School

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
1	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 1,100.00
				\$ 1,100.00
Aerohive AP's				
15	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 3,885.00
15	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 1,604.17
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

29	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	3,101.39
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	8,590.56

AP Drops and Patch Cables

15	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	1,050.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	1,129.75

Total of Equipment \$ **14,471.94**

Installation

15	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	1,125.00
15	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	675.00
1	SERV-CABLING04	Installation of UPS	\$	150.00	\$	150.00
2	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	500.00

TOTAL OF LABOR \$ **2,450.00**

GRAND TOTAL \$ **16,921.94**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Mize Attendance Center

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
2	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 2,200.00
				\$ 2,200.00
Aerohive AP's				
24	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 6,216.00
24	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 2,566.67
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

42	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	4,491.67
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
						\$ 13,274.33

AP Drops and Patch Cables

24	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	1,680.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
						\$ 1,759.75

Total of Equipment \$ **20,885.72**

Installation

24	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	1,800.00
24	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	1,080.00
2	SERV-CABLING04	Installation of UPS	\$	150.00	\$	300.00
2	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	500.00

TOTAL OF LABOR \$ **3,680.00**

GRAND TOTAL \$ **24,565.72**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Taylorsville

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
2	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 2,200.00
				\$ 2,200.00
Aerohive AP's				
22	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 5,698.00
22	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 2,352.78
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

45	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	4,812.50
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
						\$ 12,863.28

AP Drops and Patch Cables

22	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	1,540.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
						\$ 1,619.75

Total of Equipment \$ **20,334.66**

Installation

22	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	1,650.00
22	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	990.00
2	SERV-CABLING04	Installation of UPS	\$	150.00	\$	300.00
2	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	500.00

TOTAL OF LABOR \$ **3,440.00**

GRAND TOTAL \$ **23,774.66**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Alternative School

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
1	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 1,100.00
				\$ 1,100.00
Aerohive AP's				
1	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 259.00
1	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 106.94
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

1	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	106.94
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	472.89

AP Drops and Patch Cables

18	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	1,260.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	1,339.75

Total of Equipment \$ **6,564.27**

Installation

1	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	75.00
1	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	45.00
1	SERV-CABLING04	Installation of UPS	\$	150.00	\$	150.00
1	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	250.00
					\$	520.00
					\$	7,084.27



Date : 03/04/2020
 Re: Erate 2020-2021 Bid Response
 Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Vocational

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
1	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 1,100.00
				\$ 1,100.00
Aerohive AP's				
1	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 259.00
1	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 106.94
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

1	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	106.94
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	472.89

AP Drops and Patch Cables

1	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	70.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	149.75

Total of Equipment \$ **5,374.27**

Installation

1	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	75.00
1	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	45.00
1	SERV-CABLING04	Installation of UPS	\$	150.00	\$	150.00
1	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	250.00

TOTAL OF LABOR \$ **520.00**

GRAND TOTAL \$ **5,894.27**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - District Office- Ineligible

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
1	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 1,100.00
				\$ 1,100.00
Aerohive AP's				
1	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 259.00
1	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 106.94
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

1	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	106.94
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	472.89

AP Drops and Patch Cables

1	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	70.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	149.75

Total of Equipment \$ **5,374.27**

Installation

1	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	75.00
1	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	45.00
1	SERV-CABLING04	Installation of UPS	\$	150.00	\$	150.00
1	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	250.00

TOTAL OF LABOR \$ **520.00**

GRAND TOTAL \$ **5,894.27**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Special Services- Ineligible

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
1	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 1,100.00
				\$ 1,100.00
Aerohive AP's				
1	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz an	\$ 259.00	\$ 259.00
1	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 106.94
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

1	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	106.94
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	472.89

AP Drops and Patch Cables

1	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	70.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	149.75

Total of Equipment \$ **5,374.27**

Installation

1	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	75.00
1	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	45.00
1	SERV-CABLING04	Installation of UPS	\$	150.00	\$	150.00
1	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	250.00

TOTAL OF LABOR \$ **520.00**

GRAND TOTAL \$ **5,894.27**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

Smith County School District - Child Nutrition- Ineligible

ERATE 2020-2021

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme 440 Switch- Option 1				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
0	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ -
0	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ -
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ -
				\$ 2,255.73
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
0	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ -
				\$ 1,395.90
Extreme 450 Switch-Option 2				
0	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ -
0	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ -
0	10945	Summit Fan module FB	\$ 138.82	\$ -
0	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ -
0	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ -
0	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ -
0	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ -
0	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ -
0	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VO	\$ 400.27	\$ -
0	9700-16190	EW TAC & OS 16190	\$ 276.27	\$ -
				\$ -
UPS				
1	SMART3000RMXL2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extender	\$ 1,100.00	\$ 1,100.00
				\$ 1,100.00
Aerohive AP's				
1	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz ar	\$ 259.00	\$ 259.00
1	XCIQ-PT0-C-EW-1YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 106.94
0	XCIQ-PT0-C-EW-3YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ -
0	XCIQ-PT0-C-EW-5YR-K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ -

1	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$	106.94	\$	106.94
0	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$	213.89	\$	-
0	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$	320.83	\$	-
					\$	472.89

AP Drops and Patch Cables

1	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$	70.00	\$	70.00
5	C-C6-LG-03-M	CAT6 3 foot patch cables	\$	1.95	\$	9.75
10	C-C6-LG-06-M	CAT6 3 foot patch cables	\$	3.00	\$	30.00
10	C-C6-LG-10-M	CAT6 3 foot patch cables	\$	4.00	\$	40.00
					\$	149.75

Total of Equipment \$ **5,374.27**

Installation

1	SERV-C	Installation of Single AP Drop- Test, Certify, and Label	\$	75.00	\$	75.00
1	SERV-CABLING04	Mount and Configuration of AP's	\$	45.00	\$	45.00
1	SERV-CABLING04	Installation of UPS	\$	150.00	\$	150.00
1	SERV-NETWORK05	Installation & Configuration of Switches	\$	250.00	\$	250.00

TOTAL OF LABOR \$ **520.00**

GRAND TOTAL \$ **5,894.27**



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drials@synergeticsdcs.com

Smith County School District - Unit Pricing

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
Extreme X440 Switches				
1	16535	Extreme X440-G2 48 10/100/1000BT POE+ 4 1GBE SFP	\$ 2,190.83	\$ 2,190.83
1	10099	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10304	Extreme 1M CBL 10G SFP+ CU TWX COP	\$ 54.27	\$ 54.27
1	10051H	Extreme 1000BSX SFP HI Multi-Mode (1)	\$ 202.03	\$ 202.03
1	10052H	Extreme 1000BLX SFP HI Single Mode (7)	\$ 406.27	\$ 406.27
1	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 110.00	\$ 110.00
1	16533	Extreme X440-G2 24 10/100/1000BT POE+ 4SFP COMBO	\$ 1,385.27	\$ 1,385.27
1	5601313-U1	PWR CORD 13A NEMA 5-15P C13	\$ 10.63	\$ 10.63
1	10070H	Extreme 10/100/1000 BASE-T SFP MOD RJ45 CONN Copper (1)	\$ 111.44	\$ 111.44
Extreme X450 Switches				
1	16179	Extreme Summit X450-G2-48p-10GE4-Base	\$ 3,125.29	\$ 3,125.29
1	16177	Extreme Summit X450-G2-24p-10GE4-Base	\$ 1,618.16	\$ 1,618.16
1	10945	Summit Fan module FB	\$ 138.82	\$ 138.82
1	10951	Summit 715W PoE AC PSU FB	\$ 400.40	\$ 400.40
1	10941	Summit 1100W AC PSU FB	\$ 500.82	\$ 500.82
1	10099	PWR CORD,15A,USA,NEMA5-15,C15	\$ 11.26	\$ 11.26
1	10311	0.5m QSFP+ Passive Copper Cable	\$ 118.41	\$ 118.41
1	10312	1m QSFP+ Passive Copper Cable	\$ 154.13	\$ 154.13
1	16190	Extreme XOS Advanced Edge License for Summit X450 Series Switches - VOUCHER	\$ 400.27	\$ 400.27
1	97003-16190	EW TAC & OS 16190	\$ 276.27	\$ 276.27
1	97003-S20293	Netsight Annual Support	\$ 995.00	\$ 995.00
Aerohive Access Points				
1	AP305C-FCC	Aerohive - ExtremeCloud IQ: Indoor WiFi6 AP 2x2 Radios with Dual 5GHz and 1x1GbE	\$ 259.00	\$ 259.00
1	XCIQ-PT0-C-EW-1YR-	Extreme Cloud IQ (Formerly Hive Manager) for 1 year	\$ 106.94	\$ 106.94
1	XCIQ-PT0-C-EW-3YR-K1:	Extreme Cloud IQ (Formerly Hive Manager) for 3 years	\$ 175.00	\$ 175.00
	XCIQ-PT0-C-EW-5YR-			
1	K12	Extreme Cloud IQ (Formerly Hive Manager) for 5 years	\$ 262.50	\$ 262.50
1	AH-NGCS-SL-1-R	Extreme Cloud IQ (Formerly Hive Manager) for 1 year Renewal	\$ 106.94	\$ 106.94
1	AH-NGCS-SL-3-R	Extreme Cloud IQ (Formerly Hive Manager) for 3 years Renewal	\$ 213.89	\$ 213.89
1	AH-NGCS-SL-5-R	Extreme Cloud IQ (Formerly Hive Manager) for 5 years Renewal	\$ 320.83	\$ 320.83
			\$	-

UPS

1	SMART3000RML2U	SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extended Run, Netw	\$ 1,100.00	\$ 1,100.00
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AP Drops and Patch Cables

1	C-CAT6SINGLEAPDROP	Single AP Drop - Cat6 Cable, 2 Cat6 Jacks, (2) 2ft Patch Cables	\$ 70.00	\$ 70.00
1	C-C6-LG-03-M	CAT6 3 foot patch cables	\$ 1.95	\$ 1.95
1	C-C6-LG-06-M	CAT6 3 foot patch cables	\$ 3.00	\$ 3.00
1	C-C6-LG-10-M	CAT6 3 foot patch cables	\$ 4.00	\$ 4.00

Caching Server Options

1	01-CBC-310F	Cachebox 310 cache appliance with inline fail-over built in	\$ 12,883.00	\$ 12,883.00
1	08-SEC-020-5	5 Year Support Contract for Cachebox 310	\$ 8,631.00	\$ 8,631.00
1	08-SEC-020-3	3 Year Support Contract for Cachebox 310	\$ 5,539.00	\$ 5,539.00
1	08-SEC-020-1	1 Year Support Contract for Cachebox 310	\$ 2,570.00	\$ 2,570.00
1	01-CBC-420	Cachebox 310 cache appliance with inline fail-over built in	\$ 20,150.00	\$ 20,150.00
1	08-SEC-020-5	5 Year Support Contract for Cachebox 420	\$ 13,501.00	\$ 13,501.00
1	08-SEC-020-3	3 Year Support Contract for Cachebox 420	\$ 8,655.00	\$ 8,655.00
1	08-SEC-020-1	1 Year Support Contract for Cachebox 420	\$ 4,030.00	\$ 4,030.00

Labor

1	SERV-NETWORK05	Installation & Configuration of Switches	\$ 225.00	\$ 225.00
1	SERV-CABLING04	Installation of Single AP Drop- Test, Certify, and Label	\$ 75.00	\$ 75.00
1	SERV-CABLING04	Mount and Configuration of AP's	\$ 45.00	\$ 45.00
1	SERV-CABLING04	Installation of UPS	\$ 150.00	\$ 150.00
1	SERV-NETWORK05	Installation & Configuration of Switches	\$ 250.00	\$ 250.00

1	C-CABLEDROPCAT61.0	Cat 6 Single Network Surface Mount Cable Drop <i>(includes cable, jack, faceplate, mount box, & raceway)</i>	\$ 75.00	\$ 75.00
1	C-CABLEDROPCAT62.0	Cat 6 Double Network Surface Mount Cable Drop <i>(includes cable, jack, faceplate, mount box, & raceway)</i>	\$ 110.00	\$ 110.00
1	C-CABLEDROPCAT63.0	Cat 6 Triple Network Surface Mount Cable Drop <i>(includes cable, jack, faceplate, mount box, & raceway)</i>	\$ 147.60	\$ 147.60
1	C-CABLEDROPCAT64.0	Cat 6 Quadruple Network Surface Mount Cable Drop <i>(includes cable, jack, faceplate, mount box, & raceway)</i>	\$ 189.93	\$ 189.93
1	C-CAT6SINGLEAPDROP	Single Cat 6 Access Point Network Drop	\$ 70.00	\$ 70.00
1	C-CAT6DOUBLEAPDROP	Double Cat 6 Access Point Network Drop	\$ 110.00	\$ 110.00
1	C-MX-PNL-24	24 Port Max Patch Panel	\$ 35.00	\$ 35.00
1	C-MX-PNL-48	48 Port Max Patch Panel	\$ 40.74	\$ 40.74

1	C-M58295	Mohawk Category 6 Cable Non Plenum	\$ 0.15	\$ 0.15
1	C-MX6-F20	Siemon Category 6 Flat Max Module Jack (Ivory)	\$ 5.88	\$ 5.88
1	C-C6-LG-01-M	Cat 6 1 Foot Patch Cables	\$ 0.88	\$ 0.88
1	C-C6-LG-02-M	Cat 6 2 Foot Patch Cables	\$ 1.92	\$ 1.92
1	C-C6-LG-05-M	Cat 6 5 Foot Patch Cables	\$ 2.35	\$ 2.35
1	C-C6-LG-14-M	Cat 6 14 Foot Patch Cables	\$ 2.75	\$ 2.75
1	C-C6-LG-25M	Cat 6 25 Foot Patch Cables	\$ 5.53	\$ 5.53
1	C-TSR2FW-8A	8' stick of raceway	\$ 11.39	\$ 11.39
1	C-TSRFW-JB2	Mount Box	\$ 4.18	\$ 4.18
1	C-MX-FP-S-01-20	Siemon 1 Port Single Gang Face Plate (Ivory)	\$ 1.82	\$ 1.82
1	C-MX-FP-S-02-20	Siemon 2 Port Single Gang Face Plate (Ivory)	\$ 1.82	\$ 1.82
1	C-MX-FP-S-04-20	Siemon 4 Port Single Gang Face Plate (Ivory)	\$ 1.82	\$ 1.82

Fiber

1	C-W3006NG-01	Superior Essex 6 Strand OM3 MM Fiber I/O Rated	\$ 1.05	\$ 1.05
1	C-006TB4-14180A20	Corning 6 Strand MM SST Drop Fiber Cable OM3 Rated	\$ 1.63	\$ 1.63
1	C-W3012NG-01	12 Strand OM3 I/O Fiber	\$ 1.75	\$ 1.75
1	W30066G01	Superior Essex 6 Strand MM Fiber I/O Rated	\$ 0.56	\$ 0.56
1	006KB4-14130-A20	Corning 6 Strand MM SST Drop Fiber Cable	\$ 0.94	\$ 0.94
1	C-012TB4-14180A20	Corning 12 Strand MM SST Drop Fiber Cable OM3 Rated	\$ 2.65	\$ 2.65
1	012EUA-T4101D20	Corning 12 Strand SM SST Drop Fiber Cable	\$ 0.96	\$ 0.96
1	006KEB4-14101A20	Corning 6 Strand SM SST Drop Fiber Cable	\$ 0.31	\$ 0.31
1	DX0006DSLX9KR	OCC 6 Strand Single Mode Indoor/Outdoor Fiber	\$ 0.44	\$ 0.44
1	C-FAN-BT25-12	12 Strand Fiber Fan Out Kit	\$ 28.00	\$ 28.00
1	WS2-QTR	Quiktron Q-Series 4-Panel Wallmount Fiber LIU Box	\$ 235.00	\$ 235.00
1	WS3-QTR	Quiktron Q-Series 12-Panel Wallmount Fiber LIU Box	\$ 239.53	\$ 239.53
1	RS1-QTR	Quiktron Q-Series 1u 3-Panel Rackmount Fiber Optic Enclosure	\$ 146.00	\$ 146.00
1	RS2-QTR	Quiktron Q-Series 2u 6-Panel Rackmount Fiber Optic Enclosure	\$ 146.00	\$ 146.00
1	RS4-QTR	Quiktron Q-Series 4u 12-Panel Rackmount Fiber Optic Enclosure	\$ 215.51	\$ 215.51
1	FS12OM3-LCU-BP-1.5M-PVC	1.5m (5ft) LC UPC 12 Fibers OM3 0.9mm Fiber Optic Pigtail	\$ 25.00	\$ 25.00
1	FS12SM-LCU-CP-1M-PVC	1.5m (5ft) LC UPC 12 Fibers SM 0.9mm Fiber Optic Pigtail	\$ 16.00	\$ 16.00
1	FS12SM-LCA-CP-1M-PVC	1m (3ft) LC APC 12 Fibers OS2 Single Mode Color-Coded Fiber Optic Pigtail	\$ 18.67	\$ 18.67
1	FS12SM-SCU-CP-1M-PVC	1m (3ft) SC UPC 12 Fibers OS2 Single Mode Color-Coded Fiber Optic Pigtail	\$ 16.00	\$ 16.00
1	FS12SM-SCA-CP-1M-PVC	1m (3ft) SC APC 12 Fibers OS2 Single Mode Color-Coded Fiber Optic Pigtail	\$ 18.67	\$ 18.67

1	AP1-QTR-S1	Quiktron Q-Series 12-Strand, ST, PB Insert MM/SM ST Adapter Panel	\$ 45.00	\$ 45.00
1	AP2-QTR-S1	Quiktron Q-Series 6-Strand, ST, PB Insert MM/SM ST Adapter Panel	\$ 25.08	\$ 25.08
1	AP3-QTR-D350L	Quiktron Q-Series 12-Strand, SC Duplex, PB Insert, MM Aqua SC Adapter Panel	\$ 25.49	\$ 25.49
1	AP3-QTR-D3B	Quiktron Q-Series 12-Strand, SC Duplex, PB Insert, MM/SM, Blue SC Adapter Panel	\$ 39.15	\$ 39.15
1	AP3-QTR-D3S	Quiktron Q-Series 12-Strand, SC Duplex, Zirconia Insert, SM, Blue SC Adapter Panel	\$ 36.99	\$ 36.99
1	AP3-QTR-QL50L	Quiktron Q-Series 24-Strand, LC Quad, PB Insert, MM Aqua LC Panel	\$ 36.28	\$ 36.28
1	APL-QTR-DL50L	Quiktron Q-Series 12-Strand, LC Duplex, PB Insert, MM Aqua LC Panel	\$ 27.88	\$ 27.88
1	APL-QTR-DLB	Quiktron Q-Series 12-Strand, LC Duplex, PB Insert, MM/SM Blue LC Panel	\$ 36.28	\$ 36.28
1	APL-QTR-S3	Quiktron Q-Series 6-Strand, SC, PB Insert, MM, Beige SC Adapter Panel	\$ 22.75	\$ 22.75
1	APL-QTR-S350L	Quiktron Q-Series 6-Strand, SC, PB Insert, MM, Aqua SC Adapter Panel	\$ 26.33	\$ 26.33
1	APL-QTR-S3B	Quiktron Q-Series 6-Strand, SC, PB Insert, SM/MM, Aqua SC Adapter Panel	\$ 20.05	\$ 20.05
1	95-050-41-X	Corning Unicam Multi-Mode SC Connectors (OM3/OM4 compatible)	\$ 25.00	\$ 25.00
1	95-000-50	Corning Unicam Multi-Mode ST Connectors	\$ 16.20	\$ 16.20
1	95-000-99	Corning Unicam Multi-Mode LC Connectors	\$ 17.51	\$ 17.51
1	95-050-51-X	Corning Unicam Multi-Mode ST Connectors (OM3/OM4 compatible)	\$ 16.40	\$ 16.40
1	95-050-99	Corning Unicam Multi-Mode LC Connectors	\$ 17.94	\$ 17.94
1	95-050-99-X	Corning Unicam Multi-Mode LC Connectors (OM3/OM4 compatible)	\$ 16.47	\$ 16.47
1	95-200-94	Corning Unicam LC Single Mode Connector	\$ 22.17	\$ 22.17
1	95-200-99	Corning UniCam Connector, LC, Single-mode (OS2)	\$ 22.92	\$ 22.92
1	49991-LLC	Leviton FastCAM Pre-polished Connector, LC (aqua), 50/125um L.O. OM3/4	\$ 17.67	\$ 17.67
1	49991-LSC	Leviton FastCAM Pre-polished Connector, SC (aqua), 50/125um OM3/4 Multimode	\$ 18.00	\$ 18.00
1	49991-SLC	Leviton FastCAM Pre-polished Connector, LC SingleMode	\$ 23.33	\$ 23.33
1	MISC	1m Fiber Patch Cable	\$ 30.00	\$ 30.00
1	MISC	2m Fiber Patch Cable	\$ 50.00	\$ 50.00
1	MISC	3m Fiber Patch Cable	\$ 75.00	\$ 75.00

Switches

1	16703	Extreme X460-G2-24p-10GE4-Base Switch	\$ 2,764.18	\$ 2,764.18
1	16704	Extreme X460-G2-48p-10GE4-Base Switch	\$ 4,070.71	\$ 4,070.71

Switch Support

1	97000-16703	ExtremeWorks Phone Support for X460-G2-24p-10GE4 Switch - 1 Year	\$ 185.60	\$ 185.60
1	97304-16703	ExtremeWorks Hardware Support for X460-G2-24p-10GE4 Switch - 1 Year	\$ 104.17	\$ 104.17
1	97000-16704	ExtremeWorks Phone Support for X460-G2-48p-10GE4 Switch - 1 Year	\$ 272.73	\$ 272.73
1	97304-16704	ExtremeWorks Hardware Support for X460-G2-48p-10GE4 Switch - 1 Year	\$ 156.25	\$ 156.25
1	97000-16713	ExtremeWorks Phone Support for X460 VIM Stacking Module - 1 Year	\$ 25.57	\$ 25.57
1	97304-16713	ExtremeWorks Hardware Support for X460 VIM Stacking Module - 1 Year	\$ 15.15	\$ 15.15
1	97000-16177	ExtremeWorks Phone Support for X450-G2-24p-10GE4 Switch - 1 Year	\$ 170.45	\$ 170.45
1	97304-16177	ExtremeWorks Hardware Support for X450-G2-24p-10GE4 Switch - 1 Year	\$ 99.43	\$ 99.43
1	99304-16177	ExtremeWorks Hardware Support for X450-G2-24p-10GE4 Switch - 3 Year	\$ 170.45	\$ 170.45

**Wireless
UPS**

1	SMT3000C	APC 3kVa UPS - Chassis	\$ -	\$ -
1	SMT3000RM2UC	APC 3kVa UPS - Rack Mount	\$ -	\$ -
1	SMART2200RMXL2U	Tripp Lite 2.2kVa UPS - Rack Mount	\$ -	\$ -
1	SMART3000RMXL2U	Tripp Lite 3kVa UPS - Rack Mount - Requires L5-30R Electrical	\$ -	\$ -

Racks

1	SRW08UBRKT	Tripp Lite 8U Wall-Mount Open Rack Enclosure Cabinet	\$ 84.78	\$ 84.78
1	SRW12UHD	Tripp Lite 12U Wall-Mount Rack Enclosure Cabinet	\$ 521.85	\$ 521.85
1	SRW12US33	Tripp Lite 33" Deep Wall mount Rack Enclosure Server Cabinet	\$ 490.01	\$ 490.01
1	SRW18UHD	Tripp Lite 18U Wall-Mount Rack Enclosure Cabinet	\$ 687.27	\$ 687.27
1	SRW18USDP	Tripp Lite 18U Wall Mount Enclosed Cabinet	\$ 577.56	\$ 577.56
1	E19SWM12U24	Hoffman 12u 2 foot Swing-Out Rack	\$ 288.36	\$ 288.36
1	E19SWM20U24	Hoffman 20u 3 foot Swing-Out Rack	\$ 341.31	\$ 341.31
1	E19SWM25U24	Hoffman 25u 4 foot Swing-Out Rack	\$ 387.50	\$ 387.50
1	SR42UB	Tripp Lite 42U Rack Enclosure Cabinet	\$ 1,349.92	\$ 1,349.92

Date 3/4/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drials@synergeticsdcs.com



Billing Information
Smith County School District P.O. Box 308 212 Sylvarena Avenue Suite C Raleigh, MS 39153

Synergetics Contacts
Sales Account Manager Dana Rials Office: (662) 461-0140 Mobile: (601) 454-1023 drials@SynergeticsDCS.com
Prepared By Kathryn Eddy Office: (662) 461-0103 keddy@SynergeticsDCS.com

Qty	Item Number	Description	Price	Ext. Price
1.00		Attention: Larry Bryant		\$0.00
1.00		RE: Fiber Repair at Mize		\$0.00
1.00				\$0.00
1,500.00	C-006TB4-14180A20	Corning 6 Strand MM SST Drop Fiber Cable OM3 Rated	\$1.63	\$2,445.00
2.00	C-FAN-BT25-12	12 Strand Fiber Fan Out Kit	\$23.00	\$46.00
36.00	C-95-050-51-X	Corning Unicam Multi-Mode ST Connectors (OM3/OM4 compatible)	\$20.50	\$738.00
1.00	C-CCH-CP06-H3	Corning ST Adapters, Duplex, 6 F, 50 µm multimode (OM3/4)	\$52.00	\$52.00
1.00	SERV-CABLING04	Fiber Installation	\$3,600.00	\$3,600.00

Subtotal	\$6,881.00
Discount	\$0.00
Freight	\$0.00
Tax	\$0.00
Total	\$6,881.00



Billing Information
Smith County School District P.O. Box 308 212 Sylvarena Avenue Suite C Raleigh, MS 39153

Synergetics Contacts
Sales Account Manager Dana Rials Office: (662) 461-0140 Mobile: (601) 454-1023 drials@SynergeticsDCS.com
Prepared By Kathryn Eddy Office: (662) 461-0103 keddy@SynergeticsDCS.com

Qty	Item Number	Description	Price	Ext. Price
1.00		Attention: Larry Bryant		\$0.00
1.00		RE: Fiber Repair Alternative at Mize		\$0.00
1.00				\$0.00
1,500.00	C-006TB4-14180A20	Corning 6 Strand MM SST Drop Fiber Cable OM3 Rated	\$1.63	\$2,445.00
3.00	C-AP2-QTR-S1	Quiktron/Legrand Q-Series 6-Strand ST MM OM3 Coupler	\$19.00	\$57.00
18.00	C-FSSSD-60	Splice Sleeves	\$1.00	\$18.00
3.00	C-CA-6F-FS	Splice Tray	\$5.00	\$15.00
3.00	C-FS12OM3-LCU-BP-1.5M-SERV-CABLING04	Pigtails, OM3	\$21.00	\$63.00
1.00		Fiber Installation	\$3,600.00	\$3,600.00

Subtotal	\$6,198.00
Discount	\$0.00
Freight	\$0.00
Tax	\$0.00
Total	\$6,198.00



Managed Services - ERATE Technical Procedures and Process

Managed Internal Broadband Services for E-rate Wireless Networks provides for telephone, remote and onsite management for eligible category 2 products and services. These products include, access points, antennas, cabling, connectors and related components, caching, firewall services and components, switches, routers, racks, Uninterruptible Power Supply, wireless controller and software supporting components as defined in Erate Funding Year 2016 Eligible Services List in the Second E-rate Modernization Order released on September 11, 2015. This also includes the cloud management application required for the implementation of managed services.

These Managed Services include: 24x7 monitoring – managed access points and all other E-rate eligible components required for efficient wireless access, customer reporting - heat map creation - cloud-based controller creation and maintenance - software and firmware updates deployed regularly – regular logins of the system to check for any inefficiencies – regular on-site maintenance of wireless solution – access to customer service for support requests – access to customer service web-based portal.

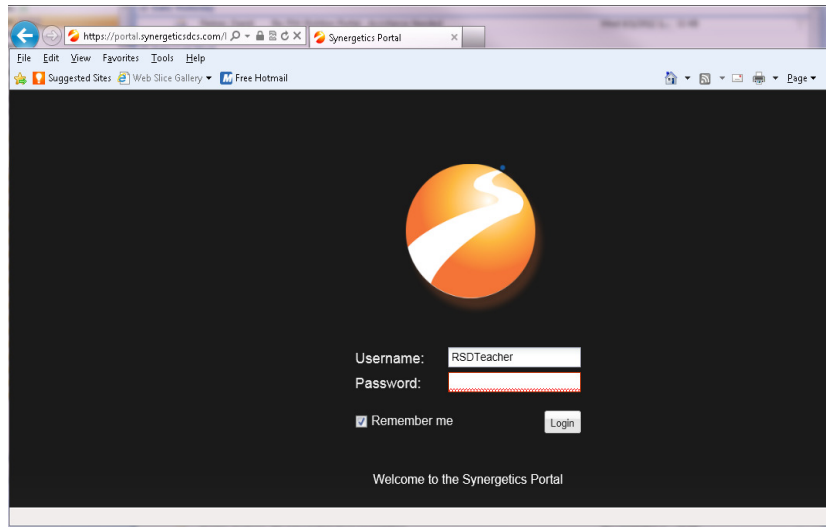
When support is needed, customer should make initial call to the customer service department at 877-825-6602 to enter a service request. Normal business hours are Monday – Friday 8am to 5pm. The assigned customer service representative will determine the service needs and dispatch the appropriate technical support staff. If remote assistance is applicable the customer will receive this support within 2 hours of the service call. If on-site service is required, the customer will receive within 4 hours for identified critical requests and within 24 hours for non-critical requests. There will be an established level of support customized for the customer before the services begin. This will establish expectations from the customer for the expected time of response dependent on the level of the request. Discussion with the customer at time of the service call will determine the level of the request. Customer will receive the cell phone numbers for all assigned staff to the project for convenience and escalation of service needs along with required support not within the normal business hours.

Service needs and requests will be entered into Synergetics web-based service portal. The customer administrative contact will have access to this portal that will provide customer contact for the service call, time of service call, assigned technical staff, activity related to the service and date of completion. Once the service request has been completed, the customer staff member that made the initial call along with the customer administrator staff will receive email notification that the service request has been completed. Monthly contract statements will be emailed to the customer administrative contact for a summary of services provided for the previous month. Attached is a sample document for your review for the Service Support Portal along with a sample Monthly Contract Statement.

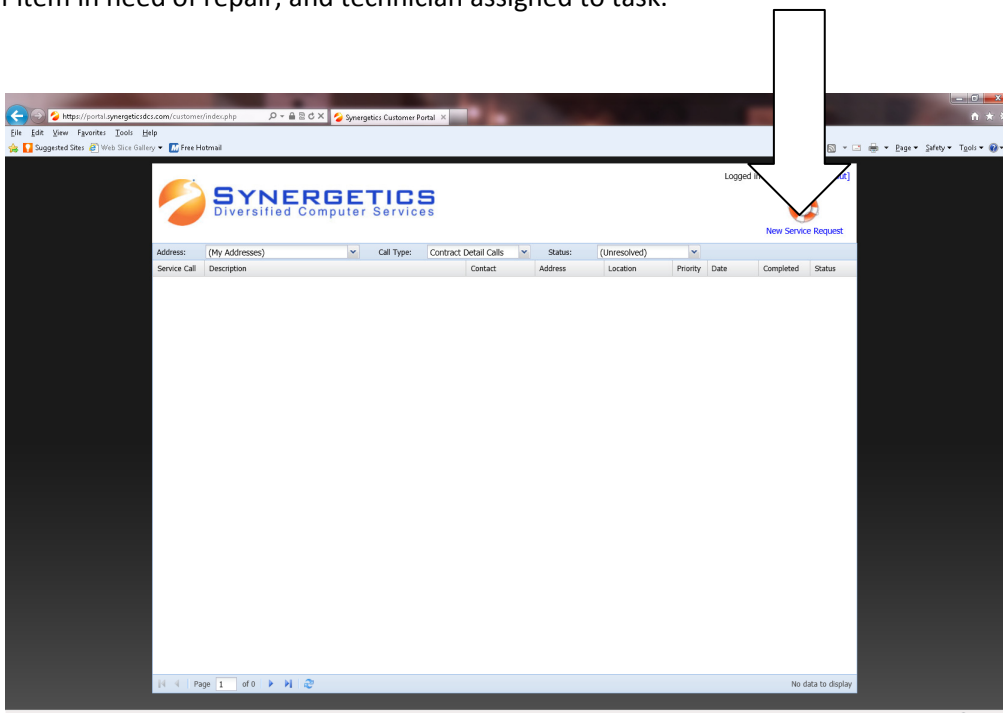


Sample Web-Based Portal

Administrator Log-In Page

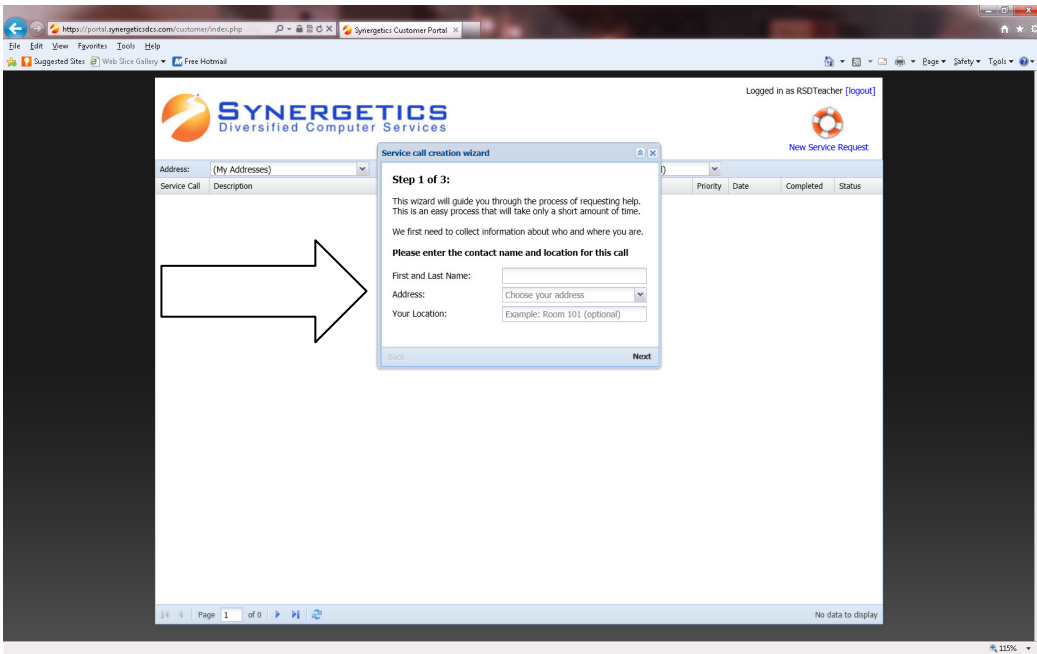


Service Requests will be entered documented with Date, Time, Item in need of repair, Description of Problem, Location of item in need of repair, and technician assigned to task.

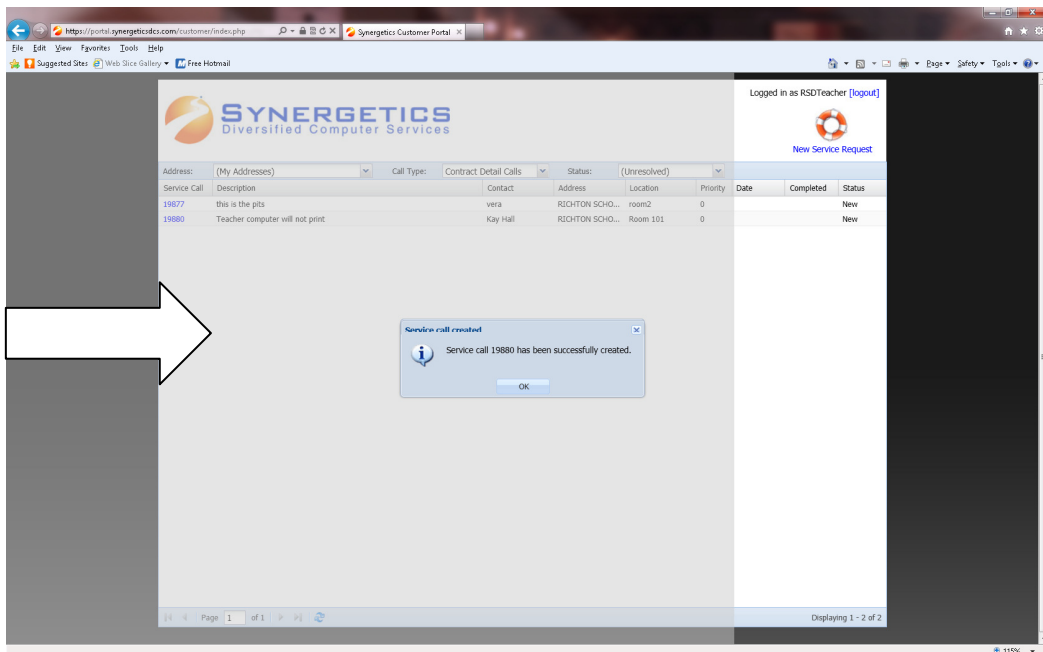




Information will be entered in the service call request to include the First Regional Library contact that requested the service call along with their email address to receive notification when the service call has been completed. The main contact(s) for the service agreement will also receive email confirmations upon completion of requests as specified by the First Regional Library staff.

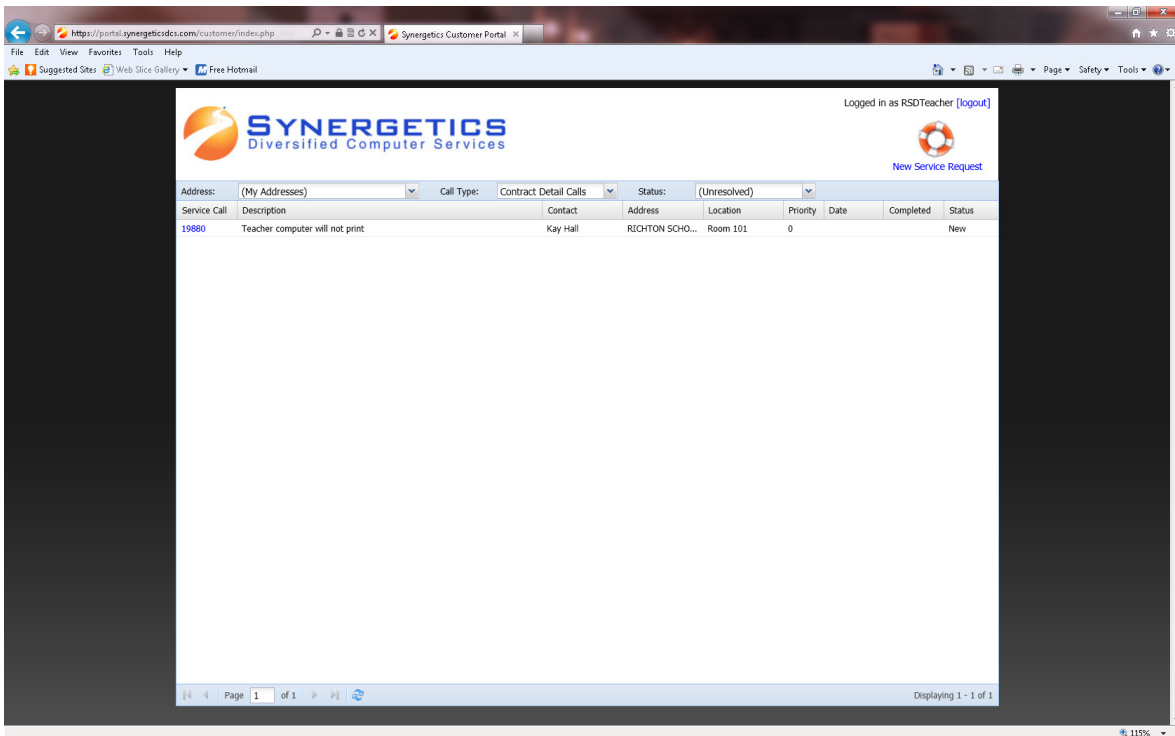


A notification box that creates a service call number assigned specifically to that service call request will be created.





Service call requests can be viewed at anytime once created to determine status of requests. Service Calls can be sorted and viewed by categories for All, Open, Unresolved and Completed service requests.



Additional information items can be added to the service requests portal as requested by the First Regional Library Administrative staff.

The following page is a sample Monthly Statement that will be emailed to the assigned First Regional Library Staff contact for review of a summary of service provided for the previous month.



CONTRACT STATEMENT - SEPTEMBER 2015

NOXUBEE COUNTY LIBRARY

ERATE Contract Number: PNER150019

Contract Start: 07/01/2015

Contract Expiration: 06/30/2016

Base Monthly Hours:

Total Contract Hours:

Total Contract Hours Remaining:

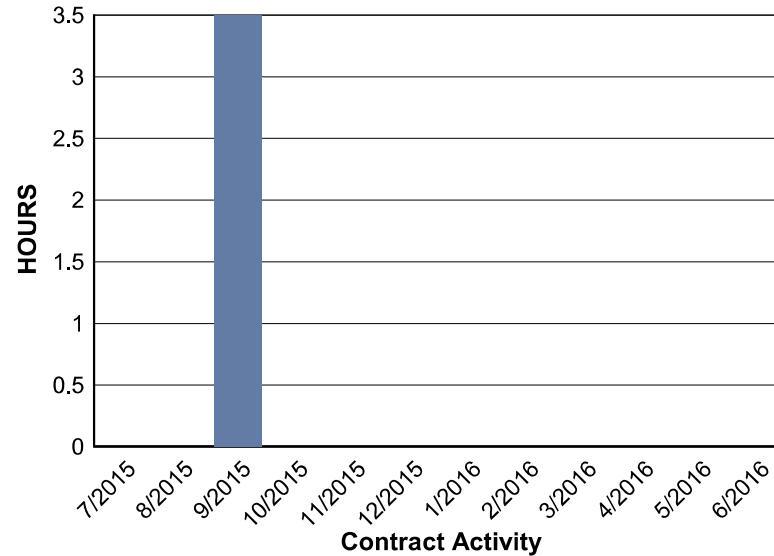
Average Monthly Hours Remaining:

	7/2015	8/2015	9/2015	10/2015	11/2015	12/2015	1/2016	2/2016	3/2016	4/2016	5/2016	6/2016	Total
Total	0.00	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

Details

Date	Call ID	Technician	Hours
9/17	32033	Albert Quinn	3.50

Contract Activity



This statement of contract usage is provided to you with the assurance that Synergetics DCS, Inc. believes this to be an complete and accurate statement. If for any reason, you question any portion of this statement, please call our corporate headquarters and speak with our Customer Service Department.

MANAGED SERVICES AGREEMENT
AGREEMENT #SCSDMNGDSERVICES5YR

This agreement is made and entered into by and between Synergetics Diversified Computer Services, Inc. of P. O. Box 80264, Starkville, Mississippi 39759, hereinafter referred to as "Synergetics", and Smith County School District hereinafter referred to as "Client", having its primary location 212 Sylvarena Avenue Raleigh, MS 39153

WHEREAS, Synergetics has reviewed the Client's Managed Services needs and is desirous of providing the Client with the needed Managed Services;

WHEREAS, the Client has reviewed Synergetics' capabilities and is desirous of Synergetics providing the Managed Services;

NOW, THEREFORE, in consideration of the promises and of the mutual covenants, conditions and agreements herein contained, the parties hereto, each intending to be legally bound, agree that the above recitals are incorporated into this Agreement and also agree as follows:

1.0 Description of Services. Beginning on the date of execution of this Agreement,

Synergetics will provide the services (collectively, the "Services"), as described in Exhibit A of this document. If applicable, a listing of equipment to be managed has also been provided in Exhibit B of this document.

2.0 Synergetics Pricing Schedule. For services rendered, Synergetics will invoice the Client according to the terms defined in Exhibit A of this document.

3.0 Expense Reimbursement. Unless expressly stated otherwise, Synergetics shall bear all "out of pocket" expenses related to travel and lodging. Expenses incurred for hardware, software, etc. as required by the task being performed, shall be borne by the Client. Client shall be provided estimation of these expenses, and Client will provide permission for these expenses and agreement to pay for these expenses, prior to the expense actually being incurred.

4.0 Ownership. Subject to the provisions of Section 13.9, the Client shall be the sole owner of any and all installed software and hardware, network configurations, network wiring and cabling, and other equipment physically installed in conjunction with this project. Synergetics shall make no claim to the aforementioned property; however, the following provisions apply with respect to copyrightable works, ideas, discoveries, inventions, applications for patents, patents, studies, reports, and research (collectively, Intellectual Property):

4.1 Synergetics' Intellectual Property. Synergetics holds an interest in the Intellectual Property activities that result from this Agreement.

4.2 Development of Intellectual Property. Any improvements to Intellectual Property items, further inventions or improvements, and any new items of Intellectual Property discovered or developed by Synergetics (or Synergetics' employees, if any) during the term of this Agreement shall be the property of Synergetics.

5.0 Liability. Synergetics will under no circumstances be liable to the Client or any other third party for indirect, special, incidental or consequential damages, losses or expenses, including but not limited to loss of profits, loss of business opportunities, loss of goodwill, loss of records or data, or loss of equipment use, even if Synergetics is advised of such damages, losses or expenses.

6.0 Term and Termination

- 6.1 Term. This Agreement, being entered into as of the aforementioned date, shall have service start date of July 1, 2020 and shall remain in term until June 30, 2025, at which time it may be voluntarily extended by mutual consent of the contracting parties.
- 6.2 Termination. Subject to the provisions of Section 13.9, either party may terminate this Agreement at will by giving 30 days written notification to the appropriate agent listed hereunder:

If to Synergetics:

Synergetics Diversified Computer Services, Inc.
P. O. Box 80264
Starkville, MS 39759
Attn: David Palmer
CEO

If to the Client:

Smith County School District
212 Sylvarena Avenue
Raleigh, MS 39153
Nick Hillman
Superintendent of Education

and by fulfilling their respective obligations upon termination as outlined in 7.3.

- 6.3 Obligations Upon Termination. Upon the effective date of termination of this Agreement by either party for any reason the following provisions apply:
- (i) All sums owed by the Client to Synergetics will be immediately due and payable;
 - (ii) The Client will return to Synergetics any and all property belonging to Synergetics; and
 - (iii) Synergetics will return to the Client any and all property belonging to the Client.

7.0 Confidentiality. Each party acknowledges that it may from time to time receive Confidential Information from the other party. Each party agrees not to disclose such Confidential Information of the other party, except as expressly permitted herein. Each party shall prevent any unauthorized person from having access to the other party's Confidential Information, shall return any such Confidential Information to the other party at any time upon request and shall return or destroy all copies of such Confidential Information immediately after termination of this Agreement. A violation of this paragraph shall be a material violation of this Agreement.

8.0 Unauthorized Disclosure of Information. If it appears that either party has disclosed (or threatened to disclose) information in violation of this Agreement, the harmed party shall be entitled to an injunction to restrain the violating party from disclosing, in whole or in part, such information, or from providing any services to any party to whom such information has been disclosed or may be disclosed. The harmed party shall not be prohibited by this provision from pursuing other remedies, including a claim for losses and damages.

9.0 Confidentiality After Termination. The confidentiality provision of this Agreement shall remain in full force and effect after the termination of this Agreement.

10.0 Hiring of Synergetics' Employees. Prior to the target date of the completion of this Agreement and for a period of two years after the termination of this Agreement, Client will not hire or offer to hire, either directly or indirectly, any employee of Synergetics without Synergetics' written consent. Likewise, Synergetics will not hire or offer to hire, either directly or indirectly, any employee of Client without Client's written consent.

11.0 Billing and Collections. Client agrees to abide by Synergetics' Billing and Collections Policy as shown below:

- 11.1 Synergetics will promptly render invoices to Client.
- 11.2 Client agrees to render payment for invoices promptly.
- 11.3 Any outstanding balance that remains unpaid beyond thirty (30) calendar days of Invoice rendering is considered past due.
- 11.4 The client is expected to pay interest expense on the outstanding balance. A 1.5% per month interest expense accrues from the date of the invoice(s). This interest expense will not be charged if the invoice is paid within thirty (30) days. Outstanding balances older than thirty (30) days will have the interest expense added to the amount outstanding.
- 11.5 If a balance remains unpaid for a period of ninety (90) calendar days, Synergetics may assign this overdue balance to a third party for the purpose of collecting the overdue balance.

12.0 Miscellaneous.

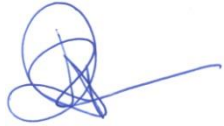
- 12.1 *Notices.* Notices required during the term of this Agreement if given by regular mail or electronic means generating a hard copy printout shall be deemed to have been given or made when delivered personally or placed, properly addressed and postage prepaid, in the mail of any jurisdiction or communicated by telefax or similar electronic means. All notices will be given by one party to the other at the addresses indicated in 13.2, unless change thereof previously has been given in writing to the party giving notice.
- 12.2 *Amendment.* This Agreement may be modified only by a written amendment executed by duly authorized officers or representatives of both parties.
- 12.3 *Severability.* If any one or more provisions of this Agreement is declared invalid or unenforceable, the same shall not affect the validity or enforceability of any other provision of this Agreement if the essence of the parties' agreement is retained, and such invalid or unenforceable provision shall be limited or curtailed only to the extent necessary to make such provision valid and enforceable.
- 12.4 *Wavier.* Any failure of either party to enforce any of the provisions of this Agreement will not be construed as a waiver of such provisions or the right of the party thereafter to enforce each and every such provision.
- 12.5 *No Third Party Beneficiaries.* The parties specifically intend and agree that no one other than the parties to this Agreement shall be deemed to be a third party beneficiary of any of the rights or obligations set forth in this Agreement.

- 12.6 Exhibits and Schedules. All exhibits and schedules to this Agreement, if any, are hereby incorporated by reference into, or made a part of, this Agreement.
- 12.7 Entire Agreement. All prior proposals, understandings, and other agreements, whether oral or written, between the parties that relate to this subject matter are hereby superseded and merged into this Agreement. This agreement constitutes the full and entire understanding and agreement between the parties with regard to the subject matter hereof. The express terms hereof control and supersede (i) all oral or written understandings of the subject matter hereof and (ii) any course of performance and/or usage of trade inconsistent with any of the terms hereof.
- 12.8 Applicable Law. The Agreement shall be governed by the laws of the State of Mississippi.
- 12.9 Funding Contingency. If this Agreement is to be funded using E-rate discounts, the entire Agreement is contingent upon the Client receiving the requested E-rate funding provided by the Universal Service Fund, of which the fund administrator is the Schools and Libraries Division of the Universal Service Administrative Company. Both contractual parties will honor the decision of the Schools and Libraries Division and the appropriate action will be taken at the time of funding approval or denial. Should it become mutually agreeable to begin service under this Agreement prior to the receipt of a Funding Commitment Decision Letter from the Schools and Libraries Division of the Universal Service Administrative Corporation, Client agrees to pay for all services provided under this Agreement. Notwithstanding the foregoing, it is agreed that once Client has taken possession of the goods or services supplied by Synergetics pursuant to the terms of this Agreement, Client shall be liable for the price for such goods or services regardless of whether the E-rate funding is approved or paid.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their duly authorized officers or representatives as of the date first written above.

**Synergetics Diversified
Computer Services, Inc.**

Client



David A. Palmer
CEO

03/04/20120

Date Signed

Nick Hillman
Superintendent of Education

Date Signed

IMPORTANT NOTE: IN ORDER FOR THIS CONTRACT TO BE FUNDED BY E-RATE, it must be signed and dated no earlier than the allowable contract date on the corresponding Form 470 and no later than the date that the Form 471 is signed and submitted. Failure to follow proper procedure will result in denial of your funding request

EXHIBIT A

Synergetics will provide the Client with the following Managed Services for the term as defined in the Agreement.

Managed Services Description and Rates

This Managed Services Agreement provides for telephone and remote managed services. On-site managed services will also be provided on an as-needed basis when telephone and remote efforts have failed to resolve the issues. Managed services will be for eligible internal connections only and will be consistent with the requirements of the FCC's Current Report and Order, as well as any existing or future directives from any organization having purview over the e-rate program.

Managed Services Rates:

1 day-	\$976.00/ \$122.00 per hour
2 days-	\$1936.00/ \$121.00 per hour
3 days-	\$2880.00/ \$120.00 per hour

Payment may be made on an annual or monthly basis, at the discretion of Client. Managed service includes all monitoring and management to ensure managed components function properly for their intended use by Client. Managed service includes covered remote and onsite services. Managed service includes facilitation and execution of manufacturer's warranty coverage(s). Managed service does not include any materials or replacement equipment other than those provided under manufacturer's warranty or as required to correct any defects in workmanship by Synergetics DCS, Inc. Managed service does not include any service, materials, or equipment required to correct any issues caused by negligence on the part of the Client, its students or patrons, its staff, or any other party.

Synergetics will provide the Client with the following Managed Services for the term as defined in the Agreement.

MANAGED SERVICES AGREEMENT

EXHIBIT B

LOCATIONS SERVICED BY THIS AGREEMENT

This Agreement covers the following Client locations:

All ERate eligible schools

HARDWARE / NETWORK EQUIPMENT / INFRASTRUCTURE MANAGED BY THIS AGREEMENT

The following hardware, network equipment, and network infrastructure is managed by this Agreement:

Equipment in Service as of the Agreement Date:

- All currently Erate eligible equipment that performs a function required for proper WiFi coverage.

Equipment to be added in the current year's Erate.

- All currently Erate eligible equipment provided by others that performs a function required for proper WiFi coverage.

Managed Services Description and Rates

This Managed Services Agreement provides for telephone and remote managed services. On-site managed services will also be provided on an as-needed basis when telephone and remote efforts have failed to resolve the issues. Managed services will be for eligible internal connections only and will be consistent with the requirements of the FCC's Current Report and Order, as well as any existing or future directives from any organization having purview over the e-rate program.

Managed Services Rates:

1 day-	\$976.00 \$122.00 per hour
2 days-	\$1936.00/ \$121.00 per hour
3 days-	\$2880.00/ \$120.00 per hour

Smith County School District Firewall Renewal

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
<i>1 Year Renewal</i>				
1	WG020020	WatchGuard Basic Security Suite - ERATE ELIGIBLE PORTION	\$ 580.00	\$ 580.00
1	WG020020	WatchGuard Basic Security Suite - ERATE INELIGIBLE PORTION	\$ 1,200.00	\$ 1,200.00
1 YEAR TOTAL				\$ 1,780.00
<i>3 Year Renewal</i>				
1	WG020019	WatchGuard Basic Security Suite - ERATE ELIGIBLE PORTION	\$ 1,399.00	\$ 1,399.00
1	WG020019	WatchGuard Basic Security Suite - ERATE INELIGIBLE PORTION	\$ 2,880.00	\$ 2,880.00
3 YEAR TOTAL				\$ 4,279.00



Date : 03/04/2020

Re: Erate 2020-2021 Bid Response

Contact: Dana Rials, 601 454-1023, drians@synergeticsdcs.com

**Smith County School District
CACHEBOX 310 Cache Appliance**

QTY	Part #	DESCRIPTION	UNIT PRICE	EXT. PRICE
<i>CacheBox 310 Option 1</i>				
1	01-CBC-310F	CACHEBOX310 cache appliance	\$ 12,883.00	\$ 12,883.00
1	08-SEC-020-5	Five Year Support Contract	\$ 8,806.00	\$ 8,806.00
<i>Options for Support Contract</i>				
0	08-SEC-020-1	One Year Annual Contract	\$ 2,570.00	\$ -
0	08-SEC-020-3	Three Year Support Contract	\$ 5,539.00	\$ -
5 YEAR TOTAL				\$ 21,689.00
<i>CacheBox 420 Option 2</i>				
1	01-CAC-420	CACHEBOX420 cache appliance	\$ 20,355.00	\$ 20,355.00
1	08-SEC-020-1	One Year Support Contract	\$ 4,030.00	\$ 4,030.00
<i>Options for Support Contract</i>				
0	08-SEC-020-3	Three Year Annual Contract	\$ 8,655.00	\$ -
0	08-SEC-020-5	Five Year Support Contract	\$ 13,501.00	\$ -
1 YEAR TOTAL				\$ 24,385.00



Date : 03/04/2020
 Re: Erate 2020-2021 Bid Response
 Contact: Dana Rials, 601 454-1023, drials@synergeticsdcs.com



**Smith County School District
Scope of Work**

**“2020 E-Rate RFP”
Smith County I School District
E-Rate Category 2 Project**

Synergetics DCS, Inc. is proposing a **complete turnkey solution** for installation, configuration, and knowledge transfer. Synergetics DCS, Inc. **will not subcontract** any installation services, and all services will be provided by professional certified staff employed by Synergetics DCS, Inc.

Synergetics DCS, Inc. is a **Mississippi based company that has been in business for over 26 years providing products and services for K-12 school districts as well as commercial and government accounts. Synergetics DCS, Inc. has participated in the E-Rate program since its inception in 1998.** During that time, we have completed E-Rate projects for over 150 separate school districts and/or library systems. Synergetics DCS, Inc. has been chosen as the service provider on 3,032 separate FRNs, for projects or services totaling more than \$70 million. Some of the certifications that apply are as follows:

- ✓ Extreme Certified Network Engineer
- ✓ RCDD
- ✓ BISCITS Installer 2, Copper
- ✓ BISCITS Installer 2, Optical Fiber
- ✓ Siemen/Mohawk Cabling Authorized Installer – Providing 25 Year Product Warranty
- ✓ Microsoft Windows Server 2008 Active Directory



- ✓ Microsoft Certified IT Professional: Enterprise Administrator
- ✓ Microsoft Certified IT Professional: Server Administrator

All of Synergetics' professional staff are required to acquire product and solution certifications to ensure the highest quality of customer service is provided. Synergetics' has full-time employed staff that hold each of these certifications. A copy of each of these certifications can be found in the Tab: **Personnel Qualifications**

Synergetics DCS professional certified cabling installers will pull, test, certify and label all Cat6 cabling to make the drops 100 percent operational. The cabling will be completed by certified technicians and meets all ANSI/TIA/EIA-568-B, ANSI/TIA-569-C and ANSI/TIA-607B Telecommunication Standards. The cabling will have a professional and finished appearance with the use of appropriate materials as needed. This includes but is not limited to: raceway, conduit, Panduit and moldings along with proper connectors. Cables will be suspended as necessary. The **cables** will be organized and labeled for easy tracking as needed. The Account Manager will work with the District Technology Staff in determining the labeling scheme for patch panels. All cables will be tested for attenuation, propagation delay, and other TIA-568-C standards to ensure functionality with an electronic version of testing results provided.

Fiber runs will be installed, configured and tested with data speeds of 10 Gbps.

Synergetics DCS Sales Account Manager will conduct a final walk through of all locations with the District Technology Coordinator to ensure customer satisfaction before job is signed off as complete. Upon completion of the project, the district will be provided cabling diagrams revealing location of cabling with connection locations to network closets in an electronic format.

Lead Time to Begin Implementation:



Preliminary meetings will be held between the Sales Account Manager, Project Manager and the District Technology Staff to go over all details of the project and ensure that all requirements and needs are being addressed. This meeting will include project scheduling, priority of locations, access to buildings, hours available for onsite installation etc. An on-site survey will be conducted by the Account Manager, Primary Engineer, and Smith County School District Technology Staff to determine job conditions and placement of the fiber. Synergetics DCS, Inc. employs professional certified engineers and a full time cabling staff. Synergetics DCS, Inc. Sales Account Manager and Project Manager will conduct a final walk through of all locations with the district technology staff to ensure customer satisfaction before job is signed off as complete. A complete post-installation site survey will be given to show that all equipment is compliant and capable of operating at the requested speeds. This survey will be provided to the district upon completion of the project

Project Management

- Coordinate with the IT Department and building principals to set a date and time when the fiber will be installed. Installation date will be set to occur within the time frame set by the rules and regulations of the E-rate program for the funding year under which this project is funded. This date will be agreed upon by both the district IT department and the vendor.
- Coordinate design and installation of fiber
- Provide proof of completion documentation



Taylorsville Attendance Center

- Install 22 new AP's with Cat6 drops
- Install 2 UPS's
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Mize Attendance Center

- Install 24 new AP's with Cat6 drops
- Install 2 UPS's
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Raleigh High School

- Install 15 new AP's with Cat6 drops
- Install 1 UPS
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Raleigh Elementary School

- Install 18 new AP's with Cat6 drops
- Install 2 UPS's
- Provide Test results



- Dispose of all trash at an off-site location
- Install switches as needed

Career and Technical Center

- Install 1 new AP with Cat6 drops
- Install 1 UPS
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Alternative School

- Install 1 new AP with Cat6 drops
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Central Office

- Install 1 new AP with Cat6 drops
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Special Services

- Install 1 new AP with Cat6 drops
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed



Child Nutrition

- Install 1 new AP's with Cat6 drops
- Provide Test results
- Dispose of all trash at an off-site location
- Install switches as needed

Company Timeframe for Completion of Work

Synergetics DCS, Inc. will provide a full crew for the implementation of the ERate project.

State of Mississippi

BOARD OF CONTRACTORS

ACTIVE

SYNERGETICS DIVERSIFIED COMPUTER SERVICES, INC.
POST OFFICE BOX 80264
STARKVILLE, MS 39759

is duly registered and entitled to perform

- 1) COMMUNICATION SYSTEMS AND LOW VOLTAGE ELECTRICAL
- 2) ELECTRICAL WORK
- 3) SOLAR & WIND CONSTRUCTION

We have hereunto set our hand and caused the Seal of the Mississippi Board of Contractors to be affixed this 13 day of Jan., 2019



CERTIFICATE OF RESPONSIBILITY

No. 13585-MC

Expires Jan. 13, 2020

Jael Q. Cavell,

CHAIRMAN OF THE BOARD

FCC Form 473

Do not write in this space.

Please read instructions before completing.

Universal Service for Schools and Libraries
Service Provider Annual Certification Form

(To be completed by Service Provider)

Block 1: Service Provider Information**1. Service Provider Name**

Synergetics Diversified Computer Services, Inc

2. Service Provider Identification Number (SPIN)

143004683

3. Funding Year:

July 1, 2019 through June 30, 2020

4. Contact Name

David A Palmer

5. Complete Mailing Address of Contact Person

Street Address, P.O. Box or Route Number

501 Highway 12 West

Starkville

MS 39759

City

State Zip Code

6. Telephone Number with Area Code

662-461-0103

7. Fax Number with Area Code

662-324-1876

8. Email Address

DPALMER@SYNERGETICSDCS.COM

Block 2: Certification

I declare under penalty of perjury that the foregoing is true and correct: I am authorized to submit this Service Provider Annual Certification Form on behalf of the above-named Service Provider, which has been assigned the above-referenced Service Provider Identification Number, and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this Form has been examined and reviewed and is true, accurate and complete. I acknowledge that any false statement on this Form or on the Service Provider Invoice Form (FCC Form 474) can be punished by fine or forfeiture under the Communications Act, 47 U.S.C. § 502, 503 (b), or fine or imprisonment under Title 18 of the United States Code, 18 U.S.C. § 1001, and that any such false statement could subject this Service Provider to liability under the False Claims Act.

9. I certify that the Service Provider Invoice Forms (FCC Form 474) that are submitted by this Service Provider contain requests for universal service support for services which have been billed to the Service Provider's customers on behalf of schools, libraries, and consortia of those entities, as deemed eligible for universal service support by the fund administrator.

10. I certify that the Service Provider Invoice Forms (FCC Form 474) that are submitted by this Service Provider are based on bills or invoices issued by the Service Provider to the Service Provider's customers on behalf of schools, libraries, and consortia of those entities as deemed eligible for universal service support by the fund administrator, and exclude any charges previously invoiced to the fund administrator for which the fund administrator has not yet issued a reimbursement decision.

11. I certify that the bills or invoices issued by this Service Provider to the Billed Entity are for equipment and services eligible for universal service support by the Administrator, and exclude any charges previously invoiced to the Administrator by the Service Provider.

12. I certify that any requests for reimbursement that are sought under a Service Provider Invoice Form (FCC Form 474) for discounts for products or services that contain both eligible and ineligible components are properly allocated as required by the Commission's rules at 47 C.F.R. § 54.504(e).

13. I certify that the invoices that are submitted by this Service Provider to the Billed Entity for reimbursement pursuant to Billed Entity Applicant Reimbursement Forms (FCC Form 472) are accurate and represent payments from the Billed Entity to the Service Provider for equipment and services provided pursuant to E-rate program rules.

Service Provider Name Synergetics Diversified Computer Services, Inc
SPIN 143004683
Contact Name David A Palmer
Contact Telephone Number 662-461-0103

Block 2: Certification (Continued)

14. I certify that this Service Provider makes available to customers, upon their request, separate prices for distinct services to assist Billed Entity Applicants in identifying the portions of their bills that represent the costs of services provided to eligible entities for eligible purposes.

15. I certify that no non-discount portion of the costs for eligible services will be waived, paid, or promised to be paid by this Service Provider. I acknowledge that the provision by any service provider of a supported service, or of free services or products unrelated to the supported service or product constitutes a rebate of the non-discount portion of the supported services as stated in 47 C.F.R. § 54.523.

16. I certify that no kickbacks, as defined in 41 U.S.C. § 8701, were paid by this Service Provider to anyone in connection with the schools and libraries universal support program.

17. I certify that this Service Provider is in compliance with the Commission's rule and orders regarding gifts and this Service Provider has not directly or indirectly offered or provided any gifts, gratuities, favors, entertainment, loans, or any other thing of value to any eligible schools, libraries, or consortium that includes eligible schools or libraries, except as permitted by the Commission's rule at 47 C.F.R. § 54.503(d).

18. I certify that if the fund administrator, as necessary, requests additional supporting information, this Service Provider will make all documents requested available to the Fund Administrator as required by 47 C.F.R. § 54.516(b). I certify that this Service Provider will retain for at least 10 years (or whatever retention period is required by the rules in effect at the time of this certification), after the latter of the last day of the applicable funding year or the service delivery deadline for the funding requests, (1) any and all records that I rely upon to complete this form and each Service Provider Invoice Form (FCC Form 474) that is submitted by this Service Provider during the present funding year, (2) any and all records issued by this Service Provider to the Billed Entity for reimbursement pursuant to Billed Entity Applicant Reimbursement Forms (FCC Form 472), and (3) all documents necessary to demonstrate compliance with the statutory or regulatory requirements for the schools and libraries universal service support program as required by 47 C.F.R. § 54.516(a)(2) I acknowledge that this Service Provider may be audited pursuant to 47 C.F.R. § 54.516(c), and that the Service Provider must provide such records as required by 47 C.F.R. § 54.516(b)

19. I certify that the prices in any offer that this Service Provider makes pursuant to the schools and libraries universal service support program have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered.

20. I certify that the prices in any offer that this Service Provider makes pursuant to the schools and libraries universal service support program will not be knowingly disclosed by this Service Provider, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law.

21. I certify that no attempt will be made by this Service Provider to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

22. I certify that this Service Provider is not suspended or debarred from participating in Federal programs.

23. I certify that, in addition to the foregoing, this Service Provider is in compliance with the rules and orders governing the schools and libraries universal service support program, and acknowledges that failure to be in compliance and remain in compliance with those rules and orders may result in the denial of discount funding and/or cancellation of funding commitments. I acknowledge that failure to comply with the rules and orders governing the schools and libraries universal service support program could result in civil or criminal prosecution by law enforcement authorities.

24. Signature of authorized person
Signed electronically by David A Palmer

25. Date
1/22/2019

26. Printed name of authorized person
David A Palmer

27. Title or position of authorized person
CEO

28. Address of authorized person
PO Box 80264, Starkville MS 39759

29. Telephone number of authorized person
662-323-9484 ext. 103

FCC NOTICE FOR INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

Part 54 of the Commission's Rules authorizes the FCC to collect the information on this form. Failure to provide all requested information will delay the processing of the application or result in the application being returned without action. Information requested by this form will be available for public inspection. Your response is required to obtain the requested authorization.

The public reporting for this collection of information is estimated to be 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERMS, Paperwork Reduction Act Project (3060-0856), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND YOUR RESPONSE TO THIS FORM TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0856.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, PUBLIC LAW 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3) AND THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/4/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).


PRODUCER License # 15013767 GCM Insurance - Columbus P.O. Box 9670 Columbus, MS 39705-0021	CONTACT NAME: Danielle Lloyd PHONE (A/C, No, Ext): (662) 328-0492 FAX (A/C, No): (662) 329-3938 E-MAIL ADDRESS: danielle.lloyd@gcm-insurance.com
	INSURER(S) AFFORDING COVERAGE
INSURED Synergetics DCS, Inc. P.O. Box 80264 Starkville, MS 39759	INSURER A : The Travelers NAIC # 19046
	INSURER B : Berkley National Insurance Company 38911
	INSURER C :
	INSURER D :
	INSURER E :
	INSURER F :

COVERAGES **CERTIFICATE NUMBER: 1** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			ZLP15P0805A	6/2/2019	6/2/2020	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			BA0N767526	6/2/2019	6/2/2020	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP6K95816A	6/2/2019	6/2/2020	EACH OCCURRENCE \$ 3,000,000 AGGREGATE \$ 3,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / N If yes, describe under DESCRIPTION OF OPERATIONS below		N / A	UB0L483932	6/2/2019	6/2/2020	<input checked="" type="checkbox"/> PER STATUTE <input checked="" type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Leased/Rented Equip.			MIM100709054	6/2/2019	6/2/2020	Limit 60,000
A	Professional E&O			ZPL15T85383	6/2/2019	6/2/2020	Limit 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER For Verification Purposes Only No Certificate Holder Named	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	<p>1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <i>Synergetics DCS, Inc.</i></p> <p>2 Business name/disregarded entity name, if different from above</p>	
	<p>3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.</p> <p><input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate</p> <p><input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____</p> <p>Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.</p> <p><input type="checkbox"/> Other (see instructions) ▶ _____</p>	<p>4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):</p> <p>Exempt payee code (if any) _____</p> <p>Exemption from FATCA reporting code (if any) _____</p> <p><small>(Applies to accounts maintained outside the U.S.)</small></p>
	<p>5 Address (number, street, and apt. or suite no.) See instructions. <i>PO Box 80264</i></p> <p>6 City, state, and ZIP code <i>Starkville MS 39759</i></p>	<p>7 List account number(s) here (optional)</p> <p>Requester's name and address (optional)</p>

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number				
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table>				
OR				
Employer identification number				
<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 25%; text-align: center;">64</td> <td style="width: 25%; text-align: center;">-</td> <td style="width: 25%; text-align: center;">0897565</td> <td style="width: 25%;"></td> </tr> </table>	64	-	0897565	
64	-	0897565		

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶ <i>Jennifer Kimbrough</i>	Date ▶ <i>01-08-2019</i>
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

CITY OF JACKSON SIGN AND LICENSE DIVISION

POST OFFICE BOX 22708 JACKSON, MISSISSIPPI 39225-2708

PRIVILEGE LICENSE

CITY OF JACKSON
SIGN & LICENSE DIVISION
P.O. BOX 22708
JACKSON MS 39225 (601) 960-1148

Business Name: SYNERGETICS DCS, INC.
Phone Number: (662) 323-9484
Location Address: 460 BRIARWOOD DR #100
Lic Nbr/Class: 34549
Issue Date: 8/26/19 Expiration Date: 8/31/2020
License Fee: \$20.00
Penalty: \$0.00
Interest: \$0.00
Total: \$20.00
Restriction: EMPLOYEES-280
Comments:

SYNERGETICS DCS, INC.
P O BOX 80264
STARKVILLE, MS 39759

Must be kept posted or on file at place of business named herein. IS NON TRANSFERABLE, good and usable only by person to whom issued. Is usable only at address stated, but address may be changed by written endorsement of tax collector showing new address on license. Expires on first day of the month and must be renewed not later than last day of same month. Failure to obtain a privilege license is a criminal misdemeanor. Charges will be filed in municipal court against violators. Penalties can be incurred pursuant to the applicable sections of the same law/city ordinance governing privilege licenses. (Except when issued for less than one year for certain occupations.) A new business must secure license BEFORE beginning business.

WARNING: This license is a personal privilege to the individual, partnership, or corporation named, and must not be used by any other, under penalty of law.

This license shall not make lawful any act or thing declared to be unlawful by The State of Mississippi.



Red Light Display System (RLDS)



Red Light Display System

[FCC](#) | [Fees](#) | Red Light Display System

< [FCC Site Map](#)

Logged in as FRN: Synergetics DCS Inc (0022603195) [[Log Out](#)]

[Back](#) | [Print](#) | [Help](#)

9/23/2019 3:07 PM

Current Status of FRN 0022603195

STATUS: Green

You have no delinquent bills which would restrict you from doing business with the FCC.

The Red Light Display System checks all FRNs associated with the same Taxpayer Identification Number (TIN). A green light means that there are no outstanding delinquent non-tax debts restricting business with the Commission by any FRN associated with requestor's TIN. The Red Light Display System was last updated on 09/23/2019 at 6:32 AM; it is updated once each business day at about 7 a.m., ET.

Customer Service

[Red Light Help](#)

[FCC Debt Collection](#)

[FCC Fees](#)

[Web Policies](#) / [Privacy Policy](#)

Red Light Display System Help Line: (877) 480-3201, option 6; TTY (202) 414-1255 (Mon.-Fri. 8 a.m.-6:00 p.m. ET)

Red Light Display System has a dedicated staff of customer service representatives standing by to answer your questions or concerns. You can email us at arinquiries@fcc.gov or fax us at (202) 418-7869.

THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and **Synergetics Diversified Computer Services, Inc.** (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.
2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).

Company ID Number: 300154

4. SSA agrees to provide a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility within 3 Federal Government work days of the initial inquiry.

5. SSA agrees to provide a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

B. RESPONSIBILITIES OF DHS

1. After SSA verifies the accuracy of SSA records for aliens through E-Verify, DHS agrees to provide the Employer access to selected data from DHS's database to enable the Employer to conduct, to the extent authorized by this MOU:

- Automated verification checks on alien employees by electronic means, and
- Photo verification checks (when available) on employees.

2. DHS agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. DHS agrees to provide the Employer names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to provide to the Employer a manual (the E-Verify User Manual) containing instructions on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the Employer a user identification number and password that permits the Employer to verify information provided by alien employees with DHS's database.

6. DHS agrees to safeguard the information provided to DHS by the Employer, and to limit access to such information to individuals responsible for the verification of alien employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act (INA) and Federal criminal laws, and to administer Federal contracting requirements.

7. DHS agrees to provide a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative

Company ID Number: 300154

nonconfirmation of employees' employment eligibility within 3 Federal Government work days of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

C. RESPONSIBILITIES OF THE EMPLOYER

1. The Employer agrees to display the notices supplied by DHS in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system.

2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.

3. The Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual.

4. The Employer agrees that any Employer Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.

A. The Employer agrees that all Employer representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify, including any tutorials for Federal contractors if the Employer is a Federal contractor.

B. Failure to complete a refresher tutorial will prevent the Employer from continued use of the program.

5. The Employer agrees to comply with current Form I-9 procedures, with two exceptions:

- If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Employer should contact E-Verify at 888-464-4218.
- If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The employer will use the photocopy to verify the photo and to assist DHS with its review of photo non-matches that are contested by employees. Note that employees retain the right to present any List A, or List B and List C, documentation to complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

Company ID Number: 300154

6. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures, except for the following modified requirements applicable by reason of the Employer's participation in E-Verify: (1) identity documents must have photos, as described in paragraph 5 above; (2) a rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in compliance with the terms and conditions of E-Verify; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between \$550 and \$1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ an employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith based on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.

7. The Employer agrees to initiate E-Verify verification procedures for new employees within 3 Employer business days after each employee has been hired (but after both sections 1 and 2 of the Form I-9 have been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify User Manual. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. In all cases, the Employer must use the SSA verification procedures first, and use DHS verification procedures and photo screening tool only after the SSA verification response has been given. Employers may initiate verification by notating the Form I-9 in circumstances where the employee has applied for a Social Security Number (SSN) from the SSA and is waiting to receive the SSN, provided that the Employer performs an E-Verify employment verification query using the employee's SSN as soon as the SSN becomes available.

8. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use not authorized by this MOU. Employers must use E-Verify for all new employees, unless an Employer is a Federal contractor that qualifies for the exceptions described in Article II.D.1.c. Except as provided in Article II.D, the Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. The Employer understands that if the Employer uses E-Verify procedures for any purpose other than as authorized by this MOU, the Employer may be subject to appropriate legal action and termination of its access to SSA and DHS information pursuant to this MOU.

9. The Employer agrees to follow appropriate procedures (see Article III. below) regarding tentative nonconfirmations, including notifying employees of the finding, providing written referral instructions to employees, allowing employees to contest the finding, and not taking

Company ID Number: 300154

adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.

10. The Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo non-match, does not establish, and should not be interpreted as evidence, that the employee is not work authorized. In any of the cases listed above, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee's perceived employment eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, refusing to assign the employee to a Federal contract or other assignment, or otherwise subjecting an employee to any assumption that he or she is unauthorized to work) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match or if a secondary verification is completed and a final nonconfirmation is issued, then the Employer can find the employee is not work authorized and terminate the employee's employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 or OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

11. The Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound "foreign" or have received tentative nonconfirmations. The Employer further understands that any violation of the unfair immigration-related employment practices provisions in section 274B of the INA could subject the Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

12. The Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.

13. The Employer agrees that it will use the information it receives from SSA or DHS pursuant to E-Verify and this MOU only to confirm the employment eligibility of employees as

Company ID Number: 300154

authorized by this MOU. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.

14. The Employer acknowledges that the information which it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a(i)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

15. The Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer's use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

D. RESPONSIBILITIES OF FEDERAL CONTRACTORS

1. The Employer understands that if it is a Federal contractor subject to the employment verification terms in Subpart 22.18 of the FAR it must verify the employment eligibility of any "employee assigned to the contract" (as defined in FAR 22.1801) in addition to verifying the employment eligibility of all other employees required to be verified under the FAR. Once an employee has been verified through E-Verify by the Employer, the Employer may not reverify the employee through E-Verify.

a. Federal contractors not enrolled at the time of contract award: An Employer that is not enrolled in E-Verify as a Federal contractor at the time of a contract award must enroll as a Federal contractor in the E-Verify program within 30 calendar days of contract award and, within 90 days of enrollment, begin to use E-Verify to initiate verification of employment eligibility of new hires of the Employer who are working in the United States, whether or not assigned to the contract. Once the Employer begins verifying new hires, such verification of new hires must be initiated within 3 business days after the date of hire. Once enrolled in E-Verify as a Federal contractor, the Employer must initiate verification of employees assigned to the contract within 90 calendar days after the date of enrollment or within 30 days of an employee's assignment to the contract, whichever date is later.

b. Federal contractors already enrolled at the time of a contract award: Employers enrolled in E-Verify as a Federal contractor for 90 days or more at the time of a contract award must use E-Verify to initiate verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire. If the Employer is enrolled in E-Verify as a Federal contractor for 90 calendar days or less at the time of contract award, the Employer must, within 90 days of enrollment, begin to use E-Verify to initiate verification of new hires of the contractor who are working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within 3 business days after the date of hire. An Employer enrolled as a Federal contractor in E-Verify must initiate verification of each employee assigned to the

Company ID Number: 300154

contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.

c. Institutions of higher education, State, local and tribal governments and sureties: Federal contractors that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), State or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. The provisions of Article II.D, paragraphs 1.a and 1.b of this MOU providing timeframes for initiating employment verification of employees assigned to a contract apply to such institutions of higher education, State, local and tribal governments, and sureties.

d. Verification of all employees: Upon enrollment, Employers who are Federal contractors may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only those employees assigned to a covered Federal contract. After enrollment, Employers must elect to do so only in the manner designated by DHS and initiate E-Verify verification of all existing employees within 180 days after the election.

e. Form I-9 procedures for Federal contractors: The Employer may use a previously completed Form I-9 as the basis for initiating E-Verify verification of an employee assigned to a contract as long as that Form I-9 is complete (including the SSN), complies with Article II.C.5, the employee's work authorization has not expired, and the Employer has reviewed the information reflected in the Form I-9 either in person or in communications with the employee to ensure that the employee's stated basis in section 1 of the Form I-9 for work authorization has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen). If the Employer is unable to determine that the Form I-9 complies with Article II.C.5, if the employee's basis for work authorization as attested in section 1 has expired or changed, or if the Form I-9 contains no SSN or is otherwise incomplete, the Employer shall complete a new I-9 consistent with Article II.C.5, or update the previous I-9 to provide the necessary information. If section 1 of the Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.C.5, but reflects documentation (such as a U.S. passport or Form I-551) that expired subsequent to completion of the Form I-9, the Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.C.5, subject to any additional or superseding instructions that may be provided on this subject in the E-Verify User Manual. Nothing in this section shall be construed to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU, or to authorize verification of any existing employee by any Employer that is not a Federal contractor.

2. The Employer understands that if it is a Federal contractor, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Employer consents to the release of information relating to compliance with its verification responsibilities under this MOU to contracting officers or other officials authorized to review the Employer's compliance with Federal contracting requirements.

Company ID Number: 300154

ARTICLE III

REFERRAL OF INDIVIDUALS TO SSA AND DHS

A. REFERRAL TO SSA

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.
2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.
3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within 8 Federal Government work days. SSA will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.
4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

B. REFERRAL TO DHS

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.
2. If the Employer finds a photo non-match for an employee who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding.
3. The Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation received from DHS automated verification process or when the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible

Company ID Number: 300154

after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact DHS through its toll-free hotline (as found on the referral letter) within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (furnished and paid for by DHS).

7. The Employer understands that if it cannot determine whether there is a photo match/non-match, the Employer is required to forward the employee's documentation to DHS by scanning and uploading, or by sending the document as described in the preceding paragraph, and resolving the case as specified by the Immigration Services Verifier at DHS who will determine the photo match or non-match.

ARTICLE IV

SERVICE PROVISIONS

SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access the E-Verify System, an Employer will need a personal computer with Internet access.

ARTICLE V

PARTIES

A. This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify User Manual. Even without changes to E-Verify, DHS reserves the right to require employers to take

Company ID Number: 300154

mandatory refresher tutorials. An Employer that is a Federal contractor may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or completed. In such a circumstance, the Federal contractor must provide written notice to DHS. If an Employer that is a Federal contractor fails to provide such notice, that Employer will remain a participant in the E-Verify program, will remain bound by the terms of this MOU that apply to non-Federal contractor participants, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

B. Notwithstanding Article V, part A of this MOU, DHS may terminate this MOU if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. The Employer understands that if it is a Federal contractor, termination of this MOU by any party for any reason may negatively affect its performance of its contractual responsibilities.

C. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.

D. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

E. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Employer.

F. The Employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).

G. The foregoing constitutes the full agreement on this subject between DHS and the Employer.

H. The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.



E-VERIFY IS A SERVICE OF DHS

Company ID Number: 300154

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

Employer Synergetics Diversified Computer Services, Inc.

Sandra M Simpson

Name (Please Type or Print)

Title

Electronically Signed

Signature

01/28/2010

Date

Department of Homeland Security – Verification Division

USCIS Verification Division

Name (Please Type or Print)

Title

Electronically Signed

Signature

01/28/2010

Date



Company ID Number: 300154

Information Required for the E-Verify Program

Information relating to your Company:

Company Name: Synergetics Diversified Computer Services, Inc.

Company Facility Address: 501 Highway 12 West

Suite 100

Starkville, MS 39759

Company Alternate

Address: P. O. Box 80264

Starkville, MS 39759

County or Parish: OKTIBBEHA

Employer Identification

Number: 640897565

North American Industry Classification Systems

Code: 519

Parent Company:

Number of Employees: 20 to 99

Number of Sites Verified

for: 1

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

- MISSISSIPPI 1 site(s)

Company ID Number: 300154

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name:	Sandra M Simpson	Fax Number:	(662) 324 - 1876
Telephone Number:	(662) 323 - 9484 ext. 126		
E-mail Address:	ssimpson@synergeticsdcs.com		



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Information necessary to use the Green Administrator for your ERM may be found on page 100 of the Green Administrator for your ERM manual.

Item	Location	Page
Green Administrator for your ERM manual	Chapter 1, Section 1.1	100



COMPANY EXPERIENCE

COMPANY INFORMATION AND LOCATIONS

Company Name: Synergetics DCS, Inc.

Organization Structure: S-Corporation

Employer Identification Number: 64-0897565

E-rate SPIN Number: 143004683

ISO 9001:2015 Certificate Number: C0338012-IS1*

Years in Business: 26

Ownership: David Palmer, CEO (50%) / Jim Raines, President and CTO (50%)

Headquarters:

501 Highway 12 West

Suite 100

Starkville, MS 39773

(662) 323-9484

Jackson, MS Office:

460 Briarwood Dr #120

Jackson, MS 39206

(601) 420-3477

Birmingham, AL Office:

420 20th St. N., Suite2200

Birmingham, AL 35203

(205) 379-8331

Montgomery, AL Office:

Alabama, Montgomery-RSA Dexter

445 Dexter Avenue, Suite 4050

Montgomery, AL 36104

(334) 245-4651

**Held by Synergetics DCS, Inc. Affiliate Synergetics Properties, LLC*



Vernon, AL Office:

44878 Highway 17
Vernon, AL 35592
(205)421-1092

Tallahassee, FL Office:

Alliance Center First Floor
113 South Monroe St.
Tallahassee, FL 32301
(205) 603-3759

Little Rock, AR Office:

1818 N. Taylor Street, Ste B-186
Little Rock, AR 72207
(501) 340-0371

PRIMARY SALES CONTACT PERSON

Dana Rials, Sales Account Manager
501 Hwy 12 West, Suite 100
P.O. Box 80264
Starkville, MS 39759
662-461-0140 (direct line)
601-454-1023 (mobile)
662-461-0172 (direct fax)
drials@SynergeticsDCS.com

The assigned Sales Account Representative for your district has over 25 years of experience in the K-12 environment, including E-Rate. This will ensure the understanding and accuracy of this proposal to the needs and requirements of your district.



PRIMARY ONSITE PROJECT MANAGER

Dennis Howell
501 Hwy 12 West, Suite 100
P.O. Box 80264
Starkville, MS 39759
Mobile: (662) 418-0695
dhowell@synergeticsdcs.com

Dennis Howell is a Network Specialist with over 25 years of industry experience and over 15 years with Synergetics. His specialization is in the design and installation of local area networks and telecommunications infrastructure. Dennis' certifications include but are not limited to BICSI Registered Communications Distribution Designer (RCDD), BICSI DD102, Lucent Cat 6 and Fiber Optic, Toshiba Master Surveillix Certification, Crestron Digital Media Certified Designer, Technician, and Engineer, and ShoreTel Unified Communications Advanced Design Installer and System Troubleshooting Certification. *See resume for more details.

PRIMARY IMPLEMENTATION ENGINEER

Michael Lowe
501 Hwy 12 West, Suite 100
P.O. Box 80264
Starkville, MS 39759
662-461-0144 (direct line)
mlowe@SynergeticsDCS.com

Senior Network Engineer: Michael Lowe
Michael Lowe is a senior network engineer with over 15 years of professional IT experience and 14 years with Synergetics. He has a Master of Science in Information Systems. He's also certified as an Extreme Certified Expert and Design Professional CCNA, CCDA, and Microsoft Certified Information Technology Professional. * See resume and certifications for more details.



PRIMARY EXTREME SALES MANAGER

Greg Blum

Extreme Networks Sales Engineer

504-234-9121

gblum@extremenetworks.com

Greg Blum Sr Account Executive LA/MS

12+ years with Extreme covering the LA/MS territory
Home office located in Kenner, LA

PRIMARY EXTREME SYSTEMS ENGINEER

Gregg Oser

Solutions Engineer/Extreme Networks

Mobile 985- 807- 5717

Goser@extremenetworks.com

Sr Systems Engineer Extreme Networks Gregg Oser 18 years experience with Extreme supporting Mississippi and Louisiana clients.

Security Plan for Hiring Employees

Synergetics' policies concerning candidates for new hires includes the following screening requirements:

1. Background checks, which includes criminal history search, motor vehicle record report, and sexual offender search.
2. Formal, written reference checks with direct reports for most recent three prior employers.
3. Initial pre-employment and ongoing employee drug testing.
4. Screening of each candidate through the US Department of Homeland Security's E-Verify system to ensure individual is authorized to work in the United States.



5. For all candidates who list college degrees, verification of such college degree is completed through the National Student Clearinghouse.
6. Synergetics does not hire candidates with criminal backgrounds.

As found in Synergetics' handbook, Policy 202 - Hiring, comment 6 (f) and (g), it states:

- (f) Following a decision to hire the applicant, the HR Manager will make an offer of employment, which should include any necessary contingencies or disclaimers. The HR Manager will then determine whether the applicant has the legal right to work in the United States and, where appropriate, conduct drug testing and credit, personal reference, and criminal conviction checks.
- (g) If the drug test, background, medical, or any other subsequent investigation discloses any misrepresentation or information indicating that the individual is not suited for employment with Synergetics, the applicant will be refused employment or, if already employed, may be terminated. (See PROBATIONARY PERIOD, Policy 204; and TERMINATION OF EMPLOYMENT, Policy 211.)

Synergetics maintains a formal and detailed Employee Handbook of Policies and Procedures, as copy of which will be made available to the Division of Purchasing upon request.

WHO WE ARE

Synergetics is the leading information technology services and consulting firm in the Southeastern US, providing technology solutions for education, government, healthcare, financial, manufacturing and business services industries.

Since 1992, we have worked with each of our customers to ensure every solution we design not only works for your current needs, but also gives you the ability to shape your technology as your organization grows and changes. For over 26 years, Synergetics has



partnered with leading technology companies and manufacturers, providing customers cutting edge technology, extensive resources, and competitive pricing.

WHAT WE DO

Synergetics is a full-service IT Design, Consulting, and Integration company dedicated to Customer Service. Synergetics provides technology solutions by building strong relationships with our customers and partners. Each project is evaluated for the customer's technology needs; we provide technology assessments, pre-project walkthroughs, project design and engineering services, project management, technology demonstrations, and technology consulting.

On the following page, please find an infographic demonstrating some of Synergetics' core capabilities:



SYNERGETICS

Diversified Computer Services



**Network
Solutions**



**IT Sales &
Services**



**Network
Maintenance**



**Unified Communications: VoIP Phone,
Intercom, and Paging Systems**



**Security Solutions: IP Security
Cameras, Digital Recorders, CCTV
and Access Control**



**Structured
Cabling**



**Professional Development
& Technology Training**



**Interactive
Classroom Solutions**



Additional detail on each of these capabilities is found below:



Network Solutions - Network Assessments, Health Checks, Network Architectural Design, Deployment and Management, Servers, Switches, Network Security Hardware, Wireless Networking



IT Sales & Services -Computers, Printers, Scanners, Business Software, Desktop Software (Microsoft Office 365, Adobe), Security/Cybersecurity Software (Email Filtering, Anti-Spy), Backup/Archive/Storage Software, Computer Components and Accessories



Network Maintenance –Managed Services (network support and management, remote network monitoring), Network Repair Service, Service Contracts (customized to your needed service level)



Unified Communications: VoIP Phone, Intercom, and Paging Systems – Design, Engineering, Installation and Continued Support for complete unified communication solutions. Mass Notification and Alert System Integration, Integration with Analog Systems



Security Solutions: IP Security Cameras, Digital Recorders, CCTV and Access Control – Consulting, Assessment, Deployment and Training for seamless integration of IP security solutions



Structured Cabling – Regions only in-house highly certified structured cabling installation team, installing: Category 5 Enhanced, Category 6, Category 6 Augmented, High Pair Count Copper or Fiber Optic Cabling



Professional Development & Technology Training – Technology Facilitator Services, Full and Half Day Professional Development Courses (CEUs or SEMI credits for full day and multi-day training courses)



Interactive Classroom Solutions – Touchscreen Displays, Interactive Projectors, Virtual Reality Goggles, Chromebook and Tablet Storage and Charging Carts



SERVICE CAPABILITIES:

Synergetics is an authorized Extreme partner and is experienced in installing and maintaining large scale network projects in both Mississippi and Alabama for over 26 years. Synergetics has professional certified installers, technicians, and engineers that can install, configure, support and train for a diverse network product list to include Extreme, HP/Aruba, Cisco, Meraki, Microsoft, Novell, Extreme, Xirrus and various other solutions. All of Synergetics' professional staff are required to acquire product and solution certifications to ensure the highest quality of customer service is provided.

These engineers have certifications that include:

- Extreme Certified Expert - Networking and Wireless.
- Extreme Certified Expert and Design Professional
- HP Certified Network Engineer
- Cisco Certified Network Professional
- RCDD
- BISCITS Installer 2, Copper
- BISCITS Installer 2, Optical Fiber
- Siemen/Mohawk Cabling Authorized Installer – Providing 25 Year Product Warranty
- Microsoft Windows Server 2008 Active Directory
- Microsoft Certified IT Professional: Enterprise Administrator
- Microsoft Certified IT Professional: Server Administrator

See Certifications Section for a copy of these certifications



E-RATE CAPABILITIES

Synergetics has been active in the E-rate program in the Southeastern US since the inception of the program through the Telecommunications Act of 1996. Synergetics' SPIN number is 143004683. Synergetics has completed nearly \$80 million of successful E-rate projects in support of public schools and libraries in the Southeastern US. The table below shows Synergetics activity in the E-rate program since the first round of funding in 1998.

Year	Requests	Pre-Discount	Requested	Committed	SLD Disbursements
2017	112	\$3,697,884.32	\$2,912,388.28	\$1,924,417.03	\$52,711.78
2016	142	\$4,551,086.85	\$3,687,613.78	\$3,627,640.18	\$2,482,197.86
2015	144	\$6,606,146.30	\$5,484,733.33	\$5,290,175.08	\$4,985,056.11
2014	53	\$8,426,775.23	\$7,565,120.14	\$0.00	\$0.00
2013	73	\$3,945,937.73	\$3,530,343.23	\$0.00	\$0.00
2012	57	\$4,422,708.38	\$3,888,148.88	\$2,782,826.67	\$2,426,843.81
2011	77	\$4,183,254.63	\$3,649,323.17	\$2,249,429.45	\$1,969,597.93
2010	85	\$4,439,741.40	\$3,955,002.48	\$3,582,374.30	\$3,279,992.28
2009	89	\$2,460,650.23	\$2,192,259.06	\$1,878,529.84	\$1,695,584.10
2008	172	\$3,762,537.81	\$3,331,702.67	\$2,758,323.59	\$2,568,938.68
2007	144	\$3,243,307.17	\$2,834,005.59	\$2,125,570.64	\$1,962,776.83
2006	110	\$1,761,837.42	\$1,547,270.21	\$1,276,201.15	\$1,106,626.18
2005	140	\$1,883,534.34	\$1,631,411.55	\$1,442,949.63	\$872,049.81
2004	404	\$5,178,771.61	\$4,520,064.75	\$2,901,521.79	\$1,644,260.50
2003	463	\$7,159,477.30	\$6,346,057.83	\$5,368,085.29	\$3,511,066.20
2002	329	\$3,806,115.38	\$3,369,891.82	\$2,945,171.46	\$2,001,452.66
2001	256	\$4,508,134.56	\$3,827,159.08	\$2,466,096.12	\$1,641,438.44
2000	162	\$2,451,242.70	\$2,077,389.63	\$1,402,914.38	\$1,368,701.16
1999	157	\$1,077,913.40	\$910,906.56	\$906,618.06	\$896,258.53
1998	117	\$811,248.83	\$720,152.84	\$720,152.84	\$677,134.72
	3,286	\$78,378,305.59	\$67,980,944.88	\$45,648,997.50	\$35,142,687.58

If awarded, Synergetics will fully cooperate with the Jackson Public Schools to provide eligible goods and services through the E-rate program to eligible AL Schools and



Libraries utilizing the contract resulting from this RFB. Synergetics participates in all USAC (Universal Service Administrative Company) trainings and other events. Synergetics has knowledgeable and seasoned E-rate experts on staff that can assist state customers with the E-rate program from start to finish.

SUPPORT

Any customer support needs are managed by Synergetics' Customer Service Department. Synergetics' Customer Service Department utilizes an electronic help desk, allowing service calls to be electronically entered and prioritized for levels of urgency. This ensures that customer support items are resolved in a timely manner and that there is a historical record of any support request and resolutions experienced.

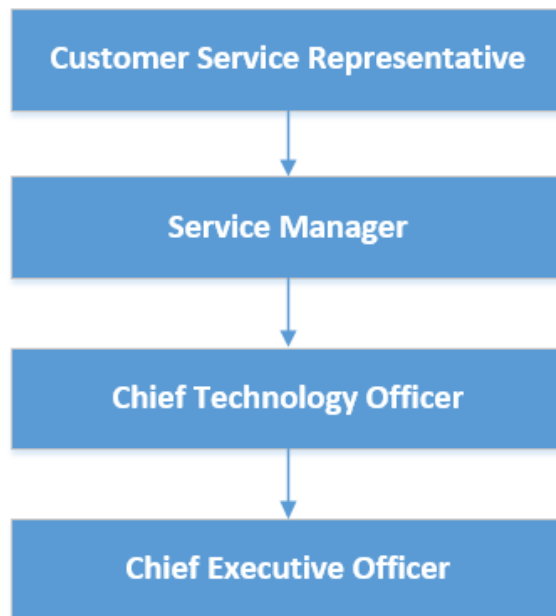
You may contact the Synergetics customer service department help desk at (877) 825-6602 or via email at service@synergeticsdcs.com. Support requests go to the assigned customer service representatives to determine service needs and dispatch the appropriate technical support staff. Once a request is received from an authorized customer point of contact, a return call from the service department will be received within 1 hour (if not immediately answered). The request will then be entered into the Service Management System and the appropriate technician will be assigned to the request. The technician will either provide support remotely or on-site as required to resolve the issue. If remote assistance is applicable the customer will receive this support within 2 hours of the service call. If onsite support is needed the customer will receive support within 8 hours. Resolution for service calls shall be within 8 hours. In the event additional parts, equipment and/or personnel are required from other locations to complete the repair(s), such parts, equipment and/or personnel will be on site and said repair(s) will be completed



within twenty-four consecutive hours after arrival of the first authorized serviceman. The customer will also receive the mobile phone numbers for all assigned staff to the project for their convenience.

Once the technician reports the issue has been resolved, the customer point of contact will receive a follow-up phone call from the service department to ensure the customer is satisfied with the resolution. Once the customer confirms that the problem has been resolved the service request call will then be closed in the Service Management System.

Escalation is achieved using the following hierarchy:





Synergetics has a system of internal controls in place to guarantee high levels of quality customer service. Quality surveys are completed each month from randomly selected projects and contract reviews keep Synergetics focused on changing customer needs.

Examples of Previous Work

Smith County School District- ERate Category Two Project 2018-2019

Provided new Extreme switching infrastructure throughout the district to replace existing Brocade switches with related cords. The scope of work included installation of the switches, integration within the existing systems, and configuration for network restructure.

Leake County School District- ERate Category Two Projects 2016-2019

Provided new Extreme switching and wireless infrastructure throughout the district to replace existing Cisco switches with related cords. The scope of work included installation of the switches, installation of the access points, integration within the existing systems, and configuration for network restructure.

Stone County School District- ERate Category Two Projects 2017-2018

Provided new Extreme switching and wireless infrastructure throughout the district to replace existing Cisco switches with related cords. The scope of work included installation of the switches, installation of the access points, integration within the existing systems, and configuration for network restructure.



Yazoo County School District- ERate Category Two Projects 2017-2018

Provided new Extreme switching and wireless infrastructure throughout the district to replace existing Cisco switches with related cords. The scope of work included installation of the switches, installation of the access points, integration within the existing systems, and configuration for network restructure.

Alcorn County School District- ERate Category Two Projects 2018-2019

Provided new Extreme switching and wireless infrastructure throughout the district to replace existing switches with related cords. The scope of work included installation of the switches, installation of the access points, integration within the existing systems, and configuration for network restructure.

Pontotoc County School District- ERate Category Two Projects 2018-2019

Provided new Extreme switching and wireless infrastructure throughout the district to replace existing switches with related cords. The scope of work included installation of the switches, installation of the access points, integration within the existing systems, and configuration for network restructure.



SYNERGETICS
Diversified Computer Services



Reference List		
1	Company Leake County School District	Contact Name Pam Tucker
	Phone Number 601-416-0981	
	E-Mail Address ptucker@leadesd.org	Physical Address 123 Main Street Carthage, MS 39051
	Scope of Work Turnkey Solution for Replacement of Switches, Extreme Wireless, Cabling, UPSs, Racks, and Service Support	
2	Company Stone County School District	Contact Name Chuck McGee
	Phone Number 601-795-5580	
	E-Mail Address cmcgee@stoneschools.org	Physical Address 214 Critz Street Wiggins, MS 39577
	Scope of Work Turnkey Solution for Replacement of Switches throughout the District and Extreme Wireless at the High School.	
3	Company East Jasper Consolidated School District	Contact Name Harlena Jones
	Phone Number 601-787-2055 Ext. 1284	
	E-Mail Address HJones@eastjasper.k12.ms.us	Physical Address 714 N Pine Hwy 528 E Heidelberg, MS 39439
	Scope of Work Turnkey Solution for Switches, Servers, Racks, Fiber Inside/Outside, Wireless, VoIP, CCTV, and Basic Erate Network Maintenance Agreement	

Highlights

Radio Technology

- 5 GHz 2x2:2
- 2.4 GHz 2x2:2

Radio Modes - SSR

- 5 GHz / 2.4 GHz - Fixed
- 5 GHz / 5 GHz - Dual 5 GHz

High Density Environments

- Delivers exceptional end-user experience even in dense user environments

WPA3 Support

- Includes the latest WPA3 Wi-Fi security standard delivering robust protections for users and IoT devices

Fully Functional over 802.3af

Cellular Coexistence Filter (CCF)

- Minimizes the impact of interference from cellular networks

Smart Management

- ExtremeCloud™ IQ delivers powerful, simple, and secure public or private cloud management capabilities



ExtremeWireless™ AP305C/CX

Wi-Fi 6 (802.11ax) Indoor Access Point with integrated or external antenna options

The AP305C/CX are indoor enterprise APs based on a new system-on-a-chip (SoC) with two built-in dual-band radios providing the best value with Wi-Fi 6 high efficiency. You have your choice of models with either integrated or external antennas. Advanced radio technology delivers 802.11ax 2x2:2 data rates up to 2.4 Gbps concurrently on both the 2.4 GHz and 5 GHz radios. These 2x2:2 APs continue the Extreme tradition of software-selectable radios (SSRs) capable of dual 5 GHz connectivity for indoor and industrial environments.

Priced for the mass-market, this enterprise-grade access point is ideal for budget-conscious enterprises who do not want to sacrifice performance.

The AP305C/CX comes in an aesthetic design and can fit in the palm of your hand. Both models are eco-friendly APs partially made from recycled materials. Also included is an integrated light sensor and integrated power meter to help conserve power consumption*. The easy install ceiling mount for quick installation and unique way to hide the Ethernet cables for an aesthetically pleasing installation.

Despite the exponential growth of users, BYOD devices, IoT, high-bandwidth applications and security threats straining the infrastructure, the AP305C/CX combines performance, security services and insightful ML/AI management capabilities to deliver an enterprise class solution at a value price.



ExtremeWireless™ AP305C/CX



* future software release



Built to Suit Your Business Needs

Extreme Elements are the building blocks that allow you to tailor your network to your specific business environment, goals, and objectives. They enable the creation of an Autonomous Network that delivers the positive experiences and business outcomes most important to your organization.

Combining architecture, automation, and artificial intelligence, Extreme Elements enable you to ensure that your users get what they need — when and where they need it. Providing these superior user experiences is as simple as mixing and matching the right elements.

Learn more at extremenetworks.com/elements/.



Security

The AP305C/CX delivers the highest level of security services, beginning with support for the latest Wi-Fi Alliance WPA3 security certifications. Additionally, the AP305C/CX supports a stateful L2-L7 DPI firewall for context-based access security, Private Pre-Shared Key (PPSK) and much more.



Wi-Fi 6 Technology

Prior generations of 802.11n, 802.11ac wave 1 and 2, can be considered generational improvements with an emphasis on faster speed. 802.11ax technology instead enhances Wi-Fi efficiency as well as speed, taking Wi-Fi networks to an entirely new level. To learn more about 802.11ax, go to: <https://www.extremenetworks.com/are-you-ready-for-802-11ax>



Programmable Radios

Extreme launched the industry's first software defined 802.11ax access point supporting not only a dual 5 GHz capability but also two software programmable modes to optimally manage radios to provide the highest level of client performance. The AP305C/CX intelligent monitoring of the software- configurable radios enables network managers to configure network RF technology based on user environment and configure the access points in different modes as required.



Management Analytics

In conjunction with Extreme Management system, cloud or on-premises, the AP305C/CX provides a very rich set of data displayed via context driven widgets, representing historical data or a combination of historical and current data. This provides context-specific granularity with perspective views for locations, network, APs, individual client devices, as well as policy roles. In each context, administrators can adjust dashboards make a widget library.



RF Monitoring

Network managers will appreciate a powerful choice of RF management for their Wi-Fi networks, with Adaptive RF management with AI/ML-like functionality. Adaptive RF algorithms provide intelligent selection of the best channels and transmit power for unimpaird dual 5 GHz operation. Load balancing, band steering and many other attributes of the RF can all be automated.



Integrated BLE and Zigbee

To support both IoT and Guest Engagement services the AP305C/CX integrates Bluetooth to connect with IoT devices with Thread wireless to engage loyalty customers with Apple iBeacon. Enterprises can use API driven applications to send advertisements directly to shoppers, guests, and conference attendees. This makes it ideal for businesses to advertise their app download pages, captive portals, or site-specific information.

Product Specifications

Radio Specifications

802.11a

- 5.150–5.850 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

802.11b

- 2.4–2.5 GHz Operating Frequency
- Direct-Sequence Spread-Spectrum (DSSS) Modulation
- Rates (Mbps): 11, 5.5, 2, 1 w/ auto fallback

802.11g

- 2.4–2.5 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

802.11n

- 2.4–2.5 GHz & 5.150–5.850 GHz Operating Frequency
- 802.11n Modulation
- Rates (Mbps): MCS0 - MCS15 (6.5Mbps - 300Mbps)
- 2x2 Multiple-In, Multiple-Out (MIMO) Radio
- HT20 High-Throughput (HT) Support (for both 2.4 GHz and 5 GHz)
- HT40 High-Throughput (HT) Support for 5 GHz
- A-MPDU and A-MSDU Frame Aggregation

802.11ac

- 5.150–5.850 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0–MCS9 (6.5Mbps – 867Mbps), NSS = 1-2.
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support
- TxBF (Transmit Beamforming)

802.11ax

- 2.4–2.5 GHz & 5.150–5.850 GHz Operating Frequency
- 802.11ax Modulation (1024-QAM)
- Dual-band OFDMA
- Rates (Mbps):
 - 5G: HE0-HE11 (8 Mbps – 1200 Mbps).
 - 2.4G: HE0-HE11 (8 Mbps – 574 Mbps).
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO) Radio
- HE20/HE40/HE80 support for 5 GHz
- HE20/HE40 support for 2.4 GHz
- DL SU-MIMO and MU-MIMO
- TxBF (Transmit Beamforming)

BLE 5 Radio Bluetooth® Low Energy (BLE) and IEEE® 802.15.4 compliant

Interfaces

- (1) Autosensing 10/100/1000 BASE-T Ethernet PoE (Power over Ethernet 802.3af) Port
- USB2.0, Type A 5V, 0.9A
 - USB power <= 500 mA - 802.3af
 - USB power > 500 mA - 802.3at

Power Options

- Power Draw: Typical: 9.98 W; Max: 11.28 W (w/o USB)
Typical: 14.98 W; Max: 16.28 W (w/ USB)
- 802.3af Power over Ethernet (PoE) capable Gigabit Ethernet port (RJ-45 power input pins: Wires 4,5,7,8 or 1,2,3,6)
- Support 802.3af/802.3at Power over Ethernet injector

Power Specifications

- IEEE 802.3af PoE Power

Physical

- AP305C: 5.2" x 5.2" x 1.5" (133mm x 133mm x 37mm)
- AP305CX: 5.8" x 5.8" x 1.5" (147mm x 147mm x 39mm)
- AP305C and AP305CX: .9 lbs (.4kg)
- TPM Chip for added security (

Antennas

AP305C - Internal Antennas

- (2) Integrated single band, 2.4-2.5 GHz omnidirectional antennas
- (2) Integrated single band, 5.1-5.8 GHz omnidirectional antennas

AP305CX - External Antennas

- (4) RP SMA connectors

Mounting

- AP support 15/16 flush ceiling tile and is integrated to AP
- Wall Mount sold as an accessory
- Ceiling Tile Recessed 15/16" sold as an accessory
- Built-in slot for Kensington type locks

Environmental

- Operating: 0 to 40 °C, Storage: -40 to 70 °C
- Humidity: 10% to 95% (non-condensing)

Environmental Discharge

- +/-8 kV (contact discharge)/ +/-15 kV (Air Discharge)

Environmental Compliance

- UL2043 - Plenum Rated

Regulatory Compliance

Product Safety Certifications

- IEC 62368/60950-1, EN 62368/60950-1, USA 62368/60950-1, AS/NZS 62368/60950.1, Intertek NTRL
- RoHS Directive 2011/65/EU

Radio Approvals

- FCC CFR 47 Part 15, Class B
- ICES-003, Class B
- FCC Subpart C 15.247
- FCC Subpart E 15.407
- RSS247
- AS/NZS4268 + CISPR32
- IEC/EN 60601-1-2,
- EN 62479
- EN 62311
- EN 50385
- EN 301 489-1
- EN 301 489-3
- EN 301 489-17
- EN 55032, (Class B)

Power Options

- EN 55011, (Group 1, Class B)
- EN 55024
- EN 60601-1-2
- EN 61000-3-2
- EN 61000-3-3
- EN 300 328
- EN 301 893
- EN 300 440
- EN 50581

Power and Sensitivity Tables

Power - 2.4 GHz

Channel	Data Rate	Power (dBm)
11b	1 - 11 Mbps	18
11g	6 Mbps	18
	54 Mbps	17
11n HT20	MCS0, 7	18, 14
11n HT40	MCS0, 7	18, 14
11ac HT20	MCS0, 8	18, 13
11ac HT40	MCS0, 9	18, 12
11ax HE20	HE0, 11	18, 11
11ax HE40	HE0, 11	18, 11

Receive Sensitivity - 2.4 GHz

Channel	Data Rate	Power (dBm)
11b	1 - 11 Mbps	-95, -88
11g	6 Mbps	-91
	54 Mbps	-74
11n HT20	MCS0, 7	-91, -71
11n HT40	MCS0, 7	-88, -69
11ac HT20	MCS0, 8	-90, -61
11ac HT40	MCS0, 9	-88, -58
11ax HE20	HE0, 11	-90, -61
11ax HE40	HE0, 11	-88, -58

Power - 5 GHz

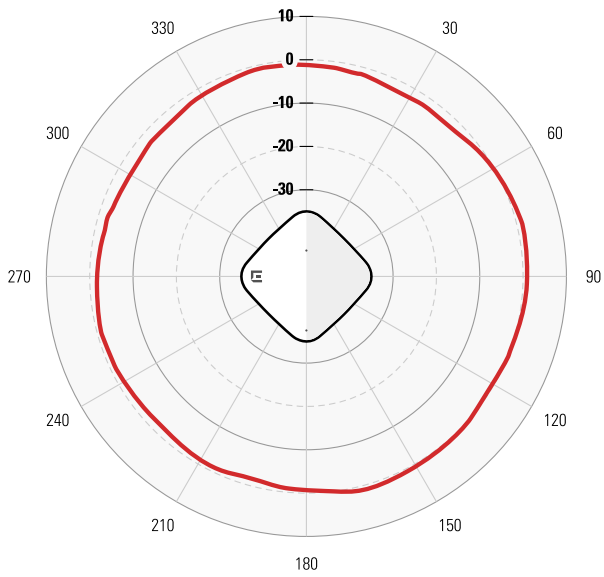
Channel	Data Rate	Power (dBm)
11a	6 Mbps	18
	54 Mbps	16
11n HT20	MCS0, 7	18, 15
11n HT40	MCS0, 7	18, 15
11ac VHT20	MCS0, 8	18, 14
11ac VHT40	MCS0, 9	18, 13
11ac VHT80	MCS0, 9	18, 13
11ax HE20	HE0, 11	18, 13
11ax HE40	HE0, 11	18, 13
11ax HE80	HE0, 11	18, 13

Receive Sensitivity - 5 GHz

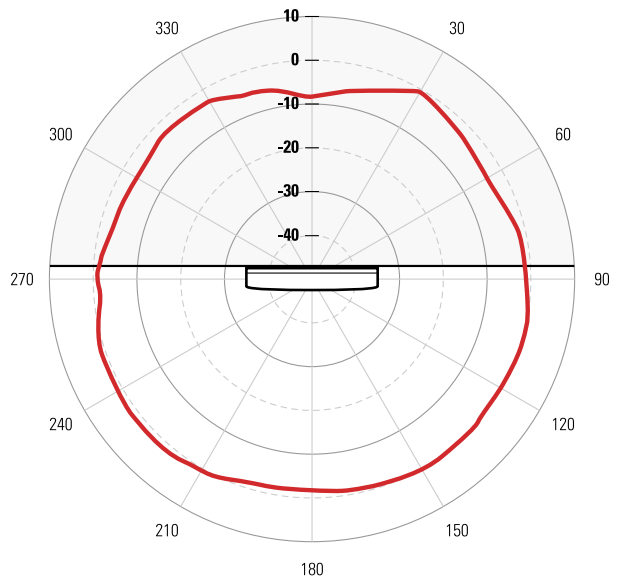
Channel	Data Rate	Power (dBm)
11a	6 Mbps	-92
	54 Mbps	-74
11n HT20	MCS0, 7	-90, -72
11n HT40	MCS0, 7	-88, -69
11ac VHT20	MCS0, 8	-90, -68
11ac VHT40	MCS0, 9	-88, -63
11ac VHT80	MCS0, 9	-85, -58
11ax HE20	HE0, 11	-88, -59
11ax HE40	HE0, 11	-87, -57
11ax HE80	HE0, 11	-85, -54

Radiation Patterns - Azimuth and Elevation

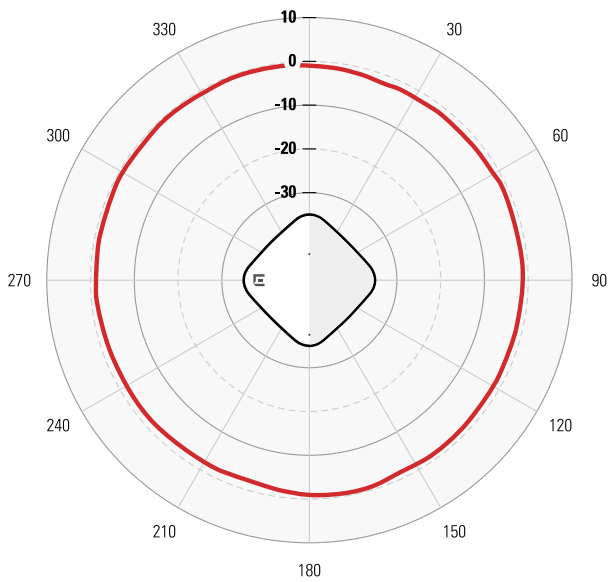
Azimuth - 2.4 GHz



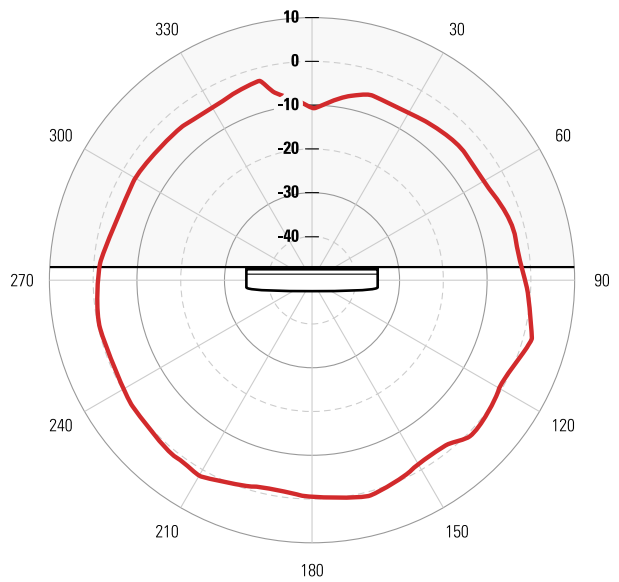
Elevation - 2.4 GHz



Azimuth - 5 GHz



Elevation - 5 GHz



Ordering Information

AP305C and AP305CX

MKT Product SKU	Description
AP305C-FCC	ExtremeCloud IQ : Indoor WiFi6 AP, 2x2 radios with Dual 5GHz and 1x1GbE port. Integrated light/power sensors and BLE/ Zigbee. AI/ML green mode. Internal antennas. Built-in ceiling mounts. Includes Connect. Domain : US
AP305C-CAN	ExtremeCloud IQ : Indoor WiFi6 AP, 2x2 radios with Dual 5GHz and 1x1GbE port. Integrated light/power sensors and BLE/Zigbee. AI/ML green mode. Internal antennas. Built-in ceiling mounts. Includes Connect. Domain : Canada
AP305C-WR	ExtremeCloud IQ : Indoor WiFi6 AP, 2x2 radios with Dual 5GHz and 1x1GbE port. Integrated light/power sensors and BLE/Zigbee. AI/ML green mode. Internal antennas. Built-in ceiling mounts. Includes Connect. Domain : EMEA, Rest of World
AP305CX-FCC	ExtremeCloud IQ : Indoor WiFi6 AP, 2x2 radios with Dual 5GHz and 1x1GbE port. Integrated light/power sensors and BLE/ Zigbee. AI/ML green mode. External antennas. Built-in ceiling mounts. Includes Connect. Domain : US
AP305CX-CAN	ExtremeCloud IQ : Indoor WiFi6 AP, 2x2 radios with Dual 5GHz and 1x1GbE port. Integrated light/power sensors and BLE/Zigbee. AI/ML green mode. External antennas. Built-in ceiling mounts. Includes Connect. Domain : Canada
AP305CX-WR	ExtremeCloud IQ : Indoor WiFi6 AP, 2x2 radios with Dual 5GHz and 1x1GbE port. Integrated light/power sensors and BLE/Zigbee. AI/ML green mode. External antennas. Built-in ceiling mounts. Includes Connect. Domain : EMEA, Rest of World

Accessories

Note: Two clips designed into the underside of the AP unit that will accommodate a 15/16 type ceiling tile rail system. Other mounting accessories see below. Mounting descriptions are detail in the Hardware User's Guide

MKT Product SKU	Descriptions
Mounting Accessories	
AH-ACC-BKT-AX-IL (x1 per)	Mounting bracket for Interlude ceilings
AH-ACC-BKT-AX-SL (x1 per)	Mounting bracket for Silhouette 1/8" and Silhouette 1/4" ceilings
AH-ACC-BKT-AX-TB (x1 per)	Mounting bracket for Prelude 15/16" and Suprafine 9/16" ceilings
AH-ACC-BKT-AX-WL (x1 per)	Mounting bracket for direct-to-wall installations
AH-ACC-ANT-AX-KT (x8 per pack)	Articulated indoor antenna kit (8 x Dual Band 5dBi antennas)
Power Accessories	
PD-3501G-ENT	Single port 802.3af compliant midspan
AH-ACC-PW-CBL-US	6ft 18 AWG universal power cord with US plug
AH-ACC-PW-CBL-UK	6ft universal power cord with UK plug
AH-ACC-PW-CBL-EU	6ft universal power cord with EU plug
AH-ACC-PW-CBL-AU	6ft universal power cord with AU plug
AH-ACC-PW-CBL-JP	6ft universal power cord with Japan plug
AH-ACC-PW-CBL-KR	6ft universal power cord with Korea plug



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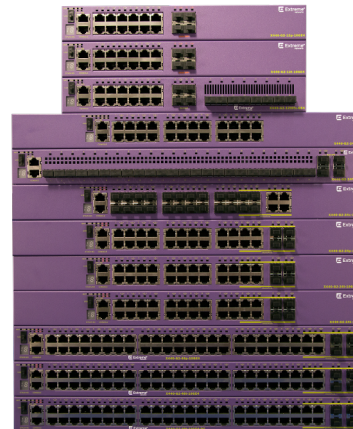
Highlights

Hardware Models

- 12, 24, and 48-port GbE models
- 4 x 1GbE available uplink ports upgradeable to 10GbE via software license (except for extended temperature models)
- SFP, Copper PoE-Plus, non-PoE and 100Base-FX models
- Extended 0°C to 60°C operating range models
- Two SummitStack-V stacking ports (except for extended temperature models) enable up to 8 switches to be stacked together
- All configurations non-blocking full duplex
- 10GbE LRM support on 48-port switch models

Features

- Side-to-side, left-to-right airflow
- Fixed power supplies, along with RPS
- Full PoE-Plus 30W power on 48-port models
- DC Power option
- Energy Efficient Ethernet
- 10MB/100MB half-duplex support
- Role-based policy capabilities allow individualized access to specific applications or services
- ExtremeCloud™ cloud-based management on select models
- Extreme Management Center Support



ExtremeSwitching™ X440-G2

Scalable Cost-Effective Edge Switch with ExtremeXOS Modular Operating System

Product Overview

The ExtremeSwitching X440-G2 series is a scalable cost-effective family of edge switches powered by Extreme Networks ExtremeXOS, a highly resilient OS providing continuous uptime, manageability and operational efficiency. The X440-G2 series switches provide high-performance routing and switching, flexible stacking, PoE-plus support and comprehensive security, while extending the benefits of ExtremeXOS to the campus edge.

The X440-G2 Series easy-to-use, yet powerful, management services include role-based policies for controlled access to specific network applications. Select X440-G2 Series switches can also be cloud-managed via ExtremeCloud™, Extreme Networks innovative single-pane subscription-based management solution.

Intelligent Switching

The X440-G2 Series supports sophisticated and intelligent Layer 2 switching, as well as Layer 3 IPv4/IPv6 routing. They also support role-based policy capabilities, Provider Bridges, bidirectional Access Control Lists, as well as granular (8 Kbps) ingress/egress bandwidth control. Altogether, these enable fine-grained control over traffic flows, as well as controlled access to specific network services and application.

Flexible 10GBE Port Upgrades

All X440-G2 base models come equipped with 4 upgradeable 1GbE ports, resident on either the faceplate or rear panel of each model. These 1GbE ports can be upgraded to 10GbE Ethernet via a simple software license. This gives administrators the option to increase switch uplink speeds without replacing the entire switch.

Notes: 10GbE upgrades are not supported on extended temperature models. The two rear-panel 1GbE copper combo ports on the 48 port switches become 10GBase-T ports when either 10GbE license is applied to the rear-panel SFP/SFP+ ports.

High-Performance Stacking

ExtremeXOS SummitStack-V capabilities allow up to eight X440-G2 switches to be stacked together via two of the native X440-G2 stacking ports. SummitStack-V allows use of standard 10Gb Ethernet cabling and optics technologies, providing longdistance stacking connectivity of up to 40 Km while eliminating the cable complexity of non-standard stacking options. X440-G2 switches can be stacked with other X450-G2, X460-G2, X670-G2 and X770 switches via SummitStack-V so long as all are running the same version of ExtremeXOS.

Note 1: SummitStack-V uses two of the four available uplink ports on the X440-G2 and runs a 10Gb non-Ethernet stacking protocol. These stacking ports DO NOT require a 10GbE software license, and can take full advantage of standard SFP+ transceivers.

Note 2: Extended temperature range switches do not support stacking.

IEEE 802.3AT Poe-Plus

X440-G2 Series switches support both IEEE 802.3at PoE-Plus and IEEE 802.3af PoE to enable connection of standards compliant PoE devices today and into the future. Power over Ethernet allows connection of Ethernet-powered devices, such as wireless access points, Voice over IP phones, and security cameras. The X440-G2 can also support full PoE-Plus 30W power across all 48 ports with an external redundant power supply (RPS).

Role-Based Policy

The X440-G2 supports role-based policies that can be centrally administered through the ExtremeManagement (formerly Netsight) policy manager. This policy framework empowers network administrators to define distinct roles or profiles to represent industry-specific operational groups that may exist in an education or a business environment (e.g., administrator, teacher, student, guest). Each defined role can then be granted individualized access to specific network services and applications and these access privileges remain associated with users as they move across both wired and wireless network access points.

ExtremeCloud™ Management

Provides a single plane of glass for cloud managing both the wired and wireless components of your network. Zero touch provisioning also significantly reduces deployment times. Select X440-G2 models have been enabled for use with ExtremeCloud. See the ExtremeCloud Data Sheet for details.

USB 2.0 Support

All X440-G2 switches have a USB 2.0 port that is supported as a port to a storage device for all EXOS versions of 22.1 or higher.

Extended Temperature Range Support

The X440-G2 include three switch models that support 0°C to 60°C operating range (Models 16539, 16540 and 16541) to address the unique environmental needs of specific industries and/or locations.

Comprehensive Security Management

The X440-G2 provides comprehensive security, including:

- User policy and host integrity enforcement, and identity management.
- Universal Port Dynamic Security Profiles for fine granular security policies across the network.
- Threat detection and response instrumentation to react to network intrusion.
- Denial of Service (DoS) protection and IP security against man-in-the-middle and DoS attacks.

These features ensure both the security of the network and of users accessing the network.

Audio Video Bridging (AVB)

The X440-G2 series supports IEEE 802.1 Audio Video Bridging to enable reliable, real-time audio/video transmission over Ethernet. AVB technology delivers the quality of service required for today's high-definition and time-sensitive multimedia streams.

Note: Only 24 ports on either the 24 or 48 port models support AVB.

Ordering Notes

All X440-G2 switches ship with fixed fans and power supplies:

- All the X440-G2 switches support optional external redundant power supplies (RPS).
- The following three switch models that support OC to 60C are NOT upgradeable to 10GbE:
 - X440-G2-24fx-GE4
 - X440-G2-12t8fx-GE4
 - X440-G2-24t-GE4

Specifications

Switch Model	Maximum 10/100/1000 Base-T Ports	Maximum Active 1Gb SFP Ports	Maximum 10Gb SFP+ Ports	Aggregated Switch Bandwidth*	Frame Forwarding Rate*
X440-G2-12t-10GE4	12	4	4 via license	104 GBPS	77.4 MPPS
X440-G2-24t-10GE4	24	8 (4 + 4 Combo)	4 via license	128 GBPS	95.2 MPPS
X440-G2-48t-10GE4	48	8 (2 + 6 Combo)	4 via license	176 GBPS	130.9 MPPS
X440-G2-12p-10GE4	12	4	4 via license	104 GBPS	77.4 MPPS
X440-G2-24p-10GE4	24	8 (4 + 4 Combo)	4 via license	128 GBPS	95.2 MPPS
X440-G2-48p-10GE4	48	8 (2 + 6 Combo)	4 via license	176 GBPS	130.9 MPPS
X440-G2-24t-10GE4-DC	24	8 (4 + 4 Combo)	4 via license	128 GBPS	95.2 MPPS
X440-G2-48t-10GE4-DC	48	8 (2 + 6 Combo)	4 via license ¹	176 GBPS	130.9 MPPS
X440-G2-24x-10GE4	4 Combo	28 (24 + 4 Combo)	4 via license	128 GBPS	95.2 MPPS
X440-G2-24fx-GE4	24 100 Base-FX	4	0	12.8 GBPS	9.5 MPPS
X440-G2-12t8fx-GE4	12 10/100/1000 + 8 100 Base-FX	4	0	33.6 GBPS	25.0 MPPS
X440-G2-24t-GE4	24 10/100/1000	4	0	56 GBPS	41.7 MPPS

¹ 2 10GBase-T combo ports

*-with 10Gb licenses if available with license

- Less than 4 microsecond latency (64-byte)
- Layer 2/MAC Addresses: 16K
- IPv4 LPM Entries: 480
- IPv4 Hosts: 1000
- IPv6 LPM (64-bit) Entries: 240
- 4096 VLAN/VMANs*
- 9216 Byte Max Packet Size (Jumbo Frame)
- 128 load sharing trunks, up to 8 members per trunk
- 1,024 ingress bandwidth meters, 256 egress meters
- Ingress and egress bandwidth policing/rate limiting per flow/ACL
- 8 QoS egress queues/port
- Egress bandwidth rate shaping per egress queue and per port.
- Rate Limiting Granularity: 8 Kbps
- Half-duplex 10/100 supported on the following 10/100/1000 ports:
 - 12 port switches: Ports 1-12
 - 24 port switches: Ports 1-16
 - 48 port switches: Ports 1-16 and Ports 25-40
- LRM support on rear-panel SFP/SFP+ ports on all 48-port switches
- Policy Capabilities
 - Policy Profiles: 63
 - Rules per Profile: Up to 440
 - Authenticated Policy Users per Switch: Up to 1,536
 - Authenticated Policy Users per Port: Up to 1,536
 - Unique Permit/Deny Rules per switch: 440
 - MAC Rules: N/A
 - IPv4 Rules: 256
 - IPv6 Rules: N/A
 - L2 Rules: 184
- Rate Limiting: Per Class of Service

* 2 VLANs reserved for system use

Specifications (cont.)

Switch Hardware	Ports
X440-G2-12t-10GE4	<ul style="list-style-type: none"> • 12 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated front-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • Coaxial Barrel Connector RPS port
X440-G2-24t-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated) combo ports • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-48t-10GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated) combo ports • 2 x 1GbE copper combo ports upgradable to 10GbE on rear-panel • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-12p-10GE4	<ul style="list-style-type: none"> • 12 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated front-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-24p-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated) combo ports • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-48p-10GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated) combo ports • 2 x 1GbE copper combo ports upgradable to 10GbE on rear-panel • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x9 RPS port
X440-G2-24t-10GE4-DC	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated) combo ports • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-48t-10GE4-DC	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated) combo ports • 2 x 1GbE copper combo ports upgradable to 10GbE on rear-panel • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-24x-10GE4	<ul style="list-style-type: none"> • 24 x SFP (unpopulated) • 4 x 10/100/1000 combo ports • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) upgradeable to 10Gb Ethernet via licensing • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port

Specifications (cont.)

Switch Hardware	Ports
X440-G2-24fx-GE4	<ul style="list-style-type: none"> • 24 x 100Base-FX – LC connectors • 4 x 1GBASE-X SFP (unpopulated front-panel ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-12t8fx-GE4	<ul style="list-style-type: none"> • 12 x 10/100/1000BASE-T with 8 x 100Base-FX – LC connectors • 4 x 1GBASE-X SFP (unpopulated front-panel ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port
X440-G2-24t-GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated rear-panel ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 2x7 RPS port

Physical

Switch Model	Weight	Height	Width	Depth
X440-G2-12t-10GE4	5.82 lb (2.64 kg)	1 RU / 1.73 inches (4.4 cm)	12.01 inches (30.5 cm)	10.28 inches (26.1 cm)
X440-G2-24t-10GE4	8.07 lb (3.66 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	10.01 inches (25.4 cm)
X440-G2-48t-10GE4	11.22 lb (5.09 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	14.51 inches (36.85 cm)
X440-G2-12p-10GE4	6.66 lb (3.02 kg)	1 RU / 1.73 inches (4.4 cm)	12.01 inches (30.5 cm)	10.28 inches (26.1 cm)
X440-G2-24p-10GE4	9.44 lb (4.28 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	10.01 inches (25.4 cm)
X440-G2-48p-10GE4	14.55 lb (6.60 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	14.51 inches (36.85 cm)
X440-G2-24t-10GE4-DC	8.07 lb (3.66 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	10.01 inches (25.4 cm)
X440-G2-48t-10GE4-DC	11.20 lb (5.08 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	14.51 inches (36.85 cm)
X440-G2-24x-10GE4	8.22 lb (3.73 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	10.01 inches (25.4 cm)
X440-G2-24fx-GE4	8.66 lb (3.93 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	10.01 inches (25.4 cm)
X440-G2-12t8fx-GE4	6.50 lb (2.95 kg)	1 RU / 1.73 inches (4.4 cm)	12.01 inches (30.5 cm)	10.28 inches (26.1 cm)
X440-G2-24t-GE4	7.98 lb (3.62 kg)	1 RU / 1.73 inches (4.4 cm)	17.36 inches (44.1 cm)	10.01 inches (25.4 cm)

CPU/Memory

- 64-bit MIPS Processor, 1 GHz clock, single core
- 1GB ECC DDR3 DRAM
- 4GB eMMC Flash
- 1.5MB packet buffer on 12 - 24 port switches, 3.0MB packet buffer on 48 port switches

LED Indicators

- Per port status LED including power status.
- System Status LEDs: management, fan and power.
- 7 segment display of stack number – operational on switches that support stacking.

Stacking

- SummitStack-V with support for up to eight switches per stack.
- Mixed stacking with other Extreme X-Series switches, so long as all are running the same ExtremeXOS version.
- Requires two of the four available X440-G2 uplink ports.

Note: SummitStack-V stacking is enabled on two of the four X440-G2 uplink ports by default (no license required). All stacking ports operate at 10Gb, but do not use standard Ethernet protocols. X440-G2 uplink ports, when not used for stacking, run the standard Ethernet protocol. Non-stacking uplink ports are limited by default to 1GbE, unless upgraded

via software license. 10GbE licenses are available, in both two- and four-port versions, as well as a license to upgrade a dual 10GbE uplink switch to a four 10GbE uplink switch, that enable X440-G2 uplink ports to run the 10Gb Ethernet protocol.

Mapping of the two default X440-G2 stacking ports to their respective physical chassis interface #'s — by chassis type — are listed below.

X440-G2 Switches*	Stack Port #	Physical Uplink Port # On Chassis
48 Port Models	1	49 (Rear Panel, Dedicated SFP+ Port)
	2	50 (rear panel, dedicated SFP+ port)
12 Port Models	1	27 (Rear Panel)
	2	28 (Rear Panel)
X440-G2-24p-10GE4	1	15 (Front Panel)
	2	16 (Front Panel)

*The three extended temperature X440-G2 models (16539, 16540 and 16541) do NOT stack.

Power

Switch Model	Minimum ¹ Heat Dissipation (BTU/HR)	Minimum ¹ Power Consumption (Watts)	Maximum ² Heat Dissipation (BTU/HR)	Maximum ² Power Consumption (Watts)
X440-G2-12t-10GE4	52	15	109	32
X440-G2-24t-10GE4	87	26	136	40
X440-G2-48t-10GE4	141	41	208	61
X440-G2-12p-10GE4	72	21	216 (@200W PoE)	264
X440-G2-24p-10GE4	121	35	410 (@380W PoE)	500
X440-G2-48p-10GE4	196	53	755 (@740W PoE)	961
X440-G2-24t-10GE4-DC	77	23	134	39
X440-G2-48t-10GE4-DC	137	40	207	61
X440-G2-24x-10GE4	87	26	172	51
X440-G2-24fx-GE4	166	49	223	65
X440-G2-12t8fx-GE4	108	32	159	47
X440-G2-24t-GE4	76	22	130	38

¹ Idle no ports linked

² fans high all ports 100% traffic

The Non-PoE Extended Temperature Switches (X440-G2-24FX-GE4, X440-G2-12T8FX-GE4, X440-G2-24T-GE4)

	Fixed Internal Power Supply
Voltage Input Range	100 - 240 VAC [†]
Line Frequency Range	50 - 60 Hz +/- 5%
Power Supply Input Socket	IEC 320 C14
Power Cord Input Plug	IEC 320 C13
Operating Temperature	0° C to 60° C Normal Operation

The 12, 24, and 48 Port 10/100/1000 Models (Both PoE and Non-PoE)

	Fixed Internal Power Supply
Voltage Input Range	100 - 240 VAC [†]
Line Frequency Range	50 - 60 Hz +/- 5%
Power Supply Input Socket	IEC 320 C14
Power Cord Input Plug	IEC 320 C13
Operating Temperature	0° C to 50° C Normal Operation

[†] - The power supplies will continue to operate +/- 10% of the rated input to accommodate temporary loss of input voltage regulation.

Switch Model	Power Supply Input Socket	Power Cord Input Plug/Input Socket	Power Supply Cord Gauge	Redundant Power Supply Input Socket
X440-G2-12t-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	Coaxial Barrel Connector
X440-G2-24t-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-48t-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-12p-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-24p-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-48p-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 16AWG/1.25mm ² (100-125VAC), Min 18AWG/.75mm ² (200-240VAC)	2x9 Terminal Block
X440-G2-24t-10GE4-DC	#6 Terminal Block	23	Min 14AWG/2.0mm ²	2x7 Terminal Block
X440-G2-48t-10GE4-DC	#6 Terminal Block	40	Min 14AWG/2.0mm ²	2x7 Terminal Block
X440-G2-24x-10GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-24fx-GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-12t8fx-GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block
X440-G2-24t-GE4	IEC 320 C14	IEC 320 C13/C14	Min 18AWG/0.75mm ²	2x7 Terminal Block

PoE-Plus Power Budget

Switch Model	Internal Power Supply	External RPS
X440-G2-12p-10GE4	200 W	200 W - Redundant Power Only
X440-G2-24p-10GE4	380 W	380 W - Redundant Power Only
X440-G2-48p-10GE4	740 W	1440 W - Additive Power 740 W - Redundant Power

Environmental Specifications

- EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage
- EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation
- EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational
- EN/ETSI 300 753 (1997-10) - Acoustic Noise
- ASTM D3580 Random Vibration Unpackaged 1.5 G

Environmental Compliance

- EU RoHS - 2011/65/EU
- EU WEEE - 2012/19/EU
- China RoHS - SJ/T 11363-2006
- Taiwan RoHS CNS 15663(2013.7)

Operating Conditions

- Temp: 0° C to 50° C (32° F to 122° F) - all models
- Temp: 0° C to 60° C (32° F to 140° F) - extended temperature range models only (16539, 16540 and 16541)
- Humidity: 10% to 95% relative humidity, non-condensing
- Altitude: 0 to 3,000 meters (9,842 feet) - All Switch Models
- Shock (half sine): 30 m/s² (3 G), 11 ms, 6 shocks
- Random vibration: 3 to 500 Hz at 1.5 G rms

Packaging and Storing Specifications

- Temp: -40° C to 70° C (-40° F to 158° F)
- Humidity: 10% to 95% relative humidity, non-condensing
- Packaged Shock (half sine): 180 m/s² (18 G), 6 ms, 600 shocks
- Packaged Vibration: 5 to 62 Hz at velocity 5 mm/s, 62 to 500 Hz at 0.2 G
- Packaged Random Vibration: 5 to 20 Hz at 1.0 ASD w/-3 dB/oct. from 20 to 200 Hz
- Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

Regulatory and Safety

North American ITE

- UL 60950-1 2nd edition A2:2014, Listed Device (U.S.)
- CSA 22.2 No. 60950-1 2nd edition 2014(Canada)
- Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)
- CDRH Letter of Approval (US FDA Approval)

European ITE

- EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 2nd Ed.
- EN 60825-1:2007 / IEC 60825-1:2007 Class 1 (Lasers Safety)
- 2014 / 35/ EU Low Voltage Directive

International ITE

- CB Report & Certificate per IEC 60950-1 : 2005+A1:2009+A2:2013 + National Differences
- AS/NZS 60950-1 (Australia /New Zealand)

EMI/EMC Standards

North American EMC for ITE

- FCC CFR 47 part 15 Class A (USA)
- ICES-003 Class A (Canada)

European EMC Standards

- EN 55032:2015 Class A
- EN 55024:2010
- EN 61000-3-2: 2014 (Harmonics)
- EN 61000-3-3: 2013 (Flicker)
- EN 300 386 v1.6.1 (EMC Telecommunications)
- 2014/30/EU EMC Directive

International EMC Certifications

- CISPR 32:2015, Class A (International Emissions)
- AS/NZS CISPR32:2015
- CISPR 24:2010 Class A (International Immunity)
- IEC 61000-4-2:2008/EN 61000-4-2:2009 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria B
- IEC 61000-4-3:2010/EN 61000-4-3:2006 +A1:2008 +A2:2010 Radiated Immunity 10V/m, Criteria A
- IEC 61000-4-4:2012. / EN 61000-4-4:2012 Transient Burst, 1 kV, Criteria A
- IEC 61000-4-5:2014 /EN 61000-4-5:2014 Surge, 1 kV L-L, 2 kV L-G, Level 3, Criteria B
- IEC 61000-4-6:2013/EN 61000-4-6:2014 Conducted Immunity, 0.15-80 MHz, 10Vrms, 80%AM (1kHz) Criteria A
- IEC/EN 61000-4-11:2004 Power Dips & Interruptions,

>30%, 25 periods, Criteria C

Country Specific

- VCCI Class A (Japan Emissions)
- ACMA RCM (Australia Emissions)
- CCC Mark
- KCC Mark, EMC Approval (Korea)

Telecom Standards

- CE 2.0 Compliant

IEEE 802.3 Media Access Standards

- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3ae 10GBASE-X
- IEEE 802.3at PoE-Plus
- IEEE 802.3az

Switch Model	Acoustic Information	
	Bystand Sound Pressure*	Declared Sound Power (LWAD)*
X440-G2-12t-10GE4	0 dB(A) Fan Off	0 bels Fan Off
X440-G2-24t-10GE4	28.1 dB(A)	4.3 bels
X440-G2-48t-10GE4	37.9 dB(A)	5.4 bels
X440-G2-12p-10GE4	0 dB(A) Fan Off	0 bels Fan Off
X440-G2-24p-10GE4	39.4 dB(A)	5.5 bels
X440-G2-48p-10GE4	48.7 dB(A)	6.4 bels
X440-G2-24t-10GE4-DC	28.1 dB(A)	4.3 bels
X440-G2-48t-10GE4-DC	37.9 dB(A)	5.4 bels
X440-G2-24x-10GE4	26.8 dB(A)	4.0 bels
X440-G2-24fx-GE4	24.7 dB(A)	3.9 bels
X440-G2-12t8fx-GE4	23.3 dB(A)	4.0 bels
X440-G2-24t-GE4	28.1 dB(A)	4.3 bels

*- At 25°C and 50% PoE Load where applicable

External Redundant Power Supplies For Non-PoE Switches

All X440-G2 series non-PoE switches ship with one fixed internal power supply. If redundancy is required, an external RPS can be attached to the switch.

Model Number	Description
RPS-90	External redundant power supply Unit 90 Watts with cable for X440-G2-12t-10GE4 , Power cord ordered separately, order 10947 C5 to C14 Converter to utilize a C13 power cord.
STK-RPS-150PS	150 watt non-PoE redundant power supply for A, B, C, X450-G2 and X440-G2 switches, power cord ordered separately.
STK-RPS-150CH2	2-Slot modular shelf for rack-mounting 150W redundant power supplies (STK-RPS-150PS).
STK-RPS-150CH8	8-Slot modular shelf for rack-mounting 150W redundant power supplies (STK-RPS-150PS).
RPS-150XT	External redundant power supply unit 150 Watts with cable - Extended Temperature Range from 0 to +60 degrees Celsius, power cord ordered separately.
STK-RPS-1005CH3	3-Slot modular shelf for rack-mounting 150W extended temperature redundant power supplies (RPS-150XT) or 1005W PoE+ redundant power supplies (STK-RPS-1005PS).
EPS-C2	External Power System Chassis 2. Accepts up to three 750W AC PoE PSU 48V power supplies. Accepts up to 5 EPSCBL-2x7 or up to 1 EPS-CBL-2x9 cables. Ships with one EPS-CBL-2x7 cable.
EPS-CBL-2x7	External Power System Cable (1M) that connects EPS-C2 to any X440 or X450-G2 non-PoE switch for providing redundant DC power.
750W AC PSU	AC Power Supply module for EPS-C2 Chassis Redundant Power Supply, power cord ordered separately.

External Redundant Power Supplies For PoE X440-G2 Switches

All X440-G2 series PoE switches ship with fixed internal power supplies.

RPS Use Table	RPS-90	STK-RPS-150PS	RPS-150XT	EPS-C2	RPS-500P	STK-RPS-1005PS
12t	X					
24t, 24x, 48t, 24fx, 12t8fx		X	X	X	X	
12p and 24p				X	X	
48p						X

RPS Model	Redundant Power Supply Output
RPS-90	Coaxial Barrel Connector
STK-RPS-150PS	1 terminal block of 2x7 pins - provides system power and up to 150 watts of power
RPS-150XT	1 terminal block of 2x7 pins - provides system power and up to 150 watts of power
EPS-C2	1 terminal block of 2x9 pins - used for other Summit switches 5 terminal blocks of 2x7 pins - used for Summit X440-G2's
RPS-500p	1 terminal block of 2x7 pins - provides system power and up to 380 watts of IEEE802.3at power
STK-RPS-1005PS	1 terminal block of 2x9 pins - provides system power and up to 740 watts of IEEE802.3at power

RPS Model	Allowable PSU	Power Cord Input Plug/Socket	Power Cord Gauge
RPS-90	Not Applicable	IEC 320 C5/C14	Min 18AWG/0.75mm ²
STK-RPS-150PS	Not Applicable	IEC 320 C13/C14	Min 18AWG/0.75mm ²
RPS-150XT	Not Applicable	IEC 320 C13/C14	Min 18AWG/0.75mm ²
EPS-C2	Summit 750W PoE AC PSU	IEC 320 C13/C14	Min 18AWG/0.75mm ²
RPS-500p	Not Applicable	IEC 320 C13/C14	Min 18AWG/0.75mm ²
STK-RPS-1005PS	Not Applicable	IEC 320 C13/C16	Min 16AWG/1.25mm ² (100-125VAC), Min 18AWG/.75mm ² (200-240VAC)

RPS Model	Weight	Dimensions
RPS-90	0.73 lb (0.33 kg)	Height: 1.06 inches (2.69 cm) Width: 5.20 inches (13.21 cm) Depth: 2.25 inches (5.72 cm)
STK-RPS-150PS	3.85 lb (1.75 kg)	Height: 2.04 inches (5.2 cm) Width: 7.7 inches (19.6 cm) Depth: 10.1 inches (25.7 cm)
RPS-150XT	3.22 lb (1.46 kg)	Height: 1.77 inches (4.50 cm) Width: 6.07 inches (15.42 cm) Depth: 13.00 inches (33.02 cm)
EPS-C2	2.27 lb (1.03 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 15.1 inches (38.4 cm)
RPS-500p	8.06 lb (3.66 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 7.9 inches (20.1 cm)
STK-RPS-1005PS	4.63 lb (2.1kg)	Height: 1.77 inches (4.5 cm) Width: 6.07 inches (15.42 cm) Depth: 13.39 inches (34.0 cm)

Warranty

- Ltd. Lifetime with eAHR - 2
- For warranty details, visit:
<http://www.extremenetworks.com/go/warranty>

Ordering Information

Part Number	Name	Description
16530	X440-G2-12t-10GE4	X440-G2 12 10/100/1000BASE-T, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license
16531	X440-G2-12p-10GE4	X440-G2 12 10/100/1000BASE-T POE+, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license
16531T	X440-G2-12p-10GE4-TAA	X440-G2 12 10/100/1000BASE-T POE+, 4 1GbE unpopulated SFP upgradeable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, TAA model
16532	X440-G2-24t-10GE4	X440-G2 24 10/100/1000BASE-T, 4 SFP combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license
16532T	X440-G2-24t-10GE4-TAA	X440-G2 24 10/100/1000BASE-T, 4 SFP combo, 4 1GbE unpopulated SFP upgradeable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, TAA model
16533	X440-G2-24p-10GE4	X440-G2 24 10/100/1000BASE-T POE+, 4 SFP combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license
16533T	X440-G2-24p-10GE4-TAA	X440-G2 24 10/100/1000BASE-T POE+, 4 SFP combo, 4 1GbE unpopulated SFP upgradeable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, TAA model
16534	X440-G2-48t-10GE4	X440-G2 48 10/100/1000BASE-T, 4 SFP combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+ (2 combo/2 non-combo), 2 1GbE copper combo upgradable to 10GbE, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license

Ordering Information (cont.)

Part Number	Name	Description
16535	X440-G2-48p-10GE4	X440-G2 48 10/100/1000BASE-T POE+, 4 SFP combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+ (2 combo/2 non-combo), 2 1GbE copper combo upgradable to 10GbE, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license
16535T	X440-G2-48p-10GE4-TAA	X440-G2 48 10/100/1000BASE-T POE+, 4 SFP combo, 4 1GbE unpopulated SFP upgradeable to 10GbE SFP+ (2 combo/2 non-combo), 2 1GbE copper combo upgradable to 10GbE, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS, TAA model
16536	X440-G2-24t-10GE4-DC	X440-G2 24 10/100/1000BASE-T, 4 SFP combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+, 1 Fixed DC PSU, 1 RPS port, ExtremeXOS Edge license
16537	X440-G2-48t-10GE4-DC	X440-G2 48 10/100/1000BASE-T, 4 SFP combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+ (2 combo/2 non-combo), 2 1GbE copper combo upgradable to 10GbE, 1 Fixed DC PSU, 1 RPS port, ExtremeXOS Edge license
16538	X440-G2-24x-10GE4	X440-G2 24 unpopulated 1000BASE-X SFP (4 combo), 4 10/100/1000 combo, 4 1GbE unpopulated SFP upgradable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license
16538T	X440-G2-24x-10GE4-TAA	X440-G2 24 unpopulated 1000BASE-X SFP (4 combo), 4 10/100/1000 combo, 4 1GbE unpopulated SFP, upgradeable to 10GbE SFP+, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, TAA model
16539	X440-G2-24fx-GE4	X440-G2 24 fixed 100BASE-FX LC connectors, 4 1GBASE-X unpopulated SFP, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, 0°C to 60°C operation
16540	X440-G2-12t8fx-GE4	X440-G2 12 10/100/1000BASE-T plus 8 fixed 100BASE-FX LC connectors, 4 1GBASE-X unpopulated SFP, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, 0°C to 60°C operation
16541	X440-G2-24t-GE4	X440-G2 24 fixed 10/100/1000BASE-TX , 4 1GBASE-X unpopulated SFP, 1 Fixed AC PSU, 1 RPS port, ExtremeXOS Edge license, 0°C to 60°C operation
16521	X440 Adv. Edge License	ExtremeXOS Advanced Edge License for X440/X440-G2 series switches
16522	X440 OpenFlow Feature Pack	ExtremeXOS SDN - OpenFlow Feature Pack for X440/X440-G2 series switches
16523	X440 Multimedia(AVB) Feature Pack	ExtremeXOS Multimedia Service (Audio Video Bridging) Feature Pack for X440/X440-G2 series switches
16542	Dual 10GbE Upgrade License	License that converts the two non-stack 1GbE SFP ports to be 10GbE SFP+
16543	Quad 10GbE Upgrade License	License that converts four 1GbE SFP ports to be 10GbE SFP+
16546	Quad 10GbE Lic from Dual 10GbE Lic	Software license that upgrades an already licensed X440-G2 Dual 10GbE switch to a Quad 10GbE switch
10301	10GBASE-SR SFP+	10GBASE-SR SFP+, 850nm, LC Connector, transmission length of up to 300m on MMF
10302	10GBASE-LR SFP+	10GBASE-LR SFP+, 1310nm, LC Connector, transmission length of up to 10km on SMF
10309	10GBASE-ER SFP+	10GBASE-ER SFP+, 1550nm, LC connector, transmission length of up to 40km on SMF
10303	SFP+ LRM Module	10 Gigabit Ethernet SFP+ module, 1310nm, legacy MMF 220m link, LC connector
10948	RPS-90	External Redundant Power Supply Unit 90 Watts with cable , Power cord ordered separately
10947	C5 to C14 Converter	Power dongle for converting an IEC C5 plug to IEC C14 plug - enables the use of to utilize a C13 power cord
STK-RPS-150PS	150W Non-PoE RPS	150 watt non-PoE redundant power supply for A, B, C and X450-G2 switches
STK-RPS-150CH2	2-Slot Modular Shelf	2-Slot Modular Shelf for rack mounting up to two 150 watt (STK-RPS-150PS) external redundant power supplies
STK-RPS-150CH8	8-Slot Modular Shelf	8-Slot Modular Shelf for rack mounting up to eight 150 watt (STK-RPS-150PS) external redundant power supplies
10932	RPS-150 XT	External Redundant Power Supply Unit 150 Watts with cable - Extended Temperature Range from 0 to +60 degrees Celsius, Power cord ordered separately
10923	RPS-500p	External PoE+ Redundant Power Supply Unit 500 Watts with cable, Power cord ordered separately
STK-RPS-1005PS	1005 W RPS	1005 watt 802.3at PoE external redundant power supply for C5 PoE and X440-48p switches
STK-RPS-1005CH3	3-Slot Modular Shelf	3-Slot Modular Shelf for rack mounting up to three of any combination of extended temperature 150 watt (10932 - RPS-150 XT) or STK-RPS-1005PS external redundant power supplies

Ordering Information (cont.)

Part Number	Name	Description
10936	EPS-C2	External Power System Chassis 2. Accepts up to three 750W AC PoE PSU 48V power supplies. Accepts up to 5 EPS-CBL-2x7 or up to 1 EPS-CBL-2x9 cables
10939	EPS-CBL-2x7	External Power System Cable (1M with 2x7 pin) that connects EPS to any X440 or X450-G2 for providing redundant power
10931	750W AC PSU	AC Power Supply module for EPS-C2 Chassis Redundant Power Supply
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 & 550 meters, LC connector, Industrial Temp
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, MMF 220 & 550 meters, SMF 10km, LC connector, Industrial Temp
10053H	1000BASE-ZX SFP, Hi	1000BASE-ZX SFP, SMF 70km, LC connector, Industrial Temp
10056H	1000BASE-BX-D BiDi SFP, Hi	1000BASE-BX-D SFP, 1490-nm TX/1310-nm RX wavelength, Industrial Temp
10057H	1000BASE-BX-U BiDi SFP, Hi	1000BASE-BX-U SFP, 1310-nm TX/1490-nm RX wavelength, Industrial Temp
10060	100FX/1000LX SFP2	100FX/1000LX SFP, SMF, LC Connector (Requires MCP and 6dB Attenuator for 100FX-MMF Operation) ²
10070H	10/100/1000BASE-T SFP, Hi ²	10/100/1000BASE-T, SFP, CAT 5 cable 100m, RJ-45 Connector, Industrial Temp ²
10071H	1000BASE-SX SFP 10 Pack, Hi	1000BASE-SX SFP 10 Pack, Industrial Temp
10072H	1000BASE-LX SFP 10 Pack, Hi	1000BASE-LX SFP 10 Pack, Industrial Temp
MGBIC-BX120-D	1000BASE-BX-D BiDi SFP 120Km	1 Gb, 1000Base-BX120-D Single Fiber SM, Bidirectional, 1590nm Tx / 1490nm Rx, 120 Km, Simplex LC SFP (must be paired with MGBIC-BX120-U), -40°C to +60°C
MGBIC-BX120-U	1000BASE-BX-U BiDi SFP 120Km	1 Gb, 1000Base-BX120-U Single Fiber SM, Bidirectional, 1490nm Tx / 1590nm Rx, 120 Km, Simplex LC SFP (must be paired with MGBIC-BX120-D), -40°C to +60°C
10063	100FX SFP ¹	100Mb, 100BASE-FX, MMF 2Km, LC ¹
10067	100BASE-FX SFP ¹	100BASE-FX SFP module, MMF 2km link, LC-connector for Fast Ethernet SFP Port ¹
10304	10GBASE-CR SFP+ 1m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 1m
10305	10GBASE-CR SFP+ 3m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 3m
10306	10GBASE-CR SFP+ 5m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 5m
10307	10GBASE-CR SFP+ 10m3	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 10m*
10325	DWDM SFP+	10 Gigabit Ethernet SFP+ Tunable DWDM module, SMF 80km, LC connector
10338	10Gb SFP+ 10GBASE-T4	10Gb SFP+, 10GBASE-T RJ45, 30m with Cat6a4
10GB-ZR-SFPP	10GB 80KM SFP+	10Gb, 10GBASE-ZR, SM, 1550nm, 80Km, LC SFP+
10GB-BX40-D	10 GB, SINGLE FIBER SM, -D 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-U)
10GB-BX40-U	10 GB, SINGLE FIBER SM, -U 40 KM	10Gb, Single Fiber SM, Bidirectional, 1270nm Tx / 1330nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX40-D)
10GB-BX10-D	10 GB, SINGLE FIBER SM, -D 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1330nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX10-U)
10GB-BX10-U	10 GB, SINGLE FIBER SM, -U 10 KM	10Gb, Single Fiber SM, Bidirectional, 1270nm Tx / 1330nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-D)
10GB-F10-SFPP	10 GB, ACTIVE OPTICAL DAC, 10 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 10m
10GB-F20-SFPP	10 GB, ACTIVE OPTICAL DAC, 20 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 20m

Ordering Information (cont.)

Part Number	Name	Description
MGBIC-BX40-D	1000BASE-BX40-D BIDIRECTIONAL SFP	1Gb, 1000Base-BX40-D Single Fiber SM, Bidirectional, 1490nm Tx / 1310nm RX, 40Km, Simplex LC SFP (must be paired with MGBIC-BX40-U), -40°C to +60°C
MGBIC-BX40-U	1000BASE-BX40-U BIDIRECTIONAL SFP	1Gb, 1000Base-BX40-U Single Fiber SM, Bidirectional, 1310nm Tx / 1490nm RX, 40Km, Simplex LC SFP (must be paired with MGBIC-BX40-D), -40°C to +60°C
MGBIC-BX10-D	1000BASE-BX-D SFP - 10KM	1Gb, 1000Base-BX10-D Single Fiber SM, Bidirectional, 1490nm Tx / 1310nm RX, 10Km, Simplex LC SFP (must be paired with MGBIC-BX10-U)
MGBIC-BX10-U	1000BASE-BX-U SFP - 10KM	1Gb, 1000Base-BX10-U Single Fiber SM, Bidirectional, 1310nm Tx / 1490nm RX, 10Km, Simplex LC SFP (must be paired with MGBIC-BX10-D)
I-MGBIC-LC03	Industrial 1000Base-LX 1310nm MMF Transceiver	-40°C to +60°C, 1Gb, 1000Base-LX, MM, 1310 nm, 2 km with 62.5 MMF, 1 km with 50 MMF, LC SFP
I-MGBIC-GSX	Industrial 1000Base-SX 850nm Transceiver	-40°C to +60°C, 1Gb, 1000Base-SX, IEEE 802.3 MM, 850nm Short Wave Length, 220/550m, LC SFP
I-MGBIC-GLX	Industrial 1000Base-LX 1310nm SM Transceiver	-40°C to +60°C, 1Gb, 1000Base-LX, MM - 550m, SM - 10 km, 1310 nm Long Wave Length, LC SFP, LC SFP

¹ - Supported in 24 SFP ports in 16538, not supported on SFP combo ports or SFP/SFP+ uplink ports.

² - Supported in 24 SFP ports in 16538, not supported on SFP combo ports, 1Gb Mode Only on SFP/SFP+ uplink port.

³ - Supported on 48 port 10GbE ports only ExtremeCloud Management - 16530, 16531, 16532, 16533, 16534 and 16535 switches are enabled for use with ExtremeCloud. For details and ordering part numbers for ExtremeCloud Management, see the ExtremeCloud datasheet.

⁴ Supported configuration is to populate every other SFP+ port in system, with a maximum of half the 10Gb SFP+ ports configured with 10GBASE-T transceivers. An adjacent SFP+ port should remain unused for every 10GBASE-T SFP+ installed



<http://www.extremenetworks.com/contact>

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ExtremeWorks® AHR Service

Service: ExtremeWorks Advanced Hardware Replacement Service (Next Business Day and 4 Hour Response)

Version: 2.1

Date: July 2018

Availability: Global

Order Code: 97004 and 97007

1.0 Service Overview

Extreme Networks Advanced Hardware Replacement Services offerings provide technical support, update and/or upgrade support, and advanced parts replacement for Covered Products (as defined herein) according to particular levels of purchase. Upon diagnosis of a reported failure, service offerings cover the replacement part arrival within the response time specified for the service level purchased, subject to the conditions defined herein.

Extreme service offerings further grant Customers telephone and web access to Extreme Networks Global Technical Assistance Center (“GTAC”) 24 hours a day, 365 days a year (24x7) to report problems, ask product-related questions and receive assistance for Extreme Networks hardware and Operational Software.

2.0 Service Levels

ExtremeWorks Advanced Hardware Replacement Services are available with the following response times depending upon the offering purchased:

Service Order Code	Service Levels	FRU Response Time*
97004	ExtremeWorks NBD Advanced Hardware Replacement	Next Business Day
97007	ExtremeWorks 4 Hour Advanced Hardware Replacement	24x7 - 4 Hours

*Diagnosis and troubleshooting required to identify the faulty Field Replaceable Unit (“FRU”) to be replaced must be completed prior to requesting the replacement FRU. The response time interval starts after the GTAC validates the customer’s request for a replacement FRU and assigns an RMA number.

3.0 Availability

ExtremeWorks Advanced Hardware Replacement Services, contracted for a defined period, are available globally from key business locations, subject to the conditions herein. Please refer to Appendix A for addition information on availability and restrictions by geography.

4.0 Deliverables

Each ExtremeWorks Advanced Hardware Replacement Service offer includes the following:

- **GTAC Technical Support** - 24x7 telephone support that provides technical assistance with diagnosis of defect or failures in the Extreme Networks hardware and Operational Software to conform to published documentation on Covered Products.
- **Escalation Management** - The GTAC is the escalation point for the customer for raising unsatisfactory conditions or immediate concerns associated with the service quality on Covered Products. Please see Appendix B for additional detail.
- **Advanced Shipment** - Extreme Networks provides for the advanced shipment of FRUs to the customer’s contracted sites within the contract response time on Covered Products. A request for a replacement FRU is validated by GTAC and a Return Material Authorization (RMA) number is assigned. Extreme Networks will pick, pack and dispatch the replacement FRU using a commercial delivery service to make the delivery to the customer’s contracted site. The replacement FRU will be delivered within the contracted response time, subject to the regional restrictions, response times, and diagnostic requirements identified in Appendix A.

- **Operational Software Updates and Upgrades –** Customer is entitled to receive any Operational Software or Operational Software upgrades that Extreme Networks may develop and generally release on Covered Products. Operational Software is defined as embedded software that is required to operate an Extreme Networks network device and is offered for sale as an inclusive component of such hardware network device product as described in Extreme Networks’ published price list applicable to such hardware product (“Covered Product”). Operational Software updates and upgrades may be obtained through Extreme Networks’ Website after establishing a web account and are only available for Covered Product that is registered and subject to Extreme’s standard published product documentation and support/ maintenance entitlements. Use of Operational Software updates and upgrades shall be subject to the ExtremeWorks Support Program Terms and Conditions, in addition to your applicable product license agreement and purchasing terms and conditions.

NOTE: Support for Application Software products, including subscription to include entitlement to major and minor releases of the Application Software products, if available, are not included with the ExtremeWorks Advanced Hardware Replacement Services. Subscription and support for Application Software must be ordered separately via ExtremeWorks Software Subscription services offerings as further published for availability in accordance with Extreme Networks’ then-current Price List (currently categorized as order code 97003).

- **Access to Extreme Networks’ Customer Support Website –** which may include, but is not limited to (i) status review of known hardware and software problems (ii) access to technical documentation (iii) ability to log a case (iv) status view of outstanding RMAs.

5.0 Extreme Networks Responsibilities

Extreme Networks is responsible for:

- Assisting with fault diagnosis required to identify the FRU to be replaced and to occur prior to assignment of the RMA number.
- Assigning an RMA number to each FRU to be replaced and notifying the customer of the relevant RMA numbers.
- Shipping an replacement FRU on an advance exchange basis to the customer’s location per the applicable availability and restrictions in Appendix A.

- Extreme Networks will measure and categorize the case priority level of software problems reported by the customer based on the impact on the network and in accordance with the classification definitions contained in Appendix B. If it is not clear which priority level applies, then the priority level assigned by the customer will be used. However, if a problem clearly belongs in a given priority level, then that level will be used. Case severity and level assignment will be determined in Extreme’s sole discretion.
- If Extreme Networks diagnoses that a reported problem is due to non-conformance to published specifications of a supported Operational Software version, then Extreme Networks will provide any Operational Software fix for the reported non-conformance available at the time the problem is reported, provided that customer is running on a version of Operational Software that is currently supported, as identified in the Extreme Networks Product End of Life Policy.

6.0 Customer Responsibilities

The Customer is responsible for:

- Advising Extreme Networks, in writing, of any change of location for Covered Products to ensure proper dispatch and delivery.
- Ensuring that all covered hardware is operational and up to the currently supported revision level before this service plan goes into effect. Failure to do so will exclude that hardware from coverage.
- Ensuring that the products are used and maintained in accordance with the applicable product documentation.
- Returning the defective FRU to an authorized Extreme Networks repair facility. In the event that you fail to return the defective FRU within ten (10) business days of receipt of the replacement FRU, Extreme Networks reserves the right to invoice you for such product or product component based on the current list price. Failure to return defective parts in a timely manner may result in the suspension of future advance hardware replacement service delivery from Extreme Networks.
- Providing, at Customer’s expense, reasonable access to the Product through the Internet or via modem to establish a data communication link between Customer and the Extreme Networks GTAC engineer. In addition, customer must provide systems’ passwords so that problems may be diagnosed and, where possible, corrected remotely.

- Using all reasonable efforts to maintain software products major releases installed at sites at the most current release level.
- Using the versions of Operational Software currently supported by Extreme Networks. If the Operational Software is a version other than that which is currently supported, as identified in the Extreme Networks Product End of Life and Support Plan End of Life Policy, the customer is required to purchase the required versions of the product to obtain support. Support for Application Software must be purchased separately under Software Subscription as defined in Extreme's then-current Price List, if available.
- Operational Software upgrades may be obtained through Extreme Networks' Web site after establishing a web account and are only available for the Covered Product that is registered. Use of Operational Software upgrades shall be subject to the terms and conditions of said software.
- Customer will maintain and backup all configuration data.
- The terms and conditions of Extreme's performance of support and services are as posted here. In the event of any conflict between the language in this Service Description Document and Extreme Networks published terms and conditions, Extreme Networks published terms and conditions shall govern.
- Unless required for operational reasons and elsewhere agreed between the customer and Extreme Networks, the replacement FRU will be at the then-current minimum hardware, software and software release levels as published by Extreme Networks.
- When the hardware or software is part of the same system, it must carry consistent service level coverage. This includes the chassis, modules, circuit packs, software and all other supportable components within the system configuration.

7.0 Assumptions

The following assumptions govern the delivery of ExtremeWorks Advance Hardware Replacement Service:

- Extreme Networks will make commercially reasonable efforts to ship, at its expense, a replaceable hardware FRU to arrive at the customer's designated location within the specified time frame and based on the parameters indicated in Appendix A. In certain geographies, the customer may be responsible for the cost of importing replacement product, including customs and duty fees. Please consult with Extreme Networks or your authorized Extreme Networks Services Partner to learn whether your location is included.
- For the purpose of providing support services, Extreme Networks will have the right at any time to audit a contracted site through software, remote polling or other reasonable means to verify the site's in-service inventory against the contracted equipment, to conform to the customer's network size and/or to verify the software eligibility status, except as otherwise may be prohibited by applicable law.
- FRU delivery is subject to the hours of coverage and response times as identified in Appendix A.
- If the customer's Operational Software is a version that is not currently supported, and the non-conformance is corrected in a supported version, then the customer will be advised to upgrade to obtain assistance. Extreme Networks will not incorporate software fixes or corrections into versions of Operational Software other than those currently supported in accordance with Extreme Networks' Product
- End of Life and Support Plan End of Life Policy. Extreme Networks does not represent or warrant that all nonconformance of the Operational Software can be corrected.

8.0 Exclusions

The following are completely out of the scope of ExtremeWorks Advance Hardware Replacement Services entitlements and are not included herein. Professional Services offerings may be available for purchase and Extreme reserves the right to charge for any costs incurred with performance of services affected by any of the following factors below.

- Extreme Networks is not required to provide any services for problems arising out of: (i) Company's failure to implement all Updates issued under the Services; (ii) alterations of or additions to the Products performed by parties other than Extreme; (iii) accident, natural disasters, terrorism, negligence, or misuse of the Products (such as, without limitation, fire, flood, water, wind, lightning or other acts of God, operation outside of environmental specifications or in a manner for which the Products were not designed); (iv) interconnection of the Products with other products not supplied by Extreme, or (v) certain components, including but not limited to the following: spare fan trays, blank panels, cables, cable kits, rack mount kits, brackets, antennas and consumable items.

- Extreme Networks shall only be obligated to support the then-current revision of the Products and the immediately prior revision. Support for any earlier versions or for other problems not covered under the Services may be obtained at then-current rates for special technical services and on Extreme Networks then-current terms and conditions for such services, subject to acceptance by Extreme Networks.
- Extreme Networks will have no liability or obligations for failure of the products to conform to published specifications resulting from the combination of the products with any third-party hardware or software not authorized in Extreme Networks published documentation or when caused by customer's inability to use the products if the products are operating substantially in accordance with published specifications.
- Service availability is subject to geographical limitations, as advised by Extreme Networks upon request. Extreme Networks will have no obligation to meet the response times outlined in the Appendix A if the customer's site is outside of the geographical zone of service availability. If the customer purchases this service for locations outside Extreme Networks advised geographical limitations, Extreme Networks will be required only to use commercially reasonable efforts to replace FRUs as soon as practical after receipt of a request from the customer.
- Services such as upgrades to hardware are excluded from the scope of this SDD and should be ordered separately.
- Labor charges for reinstalling the customer's system Operational Software (operational or application) or end user configuration software, other than what is provided in the customer's backup copy, are not included within the scope of this service. This is a separately charged and scheduled activity.
- This service does not include support and maintenance of any third party software or hardware not provided by Extreme Networks.
- This service offering and any subsequent service renewals are subject to the terms and conditions of Extreme Networks Product End of Life and Support Plan End of Life policy.
- New releases and upgrades for Application Software, or software releases, updates or upgrades otherwise out-of-scope as defined herein.
- Unless elsewhere agreed in writing between the customer and Extreme Networks in a separate contract, this service does not include root-cause analysis, the provision of fault reports or lead-time/performance metrics.

Appendix A

ExtremeWorks Advance Hardware Replacement Services Deliverables

Extreme Networks will make commercially reasonable efforts, at its expense (excluding any and all duties, taxes or government imposed fees if applicable) to see that the replacement hardware FRU arrives at the customer's designated location within the specified time period based upon the system's Response Service Level following completion of diagnostics and the assignment of an RMA Number. Extreme Networks will have no obligation to meet the response times outlined in the appropriate ExtremeWorks Service Description if the customer's site is outside the geographical zone of service availability. Extreme Networks is not responsible for any delays related to import/export or customs regulations or processes, or uncontrollable transportation issues including inability of the customer to allow the actual delivery of services. Delivery targets for RMA's including but not limited to oversized/heavy weight items may fall outside the posted SLA. A current list of Extreme authorized servicing depots that correspond to the defined ExtremeWorks services offerings, including expected delivery response, defined herein is available [here](#).

Next Business Day

Where Next Business Day Advanced Hardware Replacement Services is available, Extreme Networks must process the RMA relating to the defective product per the Advanced Exchange RMA Times section of the Extreme Networks Service Availability Matrix, Monday through Friday, in order to deliver the replacement product to your site, by the end of day of the Next Business Day. Otherwise Second Business Day delivery will be provided for RMA's approved after the time indicated.

Next Business Day delivery is generally available in these geographical locations:

- North America: United State and Canada
- EMEA: Most European Union Countries, Switzerland and South Africa
- LATAM: Argentina, Brazil, Columbia, Mexico
- APJC: Australia, China, India, Japan, Philippines

NOTE: Please check the Extreme Networks Service Availability Matrix for locations that may be excluded.

Where Next Business Day delivery of the part is not available, Advanced Hardware Replacement will ship on the same business day provided Extreme Networks processed the RMA relating to the defective product per the Advanced Exchange RMA Times section of the Extreme Networks Service Availability Matrix, Monday through Friday in order to ship the replacement product to your site, otherwise Next Business Day shipment will be provided for RMA's processed after the time indicated. Estimated delivery times to country are available via the Extreme Networks [Service Availability Matrix](#).

4 Hour

4 Hour Advanced Hardware Replacement Service is only available to you within one hundred (100) miles (160 kilometers) of an Extreme Networks parts depot. All 4 Hour support contracts require customer site location pre approval from Extreme Networks before Extreme Networks will accept a purchase order for the applicable 4 Hour support plan.

Email 4houravailability@extremenetworks.com for confirmation of service delivery availability.

Extreme Networks provides parts at customer's designated location provided that Extreme Networks has validated a Hardware failure and a Return Material Authorization (RMA) number has been assigned. Four-Hour Advanced Hardware Replacement response is available twenty-four (24) hours per day, seven (7) days per week, including Extreme Networks observed holidays.

Please work with your regional service sales manager to determine coverage.

Appendix B

Case Severity and Escalation Guidelines

Extreme Networks will measure and categorize the case priority level of hardware/software problems reported by the customer based on the impact on the network and in accordance with the classification in the table below. If it is not clear which case priority level applies, then the case

priority level assigned by the customer will initially be used. However, if a problem clearly belongs in a given case priority level as defined below, then that level will be used. Notwithstanding the foregoing, case severity and level assignment will be determined in Extreme's sole discretion.

Case Priority	Response Time	Restore time (Software fix or workaround)	Update Frequency
C1: Customer's network segment or management application is down or experiencing a consistent, measurable performance impact with no immediate resolution available	15 minutes	4 hours	Up to 4 hours
C2: Customer's network is experiencing intermittent failure or degradation of network or management application.	1 hour	1 day	Daily
C3: Customer has issues that do not affect normal network or management application operation and/or questions concerning product function or use.	8 hours	10 days	5 days
C4: Submission of a product enhancement /new feature request	Immediate Acknowledgment	N/A	N/A

If you do not believe that your support issue is being addressed to meet your business needs you may escalate your request by asking for the GTAC manager on duty.

Additional information on GTAC processes and procedures can be found at the Services tab from the Extreme Networks home page.

Support Life Cycle Communication Matrix

Notification Levels	C1 - Critical	C2 - High Priority	C3 - Medium Priority
Support Engineer	Immediate	Immediate	Immediate
GTAC Manager	Immediate	Immediate	10 days
Director, Global Technical Services	Immediate	48 hours	10 days
Vice President, Global Technical Services	2 hours	72 hours	20 days
Executive Management (CTO/EVP Eng)	4 hours	None	None

ExtremeWorks[®] Software and Global Technical Assistance Center (GTAC) Service

Service: ExtremeWorks Software and Global Technical Assistance Center (GTAC) Service

Version: 1.2

Date: July 2018

Availability: Global

Order Code: 97000

1.0 Service Overview

Extreme Networks Software and GTAC Service offering provides technical support and update and/or upgrade support, for Covered Products (as defined herein).

Extreme service offerings further grant Customers telephone and web access to Extreme Networks Global Technical Assistance Center (“GTAC”) 24 hours a day, 365 days a year (24x7) to report problems, ask product-related questions and receive assistance for Extreme Networks hardware and Operational Software.

2.0 Service Levels

ExtremeWorks Software and GTAC Support has the following Services Order Code:

Service Order Code	Service Levels
97000	Software and GTAC

3.0 Availability

ExtremeWorks Software and GTAC Service, contracted for a defined period, is available globally, subject to the conditions herein.

4.0 Deliverables

ExtremeWorks Software and GTAC service offering includes the following:

- **GTAC Technical Support** – 24x7 telephone support that provides technical assistance with diagnosis of defect or failures in the Extreme Networks hardware and Operational Software to conform to published documentation on Covered Products.

- **Escalation Management** – The GTAC is the escalation point for the customer for raising unsatisfactory conditions or immediate concerns associated with the service quality on Covered Products. See Appendix A for additional detail.
- **Operational Software Updates and Upgrades** – Customer is entitled to receive any Operational Software or Operational Software upgrades that Extreme Networks may develop and generally release on Covered Products. Operational Software is defined as embedded software that is required to operate an Extreme Networks network device and is offered for sale as an inclusive component of such hardware network device product as described in Extreme Networks’ published price list applicable to such hardware product (“Covered Product”).

Operational Software updates and upgrades may be obtained through Extreme Networks’ Website after establishing a web account and are only available for Covered Product that is registered and subject to Extreme’s standard published product documentation and support/maintenance entitlements. Use of Operational Software updates and upgrades shall be subject to the ExtremeWorks Support Program Terms and Conditions, in addition to your applicable product license agreement and purchasing terms and conditions.

NOTE: Support for Application Software products, including subscription to include entitlement to major and minor releases of the Application Software products, if available, are not included with the ExtremeWorks Software and GTAC Service. Subscription and support for Application Software must be ordered separately via ExtremeWorks Software Subscription services offerings as further published for availability in accordance with Extreme Networks’ then-current Price List (currently categorized as order code 97003).

- **Access to Extreme Networks' Customer Support Website** - which may include, but is not limited to (i) status review of known hardware and software problems (ii) access to technical documentation (iii) ability to log a case (iv) status view of outstanding RMAs.

5.0 Extreme Networks Responsibilities

Extreme Networks is responsible for:

- Extreme Networks will measure and categorize the case priority level of software problems reported by the customer based on the impact on the network and in accordance with the classification definitions contained in Appendix A. If it is not clear which priority level applies, then the priority level assigned by the customer will be used. However, if a problem clearly belongs in a given priority level, then that level will be used. Case severity and level assignment will be determined in Extreme's sole discretion.
- If Extreme Networks diagnoses that a reported problem is due to non-conformance to published specifications of a supported Operational Software version, then Extreme Networks will provide any Operational Software fix for the reported non-conformance available at the time the problem is reported, provided that customer is running on a version of Operational Software that is currently supported, as identified in the Extreme Networks Product End of Life and Support Plan End of Life Policy.

6.0 Customer Responsibilities

The Customer is responsible for:

- Ensuring that all covered hardware is operational and up to the currently supported revision level before this service plan goes into effect. Failure to do so will exclude that hardware from coverage.
- Ensuring that the products are used and maintained in accordance with the applicable product documentation.
- Providing, at Customer's expense, reasonable access to the Product through the Internet or via modem to establish a data communication link between Customer and the Extreme Networks GTAC engineer and provide systems passwords so that problems may be diagnosed and, where possible, corrected remotely.
- Using all reasonable efforts to maintain Operational Software products major releases installed at sites at the most current release level.

- Using the versions of Operational Software currently supported by Extreme Networks. If the Operational Software is a version other than that which is currently supported, as identified in the Extreme Networks Product End of Life and Support Plan End of Life Policy, the customer is required to purchase the required versions of the product to obtain support. Support for Application Software must be purchased separately under Software Subscription as defined in Extreme's then-current Price List, if available.

7.0 Assumptions

The following assumptions govern the delivery of ExtremeWorks

Software and GTAC Support:

- Acknowledging that the customer's right to use the Operational Software releases is subject to the software licensing terms of the applicable purchasing/licensing agreement under which the customer purchased/licensed its products from Extreme Networks, and any associated terms and conditions contained therein.
- For the purpose of providing support services, Extreme Networks will have the right at any time to audit a contracted site through software, remote polling or other reasonable means to verify the site's in-service inventory against the contracted equipment, to conform to the customer's network size and/or to verify the software eligibility status, except as otherwise may be prohibited by applicable law.
- If there is no available Operational Software fix, Extreme Networks will use reasonable commercial efforts to remedy such non-conformance, which may include a workaround or other temporary or permanent fix to the Operational Software, provided that the reported problem can be verified and/or recreated by Extreme Networks on the then current software version.
- If the customer's Operational Software is a version that is not currently supported, and the non-conformance is corrected in a supported version, then the customer will be advised to upgrade to obtain assistance. Extreme Networks will not incorporate software fixes or corrections into versions of Operational Software other than those currently supported in accordance with Extreme Networks' Product End of Life and Support Plan End of Life Policy. Extreme Networks does not represent or warrant that all nonconformance of the Operational Software can be corrected.

- Operational Software products major releases and upgrades are provided for distribution only to the customer for use on or with the Extreme Networks-supplied products on which they operate, in accordance with the Extreme Networks published specifications.
- Operational Software upgrades may be obtained through Extreme Networks' Web site after establishing a web account and are only available for the Covered Product that is registered. Use of Operational Software upgrades shall be subject to the terms and conditions of said software.
- Customer will maintain and backup all configuration data.
- The [terms and conditions](#) of Extreme's performance of support and services are as posted [here](#). In the event of any conflict between the language in this Service Description Document and Extreme Networks published terms and conditions, Extreme Networks published terms and conditions shall govern.
- When the hardware or software is part of the same system, it must carry consistent service level coverage. This includes the chassis, modules, circuit packs, software and all other supportable components within the system configuration.

8.0 Exclusions

The following are completely out of the scope of ExtremeWorks Software and GTAC Service entitlements and are not included herein. Professional Services offerings may be available for purchase and Extreme reserves the right to change for any costs incurred with performance of services affected by any of the following factors below.

- Extreme Networks is not required to provide any services for problems arising out of: (i) Company's failure to implement all Updates issued under the Services; (ii) alterations of or additions to the Products performed by parties other than Extreme; (iii) accident, natural disasters, terrorism, negligence, or misuse of the Products (such as, without limitation, fire, flood, water, wind, lightening or other acts of God, operation outside of environmental specifications or in a manner for which the Products were not designed); (iv) interconnection of the Products with other products not supplied by Extreme, or (v) certain components, including but not limited to the following: spare fan trays, blank panels, cables, cable kits, rack mount kits, brackets, antennas and consumable items.
- Extreme Networks shall only be obligated to support the then-current revision of the Products and the immediately prior revision. Support for any earlier versions or for other problems not covered under the

Services may be obtained at then-current rates for special technical services and on Extreme Networks then-current terms and conditions for such services, subject to acceptance by Extreme Networks.

- Extreme Networks will have no liability or obligations for failure of the products to conform to published specifications resulting from the combination of the products with any third-party hardware or software not authorized in the Extreme Networks published documentation or when caused by customer's inability to use the products if the products are operating substantially in accordance with published specifications.
- Labor charges for reinstalling the customer's system Operational Software (operational or application) or enduser configuration software, other than what is provided in the customer's backup copy, are not included within the scope of this service. This is a separately charged and scheduled activity.
- Services such as upgrades to hardware are excluded from the scope of this SDD and should be ordered separately.
- The customer acknowledges that any hardware upgrades, improvements or changes required to install or use an Operational Software product major release or update or any part thereof are charged separately from and are in addition to the charges of the current contract.
- This service does not include support and maintenance of any third party software or hardware not provided by Extreme Networks.
- This service does not include the repair or replacement of defective hardware. If Extreme Networks determines that defective Extreme Networks hardware causes a reported problem, then Extreme Networks will advise customer thereof. If the customer desires to remedy such defect, Extreme Networks and the customer will agree upon service at the Extreme Networks then-published per-incident rates, and subsequently Extreme Networks will recommend an appropriate annual hardware contract to the customer for consideration.
- This service offering and any subsequent service renewal is subject to the terms and conditions of the applicable Extreme Networks Product End of Life and Support Plan End of Life policy.
- New releases and upgrades for Application Software, or software releases, updates or upgrades otherwise out-of-scope as defined herein.
- Unless elsewhere agreed in writing between the customer and Extreme Networks in a separate contract, this service does not include root-cause analysis, the provision of fault reports or lead-time/performance metrics.

Appendix A

Case Severity and Escalation Guidelines

Extreme Networks will measure and categorize the case priority level of hardware/software problems reported by the customer based on the impact on the network and in accordance with the classification in the table below. If it is not clear which case priority level applies, then the

case priority level assigned by the customer will initially be used. However, if a problem clearly belongs in a given case priority level as defined below, then that level will be used. Notwithstanding the foregoing, case severity and level assignment will be determined in Extreme's sole discretion.

Support Level Objectives Matrix

Case Priority	Response Time	Restore Time (Software Fix or Workaround)	Update Frequency
C1: Customer's network segment or management application is down or experiencing a consistent, measurable performance impact with no immediate resolution available	15 Minutes	4 hours	Up to 4 hours
C2: Customer's network is experiencing intermittent failure or degradation of network or management application.	1 Hour	1 Day	Daily
C3: Customer has issues that do not affect normal network or management application operation and/or questions concerning product function or use.	8 Hours	10 Days	5 Days
C4: Submission of a product enhancement /new feature request	Immediate Acknowledgement	N/A	N/A

If you do not believe that your support issue is being addressed to meet your business needs you may escalate your request by asking for the GTAC manager on duty.

Additional information on GTAC processes and procedures can be found at the Services tab from the Extreme Networks home page.

Support Life Cycle Communication Matrix

Notification Levels	C1 - Critical	C2 - High Priority	C3 - Medium Priority
Support Engineer	Immediate	Immediate	Immediate
GTAC Manager	Immediate	Immediate	10 Days
Director, Global Technical Services	Immediate	48 Hours	10 Days
Vice President, Global Technical Services	2 Hours	72 Hours	20 Days
Executive Management (CTO/EVP Eng)	4 Hours	None	None



<http://www.extremenetworks.com/contact> / Phone +1-408-579-2800

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SmartPro 120V 3kVA 2.88kW Line-Interactive Sine Wave UPS, 2U, Extended Run, Network Card Options, LCD, USB, DB9

MODEL NUMBER: **SMART3000RML2U**



Description

Tripp Lite SmartPro Line Interactive UPS with enhanced LCD interface offers network-grade power protection for critical server, network and telecommunications equipment. Line Interactive Uninterruptible Power Supply (UPS) with built-in Auto-Voltage Regulation (AVR) actively corrects brownouts and overvoltages back to usable levels while maintaining a full battery charge in case of power failure. Tripp Lite's unique configuration excels in exceptionally poor-power environments with two separate levels of voltage boost to correct both slight undervoltages and severe brownout conditions. Interactive LCD interface reports UPS operating mode, detailed UPS and site-power data, plus enables a variety of UPS setup and configuration options. Super-fast switchover from line to battery power occurs within milliseconds to maintain operation of connected equipment without interruption or reboot. 96% line-mode efficiency offers reduced heat emissions and operating costs. Network management interfaces support communications via USB, RS-232 and optional Network Management Card option. HID-compliant USB port enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Network communications ports enable detailed monitoring of equipment load levels, self-test data and utility power conditions. PowerAlert UPS monitoring software is available via free download. Switched output load banks enable scheduled and real-time remote reboot and load shedding of select outlets. Emergency Power Off (EPO) interface. LCD display panel easily rotates for viewing in rackmount or tower configurations. Audible alarm with push-button momentary alarm-cancel and silent-mode configuration options. Programmable self-test. Field-replaceable, hot-swappable battery modules.

Features

- Tripp Lite SMART3000RML2U line interactive 2U rack/tower UPS with 3000VA / 3kVA capacity and extended runtime options
- Line interactive UPS with Automatic Voltage Regulation (AVR) corrects brownouts and overvoltages from 83 to 145V

Highlights

- 3kVA / 3000VA / 2880W line interactive 2U rack/tower UPS, Sine Wave
- Extended runtime options up to 2880W, 0.96 Power Factor, 4 post mounting kit
- USB, RS232, EPO and slot for network management card options
- 120V NEMA L5-30P input, 8 NEMA 5-15/20R & 1 L5-30R outlets
- To use the Auto Probe feature, this product requires a WEBCARDLX network interface (sold separately) running LX firmware update 15.5.2 or later

Package Includes

- SMART3000RML2U UPS system
- USB, Serial & EPO cabling
- 4 post rackmount installation kit
- Instruction manual



- NEMA L5-30P input plug; 8 NEMA 5-15/20R and 1 L5-30R output receptacles, Two independently switchable output load banks
- Maintains uninterrupted operation of connected networking equipment during blackouts, surges, brownouts and overvoltages
- High 96% efficiency rating in line-power mode offers reduced power consumption and BTU emissions
- Internal batteries offer 10 minutes at 50% load (1440W) and 3 minutes at 100% load (2880W)
- Extended runtime is available with optional BP48V24-2U (limit 1), BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible) external battery packs
- External battery configurations require the use of Tripp Lite's External Battery Configuration Software (see manual)
- Intelligent battery management system extends battery life
- Hot-swappable, user-replaceable internal batteries and external battery packs can be replaced with no disruption to connected equipment
- Front panel LCD monitoring screen with MODE and ENTER buttons reports operating mode with 5-bar battery charge graphic, plus 7 selectable screens of detailed UPS and site power information
- LCD interface also supports a number of advanced user setup and operating preferences
- Ships with 4 post rackmount installation hardware; Optional 2POSTRMKITWM enables 2 post rackmount/wallmount installation; Optional 2-9USTAND enables tower placement
- Built-in USB, RS-232 and slot for Network Management Card options; Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX and SNMPWEBCARD
- HID-compliant USB port enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- USB & Serial ports enable data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from www.tripplite.com/poweralert
- Built-in Emergency Power Off (EPO) interface with cable

Specifications

OVERVIEW	
UPC Code	037332144324
UPS Type	Line-Interactive
OUTPUT	
Output Volt Amp Capacity (VA)	3000
Output kVA Capacity (kVA)	3.00
Output Watt Capacity (Watts)	2880
Output kW Capacity (kW)	2.88
Power Factor	.96



Expandable Runtime	Yes
VOLTAGE REGULATION	
Voltage Regulation Description	Automatic voltage regulation (AVR) maintains line power operation with an input voltage range of 83 to 145
Overvoltage Correction	Input voltages between 127 and 145 are reduced by 12%
Undervoltage Correction	Input voltages between 108 and 96 are boosted by 12%
Severe Undervoltage Correction	Input voltages between 83 and 95 are boosted by 24%
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LCD Display	Front panel LCD information and configuration screen offers detailed UPS and site power status and operating data, plus configuration of voltage, operating mode, alarm function and a variety of additional options (see manual for detailed LCD configuration and monitoring options)
Switches	3 pushbutton switches control OFF / ON power status, MODE selection and MUTE / ENTER control functions
Alarm Cancel Operation	Power-fail alarm can be temporarily silenced using alarm-cancel switch; silent mode alarm configuration option available
Audible Alarm	Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions
SURGE / NOISE SUPPRESSION	
UPS AC Suppression Joule Rating	570
EMI / RFI AC Noise Suppression	Yes
AC Suppression Response Time	Instantaneous
PHYSICAL	
Cooling Method	Fan
Included Mounting Accessory Description	Included 4POSTRAILKIT mounting bracket enables installation in 4 post racks from 20.5 to 36 inches (521 to 914mm)
Installation Form Factors Supported with Included Accessories	4 post 19 inch rackmount
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITWM); 4 post rackmount short-depth (4POSTRAILKITWM); Tower (2-9USTAND); Wallmount (2POSTRMKITWM);
Minimum Required Rack Depth with External Battery Pack (cm)	66
Minimum Required Rack Depth with External Battery Pack (in.)	26
Minimum Required Rack Depth without External Battery Pack (cm)	62
Minimum Required Rack Depth without External Battery Pack (in.)	24.5



Optional Mounting Accessory Notes	Optional 2-9USTAND enables upright tower UPS placement; 2POSTRMKITWM enables wall-mount and 2-post rackmount installation; 4POSTRAILKITWM enables installation in 4-post short-depth racks from 14.5 to 23.5 inches (368 to 597mm); UPSHDEARKIT enables installation in 2 or 4-post racks using front vertical rails only, without rear support
Primary Form Factor	Rackmount
Primary UPS Depth (mm)	483
Primary UPS Height (mm)	89
Primary UPS Width (mm)	445
Rack Height	2U
Shipping Dimensions (hwd / cm)	22.35 x 60.96 x 54.10
Shipping Dimensions (hwd / in.)	8.80 x 24.00 x 21.30
Shipping Weight (kg)	39.92
Shipping Weight (lbs.)	88.00
UPS Housing Material	Steel
UPS Power Module Dimensions (hwd, cm)	8.89 x 44.45 x 48.26
UPS Power Module Dimensions (hwd, in.)	3.50 x 17.50 x 19.00
UPS Power Module Weight (kg)	33.02
UPS Power Module Weight (lbs.)	72.8
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	0 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	409
Battery Mode BTU / Hr. (Full Load)	1736
AC Mode Efficiency Rating (100% Load)	96%
COMMUNICATIONS	
Communications Interface	USB (HID enabled); DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
Network Management Cards	SNMPWEBCARD ; TLNETCARD ; WEBCARDLX
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions
PowerAlert Software	For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at http://www.tripplite.com/poweralert



Communications Cable	USB, DB9 and EPO cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
Network UPS Tools Compatibility	NUT compatible. See the full list of Tripp Lite NUT compatible UPS systems at http://www.networkupstools.org/stable-hcl.html?manufacturer=Tripp Lite
LINE / BATTERY TRANSFER	
Transfer Time	5 milliseconds (AC to battery mode), 1 millisecond (Battery to AC mode)
Low Voltage Transfer to Battery Power (Setpoint)	83
High Voltage Transfer to Battery Power (Setpoint)	145
SPECIAL FEATURES	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Hot swappable batteries
Green Energy-Saving Features	Greater than 95% efficiency - GREEN UPS; Individually controllable load banks; Schedulable daily hours of economy mode operation
CERTIFICATIONS	
UPS Certifications	Meets FCC Part 15 Category A (EMI); Tested to CSA (Canada); Tested to NOM (Mexico); Tested to UL1778 (USA)
WARRANTY	
Product Warranty Period (Worldwide)	2-year warranty, 3 year with registration. Note: Registration is required for 3-year warranty.
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance

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Highlights

Performance

- 48-port or 24-port Gigabit Ethernet models
- 4 ports of SFP+ 10GbE/1GbE or 4 ports of SFP 1GbE on front faceplate
- All configurations Non-blocking full duplex
- Copper and PoE-Plus models
- Built-in 21Gbps stacking ports on rear panel for all models (SummitStack-V84)
- Optional SummitStack-V 40 Gbps stacking across two 10Gb front-panel ports

Features

- Secure Network Access through Rolebased policy or Identity Management
- Front-to-Back airflow
- Modular PoE power supplies
- 850W of PoE-Plus budget with 1 PSU
- 1440W of PoE-Plus Budget with 2 PSUs
- Y.1731 OAM Measurements in hardware for accuracy
- Energy Efficient Ethernet - IEEE 802.3az
- Hot-swappable fan tray and PoE power supplies



ExtremeSwitching™ X450-G2

Scalable advanced aggregation switch with ExtremeXOS® modular operating system.

The ExtremeSwitching X450-G2 series is based on Extreme Networks revolutionary ExtremeXOS, a highly resilient OS that provides continuous uptime, manageability and operational efficiency. Each switch offers the same high-performance, nonblocking hardware technology, in the Extreme Networks tradition of simplifying network deployments through the use of common hardware and software throughout the network.

The X450-G2 switches are effective campus edge switches with IEEE 802.3at PoEplus. The X450-G2 series is also an option for DSLAM or CMTS aggregation, or for active Ethernet access.

Comprehensive Security Management

- Role-based policy and host integrity enforcement, and identity management
- Universal Port Dynamic Security Profiles to provide fine granular security policies in the network
- Threat detection and response instrumentation to react to network intrusion with CLEAR-Flow Security Rules Engine
- Denial of Service (DoS) protection and IP security against man-in-the-middle and DoS attacks to harden the network infrastructure
- Role-based Policy enables support for policy profiles to secure and provision network resources based upon the role the user or device plays within the network.

Flexible Port Configuration

All models come equipped with either 4 ports of SFP+ 10 GbE or 4 ports of SFP 1GbE resident on the faceplate of each model.

High-Performance Stacking

Up to eight X450-G2 switches can be stacked using two different methods of stacking: SummitStack-V, and SummitStack-V84. Each X450-G2 unit comes equipped with 2 ports of 21 Gigabit stacking ports via a QSFP interface. Standard passive 40Gb copper cables can be used for stacking X450-G2s together.

SUMMITSTACK-V — Flexible Stacking Over 10 Gigabit Ethernet

ExtremeXOS supports the SummitStack-V capability using 2 of the native 10 GbE ports on the faceplate as stacking ports, enabling the use of standard cabling and optics technologies used for 10 GbE SFP+. SummitStack-V provides long-distance stacking connectivity of up to 40 km while reducing the cable complexity of implementing a stacking solution. SummitStack-V is compatible with X440-G2, X450-G2 and X460-G2 switches with 10Gb uplinks, as well as X480, X670, X670V, X670-G2 and X770 switches. SummitStack-V enabled 10 GbE ports must be physically direct-connected with all switches running the same version of ExtremeXOS.

SUMMITSTACK-V84 — High-Speed Stacking Over Dedicated Stacking Ports

The X450-G2 also supports high-speed 84 Gbps stacking, which is ideal for demanding applications where a high volume of traffic traverses through the stacking links, yet bandwidth is not compromised through stacking. SummitStack-V84 is supported over passive copper QSFP cables (up to 7m). SummitStack-V84 is only supported on X450-G2 switches running the same version of ExtremeXOS.

Note: SummitStack-V84 is NOT interoperable with SummitStack-V80

Intelligent Switching

The X450-G2 Series supports sophisticated and intelligent Layer 2 switching, as well as Layer 3 IPv4/IPv6 routing including policy-based switching/routing, Provider Bridges, bidirectional ingress and egress Access Control Lists, and bandwidth control by 8 Kbps granularity both for ingress and egress.

IEEE 802.3AT PoE-Plus

IEEE 802.3af Power over Ethernet has been widely used in the campus enterprise edge network for Ethernet-powered devices such as wireless access points, Voice over IP phones, and security cameras. Ethernet port extenders such as Extreme Networks ReachNXT™ 100-8t can also utilize PoE, making installation and management easier and reducing maintenance costs. The newer IEEE 802.3at PoEplus standard expands upon Power over Ethernet by increasing the power limit up to 30 watts, and by standardizing power negotiation by using LLDP. The X450-G2 supports IEEE 802.3at PoE-plus and supports standards-compliant PoE devices today and into the future.

Role-Based Policy

Utilizing ExtremeManagement Policy Management, the role-based policy framework empowers a network administrator to define distinct roles or profiles that represent industry specific operational groups that may exist in an education or a business environment (e.g., administrator, teacher, student, guest). Each defined role is granted individualized access to specific network services and applications and these access privileges remain associated with users as they move across both wired and wireless network access points.

Users can be authenticated via IEEE 802.1X, MAC address, or web authentication, and then assigned a pre-defined operational role. Network operations can be seamlessly tailored to meet business-oriented requirements by providing each role with individualized access to network services and applications, thus aligning network resource utilization with business goals and priorities.

Audio Video Bridging

The X450-G2 series supports IEEE 802.1 Audio Video Bridging (AVB) to enable reliable, real-time audio/video transmission over Ethernet. AVB technology delivers the quality of service required for today's high-definition and time-sensitive multimedia streams.

Ordering Notes

The X450-G2 base switches do not ship with fan trays—these must be ordered separately. The X450-G2 PoE switches support modular power supplies and these must be ordered separately. The non-PoE X450-G2 switches have a fixed internal power supply so a power supply does not need to be ordered separately.

Specifications

Performance and Scale

Switch Model	Maximum Active Gbe Ports	Maximum Active 10Gbe Ports	21Gbps Stacking Ports	Aggregated Switch Bandwidth*	Frame Forwarding Rate*
X450-G2-24t-10GE4	24	4	2	212 Gbps	157.7 Mpps
X450-G2-48t-10GE4	48	4	2	260 Gbps	193.4 Mpps
X450-G2-24p-10GE4	24	4	2	212 Gbps	157.7 Mpps
X450-G2-48p-10GE4	48	4	2	260 Gbps	193.4 Mpps
X450-G2-24t-GE4	28	0	2	140 Gbps	104.2 Mpps
X450-G2-48t-GE4	52	0	2	188 Gbps	139.9 Mpps
X450-G2-24p-GE4	28	0	2	140 Gbps	104.2 Mpps
X450-G2-48p-GE4	52	0	2	188 Gbps	139.9 Mpps

*Includes stacking ports.

- Less than 4 microsecond latency (64-byte)
- Layer 2/MAC Addresses: 68K
- IPv4 LPM Entries: 16K
- IPv6 LPM (64-bit) Entries: 8K
- IPv6 LPM (128-bit) Entries: 256
- 4096 VLAN/VMANs*
- 9216 Byte Max Packet Size (Jumbo Frame)
- 128 load sharing trunks, up to 32 members per trunk
- 1,024 ingress bandwidth meters
- Ingress and egress bandwidth policing/rate limiting per flow/ACL
- 8 QoS egress queues/port
- Egress bandwidth rate shaping per egress queue and per port
- Rate Limiting Granularity: 8 Kbps
- Rate Limiting: Per Class of Service
- All ports Full Duplex - half duplex operation is not supported

*2 VLANs reserved for system use

Policy Capabilities

- Policy Profiles: 63
- Rules per Profile: Up to 1464
- Authenticated Policy Users per Switch: Up to 1024
- Authenticated Policy Users per Port: Up to 1024
- Unique Permit/Deny Rules per switch: 1464
 - MAC Rules: 512
 - IPv4 Rules: 512
 - IPv6 Rules: 256
 - L2 Rules: 184

Note: Policy and rule limits here reflect support available in EXOS 22.1.

Specifications (cont.)

External Ports

Switch Hardware	Ports
X450-G2-24t-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48t-10GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ-45) • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-24p-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48p-10GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-24t-GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48t-GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbp stacking ports on the rear panel
X450-G2-24p-GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48p-GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel

Specifications (cont.)

Physical

Switch Model	Weight	Physical Dimension
-G2-24t-10GE4 X450	13.71 lb (6.22 kg)	Height: 1 RU / 1.73 inches (4.4 cm) Width: 17.4 inches (44.2 cm) Depth: 19.2 inches (48.8 cm)
X450-G2-48t-10GE4	14.22 lb (6.45 kg)	
X450-G2-24p-10GE4	13.71 lb (6.22 kg)	
X450-G2-48p-10GE4	14.22 lb (6.45 kg)	
X450-G2-24t-GE4	13.93 lb (6.32 kg)	
X450-G2-48t-GE4	14.51 lb (6.58 kg)	
X450-G2-24p-GE4	13.93 lb (6.32 kg)	
X450-G2-48p-GE4	14.51 lb (6.58 kg)	
Front-to-Back fan module	1.0 lb (0.46 kg)	Height: 1.59 inches (4.04 cm) Width: 4.8 inches (12.2 cm) Depth: 6.2 inches (15.75 cm)

Note: Switch weights include installed fan module. PoE switches do not include PSUs.

* Please refer to the Summit Family Switches Hardware Installation Guide for packaged weight and dimensions.

CPU/Memory

- 64-bit MIPS Processor, 1 GHz clock, dual core
- 1GB ECC DDR3 DRAM
- 4GB eMMC Flash
- 4MB packet buffer

LED Indicators

- Per port status LED including power status
- System Status LEDs: management, fan and power
- 7 segment display of stack number

Power

Switch Model	Minimum Heat Dissipation (BTU/HR)	Minimum Power Consumption (Watts)	Maximum Heat Dissipation (BTU/HR)	Maximum Power Consumption* (Watts)
X450-G2-24t-10GE4	149.4	43.8	244.6	71.1
X450-G2-48t-10GE4	178.1	52.2	290.0	85.0
X450-G2-24p-10GE4	214.3	62.8	604.7 (@720W PoE)	847.2
X450-G2-48p-10GE4	238.8	70.0	778 (@1440W PoE)	1668
X450-G2-24t-GE4	149.4	43.8	244.6	71.1
X450-G2-48t-GE4	178.1	52.2	290.0	85.0
X450-G2-24p-GE4	214.3	62.8	604.7 (@720W PoE)	847.2
X450-G2-48p-GE4	238.8	70.0	778 (@1440W PoE)	1668

* For PoE switches, the value includes maximum PoE load through the switch

The Non-PoE Switches

	Fixed Internal Power Supply
Voltage Input Range	100-240 VAC †
Line Frequency Range	47 to 64 Hz
Power Supply Input Socket	IEC 320 C14
Power Cord Input Plug	IEC 320 C13
Operating Temperature	0° C to 50° C Normal Operation

PoE Power Supply Units (Only Front-to-Back Supplis Are Supported)

	715W AC PSU (10951)	1100W AC PSU (10941)
Dimensions	Height 40 mm (1.56 inches) Width 82.5 mm (3.25 inches) Depth 287 mm (11.3 inches)	Height 40 mm (1.56 inches) Width 82.5 mm (3.25 inches) Depth 287 mm (11.3 inches)
Weight	1.16kg (2.55 lbs)	1.16kg (2.55 lbs)
Voltage Input Range	100-127/200-240 VAC †	100-127/200-240 VAC †
Line Frequency Range	47 to 63 Hz	47 to 63 Hz
Power Supply Input Socket	IEC 320 C16	IEC 320 C16
Power Cord Input Plug	IEC 320 C15	IEC 320 C15
Operating Temperature	0° C to 50° C Normal Operation	0° C to 50° C Normal Operation

† - The power supplies will continue to operate +/- 10% of the rated input to accommodate temporary loss of input voltage regulation

PoE-Plus Power Budget

Switch Model	1 PSU of 715W	1 PSU of 1100W	2 PSUS of 715W	1 PSU of 715W and 1 PSU of 1100W	2 PSUS of 1100W
X450-G2-24p-10GE4	490W	720W	720W	720W	720W
X450-G2-48p-10GE4	490W	840W	1021W	1350W	1440W
X450-G2-24p-GE4	490W	720W	720W	720W	720W
X450-G2-48p-GE4	490W	840W	1021W	1350W	1440W
X450-G2-24p-10GE4	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X450-G2-48p-10GE4	16 ports @ 30W 31 ports @ 15.4W	24 ports @ 30W 48 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W
X450-G2-24p-GE4	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X450-G2-48p-GE4	16 ports @ 30W 31 ports @ 15.4W	28 ports @ 30W 48 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W

Environmental Specifications

- EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage
- EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation
- EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational
- EN/ETSI 300 753 (1997-10) - Acoustic Noise
- ASTM D3580 Random Vibration Unpackaged 1.5 G

Environmental Compliance

- EU RoHS: 2011/65/EU
- EU WEEE: 2012/19/EU
- China RoHS: SJ/T 11363-2006
- Taiwan RoHS: CNS 15663 (2013.7)

Operating Conditions

- Temp: 0° C to 50° C (32° F to 122° F)
- Humidity: 10% to 95% relative humidity, non-condensing
- Altitude: 0 to 5,000 meters (16,404 feet) - PoE switches

- Altitude: 0 to 2,000 meters (6,562 feet) - non-PoE switches
- Shock (half sine): 30 m/s² (3 G), 11 ms, 6 shocks
- Random vibration: 3 to 500 Hz at 1.5 G rms

Packaging and Storing Specifications

- Temp: -40° C to 70° C (-40° F to 158° F)
- Humidity: 10% to 95% relative humidity, non-condensing
- Packaged Shock (half sine): 180 m/s² (18 G), 6 ms, 600 shocks
- Packaged Vibration: 5 to 62 Hz at velocity 5 mm/s, 62 to 500 Hz at 0.2 G
- Packaged Random Vibration: 5 to 20 Hz at 1.0 ASD w/-3 dB/oct. from 20 to 200 Hz
- Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

Regulatory and Safety

- North American ITE
 - UL 60950-1 2nd Ed., Listed Device (U.S.)
 - CSA 22.2 #60950-1-03 2nd Ed. (Canada)
 - Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)
 - CDRH Letter of Approval (US FDA Approval)
- European ITE
 - EN 60950-1:2007 2nd Ed.
 - EN 60825-1:2007/IEC 60825 2007 Class 1 (Lasers Safety)
 - TUV-R GS Mark by German Notified Body
 - 2014/35/EU Low Voltage Directive
- International ITE
 - CB Report & Certificate per IEC 60950-1 2nd Ed. + National Differences
 - AS/NZX 60950-1 (Australia /New Zealand)

EMI/EMC Standards

- North American EMC for ITE
 - FCC CFR 47 part 15 Class A (USA)
 - ICES-003 Class A (Canada)
- European EMC Standards
 - EN 55022:2006+A1:2007 Class A
 - EN 55024:A2-2003 Class A includes IEC 61000-4-2, 3, 4, 5, 6, 11
 - EN 61000-3-2,8-2006 (Harmonics)
 - EN 61000-3-3 2008 (Flicker)
 - ETSI EN 300 386 v1.4.1, 2008-04 (EMC Telecommunications)
 - 2004/108/EC EMC Directive

- International EMC Certifications
 - CISPR 22: 2006 Ed 5.2, Class A (International Emissions)
 - CISPR 24:A2:2003 Class A (International Immunity)
 - IEC 61000-4-2:2008/EN 61000-4-2:2009 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria A
 - IEC 61000-4-3:2008/EN 61000-4-3:2006+A1:2008 Radiated Immunity 10V/m, Criteria A
 - IEC 61000-4-4:2004 am1 ed.2./EN 61000-4-4:2004/A1:2010 Transient Burst, 1 kV, Criteria A
 - IEC 61000-4-5:2005 /EN 61000-4-5:2006 Surge, 2 kV L-L, 2 kV L-G, Level 3, Criteria A
 - IEC 61000-4-6:2008/EN 61000-4-6:2009 Conducted Immunity, 0.15-80 MHz, 10V/m unmod. RMS, Criteria A
 - IEC/EN 61000-4-11:2004 Power Dips & Interruptions, >30%, 25 periods, Criteria C

Country Specific

- VCCI Class A (Japan Emissions)
- ACMA (C-Tick) (Australia Emissions)
- CCC Mark
- KCC Mark, EMC Approval (Korea)

Telecom Standards

- ETSI EN 300 386:2001 (EMC Telecommunications)
- ETSI EN 300 019 (Environmental for Telecommunications)
- CE 2.0 Compliant

IEEE 802.3 Media Access Standards

- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3ae 10GBASE-X
- IEEE 802.3at PoE Plus
- IEEE 802.3az (EEE)

Fan and Acoustic Noise

Switch Model	Acoustic Information	
X450-G2-24t-10GE4	Fixed AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 49.8 dB(A), 0C to 39C • 64.9 dB(A), 50C	Declared Sound Power (LWAd)** • 6.1 bels, 0C to 39C • 7.6 bels, 50C
X450-G2-48t-10GE4	Fixed AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 49.9 dB(A), 0C to 39C • 64.8 dB(A), 50C	Bystander Sound Pressure* • 49.9 dB(A), 0C to 39C • 64.8 dB(A), 50C
X450-G2-24p-10GE4	Dual 715W AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 51.1 dB(A), 0C to 39C • 65.5 dB(A), 50C	Declared Sound Power (LWAd)** • 6.2 bels, 0C to 39C • 7.7 bels, 50C
	Dual 715W AC PS with Front to Back (FB) Air Flow (with applied POE Load)	
	Bystander Sound Pressure* • 50.1 dB(A), 0C to 39C • 64.5 dB(A), 50C	Declared Sound Power (LWAd)** • 6.1 bels, 0C to 39C • 7.6 bels, 50C
X450-G2-48p-10GE4	Dual 1100W AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 50.8 dB(A), 0C to 39C • 65.4 dB(A), 50C	Declared Sound Power (LWAd)** • 6.2 bels, 0C to 39C • 7.6 bels, 50C
	Dual 1100W AC PS with Front to Back (FB) Air Flow (with applied POE Load)	
	Bystander Sound Pressure* • 56.5 dB(A), 0C to 39C • 66.8 dB(A), 50C	Declared Sound Power (LWAd)** • 6.8 bels, 0C to 39C • 7.8 bels, 50C

* Sound Pressure is presented for comparison per ISO 7779

**Declared Sound Power is presented in accordance with ISO-7779, ISO 9296 per ETSI/EN 300 753

Accessories

Modular Fan Tray for All x450-G2 Switches

- X460/X450-G2 fan module FB
 - Front-to-back airflow fan module for X460/X450-G2 series switches

External Redundant Power Supplies for Non-PoE Switches

All X450-G2 series non-PoE switches ship with one fixed internal power supply. If redundancy is required, an external RPS can be attached to the switch.

Modular Power Supplies for PoE X450-2 Switches

- STK-RPS-150PS
 - 150 watt non-PoE redundant power supply for X450-G2 switches
- EPS-C2
 - External Power System Chassis 2. Accepts up to three 750W AC PoE PSU 48V power supplies. Accepts up to 5 EPS-CBL-2x7 or up to 1 EPS-CBL-2x9 cables.

- EPS-CBL-2x7
 - External Power System Cable (1M) that connects EPS to any X440 or X450-G2 non-PoE switch for providing redundant DC power.
- 750W AC PSU
 - AC Power Supply module for EPS-C2 Chassis Redundant Power Supply

The STK-RPS-150PS can be rack mounted into the two slot RPS chassis STK-RPS-150CH2 where the power supplies are horizontally mounted or the eight slot RPS chassis STK-RPS-150CH8 where the power supplies are vertically mounted.

All X450-G2 series PoE switches support modular power supplies and do NOT ship with a power supply. Either a 715 watt or 1100 watt power supply needs to be added.

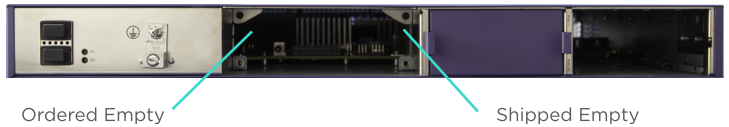
Only front-to-back power supplies and fans are certified for use in the X450-G2 PoE switches.

- 715W PoE AC PSU FB
 - 715W PoE AC PSU with front-to-back airflow is compatible with X450-G2-24p/48p switches and provides 500 watts of PoE-plus power budget per one supply. When two PSUs are installed, the total PoE-plus power budget becomes 1031 watts.
- 1100W PoE AC PSU FB
 - 1100W PoE AC PSU with front-to-back airflow is compatible with X450-G2-24p/48p switches and provides 850 watts of PoE-plus power budget per one supply. When two PSUs are installed, the total PoE-plus power budget becomes 1440 watts.

Non-PoE Switch - Fan Tray Must Be Ordered Separately



PoE Switch - Fan Tray and Power Supplies Must Be Ordered Separately



*Optional: Redundant or Additive Power Supply ordered separately
 **Required: First Power Supply ordered separately

Warranty

- Limited Lifetime with eAHR-2
- For warranty details, visit <http://www.extremenetworks.com/go/warranty>

Ordering Information

Part Number	Name	Description
16172	X450-G2-24t-GE4-Base	X450-G2 24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports, 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16173	X450-G2-24p-GE4-Base	X450-G2 24 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports, 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16174	X450-G2-48t-GE4-Base	X450-G2 48 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports (QSFP), 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16175	X450-G2-48p-GE4-Base	X450-G2 48 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports, 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16176	X450-G2-24t-10GE4-Base	X450-G2 24 10/100/1000BASE-T, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports, 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16177	X450-G2-24p-10GE4-Base	X450-G2 24 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports), 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16178	X450-G2-48t-10GE4-Base	X450-G2 48 10/100/1000BASE-T, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports, 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16179	X450-G2-48p-10GE4-Base	X450-G2 48 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports, 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16177T	X450-G2-24p-10GE4-FB-715-TAA	TAA 24 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports (QSFP), 2 power supply slots populated with 715W PS, fan module Front-to-Back, ExtremeXOS Edge license
16179T	X450-G2-48p-10GE4-FB-1100-TAA	TAA 48 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports (QSFP), 2 power supply slots populated with 1100W PS, fan module Front-to-Back, ExtremeXOS Edge license
16172T	X450-G2-24t-GE4-FB-TAA	TAA 24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports (QSFP), 1 Fixed AC PSU, 1 RPS port, fan module Front-to-Back, ExtremeXOS Edge license
16173T	X450-G2-24p-GE4-FB-715-TAA	TAA 24 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports (QSFP), 2 power supply slots populated with 715W PS, fan module Front-to-Back, ExtremeXOS Edge license

Ordering Information (cont.)

Part Number	Name	Description
Firmware Licenses		
16190	X450-G2 Edge to Advanced Edge Lic	ExtremeXOS Advanced Edge License for X450 series switches
16191	X450-G2 Core Lic from Edge Lic	ExtremeXOS Advanced Core License upgrade from Edge License for ExtremeSwitching X450-G2 series switches
16192	X450-G2 Core Lic from Adv Edge	ExtremeXOS Advanced Core License upgrade from Advanced Edge License for ExtremeSwitching X450-G2 series switches
11011	Direct Attach Feature Pack	Direct Attach Feature Pack
16200	X450-G2 OpenFlow FeaturePack	ExtremeXOS SDN - OpenFlow Feature Pack for X450 series switches
16169	X450-G2 Multimedia(AVB) Feature Pck	ExtremeXOS Multimedia Service (Audio Video Bridging) Feature Pack for X450 series switches
Accessories		
10941	1100W PoE AC PSU FB	1100 Watt AC PoE Power Supply module for X460-G2 and X450-G2 series switches with Front-to-Back airflow
10951	715W AC PSU FB	715W AC PoE Power Supply Module for X460-G2 and X450-G2 series switches with front to back airflow
10945	X460/X450-G2 fan module FB	Fan Module for X460-G2/X450-G2 Series Switches - front to back airflow
16777	Four Piece Rack Mount Kit, Spare	Spare Four Piece Rack Mount Kit compatible with X450-G2
STK-RPS-150PS	150W Non-PoE RPS	150 watt non-PoE redundant power supply for A, B, C and X450-G2 switches
STK-RPS-150CH2	2-Slot Modular Shelf for 150W RPS	2 slot modular shelf for rack-mounting STK-RPS-150PS external redundant power supplies horizontally
STK-RPS-150CH8	8-Slot Modular Shelf for 150W RPS	8 slot modular shelf for rack-mounting STK-RPS-150PS external redundant power supplies vertically
10936	EPS-C2	External Power System Chassis 2. Accepts up to three
10939	EPS-CBL-2x7	External Power System Cable (1M) that connects EPS to any Summit X440 for providing redundant DC power
10931	Summit 750W AC PSU	AC Power Supply module for EPS-C2 Chassis Redundant Power Supply
16777	Four Piece Rack Mount Kit, Spare	Spare Rack Mount Kit for X450-G2
Optical Transceivers and Direct Attach Cables		
10301	10GBASE-SR SFP+	10GBASE-SR SFP+, 850nm, LC Connector, transmission length of up to 300m on MMF
10302	10GBASE-LR SFP+	10GBASE-LR SFP+, 1310nm, LC Connector, transmission length of up to 10km on SMF
10309	10GBASE-ER SFP+	10GBASE-ER SFP+, 1550nm, LC connector, transmission length of up to 40km on SMF
10303	SFP+ LRM Module	10 Gigabit Ethernet SFP+ module, 1310nm, legacy MMF 220m link, LC connector
10325	Tunable DWDM SFP+	10 Gigabit Ethernet SFP+ Tunable DWDM module, SMF 80km, LC connector
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 & 550 meters, LC connector, Industrial Temp
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, MMF 220 & 550 meters, SMF 10km, LC connector, Industrial Temp
10053H	1000BASE-ZX SFP, Hi	1000BASE-ZX SFP, SMF 70km, LC connector, Industrial Temp
10056H	1000BASE-BX-D BiDi SFP, Hi	1000BASE-BX-D SFP, 1490-nm TX/1310-nm RX wavelength, Industrial Temp
10057H	1000BASE-BX-U BiDi SFP, Hi	1000BASE-BX-U SFP, 1310-nm TX/1490-nm RX wavelength, Industrial Temp
10060H	100LX/1000LX SFP, Hi ¹	Dual-speed 100 LX / 1000 LX SFP, LC connector, Industrial Temp ¹
10064	LX100 mini-GBIC	Mini-GBIC, SFP, Extra long distance SMF 100 Km/30 dB budget, LC connector
10065	10/100/1000BASE-T SFP	10/100/1000BASE-T SFP module, CAT5 cable 100m link, RJ45-connector for Gigabit Ethernet SFP Port.
10071H	1000BASE-SX SFP 10 Pack, Hi	1000BASE-SX SFP 10 Pack, Industrial Temp
10072H	1000BASE-LX SFP 10 Pack, Hi	1000BASE-LX SFP 10 Pack, Industrial Temp
MGBIC-BX40-D	1000BASE-BX40-D SFP	1 Gb, 1000Base-BX40-D Single Fiber SM, Bidirectional, 1490nm Tx / 1310nm Rx, 40 Km, Simplex LC SFP (must be paired with MGBIC-BX40-U), -40°C to +60°C
MGBIC-BX40-U	1000BASE-BX40-U SFP	1 Gb, 1000Base-BX40-U Single Fiber SM, Bidirectional, 1310nm Tx / 1490nm Rx, 40 Km, Simplex LC SFP (must be paired with MGBIC-BX40-D), -40°C to +60°C

Ordering Information (cont.)

Part Number	Name	Description
MGBIC-BX120-D	1000BASE-BX120-D SFP	1 Gb, 1000Base-BX120-D Single Fiber SM, Bidirectional, 1590nm Tx / 1490nm Rx, 120 Km, Simplex LC SFP (must be paired with MGBIC-BX120-U), -40°C to +60°C
MGBIC-BX120-U	1000BASE-BX120-U SFP	1 Gb, 1000Base-BX120-U Single Fiber SM, Bidirectional, 1490nm Tx / 1590nm Rx, 120 Km, Simplex LC SFP (must be paired with MGBIC-BX120-D), -40°C to +60°C
10310	ZR SFP+ module	10 Gigabit Ethernet SFP+ module, 1550nm, SMF 80km, LC connector
10311	QSFP+ passive copper cable, 0.5M	QSFP+ passive copper cable, 0.5M
10312	QSFP+ passive copper cable, 1.0M	QSFP+ passive copper cable, 1.0M
10313	QSFP+ passive copper cable, 3.0M	QSFP+ passive copper cable, 3.0M
10323	QSFP+ passive copper cable, 5.0M	QSFP+ passive copper cable, 5.0M
10338	10Gb SFP+ 10GBASE-T ²	10Gb SFP+, 10GBASE-T RJ45, 30m with Cat6a ²
10GBBX10-U	10KM 10 GB, SINGLE FIBER SM, -U 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-D)
10GB-BX10-D	10KM 10 GB, SINGLE FIBER SM, -D 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-U)
10GB-BX40-U	10KM 10 GB, SINGLE FIBER SM, -U 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-D)
10GB-BX40-D	10KM 10 GB, SINGLE FIBER SM, -D 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-U)
10GB-F10 SFPP	10 GB, ACTIVE OPTICAL DAC, 10 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 10m
10GB-F20-SFPP	10 GB, ACTIVE OPTICAL DAC, 20 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 20m
40GB-C0.5-QSFP	QSFP+ passive copper cable, 0.5M	40 Gb, Copper Direct Attach Cable with integrated QSFP+ transceivers, 0.5m
40GB-C01-QSFP	QSFP+ passive copper cable, 1.0M	40 Gb, Copper Direct Attach Cable with integrated QSFP+ transceivers, 1m
40GB-C03-QSFP	QSFP+ passive copper cable, 3.0M	40 Gb, Copper Direct Attach Cable with integrated QSFP+ transceivers, 3m
10304	10GBASE-CR SFP+ 1m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 1m
10305	10GBASE-CR SFP+ 3m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 3m
10306	10GBASE-CR SFP+ 5m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 5m
10307	10GBASE-CR SFP+ 10m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 10m
10336	3m QSFP+ Active Optical Cable	40 Gigabit QSFP+ active optical cable, 3m
10337	5m QSFP+ Active Optical Cable	40 Gigabit QSFP+ active optical cable, 5m
10315	10m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 10m length
10316	20m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 20m length
10318	100m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 100m length

Note: PoE Power Supplies and fan tray MUST be ordered separately. Only non-PoE switches ships with a fixed internal power supply

¹ 1Gb Mode Only

² Supported configuration is to populate every other SFP+ port in system, with a maximum of half the 10Gb SFP+ ports configured with 10GBASE-T transceivers. An adjacent SFP+ port should remain unused for every 10GBASE-T SFP+ installed.



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**Smith County School District
2020 E-Rate C2 Bid Tabulation
March 4th, 2020 1:00 p.m.**

Vendor	Cabling	Equipment	Managed Services
Synergetics	\$6,881 ⁰⁰	\$98,615.34	122 per hr Firewall - \$580 Caching - \$21,689 ⁰⁰

Synergetics was the only bid received and it was reviewed and determined to be cost effective. The bid met all requirements of the RFP - the Recommendation is to award to Synergetics

March 4th, 2020

PPRB
701 Woolford Building
501 North West Street
Jackson, MS 39201

Dear Chairman of the Board,

The Smith County School District received an approved waiver from the Reverse Auction process on February 5, 2020 for the procurement of E-Rate Category 2 Products and Services.

The District entered into a competitive bid process for procurement of E-Rate Category 2 eligible products and services following all E-Rate rules and regulations and State of Mississippi Procurement Law.

The District only received one (1) bid from Synergetics. The Synergetics proposal met all technical specifications and requirements of the RFP. Electronic Bid Submission was set up with QuestCDN as an alternative mechanism. The Synergetics bid was submitted via QuestCDN.

The bid received from Synergetics has been examined and evaluated for cost effectiveness, technical compliance and all other requirements of the RFP. The bid from Synergetics has been determined to be cost effective while meeting all requirements specified in the RFP. Please see the attached bid tabulation and bid evaluation matrix.

E-Rate requires that the bid be awarded, and a purchase agreement entered into before procurement of products and services utilizing E-Rate funding, therefore the Smith County School District requests approval of the acceptance of the Synergetics proposal and the attached proposed Purchase Agreement.

The proposed Purchase Agreement is contingent upon (1) the receipt of adequate funding from the Schools and Libraries Division of USAC as represented in a Funding Commitment Decision Letter and, (2) the availability of local funds from the District, and (3) the District's need for the products and services at the time of funding from USAC.

The Purchase Agreement also allows the District to increase or decrease quantities as necessary upon receipt of funding from USAC, availability of District's funds and the District's needs at the time of funding.

Sincerely,

Larry Bryant
Smith County School District
Technology Director

Agreement to Purchase

Addendum to Form 471: Intent to Purchase

**Smith County Consolidated School District
Entity Number 128632
Raleigh, MS**

Agreement # SCCSDSyn2020

After complying with all relevant purchasing laws and requirements of the State of Mississippi and the Schools and Libraries Division (SLD) of the Universal Service Administrative Company (USAC), and upon receipt of notification of funding from SLD, the Smith County Consolidated School District ('Purchaser") agrees to purchase from Synergetics ("Seller") the items and/or services designated in the Seller's bid response to the Purchaser's 2020-2021 Request for Proposals Erate Category 2 Project. The seller and purchase both agree to the terms and conditions set forth in the RFP and in the Synergetics' response to the RFP. The Purchaser reserves the right to increase or decrease quantities.

This Agreement is specifically contingent upon (1) the receipt of adequate funding from the Schools and Libraries Division of USAC as represented in a Funding Commitment Decision Letter and, (2) the availability of local funds from the Purchaser, and (3) the purchasers need for the products and services at the time of funding from USAC.

The term of this agreement will be from July 1, 2020 to June 30, 2025.

The foregoing terms are incorporated into the Form 471 Intent to Purchase.

Signed: _____

Signed: _____

Dated: _____

Dated: _____

Larry Bryant

Name of Vendor Representative: _____

Technology Director

Title of Vendor Representative: _____

Smith County Consolidated School District

Name of Vendor: Synergetics DCS, Inc.

Billed Entity Number 128632

Service Provider ID Number: 143004683