Fluvanna - Installation Costs - 2018 - #122405

Summary   Associated FRNs   Appeal Reviewers Summary   Documents   Comments   Review History   Review Note History   Related Requests   News   Related Actions

In-Review	Outreach	Wave Ready	Committed

⌄Appeal Information

View Statuses (+)

Funding Year   2018

Submitting Organization   FLUVANNA COUNTY SCHOOL DIST (BEN: 126483)

Created By   Robert Beck

Created On   9/13/2018 3:29 PM EDT

⌄Main Contact

Name   Robert Beck

Phone Number   267-352-0137

Email   rbeck@eratespecialist.org

⌄Narrative

We had previously appealed this under # 120391 as an M&C error - we had overlooked the installation costs until the application was funded. The request was to add $39,550 in installation charges as indicated in the Statement of Work (SOW) quotes, attached. The appeal was denied, stating that this did not qualify as an M&C appeal. However, in the explanation of the denial, the administrator cites a series of FCC directive relating to M&C errors, and one of the lines mentions "...failing to enter an item from the source list onto the application." That was the case here, and so the USAC explanation seems to contradict that FCC directive.

⌄Appeal Details

Decision appealed by applicant   Revised Funding Commitment Decision Letter

Type   FCC Referral

Category   Data Entry Errors

If you wish to modify or cancel your appeal, or, if you have any questions about your appeal, please contact the E-rate Program's Client Service Bureau (CSB) at (888) 203-8100.

View Supporting Documentation (+)

March 2, 2018

**Fluvanna County Public Schools
Fiber Project – Switches, Firewall and 10G
Backbone**

BBB. Start With Trust | THE TORCH AWARD

Microsoft® GOLD CERTIFIED *Partner*

CISCO Gold Partner

John Billups

SyCom Technologies

Contents

Fluvanna County Public Schools 10G Fiber Backbone Project

Contact Information

Table 1   Contact Information

Contact	Contact Data
Account Manager	Joanna Laramore 1801 Bayberry Court, Suite 302 Richmond, VA 23226 804-474-5282 jlaramore@sycomtech.com https://www.sycomtech.com
Client / Customer	Fluvanna County Public Schools Joshua Gifford 14455 James Madison Highway Palmyra, VA 22963 434-591-2078 jgifford@apps.fluco.org http://fluco.org/

History

Table 2   Revision History

Version No.	Issue Date	Status	Author	Reason for Change
1.0	3/02/2018	Final	John Billups	

Review

Table 3   Revision Review

Reviewer's Details	Version No.	Date
Tom Ball	1.0	03/02/2018

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1.0

Executive Summary

Fluvanna County Public Schools has requested SyCom Technologies (SyCom) to design and implement the network components necessary to support Multi-10G fiber links from all county schools, the Bus Shop, and the School Board Office utilizing the new fiber backbone. All sites will connect via multiple 10G connections to the Core in the Abrams building. Additionally, Fluvanna County Public Schools is increasing their Internet bandwidth and is upgrading the firewalls with Palo Alto Next Generation firewalls with capabilities to handle the increased throughput, and features that will replace the existing Intrusion Prevention System and existing URL filter. Through several customer meetings and high-level design sessions, this Statement of Work (SOW) was created to provide Fluvanna County Public Schools with additional details into the process of implementing the new fiber backbone and internet perimeter security.

SyCom has prepared this SOW to plan and execute the 10G Fiber Backbone Project. As a trusted technology advisor, SyCom works with customers to identify current state, desired state and a clear path to success. Our experienced team combines technical acumen with an understanding of customer business needs. The result is a solution that maximizes the customer's return on investment.

Business Requirements

The capturing of relevant business requirements for technology implementation projects is key to SyCom's success in this endeavor. The following items are key business requirements:

- Multi-10G connectivity between all schools to the CORE.
- Minimized Single points of failure by utilizing multi-chassis ether-channel and high availability design and implementation best practices.
- Next Generation Firewalling solution to service increased internet bandwidth and provide improved solution for IPS, URL Filtering and VPN access.
- Firewall solution must provide capabilities to displace the current Iboss content filter and Iboss reporter to include the following:

    o CIPA compliancy: which includes blocking or filtering Internet access to pictures that are: (a) obscene; (b) child pornography; or (c) harmful to minors (for computers that are accessed by minors).

        Palo Alto document regarding CIPA:
        https://media.paloaltonetworks.com/documents/CIPA_Compliance.pdf

    o Differentiated content filtering capabilities to apply different policies to ten logical groups of users.
    o SSL decryption capabilities to assist with the URL filtering.
    o Reporting capabilities to identify access to inappropriate online content with capabilities of at least two weeks of detailed reporting.

- o Capability to apply internet QOS, giving priority during saturation to testing applications and primary operations while throttling down and limiting the guest network that secondary students use for personal devices.

Solution Overview

The solution envisioned to solve these problems will include the following items:

- Replacement of the Core Catalyst 4500 chassis switch in the Abrams Building with a new Cisco Catalyst 9400 with dual supervisors, redundant power supplies and high density of 10G SFP+ ports.
- Installation and implementation of a high availability pair of Palo Alto Networks 5220 Next Generation Firewalls to replace the existing Cisco ASA firewalls, the Iboss content/URL filter and the Iboss reporter.
- Adding one UPS with internal redundancy and adding PDU's for the new Abrams Equipment rack.
- Providing additional four post rack in the Abrams data room for the new Core switch, firewalls, Uninterrupted Power Supply (UPS) and PDU's to be installed by FCPS.
- Adding a 12 port 10G SFP+ module to the existing Cisco Catalyst 4500 chassis switch in the High School to increase 10G port density and provide high availability for uplinks (i.e. remove dependency on a single line card.)
- Adding a 12 port 10G SFP+ Cisco Catalyst 3850 switch to the existing switch stack at Central Elementary School to provide required 10G port density.
- Replacing the School Board Office single 3850 switch with a stack of two Cisco Catalyst 9300 switches to increase the port counts at the SBO and provide high availability for the uplinks. (this is being done in a separate project)
- Moving the SBO Cisco Catalyst 3850 switch to the Bus Shop to provide networking in the facility. (this is being done in a separate project)
- Connecting the High School, School Board Office, Central Elementary, Carysbrook Elementary and the Bus Shop to the new Cisco Catalyst 9400 switch in the Abrams Building. Each site will connect via four 10G links. **
- 10G SFP+ Single Mode SFP+ modules required for the backbone links. The proposed SFP-10G-LR-S optics support fiber distances up to 10km (6.2 miles). If any lengths exceed this, other optics are available to extend for an additional cost.

SyCom Project Methodology

Successful technology implementation is provided through the use of the SyCom Project Methodology. This methodology represents our collective knowledge and experience on how to produce successful outcomes. The proposed work will be separated into the following project phases:

Phase 1 – Project Initiation

This phase consists of providing communication channels between SyCom and Fluvanna County Public Schools. During this Phase, the following goals will be achieved:

- Kick-off meeting will be scheduled
- Introduction of the SyCom Project Manager
- Identify team members, roles, and responsibilities
- Define the escalation procedures
- Define the change control process
- Identify key project milestones

Phase 2 – Discovery / Design Development

During this phase, SyCom will meet with the Fluvanna County Public Schools staff members to finalize the requirements for this project. SyCom will hold appropriate meetings or design sessions to gather and document the requirements of this project, carefully mapping these requirements toward business and end-user goals.

As a part of this project the following key elements will be collected:

- Existing Abrams 4500 configuration
- Existing Central 3850 switch configuration
- Existing HS 4500 configuration
- Fiber connectivity details
- IP addressing/vlan details
- Details/documentation for existing firewall, IPS and URL filtering – ASA configurations, IBoss configurations, etc.

During this phase, SyCom will provide the following deliverables. Each must be approved by Fluvanna County Public Schools before proceeding to the next phase:

- Low Level Design (LLD) – This will provide the details of the overall design of how the network will be implemented.
- Implementation and Deployment Plan (IDP) – This document will detail each task that will be performed with dependencies and timelines for the Implementation.
- Test and Acceptance Plan – SyCom will document the testing steps that will be performed to validate the infrastructure implementation. This plan should also include testing plans for Fluvanna County Public Schools that can validate that the key, mission critical applications are functional and performing properly.

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Phase 3 – Configuration

SyCom will stage the installation before going live. In this phase, SyCom will place configurations onto equipment and install software particular to the requirements in Phase 2. As a part of this phase, SyCom will also complete:

- Inventory Management – Receiving equipment, logging, vendor management, and reporting.

- Assembly – Installing any internal components such as network interfaces and making all required connections.

    o Install one UPS in new rack

    o Install one PDU in new rack

    o Verify Power (provided by FCPS) in new rack

    o Install Abrams Cisco Catalyst 9400 in new rack

    o Install SFP+ in new switch and connect to new fiber connections (20 connections - 4 each - HS, Central, Carysbrook, SBO, Bus Shop)

    o Rack Palo Alto's in new rack

- Load – Installing any required operating systems, applications, utilities.

- Configuration – Setting all hardware and software options in accordance with prescribed manufacturer instructions.

    o Preconfigure Abrams Catalyst 9400 to replace 4500

    o Prep 3850 switch for Central

    o Prepare for code upgrade on Central 3850 existing switch

    o Upgrade code on new switches to current stable releases

    o Prepare configuration template for new line card in HS 4500

    o Palo Alto configuration/migration

- Test – Executing test plans according to customer-specified rules to verify the system or device is functioning properly.

- Returns – Upon test failure and inability to resolve the failure, equipment will be returned for under-warranty replacement.

- Solution Delivery – Asset tagging and reporting, when requested, in accordance with customer-specified guidelines. Consolidated shipments to designated end-user locations.

Phase 4 – Training

Part 1 - Administrator Training

SyCom will provide informal training on the Palo Alto Next Generation firewall. The following topics will be discussed:

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- Overview of Management
- URL Filtering
- Global Protect VPN

Part 2 - End User Training
- End User training is not included in this SOW.

Phase 5 – Service Migration / Implementation

Migration to the new solution will be defined in the Implementation and Deployment Plan created and agreed to in Phase 2. In general, the following tasks are envisioned to be accomplished in this phase:

High School
- Add Fiber Line Card to HS 4500 Switch
- Install SFP+'s in HS switch and connect to new fiber for 10G to Abrams (4)
- Perform image upgrade to recommended release

ABRAMS
- Migrate patch cables from existing switch to new 9400

Central ES
- Perform image upgrade on Central 3850 switch (prior to adding new switch)
- Add new Catalyst 3850 to Central switch stack
- Install SFP+'s in Central 3850 and connect to new fiber for 10G to Abrams (4)

Carysbrook
- Install SFP+'s in existing 3850 and connect to new fiber for 10G to Abrams (4)

TURN UP 10G at HS, Central, Carysbrook, SBO, BUS SHOP
- May have to visit SBO & Bus Shop
- Day One on-site support after 10G turnup.

PALO ALTO
- Firewall Migration to Palo Alto's
- Configure High Availability
- Enable SSL Decryption
- Define Threat, Antivirus, and Malware policy. Configure update schedule.
- Enable Zone Protection
- UserID Integration with Active Directory
- Content Filter migration from IBoss to Palo Alto
- Setup required alerting
- Day One Support after Firewall migration

Phase 6 – Validation / Testing

This section describes the test and acceptance plan set forth by SyCom and Fluvanna County Public Schools. Test and Acceptance documents will be created and agreed upon by SyCom and Fluvanna County Public Schools during the discovery and design phase. This document will be used to confirm Fluvanna County Public Schools acceptance of the solution installed. Client sign-off on testing is a requirement of moving to the next phase.

At this point, SyCom considers the system implementation fully complete. The following two weeks will be used to determine potential gaps that exist in the Statement of Work and bring them to the attention of the project manager for remediation.

Upon successful handoff from the SyCom project team to Fluvanna County Public Schools, the network becomes the responsibility of Fluvanna County Public Schools. (Note: Unless the customer has purchased continuing support from SyCom.)

Phase 7 – Documentation / Deliverables

SyCom will provide Fluvanna County Public Schools with all documentation compiled during the project. The documentation will be provided to electronic format. The documentation will include the following:

- All documents will be provided in Microsoft Office formats including Visio, Word and Excel. PDF copies will also be provided if requested.

Phase 8 – Project Closeout

Project closure occurs 14 days after Testing and Acceptance and when Fluvanna County Public Schools and SyCom have determined that the project tasks are completed. SyCom will ask the project sponsor on record for a decision to close the project at that time. A list of outstanding issues and defects will be provided to the project sponsor at the time of project closure.

At the desire of Fluvanna County Public Schools, SyCom may continue to provide support beyond any post implementation support described herein, but such support will be considered out of scope for this agreement.

Project-specific Assumptions

The following assumptions are made on the part of SyCom based upon conversations conducted or define areas that are the responsibility of the customer.

- Administrator training is limited to 8-hours.
- Patch cables are the responsibility of Fluvanna County Public Schools (i.e., were not included in the equipment quote).
- SOW is written in compliance with VASCUPP Cooperative Purchasing Contract GMU-1288-16-06 (https://vascupp.org/upload/GMU-1288-16-06.pdf).

- SOW includes up to nine (9) on-site visits and zero (0) overnight stays.
- SOW includes up to four (4) project status meetings.

Assumptions

The following assumptions are made on the part of SyCom to either ensure successful project completion or define areas that are considered to be the responsibility of the customer.

- The customer will be available to participate actively as appropriate during each work phase.
- The customer will designate a single point of contact to whom all SyCom communications may be addressed and who has the authority to act on all aspects of the services. Such contact shall be available during normal hours of business (Monday through Friday 8:30am to 5:00pm local time excluding observed holidays).
- The customer agrees to provide SyCom with reasonable access to the required work sites and facilities, including where applicable: computer equipment, telecom equipment, facilities, work space and telephone for SyCom's use during the project.
- Full/complete backups of all current elements of the environment at the customer's site locations are functional and available.
- SyCom has made a "good faith" effort to provide the customer with an accurate representation of the hardware, software and services required for successful project planning. Any licensing/products not identified through the preliminary discovery performed to generate this statement of work and deemed necessary for the implementation/migration will be the responsibility of the customer to obtain. SyCom is not responsible for software license compliance.
- The customer will review and approve all proposed upgrade plans before implementation.
- The customer agrees to provide technical staff or end user(s) to perform system testing once the installation is complete.
- The customer agrees to, when requested by SyCom, provide the required building layouts, including the floor plan, cabling and power locations for all applicable sites.
- The customer agrees that any delays caused by any telecommunications carrier affecting the installation, termination, provisioning or activation of circuits may result in the customer being billed for out-of-scope work.
- The customer agrees to provide all the cabling required to complete the installation that is not included with this equipment. Cabling will be delivered to the installation site prior to the arrival of the SyCom resource. This includes desktop patch cords, closet patch cords, patch panels, etc. All cabling longer than 20 feet will be installed by the customer and will be labeled with an indication of what connectivity the cabling supports.
- The customer agrees to prepare the installation site. In particular, ensure that proper environmental conditions are met and adequate power is available. On-site installation delays caused by the lack of completed site preparation may result in the customer being billed for out-of-scope work.

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- The customer will notify SyCom of any schedule changes within five (5) business days of any scheduled activity. Scheduling changes and/or cancellations made after this five (5) day window may result in out-of-scope charges to the project.
- SyCom will not be held responsible for data loss due to insufficient or incomplete customer backups. All data backups are the responsibility of the customer. Backups should be performed and verified prior to project commencement.
- SyCom does not maintain copies of any project documentation for longer than 60 days past project closeout unless an active continuing support contract is in place.
- Services do not include resolution of software or hardware problems resulting from third party equipment or services or problems originated through circumstances beyond SyCom's control.
- If at any point in the execution of this Statement of Work, SyCom must contact the manufacturer Technical Assistance Center (TAC) or manufacturer licensing group on behalf of the customer, time spent will be considered out of the scope of this project and not part of the attached project cost.
- Unless otherwise stated, all diagrams will be provided in Visio format and all documentation will be provided in Microsoft Word or Portable Document format.

Project Management Services

SyCom is committed to utilizing Project Management methodologies needed to support the successful deployment and completion of this Statement of Work. These services include but are not limited to:

- Project kickoff meeting
- Resource scheduling management
- Issues management
- Risk identification and mitigation
- Scope management (please refer to the Change Management section of this SoW)
- Project costing / budget analysis
- Project status meetings
- Project closeout meeting / punch list management

Work Day/Hours Expectations

SyCom will perform the defined work within the normal working hours of 8:30 a.m. to 5:00 p.m., Monday through Friday, excluding holidays. Work will be performed at the customer site and at SyCom offices. Service Migration tasks that are service affecting will occur during non-business (non-normal) hours. Requests for working after hours, weekend hours or holiday hours must be submitted to and approved by the SyCom Project Manager prior to the work being performed. Work performed during these hours and work performed outside of this statement of work may be subject to the Change Management Process outlined in this SOW.

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Travel Time/Reimbursement Expectations

All included travel time is outlined in the Project Specific Assumptions Section of this SOW. Any additional travel time will be subject to the Change Management Process outlined in this SOW.

Expense Reimbursement Expectations

All included travel expenses are outlined in the Project Specific Assumptions Section of this SOW. Any additional travel time will be subject to the Change Management Process outlined in this SOW.

Project Investment

Based on the assumptions and services stated above and the anticipated work effort shown below, the Fixed Fee cost required to complete the project including local travel and expenses is **$32,920.00**. Expenses and any work performed outside of this scope of work will require a change order and must be pre-approved by the customer.

Payment Terms

Payment is due Net30 from the date of the invoice.

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Project Billing

Project billing will occur according to the following schedule.

Project Phase	Amount
Phase 1 – Project Kickoff / Initiation (50%)	$16,460.00
Phase 8 – Project Closeout (50%)	$16,460.00
Total	**$32,920.00**

Change Management

Changes requested and made to any of the following will be subject to a Change Order Request that may add additional cost to the project and will be passed through to the customer.

- Adding phases, tasks, deliverables, equipment or additional resources to the project that result in additional labor hours
- Issues arising from environmental, architectural or infrastructural conditions not identified or known at the time of sign-off
- 3rd party issues that are not under SyCom's control

A Change Order Request will be sent to the customer for review and approval prior to the work being performed. If it is determined that the work is time sensitive and critical in nature, a Change Order Request may follow work already completed. In these cases, customer approval occurs upon request that the work be done and formal written approval to add additional labor cost will not be required.

Statement of Work Authorization

Agreed to and accepted by:

SyCom Technologies   **Fluvanna County Public Schools**

Signature: _____   Signature: _____

Name: _____   Name: _____

Title: _____   Title: _____

Date: _____   Date: _____

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1.0

March 2, 2018

**Fluvanna County Public Schools
SBO and Bus Shop Switch Upgrades**

John Billups

SyCom Technologies

Contents

Fluvanna County Public Schools SBO and Bus Shop Switch Upgrades

Contact Information

Table 1   Contact Information

Contact	Contact Data
Account Manager	Joanna Laramore 1801 Bayberry Court, Suite 302 Richmond, VA 23226 804-474-5282 jlaramore@sycomtech.com https://www.sycomtech.com
Client / Customer	Fluvanna County Public Schools Joshua Gifford 14455 James Madison Highway Palmyra, VA 22963 434-591-2078 jgifford@apps.fluco.org http://fluco.org/

History

Table 2   Revision History

Version No.	Issue Date	Status	Author	Reason for Change
1.	03/02/18	Final	John Billups	

Review

Table 3   Revision Review

Reviewer's Details	Version No.	Date

Version
1.0

Executive Summary

Fluvanna County Public Schools (FCPS) has requested SyCom Technologies (SyCom) to upgrade the School Board Office switch and migrate the existing SBO switch to the Bus Shop. This change will provide the hardware necessary to support Multi-10G fiber links to the Core at the Abrams Building. Through several customer meetings and high-level design sessions, this Statement of Work was created to provide Fluvanna County Public Schools with additional details into the process of implementing the new fiber backbone and internet perimeter security.

SyCom has prepared this statement of work to plan and execute the SBO and Bus Shop Switch Upgrades Project. As a trusted technology advisor, SyCom works with customers to identify current state, desired state and a clear path to success. Our experienced team combines technical acumen with an understanding of customer business needs. The result is a solution that maximizes the customer's return on investment.

Business Requirements

The capturing of relevant business requirements for technology implementation projects is key to SyCom's success in this endeavor. The following items are key business requirements:

- Multi-10G connectivity capabilities on the switches at the SBO and Bus Shop.
- Minimized Single points of failure by utilizing multi-chassis ether-channel from the SBO to Abrams.

Solution Overview

The solution envisioned to solve these problems will include the following items:

- Replacement of the single Cisco Catalyst 3850 at the School Board Office with a stack of two Cisco Catalyst 9300 switches providing (96) UPOE 10/100/1000 and a total of (16) SFP+ 1G or 10G SFP ports.
- Move the SBO Cisco Catalyst 3850 to the Bus Shop and modify the configuration for this environment. Upgrade the code to recommended current image.
- 10G SFP+ Single Mode SFP+ modules are required for the backbone links.

SyCom Project Methodology

Successful technology implementation is provided through the use of the SyCom Project Methodology. This methodology represents our collective knowledge and experience on how to produce successful outcomes. The proposed work will be separated into the following project phases:

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Phase 1 – Project Initiation

This phase consists of providing communication channels between SyCom and Fluvanna County Public Schools. During this Phase, the following goals will be achieved:

- Kick-off meeting will be scheduled
- Introduction of the SyCom Project Manager
- Identify team members, roles, and responsibilities
- Define the escalation procedures
- Define the change control process
- Identify key project milestones

Phase 2 – Discovery / Design Development

During this phase, SyCom will meet with the Fluvanna County Public Schools staff members to finalize the requirements for this project. SyCom will hold appropriate meetings or design sessions to gather and document the requirements of this project, carefully mapping these requirements toward business and end-user goals.

As a part of this project the following key elements will be collected:

- Existing SBO switch config
- Fiber connectivity details
- IP addressing/vlans for Bus Shop

During this phase, SyCom will provide the following deliverables. Each must be approved by Fluvanna County Public Schools before proceeding to the next phase:

- Low Level Design (LLD) – This will provide the details of the overall design of how the network will be implemented.
- Implementation and Deployment Plan (IDP) – This document will detail each task that will be performed with dependencies and timelines for the Implementation.
- Test and Acceptance Plan – SyCom will document the testing steps that will be performed to validate the infrastructure implementation. This plan should also include testing plans for Fluvanna County Public Schools that can validate that the key, mission critical applications are functional and performing properly.

Phase 3 – Configuration

SyCom will stage the installation before going live. In this phase, SyCom will place configurations onto equipment and install software particular to the requirements in Phase 2. As a part of this phase, SyCom will also complete:

- Inventory Management – Receiving equipment, logging, vendor management, and reporting.

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- Assembly – Installing any internal components such as network interfaces and making all required connections.

- Load – Installing any required operating systems, applications, utilities.

- Configuration – Setting all hardware and software options in accordance with prescribed manufacturer instructions.

- Test – Executing test plans according to customer-specified rules to verify the system or device is functioning properly.

- Returns – Upon test failure and inability to resolve the failure, equipment will be returned for under-warranty replacement.

- Solution Delivery – Asset tagging and reporting, when requested, in accordance with customer-specified guidelines. Consolidated shipments to designated end-user locations.

During this phase, the following tasks are envisioned to be accomplished:

- Configure SBO Catalyst 9300 switch stack (2 switches)
- Create Configuration template for single Catalyst 3850 moving from SBO to Bus Shop
- Upgrade code on new switches to current stable releases

Phase 4 – Training

Part 1 - Administrator Training
- Training is not included in this SOW.

Part 2 - End User Training
- End User training is not included in this SOW.

Phase 5 – Service Migration / Implementation
Migration to the new solution will be defined in the Implementation and Deployment Plan created and agreed to in Phase 2. In general, the following tasks are envisioned to be accomplished in this phase:

- Swap out SBO switch for new 9300 switch stack
- Install SFP+ and connect to new Fiber to Abrams (4)
- Move 3850 to Bus Shop
- Apply template for 3850
- Upgrade Code
- Install 3850 at Bus Shop
- Install SFP+ and connect to new Fiber to Abrams (4)

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Phase 6 – Validation / Testing

This section describes the test and acceptance plan set forth by SyCom and Fluvanna County Public Schools. Test and Acceptance documents will be created and agreed upon by SyCom and Fluvanna County Public Schools during the discovery and design phase. This document will be used to confirm Fluvanna County Public Schools acceptance of the solution installed. Client sign-off on testing is a requirement of moving to the next phase.

At this point, SyCom considers the system implementation fully complete. The following two weeks will be used to determine potential gaps that exist in the Statement of Work and bring them to the attention of the project manager or project coordinator for remediation.

Upon successful handoff from the SyCom project team to Fluvanna County Public Schools, the network becomes the responsibility of Fluvanna County Public Schools. (Note: Unless the customer has purchased continuing support from SyCom.)

Phase 7 – Documentation / Deliverables

SyCom will provide Fluvanna County Public Schools with all documentation compiled during the project. The documentation will be provided to electronic format. The documentation will include the following:

- All documents will be provided in Microsoft Office formats including Visio, Word and Excel. PDF copies will also be provided if requested.

Phase 8 – Project Closeout

Project closure occurs 14 days after Testing and Acceptance and when Fluvanna County Public Schools and SyCom have determined that the project tasks are completed. SyCom will ask the project sponsor on record for a decision to close the project at that time. A list of outstanding issues and defects will be provided to the project sponsor at the time of project closure.

At the desire of Fluvanna County Public Schools, SyCom may continue to provide support beyond any post implementation support described herein, but such support will be considered out of scope for this agreement.

Project-specific Assumptions

The following assumptions are made on the part of SyCom based upon conversations conducted or define areas that are the responsibility of the customer.

- Patch cables are the responsibility of Fluvanna County Public Schools (i.e were not included in the equipment quote).
- The SOW includes (3) round trips to the client site; (1) trip for initial equipment configuration and (2) trips for the service migrations.

Assumptions

The following assumptions are made on the part of SyCom to either ensure successful project completion or define areas that are considered to be the responsibility of the customer.

- The customer will be available to participate actively as appropriate during each work phase.
- The customer will designate a single point of contact to whom all SyCom communications may be addressed and who has the authority to act on all aspects of the services. Such contact shall be available during normal hours of business (Monday through Friday 8:30am to 5:00pm local time excluding observed holidays).
- The customer agrees to provide SyCom with reasonable access to the required work sites and facilities, including where applicable: computer equipment, telecom equipment, facilities, work space and telephone for SyCom's use during the project.
- Full/complete backups of all current elements of the environment at the customer's site locations are functional and available.
- SyCom has made a "good faith" effort to provide the customer with an accurate representation of the hardware, software and services required for successful project planning. Any licensing/products not identified through the preliminary discovery performed to generate this statement of work and deemed necessary for the implementation/migration will be the responsibility of the customer to obtain. SyCom is not responsible for software license compliance.
- The customer will review and approve all proposed upgrade plans before implementation.
- The customer agrees to provide technical staff or end user(s) to perform system testing once the installation is complete.
- The customer agrees to, when requested by SyCom, provide the required building layouts, including the floor plan, cabling and power locations for all applicable sites.
- The customer agrees that any delays caused by any telecommunications carrier affecting the installation, termination, provisioning or activation of circuits may result in the customer being billed for out-of-scope work.
- The customer agrees to provide all the cabling required to complete the installation that is not included with this equipment. Cabling will be delivered to the installation site prior to the arrival of the SyCom resource. This includes desktop patch cords, closet patch cords, patch panels, etc. All cabling longer than 20 feet will be installed by the customer and will be labeled with an indication of what connectivity the cabling supports.
- The customer agrees to prepare the installation site. In particular, ensure that proper environmental conditions are met and adequate power is available. On-site installation delays caused by the lack of completed site preparation may result in the customer being billed for out-of-scope work.
- The customer will notify SyCom of any schedule changes within five (5) business days of any scheduled activity. Scheduling changes and/or cancellations made after this five (5) day window may result in out-of-scope charges to the project.

- SyCom will not be held responsible for data loss due to insufficient or incomplete customer backups. All data backups are the responsibility of the customer. Backups should be performed and verified prior to project commencement.
- SyCom does not maintain copies of any project documentation for longer than 60 days past project closeout unless an active continuing support contract is in place.
- Services do not include resolution of software or hardware problems resulting from third party equipment or services or problems originated through circumstances beyond SyCom's control.
- If at any point in the execution of this Statement of Work, SyCom must contact the manufacturer Technical Assistance Center (TAC) or manufacturer licensing group on behalf of the customer, time spent will be considered out of the scope of this project and not part of the attached project cost.
- Unless otherwise stated, all diagrams will be provided in Visio format and all documentation will be provided in Microsoft Word or Portable Document format.

Project Management Services

SyCom is committed to utilizing Project Management methodologies needed to support the successful deployment and completion of this Statement of Work. These services include but are not limited to:

- Project kickoff meeting
- Resource scheduling management
- Issues management
- Risk identification and mitigation
- Scope management (please refer to the Change Management section of this SoW)
- Project costing / budget analysis
- Weekly project status meetings
- Project closeout meeting / punch list management

Work Day/Hours Expectations

SyCom will perform the defined work within the normal working hours of 8:30 a.m. to 5:00 p.m., Monday through Friday, excluding holidays. Work will be performed at the customer site and at SyCom offices. Service Migration tasks that are service affecting will occur during non-business (non-normal) hours. Requests for working after hours, weekend hours or holiday hours must be submitted to and approved by the SyCom Account Manager prior to the work being performed. Work performed during these hours and work performed outside of this statement of work may be subject to the agreed-upon higher billing rates shown below.

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Travel Time/Reimbursement Expectations

Reasonable travel time has been included in the project price below. Unanticipated travel time incurred due to delays outside of SyCom's control may be subject to a change order which will be billed at one-half (1/2) the normal billing rate.

Expense Reimbursement Expectations

Any incurred travel and expenses must be pre-approved by the customer and will be billed back to them at actual cost.

Project Investment

Based on the assumptions and services stated above and the anticipated work effort shown below, the Fixed Fee cost required to complete the project including local travel and expenses is $6,630.00. Expenses and any work performed outside of this scope of work will require a change order and must be pre-approved by the customer.

Payment Terms

Payment is due Net30 from the date of the invoice.

Project Billing

Project billing with occur according to the following schedule.

Project Phase	Amount
Phase 1 – Project Kickoff / Initiation (50%)	$3,315.00
Phase 8 – Project Closeout (50%)	$3,315.00
Total	**$6,630.00**

Change Management

Changes requested and made to any of the following will be subject to a Change Order Request that may add additional cost to the project and will be passed through to the customer.

- Adding phases, tasks, deliverables, equipment or additional resources to the project that result in additional labor hours
- Issues arising from environmental, architectural or infrastructural conditions not identified or known at the time of sign-off
- 3rd party issues that are not under SyCom's control

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A Change Order Request will be sent to the customer for review and approval prior to the work being performed. If it is determined that the work is time sensitive and critical in nature, a Change Order Request may follow work already completed. In these cases, customer approval occurs upon request that the work be done and formal written approval to add additional labor cost will not be required.

Statement of Work Authorization

Agreed to and accepted by:

SyCom Technologies   Fluvanna County Public Schools

Signature: _____   Signature: _____

Name: _____   Name: _____

Title: _____   Title: _____

Date: _____   Date: _____

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