



Statement of Work:

Revere Local School District 802.11ac Wireless Site Survey

Presented To:

Neonet DBA Metropolitan Regional Service

Chris Zolla

Presented By:

Shawn O'Leary

Account Manager

At Logicalis we've designed our IT services to provide you with resources you just can't spare internally, and the expertise to assure you we'll get the job done right, on time, and cost effectively. Whether you need help with developing a cloud strategy, managed services or a virtualized environment, we have the technical skills, the world-class products and the personal experience to become a trusted extension of your team. We're here to support your organization's business goals through the use of technology. Logicalis - Business and Technology Working as One.

Ask us about Logicalis Leasing Solutions - a value add service tailored for our customers. Leasing offers strategic, operational and financial benefits that can help meet your company's goals and get your project funded. Logicalis financing experts work with over a dozen trusted leasing partners to assist you as our valued customer. We can deliver you competitive rates and flexible terms and make the leasing process easy.

Ask your Logicalis Account Executive to provide you with the most competitive lease rates in the industry.

Date Offered:

09/13/2016

Proposal Ref. #

50111939 V. 1

Date Expires:

10/31/2016

Document Conditions

■ Conditions Overview

General

This Statement of Work (SOW) is governed by Logicalis Terms & Conditions of Sale, found on our website at www.us.logicalis.com/tcsales/, and are incorporated herein by reference. No terms or conditions contained herein shall supersede the terms and conditions set forth in Logicalis Terms & Conditions of Sale unless mutually agreed in writing and mutually executed.

This Statement of Work outlines the services to be provided by Logicalis to the customer in connection with the following Project. This Statement of Work is intended to specify the services to be provided during each phase of the project and to detail the obligations of both parties.

Copyright and Confidentiality Notice

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Cleveland, Ohio 44114

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Pricing Disclaimer

Any pricing information that is contained within this document is deemed accurate as of the date of this proposal and is based upon the then current information that has been provided to Logicalis by our various vendors and suppliers. Therefore, Logicalis is submitting this pricing as "Budgetary", with the understanding that this pricing may change by the time an order is placed. Logicalis will review all budgetary pricing and present "Final Pricing" just prior to an order(s) being placed.

Project Overview

■ Executive Summary

Logicalis provides a complete suite of professional and technical services to ensure a complete and successful design and deployment of wireless networking technology.

Logicalis is hardware and software neutral. We strive to design the very best, most economical solutions based on the very best components available.

We understand the hidden complexities of selecting and designing systems with today's sophisticated wireless devices. We know the economic drivers and technology solutions shaping the wireless extension of traditional local and wide area networks.

Our management, consulting and technical team understand RF physics, wireless LAN / WAN devices, and various IEEE protocols. We have many years of reality-tested and proven experience in wireless technology, assembling the strongest group of technical and business professionals in the wireless services industry. Logicalis staff holds voting privileges on various IEEE 802.11 standards committees, including both 802.11n and 802.11ac.

Logicalis wireless engineering experience spans all major high-ROI application areas:

Wireless LAN:

- In-building 802.11 to complement or replace switched Ethernet connectivity for all WiFi enabled clients.
- Green space and outdoor traditional and MESH WiFi deployments.
- Out-of-building mobile computing deployments for industrial/distribution center/logistics control applications.
- Electromagnetic nuance diagnosis and remediation.

Wireless WAN:

- Point-to-Point bridging between facilities where there is no existing network connectivity.
- Point-to-Point and Point-to-Multi-Point bridging to distribute network connectivity from central carrier circuits, eliminating separate circuits to secondary facilities.
- Metropolitan coverage to support mobile-in-vehicle applications.
- Wireless links for fail-safe backup to critical inter-building private network connectivity.

Wireless Deliverables

■ RF Design

Site surveys will be conducted in order to provide one hundred per cent coverage of indoor facilities in a high density 802.11ac model to support voice, video and data wireless clients.

The RF network is required to be engineered to have signal strength of -65 at the edge to support voice, video and data clients. Site surveys will be conducted using the AirMagnet Survey. The Cisco 3800 series access points (APs) which will be used to conduct the site survey should be the same APs which will be deployed in production. A power output of 25mW (Power Level 3) will be used for conducting the survey.

Coverage will be provided based on the use of Cisco 3800 series 802.11a/b/g/n/ac for voice, data and video coverage with a 20% minimum overlap between cells.

Coverage is required to provide seamless roaming throughout the entire facility(s) as detailed in this proposal. The network will be designed to extend to immediately adjacent external areas of the facility as necessary.

Logicalis will be responsible for the following deliverables:

I. RF Spectrum Analysis

Spectrum analysis will be preformed to identify potential sources of WLAN interference as well as existing WLANs and ad-hoc or rogue access points. If applicable; specific corrective action recommendations will be outlined in the RF design report.

Spectrum analysis specific verbiage will be included in the RF design report detailing the following:

- Channelization remediation needs that may potentially need to be addressed during the RF design.

II. RF Site Survey/Design :

Logicalis will perform a wireless design that will be used to build a high density 802.11ac WLAN that supports voice, data and video traffic. The wireless design will be conducted within the following parameters:

- -65 dBm per industry standard VoFi requirements.
- Overall usable RF propagation and SNR.
- Nano cell technology including 20% overlap.
- Calculated placement of Cisco 3700 CleanAir access points (APs) required for seamless IEEE 802.11n (802.11ac when applicable) wireless radio frequency (RF) propagation.
- Logicalis will adhere to IEEE 802.11 standards which dictate the use of 2.4-GHz (802.11b and 802.11g) and the 5-GHz (802.11a) bands. In the 2.4-GHz band, there are up to 11 channels available. Each channel offers 11- or 54-Mbps (for 802.11b or 802.11g, respectively) over-the-air data rates.
- Minimization of radio contention by utilizing the three non-overlapping channels in the 2.4 GHz

spectrum and 12 non-overlapping channels in the 5 GHz spectrum across the design.

- 1250-byte packets sent continuously targeting 25ms intervals or less with a max tolerance of 50ms between the AP and the testing laptop using Fast Ping Utility.
- Logicalis will minimize all physically intrusive activities to the best of our ability. If any permanent physical alterations are required for the RF designs Logicalis will seek written permission from the customer prior to making these changes.
- Logicalis will ensure that any debris or trash created during the RF design processes will be removed.
- All customer physical property will be returned to its original state.
- As the facilities included in this project are designed, detailed documentation will be turned over to the customer. The documentation will also have a baseline RF map for each AP detailed in AutoCAD or Visio format.

The customer will be responsible for the following deliverables:

- Work with Logicalis to create a project schedule that will allow Logicalis to move seamlessly throughout the facilities included in this proposal.
- Facilitate Logicalis physical access throughout all areas of facility.
- If required, provide Logicalis with an escort for restricted areas.
- Provide Logicalis with scaled current facility specific architectural drawings.
- If required, provide a scissor lift and personnel to assist with its operation in the facility.
- Due to the influx of wireless clients, particularly those utilizing video, the customer will be responsible for throttling the bandwidth limitations in the future to ensure this connectivity post RF design.

■ RF Design Documentation

RF Site Survey Design Documentation will include the following project specific information:

- RRM mandates
- Digital heat maps for designed RF coverage throughout all facilities detailed in this proposal
- Digital photographs of each required access point location
- External antenna configurations (where applicable.)

Locations

■ Locations

Logicalis will conduct a high density 802.11ac design throughout the following Revere School District facilities:

Revere High School - 173,578 sqft

Revere Middle School - 111,085 sqft

Bath Elementary School - 65,682 sqft

Hillcrest Elementary School - 89,924 sqft

Administrative Building - 3,832 sqft

Key Business Assumptions

■ General

The following assumptions, together with those detailed elsewhere, were made to create this statement of work. Should any of these assumptions prove to be incorrect or incomplete then Logicalis may modify the price, scope of work, or milestones. Any such modifications shall be managed by the Change Management procedure set forth.

Normal business hours shall be 8:00 am. to 5:00 pm. Local Time, Monday through Friday excluding published Customer holidays and Logicalis holidays.

The Customer will pay all freight charges.

Logicalis is not responsible for any loss of data or loss of use of any of the customers computers or network systems resulting from the work performed within the scope of this statement of work

Responsibilities

■ Responsibilities

Customer Responsibilities

- Will confirm to Logicalis five (5) business days prior to scheduled deployment that all product is received at each facility
- Ensure attendance of appropriate personnel for Design Review meetings who have authorization to approve design
- Procure and provide the equipment listed in the provided Bill of Materials
- Must participate in the development and execution of an comprehensive, functional (acceptance) test plan, which will be the basis for Customer's acceptance of the system
- All appropriate, internal change control procedures
- Is responsible for any client-side software installation or configuration unless otherwise stated in this statement of work
- Is responsible for backup and security of the data and systems.
- All required hardware and software will be ready for the Logicalis engagement team at the start of the project, unless otherwise stated in this statement of work
- Will provide all software media and licensing unless otherwise stated in this statement of work
- All required building access, network access, and systems access will be granted prior to the start of the project.

The Logicalis resource(s) will be provided access to the following (as required):

- Workspace (desk, chair, etc.) and access to offices during normal work hours as well as after-hours depending on project schedule and requirements
- Network connections
- Internet access
- Telephone access
- Printer, copier and fax access
- Administrative access to the necessary network and desktop resources
- DataCenter access

Logicalis Responsibilities

- Provide qualified staff to deliver this project.
- Conduct the work in an efficient and expedient fashion.
- Deliver clear, concise and professional deliverables as a result of this engagement.
- Accurately and expediently report all charges and expenses incurred in the execution of this project.

Change Management

- In the event either party desires to change this Statement of Work, the following procedures shall apply:
 - The party requesting the change will deliver a Project Change Request (PCR) form to the other party.
 - The PCR will describe the nature of the change, the reason for the change, and the effect the change will have on the statement of work, which may include changes to the deliverables and/or the schedule.
 - A PCR may be initiated by either party for any changes to the SOW.
 - The project manager of the requesting party will review the proposed change with his/her counterpart.
 - The parties will evaluate the PCR and negotiate in good faith the changes to the services and the additional charges, if any, required to implement the PCR.
 - If both parties agree to implement the PCR, the appropriate authorized representative of the parties will sign the PCR, indicating the acceptance of the changes by both parties.
 - Upon execution of the PCR, said PCR will be incorporated into, and be made part of this SOW.
 - Logicalis is under no obligation to proceed with the PCR until both parties have agreed to the PCR.
 - Whenever there is a conflict between the terms and conditions set forth in a fully executed PCR and those set forth in the original SOW or previous fully executed PCR, the terms and conditions of the most recent fully executed PCR shall prevail.

Terms and Conditions

■ Terms and Conditions

Logicalis' terms of sale, found on our website at www.us.logicalis.com/tcsales/ are incorporated herein by reference.

This offer may be accepted by purchase order or other acknowledgement of acceptance, including, without limitation, by signing this quotation.

The information in this proposal is considered proprietary and confidential to Logicalis, Inc. By acceptance of this information, Customer agrees to maintain this confidentiality and use such information for internal purposes only.

In the event Customer chooses to lease the Products from a third party leasing company, Customer remains liable for payment to Logicalis for all Products purchased until Logicalis receives payment from such leasing company.

Any variation in quantity, or requested delivery may result in price changes. Prices are valid for 30 days from date of quotation unless otherwise stated.

Prices are subject to change without notice in the event the Product's manufacturer/distributor changes the price to Logicalis.

Shipping and taxes are added at time of invoice. Shipping charges are subject to handling fees for specifying carriers and same day shipments.

Logicalis collaborates with OEM/distributor to schedule delivery to Customer's loading dock; inside delivery is available upon request and may increase the cost of delivery.

By signing below, the undersigned accepts this offer and confirms that he/she is authorized to purchase these items on behalf of Customer.

Pricing Summary

■ Pricing

Item	Description	Total Cost
Logicalis Services	Services	\$16,280.00
Total		\$16,280.00

■ Milestone Invoicing

All hardware and software licensing/media will be invoiced as specified in the terms and conditions of the Scope of Work.

- Milestone-based invoicing will be applied to all professional services engagements as follows:
 - **\$25,000 and below** - Professional services will be invoiced every 30 days until project completion.
 - **\$25,000 and above** - 50% of Professional services will be invoiced upon customer signature. Once the initial 50% of services have been performed, the remaining 50% of Professional services will be invoiced monthly as performed.
 - For time and materials projects, Customer will be billed for actual work done as well as any travel and expenses.
 - If Logicalis expects to exceed the project price by more than 10%, an authorized On-Site Change Order Form will be submitted to the Customer for approval.
 - This estimate is valid for a period of thirty (30) days from the date it was prepared, unless noted elsewhere in this Statement of Work.
- This Statement of Work does not include taxes or freight.

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Appendix

Project Completion Form

Project Completion Form		 Business and technology solutions	
1621 Superior Avenue, Suite 300, Cleveland, OH 44118 Phone: 800-777-7178 Fax: 440-269-4558			
Job Name: _____	Customer Purchase Order No.: _____	Company: _____	Job No.: _____
Address: _____ _____	Contact: _____ _____		
Substantial Completion. By initialing this section you are acknowledging that the Product and Services provided in the above referenced Logicalis Job number were delivered, installed and the system is functional. Any open tasks or system issues have been identified in the "Punch List items" box below. <u>100</u> % of the payment for the product and services provided will be made in accordance to the terms within the project agreement. Any remaining balance will be due upon completion of the "punch list" items below. Comments / Remaining punch list items: No punch list items remain.			
X Final Completion. By initialing this section you are acknowledging that the Product and Services provided in the above referenced Logicalis Job number were delivered and/or installed to our satisfaction and that we have been instructed in its operational use. Payment for the product and services provided will be made in accordance to the terms within the project agreement. Manufacturers' warranties (typically) cover parts and labor associated with depot level repair of defective equipment. Manufacturers DO NOT normally cover on-site support that may be required to troubleshoot and remove defective equipment from an integrated system and the further on-site support required to reinstall the equipment after repair and perform adjustments required to restore the system to original functionality. Manufacturers also DO NOT normally cover freight and insurance costs. Any cost associated with affecting warranty repair of equipment that is not covered by the manufacturer shall be the responsibility of the customer. Customer acknowledges that Logicalis acts as a third party distributor of certain Products and that the manufacturer of such Products ("Manufacturer") is solely and directly responsible to customer, Logicalis and third parties for all defects, breaches, liability, claims, damages, obligations, and costs and expenses related to such Products, whether legal or equitable ("Claims") except to the extent caused by Logicalis's negligence or the negligence of its employees, agents or contractors. Customer agrees to look solely to the Manufacturer of Products for all Claims whether arising from breaches of the Manufacturer's warranty or otherwise and for any maintenance, support, repair or replacement or other remedy with respect to the Products, except to the extent caused by Logicalis's negligence or the negligence of its employees, agents or contractors. Logicalis transfers to customer any transferable warranty made to Logicalis by the Manufacturer of the Products to the extent transferable and permitted by law. Logicalis MAKES NO REPRESENTATION, COVENANT OR WARRANTY WITH RESPECT TO THE EXTENT OR ENFORCEABILITY OF THE MANUFACTURER'S WARRANTY OR INDEMNITY.			
Customer:	(Sign Name) _____	(Print Name) _____	Date: _____
Logicalis Project Manager	_____		
Thank you for allowing Logicalis to serve you. We look forward to working with you again on future opportunities.			

Project Change Request Form

LOGICALIS
Business and technology working as one.

Project Change Request Form

Project Information					
Date		Project No.		Project Name	
Business Sponsor				Project Manager	
Description of Requested Change and Business Justification:					
Cause of Change Request					
☐ Regulatory Requirement ☐ Business Need ☐ Requirements Omission ☐ Programming Error/Omission ☐ Design Error/Omission ☐ Other					
Description of Technical Response					
Requested Next Steps:					
Effort Required to Complete Change Request					
Time		Responsible Analyst			
Resources					
Cost		Request Disposition			
Recommended Start Date		☐ Approved		☐ Rejected	
Estimated Date of Completion					
Effort Required to Assess Impact of Change Request					
Time		Assigned To			
Resources					
Cost		Request Disposition			
Recommended Start Date		☐ Approved		☐ Rejected	
Estimated Date of Completion					
Authorizations					
Title	Name			Date	

By signing above I hereby certify: A) that I have the necessary authority to authorize payment by Customer for this work order; B) that Customer agrees to pay all charges by Logicalis for the work performed.

AUTHORIZATION TO PROCEED

In witness whereof, the parties have caused this Statement of Work to be executed and represent that the persons whose signatures appear below are duly authorized to execute this Statement of Work.

Neonet DBA Metropolitan Regional Service	Logicalis
	Name:
	Title:
Signature:	Signature:
Date:	Date:
Proposal Ref. # 50111939 V.1	PO#