

Professional Services Proposal

Point to Point

Wireless Implementation

373 S High Street

400 Maier Place

City of Columbus

1610-14-22859

Oct 14, 2016

Confidential

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Quote#1610-14-22859

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Statement of Confidentiality

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Project Summary – Onsite Outdoor Point to Point Network Implementation:

City of Columbus has requested that GCI perform an Onsite Outdoor Point to Point Network Implementation for their End Customer's facility located in Columbus OH. GCI will provide installation and configuration services for this Cisco 1532E wireless bridge. The Survey Grade Technical requirements are defined as follows:

Voice Grade

Minimum Cell Boundary (2.4 GHz / 5 GHz)	---67dBm
Minimum SNR	25 dB
Cell Overlap (2.4 GHz / 5 GHz)	20% / 20%
2.4 GHz Channels	1, 6, 11
5 GHz Channels	UNII---1 & UNII---3
AP power Levels	Set to match client or up to 6mW for 2.4GHz and 12mW for 5GHz

Facility Description: Point to Point link from 373 S High Street to 400 Maier Place

Scope of Work (SOW):

- Project Kick---off Meeting
 - Project timelines
 - Roles and responsibilities
 - Review project expectations
 - Review intended use and bandwidth requirements
 - Review potential mounting locations
 - Confirm site locations
 - Discuss Accessibility
 - Logistics
- Discovery
 - Discuss intended use and bandwidth requirements
 - Applications that will run across wireless network
 - Current network and computing environment
- Implementation
 - Mount Outdoor Point to Point radios at both locations and install lightning protection
 - Site 1 --- 373 S High Street. De---Install and Re---Install and Re---Align the Existing Radio when installing the new Mast into the Roof---Mount. Install new Radio and Antenna on the new mast.
 - Site 2 --- 400 Maier Place. Install Radio and Antenna and connect to IE3000 Switch in NEMA Enclosure on the pole. Install POE Injector in NEMA Enclosure.
 - Install all Cabling for Power and Data
 - Align antennas
 - Configure radios
 - Verify connectivity

Documentation:

- Engineering Notes and observations
 - As Built Configurations
-

Terms and Conditions

All terms and conditions in our UTC for Engineering Services apply.

Project Specific Customer Readiness and Responsibilities:

GCI is experienced in the delivery of Professional Services for a wide variety of manufacturers and technologies and as such we respectfully request you fulfill your role in achieving a successful project by:

- City of Columbus to provide Patch Panel to run cable to on the roof of 373 S High Street.
- City of Columbus to provide IE 3000 switch in a NEMA enclosure to run cable to on the Pole at 400 Maier Place.

Proposed Pricing:

Pricing for the proposed goods and Professional services are valid for 60 Days from the date of this proposal.

Descriptions	Price	Units	Extended Price
CCNP Wireless Engineer	\$105.00	37 hours	\$ 3,885.00
CCIE Wireless Engineer	\$125.00	5 hours	\$ 625.00
Project Manager	\$ 95.00	3 hours	\$ 285.00

Total : \$4,795.00

All terms and conditions in our UTC for Engineering Services apply.

Required Cisco Equipment:

Part Number	Description	Service Duration	Lead Time	Unit List Price	Qty	Disc(%)	Discounted Unit Price	Extended Discounted
Equipment:								
AIR-CAP1532E-A-K9	802.11n Low-Profile Outdoor AP, External Ant., A Reg Dom.	---	14	\$1,495.00	2	50%	\$747.50	\$1,495.00
S1G3K9W7-15303JA	Cisco 1530 Series IOS WIRELESS LAN	---	14	\$0.00	2	50%	\$0.00	\$0.00
SWAP1530-CMB-A1-K9	Cisco 1530 Series Combined Unified & Autonomous SW	---	14	\$0.00	2	50%	\$0.00	\$0.00
AIR-ACC1530-PMK1	Standard Pole/Wall Mount Kit for AP1530 Series	---	14	\$99.00	2	50%	\$49.50	\$99.00
AIR-ANT5114P2M-N=	5 GHz 14 dBi Directional Antenna , 2 port , N connectors	---	14	\$599.00	2	50%	\$299.50	\$599.00
AIR-PWRINJ1500-2=	1520 Series Power Injector	---	14	\$249.00	2	50%	\$124.50	\$249.00
AIR-PWR-CORD-NA	AIR Line Cord North America	---	14	\$0.00	2	50%	\$0.00	\$0.00
AIR-CAB005LL-N=	5 ft LOW LOSS CABLE ASSEMBLY W/N CONNECTORS	---	14	\$99.00	4	50%	\$49.50	\$198.00
AIR-ACC245LA-N=	2.4 and 5 GHz Lightning Arrestor, N Connector	---	14	\$209.00	4	50%	\$104.50	\$418.00
Services:								
CON-SNT-AIREACAP	SNTC-8X5XNBD 802.11n Low-Profile	12	N/A	\$100.00	2	28%	\$72.00	\$144.00

Required Non Cisco Equipment:

Part Number	Description	Unit List Price	Qty
HT---TAPE104	COAX---SEAL#104Hand Moldable Plastic Weatherproofing Tape	\$3.95	2
ALS---CAT6JT	Compact Weatherproof 10/100/1000 Base---T CAT6 Gas Tube Lightning Protector	\$62.35	4
HGX---PMT24	Mast Mounting Kit for ALW/ALS Series Weatherproof Lightning Protectors	\$24.95	2
C6CMXE---1196BK---250FT	CAT 6 Ethernet Cable, Direct Burial Shielded Outdoor, Solid, 23 AWG, 1000' Black	\$111.88	2
TRD695BLK---10	Premium Cat 6 Cable, RJ45 / RJ45, Black 10.0 ft	\$11.69	4
486865	3.5 in. x 10 ft. Galvanized Steel Pipe	\$29.02	2
202907607	1---1/4---2 in. Type---J Bronze Ground Clamp	\$5.47	2
204632878	Ground wire, 6 AWG, stranded, green --- \$0.89/per foot, estimate 50'	\$0.89	50
NB181608---000DR	NEMA Enclosure for IE3000 Switch 18X16X8 Inch DIN Mounting Rails	\$225.00	2
HGX---PMT29	NEMA Enclosure Pole Mount	\$55.00	2

Resource Requirements & Scheduling:

Upon receipt of an executed "Authorization to Proceed" document (Valid Purchase Order or signed Quote Proposal), a NDI Project Manager will contact City of Columbus to determine a mutually acceptable starting date for the service engagement, and will assign an appropriate resource(s) to provide the services described herein. The Project Manager will ensure the documentation including all authorizations, Floor Plans, and the survey questionnaire are complete. Any delay in providing the documentation can delay the proposed start date. NDI will usually not guarantee a resource earlier than 10 Business days after receiving the "Authorization to Proceed" document. If City of Columbus requests that a NDI resource(s) be deployed sooner, an expedite fee may be implemented as well as actual travel and shipping expenses.

NDI will supply manpower and equipment for services specified in this proposal providing the Customer and its facilities are completely ready prior to the scheduled service delivery date. Customer must affirm that all special items such as ladders over 8 feet, lifts or bucket truck to be made available for use by NDI Engineers.

On---Site Support limitations

Activities such as, but not limited to, the following are excluded from onsite support:

- Second or subsequent on---site visits due to the lack of any form of site readiness
- Activation or Service for any product other than those described in this proposal
- Any services not clearly specified in this proposal or by any supporting SOW
- Services provided outside of normal, local business hours may be subject to additional charges, unless originally purchased and defined in this proposal

Change Control:

NDI manages the quality of services by initially requesting the End User to "Sign---Off" that the services met their expectations prior to Engineer leaving site. This same practice is followed when services are delivered off---site. The difference for an off---site service is that NDI emails the "Sign---Off" to the End User, who acknowledges the services were complete. If the customer indicates a lack of satisfaction with the services delivered then NDI will escalate to a senior Wireless Engineer to assist in resolving any open issues.

NDI will forward a customer satisfaction survey to the End User and ask them to participate in NDI's customer satisfaction survey. Survey results are reviewed to ensure customer satisfaction and to learn if the customer provided any feedback to improve the delivery process. Negative results will cause a member of the management team to call the customer and discuss the customer's concerns and resolve any open issues.

Upon request for or in event of circumstances requiring Out Of Scope (OOS) work NDI will provide City of Columbus with a Change Request Form (see attachment A).

NDI will respond to Out of Scope requests with a quotation and/ or a Change Request Form. This form will be used to administratively track changes to the initial Statement of Work sold to the customer and any additional charges resulting from those changes. NDI will present this change request form to the customer to gain approval to proceed. If the Change Request results in a change in price, the customer will agree to pay NDI for any additional charges incurred as a result of changes to this proposal.

During the course of this service engagement, NDI will alert City of Columbus of any changes in scope required. Such changes could include surveying or installation in other areas than those defined in this document, changes in technology to be deployed, facility access or delays caused by the client in the performance of our services or environmental or hazardous working conditions. If NDI determines that a change order is required, NDI will seek and get approval from City of Columbus before performing any services beyond the scope defined in this

document.

If City of Columbus does not grant approval for any change order requirements, documentation and design deliverables will be limited to the in---scope activities defined in this agreement.

Report Deliverables:

All report documentation will be delivered within 10 Business days of the completion of the service to **City of Columbus**. The report documentation will be delivered via Email if appropriate or via FTP. NDI maintains a FTP server for documentation delivery and retrieval. Authorized deliverables will be identified in the SOW section.

Attachment --- A

Change Control Form

Project Name: _____

Change Number: _____

Requested By: _____

Date of Request: _____

Presented To: _____

Date Received: _____

Change Name: _____

Describe the change requested: _____

Reason for Change: _____

Effect on Deliverables (including a list of any affected deliverables): _____

Effect on Organization: _____

Effect on Schedule (including Estimated Completion Date for this change): _____

Effect on Project Cost: _____

Item Description	Hours		Dollars	
	Reduction	Increase	Reduction	Increase
Resource Hours --- PM		0		\$ 0.00
		0		\$ 0.00
Total Net Change in Cost:			\$ 0,000.00	

Effect of NOT Approving this Change: _____

Reason for Rejection (if applicable): _____

Client Title: _____

☐ Approved

☐ Rejected

Signature: _____

Date: _____

Printed Name: _____

Title: _____