



## Network Switch Upgrades - Technical Proposal

February 14, 2022

For: District Five of  
Lexington and Richland  
Counties



**Presented by:**  
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Sales Engineer: Bill Baerwalde

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## BACKGROUND AND ORGANIZATIONAL INFORMATION

Founded in Charlotte, NC with a presence throughout the Southeast, Internetwork Engineering ("IE") is a strategic solution provider offering technology focused consulting, implementation and operational services in four validated architectures: Intelligent Infrastructure, Mobility, Collaboration, and Security. It's through the perfect combination of people, partners, and process that IE delivers customized technology solutions that align with business goals to accelerate business transformation.

- A) Internetwork Engineering is a Regional firm. As a full-service Systems Integrator and Value-Added Reseller, IE can work with the District from start to finish on the implementation.
- B) IE will be providing work from both the local office and the headquarters:

Local Office: 2519 Devine Street  
Columbia, SC 29205

Headquarters: 13777 Ballantyne Corporate Place  
Suite 305  
Charlotte NC 28277

Point of Contact: Marta Thomas  
Public Sector Specialist

Account  
Manager: Ryan Jenkins  
Sr. Account Manager  
rjenkins@ineteng.com  
803-828-0025 or 803-920-6119

- C) E-Rate: IE is an active E-Rate Service Provider and our SPIN and FCCRN have been provided.

IE partners with leading technology vendors who share our passion for innovation and execution. Our people hold top certifications in their fields and continually grow their knowledge and expertise to ensure our clients get the best outcome from every engagement.

### Additional Corporate Information

Name: Internetwork Services, Inc. DBA/Internetwork Engineering ("IE")  
Date Established: Founded in 1996, Incorporated in 1998 in North Carolina  
Type of firm: Regional  
HQ Phone: 704.540.5800  
Fax: 704.541.0059  
Website: [www.ineteng.com](http://www.ineteng.com)  
D&B #: 04-791-6484  
Federal ID: 56-2081930  
FCC RN: 25298308  
SPIN #: 143025710  
SC/Cisco Contract: 4400027242  
Hours of Operation: 8 AM – 5 PM Monday – Friday  
OnDemand Support: 24x7/365

## Demonstrated Business Stability

IE is a privately held corporation and as such, does not release financial records as part of an RFP response. However, IE Executive Management is available at any time to speak with the appropriate individuals at the District regarding our financial viability. A letter of credit can also be provided upon request on a confidential basis.

If selected as the winning bidder, a COI will be issued after contracts have been executed. A sample COI has been provided as an attachment to this response which shows our current coverages. IE will use reasonable commercial efforts to provide to the District at least thirty (30) days in advance of any material changes to this coverage.

IE has not been a party to litigation or arbitration and has never been suspended or debarred by any Federal, State, or Local government.

## RESPONSE TO THE SCOPE OF WORK & TECHNICAL CAPABILITIES

- a. Respond to the requirements of the Scope of Work to include the proposed design/solution that meets the primary intent of this procurement including, but not limited, to performance, scalability, reliability, compatibility, redundancy, security, applicability, etc. Describe in detail the make, model, architecture, features, and capabilities of the proposed switches.

**Response:** The attached Statement of Work (SOW) outlines the technical plan for installation and the following information is provided for the Cisco 9300 which IE is proposing. Also please see the attached Bill of Materials/IE Quote for specific SKUs of proposed equipment.

Cisco 9300 Datasheet link:

<https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-9300-series-switches/nb-06-cat9300-ser-data-sheet-cte-en.html>

Cisco® Catalyst® 9300 Series switches are Cisco's lead stackable enterprise access switching platform and as part of the Catalyst 9000 family, are built to transform your network to handle a hybrid world where the workplace is anywhere, endpoints could be anything, and applications are hosted all over the place.

The Catalyst 9300 Series, including the new Catalyst 9300X models, continues to shape the future with continued innovation that helps you reimagine connections, reinforce security and redefine the experience for your hybrid workforce big and small.

- **Up to 1TB of stacking bandwidth:** With Stackwise-1T, Catalyst 9300 switches are the industry's highest-density stacking bandwidth solution with the most flexible uplink architecture
- **Flexible and dense uplink offerings** with 100G, 40G, 25G, Multigigabit, 10G, and 1G modular uplinks
- **Mixed Stacking with Backward Compatibility** – Stack your Catalyst 9300X fiber switches with Catalyst 9300 and Catalyst 9300X Multigigabit switches, bringing stackable high-speed fiber to the access
- **Highest Multigigabit Ports:** With standalone and Stackwise-1T, Catalyst 9300X models enable 48 mGig ports in standalone and 448 mGig ports with an 8-member stack
- **Highest 90W UPOE®+ Density:** Enable your OT/IT needs with up to 36 ports of 90W UPOE+ for standalone or 288 ports of 90W UPOE+ with an 8-member stack.
- **StackPower with Backward Compatibility:** Enable power resiliency with higher power budgets in mixed Catalyst 9300 and Catalyst 9300X stack.
- **100G IPsec in hardware:** With the new 2.0Sec UADP ASIC, the Catalyst 9300X comes with 100G line rate IPsec to enable various options for new edge connectivity
- **Secure Tunnel connectivity:** With the new edge, the C9300X enables secure connections to Secure Internet Gateway, Cloud Service Providers and Site to Site connectivity using IPsec tunnel with AES-256 Encryption and speeds up to 100G.
- **Enhanced Application Hosting:** With 2x capacity and additional RAM, QAT, and 2 x 10G AppGig Ports, multiple Cisco Signed performance savvy applications can be hosted on Catalyst 9300X
- **ThousandEyes Enabled:** End-to-end visualization of the path from campus/branch to clouds/DC with Cisco ThousandEyes Network and Application Synthetics (included with Cisco DNA Advantage licenses)

- **Investment Protection:** Catalyst 9300X redundant fans and power supplies, data stack and StackPower cables are backward compatible with the Catalyst 9300.

- b. Explain in detail the proposed warranty terms and any other warranty or maintenance options for the District's consideration. All products provided under this RFP will be new and sourced only through the OEM's authorized distribution channels.

**Response:** Cisco's end user license agreement ("EULA") can be found at the following link:  
<https://www.cisco.com/c/en/us/products/end-user-license-agreement.html>

### EDU SKUs

The Cisco switching proposed provides enhanced limited lifetime warranty that includes Next-Business-Day (NBD) product replacement and expanded support available from Cisco's Technical Assistance Center (Phone only) for three (3) years.

## EDU SKU Portfolio: Support Matrix

Product Family	Cisco Warranty	Description	Hardware Replacement	Software Replacement	Technical Assistance from TAC	OS Software Updates
Switching	<a href="#">WARR-ELTD-LIFE-EDU</a>	Special Education Warranty	NBD	Media Only:90 Days	Yes - 3 Year * Phone Support	Yes – Lifetime of product
Wireless (Controllers Only)	<a href="#">WARR-ELTD-LIFE-EDU</a>	Special Education Warranty	NBD	Media Only:90 Days	Yes - 3 Year * Phone Support	Yes – Lifetime of product
AIR-CT8540-K9	<a href="#">WARR-3YR-LTD-HW</a>	3 Year Limited HW	10-day AR	Media Only:90 Days	No	No

The K-12 Warranty for EDU specific SKU's can be found at:

<https://www.cisco.com/c/en/us/solutions/collateral/industries/education/solution-overview-c22-744178.html>

*Internetwork Engineering add-ons:* IE also offers additional options to monitor and/or manage the switching solutions proposed in this solution through our OnDemand services. This offering would expand how IE is currently managing Lex/Rich 5's Datacenter environment to include closet switches at each school. Depending on what Lex/Rich 5 is looking for from a management/monitoring standpoint, we are happy to discuss any cost associated with adding these devices to the existing management platform.

- c. Include a preliminary implementation plan consisting of a sequential listing of all steps necessary to provide the requested services.

**Response:** The following is a sample implementation plan that IE would use for a project similar to this one. The plan would be modified, and more detail added after a kickoff meeting with Lex/Rich 5.

## SD #5 Lexington & Richland-Network Switch Upg

Task Name	At Risk	Status	Finish	Start	%	Assigned To
1 SD #5 Lexington & Richland-Network Switch Upgrade (**DRAFT/SAMPLE**)	<input type="checkbox"/>	Not Started			0%	
2 Conduct Internal Kickoff	<input type="checkbox"/>	Not Started			0%	
3 Conduct Project Kickoff	<input type="checkbox"/>	Not Started			0%	
4 Identify key contacts including client and third-party contacts	<input type="checkbox"/>	Not Started			0%	
5 Define roles, responsibilities, and decision-making authority	<input type="checkbox"/>	Not Started			0%	
6 Review the scope of work and scope change process	<input type="checkbox"/>	Not Started			0%	
7 Review Project Acceptance Document	<input type="checkbox"/>	Not Started			0%	
8 Discuss the project plan/schedule	<input type="checkbox"/>	Not Started			0%	
9 Review School District's IT change control procedures	<input type="checkbox"/>	Not Started			0%	
10 Determine the time, place, frequency, and attendees for status meetings	<input type="checkbox"/>	Not Started			0%	
11 Identify the process for obtaining virtual and physical access	<input type="checkbox"/>	Not Started			0%	
12 Schedule inventory of project hardware and software	<input type="checkbox"/>	Not Started			0%	
13 Project Kickoff Complete	<input type="checkbox"/>	Not Started			0%	
14 <b>Staging</b>	<input type="checkbox"/>	Not Started			0%	
15 IE will inventory the switches at staging site provided by the district.	<input type="checkbox"/>	Not Started			0%	
16 IE will prepare the switches for installation:	<input type="checkbox"/>	Not Started			0%	
17 Unbox and verify all parts present.	<input type="checkbox"/>	Not Started			0%	
18 Label equipment/asset tag and update inventory database if requested.	<input type="checkbox"/>	Not Started			0%	
19 Upgrade to the most recent and recommended firmware.	<input type="checkbox"/>	Not Started			0%	
20 Apply configurations based upon the existing switching.	<input type="checkbox"/>	Not Started			0%	
21 IE will move/ship the switches from the staging area to the installation sites	<input type="checkbox"/>	Not Started			0%	
22 Complete all site migrations (MDF & IDF Installations) (COMPLETE SCHOOL BEFORE MIGRATING THE NEXT SCHOOL - ORDER TBD)	<input type="checkbox"/>	Not Started			0%	
23 Migrate HIGH SCHOOL 1 (THE SAME SUBTASKS WILL APPLY TO EACH OF THE SCHOOLS BELOW BUT HAVE BEEN OMITTED FOR SIMPLICITY)	<input type="checkbox"/>	Not Started			0%	
24 <b>MDF Installation</b>	<input type="checkbox"/>	Not Started			0%	

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Task Name	At Risk	Status	Finish	Start	%	Assigned To
25 Physical Installation	<input type="checkbox"/>	Not Started			0%	
26 Install into a standard existing two-post rack, server cabinet, wall mounted rack or wall mounted enclosure as required.	<input type="checkbox"/>	Not Started			0%	
27 Connect the power supply (or power supplies) to a UPS and/or PDU using the included power cord(s).	<input type="checkbox"/>	Not Started			0%	
28 Connect patch cables to the devices making the best use of existing horizontal and vertical cable management hardware.	<input type="checkbox"/>	Not Started			0%	
29 Return all cardboard, packing and removed switches to the district staging facility.	<input type="checkbox"/>	Not Started			0%	
30 Migrations	<input type="checkbox"/>	Not Started			0%	
31 Move cables from old devices to the new devices.	<input type="checkbox"/>	Not Started			0%	
32 Verify connectivity to all closets in schools.	<input type="checkbox"/>	Not Started			0%	
33 Verify connectivity to Data Center and Internet.	<input type="checkbox"/>	Not Started			0%	
34 Remote Day Two support for one (1) day on the first day immediately following the migration event.	<input type="checkbox"/>	Not Started			0%	
35 <b>IDF Installation</b>	<input type="checkbox"/>	Not Started			0%	
36 Physical Installation	<input type="checkbox"/>	Not Started			0%	
37 Installation into a standard existing two-post rack, server cabinet, wall mounted rack or wall mounted enclosure as required.	<input type="checkbox"/>	Not Started			0%	
38 Connect the power supply (or power supplies) to a UPS and/or PDU using the included power cord(s).	<input type="checkbox"/>	Not Started			0%	
39 Connect patch cables to the devices making the best use of existing horizontal and vertical cable management hardware.	<input type="checkbox"/>	Not Started			0%	
40 Return all cardboard, packing and removed switches to the district staging facility.	<input type="checkbox"/>	Not Started			0%	
41 Migrations	<input type="checkbox"/>	Not Started			0%	
42 Move cables from old devices to the new devices.	<input type="checkbox"/>	Not Started			0%	
43 Test connectivity of the new devices.	<input type="checkbox"/>	Not Started			0%	
44 Remote Day Two support for one (1) day on the first day immediately following the migration event.	<input type="checkbox"/>	Not Started			0%	
45 Migrate HIGH SCHOOL 2	<input type="checkbox"/>	Not Started			0%	
46 Migrate HIGH SCHOOL 3	<input type="checkbox"/>	Not Started			0%	
47 Migrate HIGH SCHOOL 4	<input type="checkbox"/>	Not Started			0%	
48 Migrate ELEMENTARY SCHOOL 1	<input type="checkbox"/>	Not Started			0%	
49 Migrate ELEMENTARY SCHOOL 2	<input type="checkbox"/>	Not Started			0%	

Task Name	At Risk	Status	Finish	Start	%	Assigned To	
50	Migrate ELEMENTARY SCHOOL 3	<input type="checkbox"/>	Not Started			0%	
51	Migrate ELEMENTARY SCHOOL 4	<input type="checkbox"/>	Not Started			0%	
52	Migrate ELEMENTARY SCHOOL 5	<input type="checkbox"/>	Not Started			0%	
53	Migrate ELEMENTARY SCHOOL 6	<input type="checkbox"/>	Not Started			0%	
54	Migrate ELEMENTARY SCHOOL 7	<input type="checkbox"/>	Not Started			0%	
55	Migrate ELEMENTARY SCHOOL 8	<input type="checkbox"/>	Not Started			0%	
56	Migrate ELEMENTARY SCHOOL 9	<input type="checkbox"/>	Not Started			0%	
57	Migrate ELEMENTARY SCHOOL 10	<input type="checkbox"/>	Not Started			0%	
58	Migrate ELEMENTARY SCHOOL 11	<input type="checkbox"/>	Not Started			0%	
59	Migrate ELEMENTARY SCHOOL 12	<input type="checkbox"/>	Not Started			0%	
60	Migrate ELEMENTARY SCHOOL 13	<input type="checkbox"/>	Not Started			0%	
61	Migrate INTERMEDIATE SCHOOL 1	<input type="checkbox"/>	Not Started			0%	
62	Migrate INTERMEDIATE SCHOOL 2	<input type="checkbox"/>	Not Started			0%	
63	Migrate MIDDLE SCHOOL 1	<input type="checkbox"/>	Not Started			0%	
64	Migrate MIDDLE SCHOOL 2	<input type="checkbox"/>	Not Started			0%	
65	Migrate MIDDLE SCHOOL 3	<input type="checkbox"/>	Not Started			0%	
66	All site migrations complete	<input type="checkbox"/>	Not Started			0%	
67	Complete all project documentation	<input type="checkbox"/>	Not Started			0%	
68	Conduct Project Closeout Meeting	<input type="checkbox"/>	Not Started			0%	
69	Get Project Acceptance Letter signed	<input type="checkbox"/>	Not Started			0%	
70	Project Closed	<input type="checkbox"/>	Not Started			0%	

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d. State the responsibilities of the vendor and the District.

**Response:** The responsibilities of the vendor and district have been outlined in the attached SOW.

e. Describe the firm's resources to service this contract

**Response:** The District will have a team of local resources consisting of consultants from the local IE office (Columbia) and Account Team: Ryan Jenkins, AM; Bill Baerwalde, SE; Paul Harmon, Project Manager; Marta Thomas, Public Sector Specialist. Behind this dedicated team of local employees, IE is backed by over 140 employees in the SC, NC, TN regions that are able to support Lex/Rich 5, with over half of these employees being technical support resources.

## QUALIFICATIONS: EXPERIENCE AND ABILITIES

IE is a longstanding Cisco Gold Partner with an impeccable reputation as the model for the channel program at Cisco. In our experience as a Cisco reseller, we have obtained valuable knowledge of how to best service our SLED (State, Local, and Education) customers such as State and Local Governments plus its various agencies and entities as well as K-12 and Higher Education clients.

IE consistently exceeds Cisco's minimum requirement of four (4) CCIE's on staff that is required of Gold partners and our staff are all local in the footprint areas that we support. We do not have to fly staff in from all over the country to staff a project. We are audited annually by Cisco and are pleased that in 2021 we once again met all their stringent Certification requirements. Additionally, IE maintains equivalent partnerships with other best-of-breed manufacturers and technology partners.

We have helped many of our customers transition to public or private cloud technologies. The best success indicator for new customers is their positive feedback. If the customer is satisfied and confident in the services they are receiving, then we are satisfied. When customers say they feel like our staff is an extension of theirs, then we have succeeded.

### Project Management and Project Personnel

IE follows all vendor best practices for implementation and support. We are audited every year to ensure our compliance with ITIL. IE has developed its project and support approach by starting with PMI methodology and adapting it based on 25 years of experience implementing and supporting networking projects. IE provides daily status reports from engineers, weekly project status reports from the project manager, and weekly status calls with key stakeholders.













IE brings a team of dedicated professionals who have managed, from start to finish, large-scale complex implementations and ongoing technical operations at hundreds of Education clients throughout the southeast. Our employees are accustomed to handling the complex requirements and in dealing with the organizational, functional, and technical challenges unique to K-12 schools.

This Lex/Rich 5 project would be considered what IE terms a "Distributed Project". A sample workflow from a project management standpoint may look something like this:



The following graphic depicts the current certifications of IE personnel. We are proud of these accomplishments and have the knowledge to help you succeed with your implementation.

## Certifications

 <ul style="list-style-type: none"> <li>• <b>1 CCDE</b></li> <li>• Less than 200 worldwide</li> </ul>	 <ul style="list-style-type: none"> <li>• <b>6 CCIEs</b></li> <li>• Route Switch</li> <li>• Collaboration</li> <li>• Datacenter</li> </ul>	 <ul style="list-style-type: none"> <li>• <b>2 ITIL Foundation</b></li> </ul>
 <ul style="list-style-type: none"> <li>• <b>26 CCNPs</b></li> <li>• Route Switch</li> <li>• Collaboration</li> <li>• Security</li> <li>• Wireless</li> </ul>	 <ul style="list-style-type: none"> <li>• <b>50 CCNAs</b></li> <li>• Route Switch</li> <li>• Datacenter</li> <li>• Collaboration</li> <li>• Security</li> <li>• Wireless</li> </ul>	 <ul style="list-style-type: none"> <li>• <b>3 Project Management Professionals</b></li> </ul>
 <ul style="list-style-type: none"> <li>• <b>2 CCDPs</b></li> </ul>	 <ul style="list-style-type: none"> <li>• <b>1 CCIE Emeritus</b></li> </ul>	 <ul style="list-style-type: none"> <li>• <b>4 CISSPs</b></li> </ul>
 <ul style="list-style-type: none"> <li>• <b>5 CCDAs</b></li> </ul>	 <ul style="list-style-type: none"> <li>• <b>4 CCENTs</b></li> </ul>	 <ul style="list-style-type: none"> <li>• <b>2 Certified Information Systems Auditor</b></li> </ul>

### Client References

IE has over 900 clients throughout the Carolinas and Tennessee. IE currently has over 110 State & Local Government plus K-12 and Higher Education ("SLED") Clients in South Carolina, North Carolina, and Tennessee.

IE does not disclose specific reference information in our RFP Responses to protect the confidentiality of our clients. However, as requested, we have provided confidential references and project descriptions separately. All reference information is considered Private and Confidential and provided only for the review of your evaluation committee. We have also enclosed a letter of referral from Lexington School District 1.

### Technical Biographies

We have also included the technical biographies of some of our current staff members on the following pages.

## NETWORK ENGINEER

## TECHNICAL BIOGRAPHY

### OVERVIEW

**Successful Network Engineer** with over fifteen years of experience in enterprise level IT, Systems and Network Engineering, Security, Windows Active Directory Domain and Enterprise Administration, and Monitoring Solutions. Well versed on advanced engineering and administration of multiprotocol routers, multilayer switches, network security devices and network management systems. A loyal and dedicated professional with strong infrastructure networking skills ensuring effective business decisions and operations. Adept and experienced at problem solving and providing resolutions.

### AREAS OF EXPERTISE

- Cisco/Meraki WLAN Technologies
- Cisco Routing/Switching
- Cisco Nexus Switches
- WAN/LAN Troubleshooting
- Campus Network Design
- Routing Protocols (OSPF, EIGRP, BGP)
- Security (ASA, ACS, ACL Filtering)
- Enterprise QoS for Voice, Video, and Data

### CREDENTIALS

Western Carolina University B.A. in Computer Information Systems

### PROFESSIONAL EXPERIENCE

#### Network Engineer

- Assisted in the design and build of company datacenter. Maintained datacenter site with all core infrastructure updates, hardware refresh schedules and service provider migration during relocation.
- Was Accountable for North American LAN/WAN infrastructure, warehouse and office circuits for 22 remote offices and one DataCenter located throughout North and South America.
- Designed, built and support 650,000 sq ft distribution facility. Provisioned, upgraded and relocated over 20 MPLS and internet circuits.
- Managed entire enterprise wireless infrastructure, standardized on best practices globally and have grown with a 3 billion dollar corporation from 300 million.
- Migrated firewall services from Cisco ASA to Palo Alto 3050 HA Pair.
- Optimized Riverbed environment for wan acceleration globally.
- Managed Solarwinds NPM for over 6000 nodes with IPAM, Syslog, Netflow, SNMP, QOS, mobile admin and many other feature sets.

#### System/Network Administrator

- Managed Active Directory forest with two child domains for over 2000 employees
- Migrated email system from lotus notes to Exchange.

## PROJECT MANAGER, PMP

## TECHNICAL BIOGRAPHY

### OVERVIEW

Bilingual International Project Manager with over 21 years experience directing all kinds of projects of all sizes domestically & internationally, in 10 countries (including a war zone). Expert in process development, identifying the current state, creating the future vision, and then "connecting the dots".

### AREAS OF EXPERTISE

Project Management  
 Microsoft Project  
 Microsoft Office Suite  
 Process Development

University of North Carolina Charlotte,  
 •Bachelors in Business Administration  
 George Washington University, Washington, DC  
 •Masters Certificate in Project Management

### PROFESSIONAL EXPERIENCE

**Project Manager** consulting/subcontracting to one of the world's largest defense contractors.

- Created sophisticated MS Project timelines for CONUS and OCONUS projects exceeding \$100M.
- Managed 7 direct reports and facilitated the efforts of 100's of US, NATO and Afghan military personnel on 6 military bases in a war zone to build a military training program.
- Acted as Project Management and Process Development consultant to the US General's staff.

**Associate Director Latin American Customer Operations** in Telecommunications supporting operational improvement and new business development in 11 countries.

- Developed the implementation plan and business processes for a start-up wireless company in Guatemala. Designed and built a new 60 seat call center.
- Coordinated call center outsourcing efforts in Peru (RFP development and management, vendor selection, process development, and implementation).
- Created customer operations processes to support wireless network expansion in Chile.
- Conducted due diligence analysis of Customer Operations business processes for potential purchase of an existing communications company in Mexico.

**Project Manager** leading various wireless and landline projects in Telecommunications responsible for 7 direct-report manager, 100 project team members, 7000 call center representatives, and 50 call centers in 9 states.

- Led a new business venture accounting for > \$16.5M annual revenue.
- Directed a re-engineering effort changing business operations resulting in \$20M annual savings.
- Created a sophisticated sales forecasting model for the 7000 reps with a 3-year accuracy rate of 97%.

**Process Reengineering Manager** in Telecommunications managing a project designed to reduce operating costs by improving process efficiency and reducing headcount.

- Consolidated 25 network centers to 10 in 9 states developing/implementing process/system improvements, reducing headcount by 170, realizing operational savings of \$12.2M annually.

**Project Manager/Consultant** in various industries domestically and internationally.

- Directed a project for a South American archaeological dig (30 students & 200 indigenous workers).
- Directed a language program in South America for Harvard University.
- Led a multinational team of 80 specialists in the design and implementation of an experimental archaeology film project in Bolivia. Completed ahead of schedule, reducing estimated contract costs by 80%.



- Consulted a mortgage company on call center operations. Conducted an “as-is” analysis (financial, strategic, and tactical) of call center options, in-house and outsourced, and developed the “to-be” vision with implementation plans including budget details, process flows & scripting, system requirements, staffing (roles & responsibilities), RFP’s, and training requirements.
- Managed various residential construction projects (commercial GC license).
- Consulted to a commercial construction company to implement trial business processes in order to assess the business plan for a new business venture. Analyzed resultant data discovering substantial errors in the business plan resulting in a “no-go” business decision, preventing a 60% investment loss.

**Director** for a private university with 34 campuses.

- Directed student & alumni job placement activities; taught business classes.
- Managed projects to exceed ACCSC national accreditation standards. Exceeded ACCSC standards for every review during my tenure.

## MANAGING CONSULTANT

## TECHNICAL BIOGRAPHY

### OVERVIEW

**Successful Infrastructure Engineer** professional with over fifteen (15) years of experience with exceptional skills in designing and maintaining complex environments. Career goal is to integrate business requirements with the latest technologies to deliver cost-effective solutions and provide the expected outcomes required by our customers.

### CREDENTIALS

Azure Administrator Associate

- CMNA
- CWNA
- CWSP
- CWDP
- ECSE
- ECSE Design
- CCNP R&S
- CCDP
- CCNA Wireless
- CCNA Security

### PROFESSIONAL EXPERIENCE

- 15+ years of experience with all aspects of wired networking – Route/Switch, fiber, cabling, WAN/LAN technologies, etc.
- 10+ years of experience designing, surveying, analyzing, troubleshooting, configuring, and implementing Wi-Fi
- Microsoft Azure expert who has frequently given Azure workshops to businesses interested in either trying out Azure or learning how to level up their Azure experience.
- Clients have included 80+ colleges and universities, the Federal Government, various state and local government agencies and bodies, dozens of international private enterprises, various other enterprises existing across every market vertical, as well as confidential engagements.
- 8 years of experience working as an engineer and/or manager for ISPs.

### TECHNICAL QUALIFICATIONS

- Led engineering departments by serving as the Principal Engineer for Route/Switch and Wireless for multiple different companies
- Extensive experience building new Data Centers and upgrading existing Data Centers

## CUSTOMER SUPPORT

IE is well suited to continue supporting Lex/Rich 5 through our local team of resources and strong organizational backing.

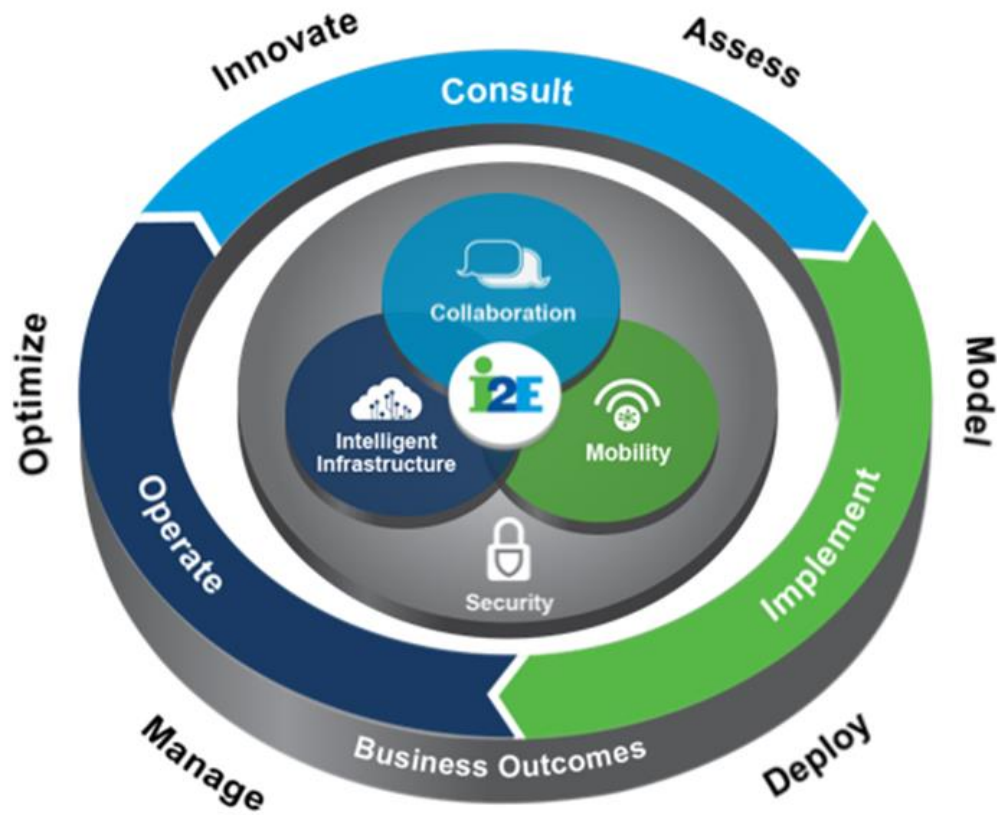
We provide our customers with consulting, implementation, and operational services in four technology architectures: Collaboration, Intelligent Infrastructure, Mobility, and Security. We believe in partnering with our customers to deliver the right combination of people, process, and technology so they can innovate faster and realize the promise of technology, today but we don't recommend technology for the sake of technology.

Through the processes established in our **Ideas to Execution (I2E) Methodology**, we are able to ensure every technology project is tightly aligned with our customer's business goals. We pride ourselves in partnering with our customers to help them solve their unique business challenges with the right technology, at the right time. Whether they need help defining their IT strategy, deploying technology, or co-managing operations, our I2E Methodology was developed to accelerate our customers initiatives from ideas to execution for better business outcomes.

Consulting Services - Because speed, not size, is essential for business success, IE's consulting services are designed for quick execution. Our certified consultants use group or individual interviews to map business goals, relationships and processes. Then they'll compare those areas to your IT strategy and portfolio to identify gaps and make expert recommendations for IT optimization. Through clear process traceability and accountability, IE can help you transform IT from a cost center into a competitive weapon. IE offers consulting for IT Strategy, IT Roadmap, Enterprise Architecture, IT Governance & Security, and IT Service Management. To learn more visit: <https://www.ineteng.com/solutions/consultation>.

Implementation Services - We know adopting new technology can be risky. That's why our IT professional services team plans, pre-builds, and tests every solution before implementation. And our certified project managers are there with you every step of the way to deliver your project on time and on budget. All projects begin with a Scope of Work to capture business and technical goals. The SoW is then used as a guideline to ensure all tasks are completed, on time and on budget. In conjunction with our Implementation Services, we offer Adoption Services which are specifically designed to help our clients realize the value of their Cisco software investment. By helping our clients not only install and configure but also adopt new organizational capabilities, we can help ensure that Lex/Rich 5 maximizes the value of their technology portfolio across the District. To learn more visit <https://www.ineteng.com/it-professional-services>.

Operational Services - Maintaining the right in-house talent mix is difficult. With IE's OnDemand managed services, you get the IT skills you need to succeed exactly when you need them. Our flexible engagement model decreases time to resolution by providing direct access to certified engineers, 24x7. We offer both reactive (Access) and proactive (Assurance) support models for nearly all Cisco solutions. OnDemand offers may include monitoring, dashboards, reporting and trouble ticketing, all of which is available to Lex/Rich 5. In addition, we have the capability to connect trouble ticket systems via API to integrate workflows across teams. Like everything we do at IE, our OnDemand services are flexible. We can provide as much or as little support as needed based on IT Strategy and current staff capacity and capability. To learn more visit <https://www.ineteng.com/managed-it-services>.



### Customer Experience Team

With the technology manufacturers drive to software subscriptions and maintenance contracts, IE's Customer Experience Team (CX Team) is key to our customers success. Our CX Team is an added benefit that our customers get at **no additional cost**. They ensure that our customers can take full advantage of the solutions they have purchased, as well as making sure all expected items are on the correct contracts for support. The following outlines some of the key features and benefits that our CX Team brings to our customers:

## Enhance your Technology Experience with IE's Customer Success Team

Supporting the entire technology lifecycle can be complex. Along with effective project planning and execution, it requires a strong focus on measuring and improving adoption rates to maximize ROI. Plus, keeping track of things like entitlements, licenses, and support contracts can be a real hassle. Let our Customer Success team help you overcome challenges like these so you can focus on more meaningful activities.

Although most companies are proficient with the planning, purchasing and implementation of technology, IT departments often transition into operational mode after the initial transaction is complete.

This can leave end-users without proper training to fully utilize the new systems, frequently resulting in poor adoption rates and unrealized organizational outcomes.

At Internetwork Engineering, we believe this needs to change. That's why we built our Customer Success team. Through a data-driven approach, they can help you succeed throughout the entire technology lifecycle to maximize value and adoption rates, simplify contract and license management, and streamline renewals.

### Do these challenges look familiar?

If so, our Customer Success team can help.



Difficulty identifying desired business outcomes and measuring the ROI of associated technology



Lack of visibility into user adoption, often resulting in unrealized outcomes and wasted resources



Business disruption due to entitlement, licensing or access issues



Trying to manage hundreds or thousands of products and software subscriptions with varying end dates

## Simplifying and Streamlining Your Experience

In addition to an exceptional Client Services team dedicated to ensuring your initial transaction is executed quickly and accurately, our Customer Success team provides continued support throughout the technology lifecycle through a variety of no-cost and paid services.



### What services are available to you?

**Software On-boarding and Entitlement Review:**  
Review of entitlements to ensure you have the access needed for success and quick adoption

**Customer Success Planning:**  
Identify desired business outcomes and review progress during regular touchpoints to ensure success

**Contract and License Management:**  
Consolidate contracts and keep the access to assets and licensing current, while also providing proactive notification of renewals

**Lifecycle Review and Consumption Metrics:**  
Compile multiple data sources into one complete listing to simplify asset reviews and right-size renewals

**Optional Services:**  
Including Advisory, Roadmap, Professional, Training and Adoption services to fill operational and staffing gaps

### How will you benefit?



Our team of subject matter experts can free you up to focus on strategic initiatives



Data-driven approaches that simplify tracking, analysis and decision making



Regular touchpoints and quarterly reviews managed by our Customer Success team



Proactive notification of Last Day of Support, renewals, and subscriptions so you're not caught off-guard



Co-termination options to avoid service delays and provide uninterrupted support

Our ultimate goal is to provide clients with the support they need to simplify the complexity of designing, implementing and operating enterprise technology solutions. Let our Customer Success team lower your business risk, contain infrastructure costs and improve your ROI for technology investments.

## ADDITIONAL DATA

### Exceptions

Please note that Offeror takes exception with certain provisions of the Terms and Conditions outlined in Section VII of the RFP. Offeror will provide the goods and services requested in this RFP consistent with prior contract terms between Offeror and District or alternatively as authorized under South Carolina ITMO Solicitation 5400021841 (Contract number: 4400027242). Offeror is available to clarify any aspect of the response and finalize a contract for goods and services at the district's convenience. Please contact Ryan Jenkins ([rjenkins@ineteng.com](mailto:rjenkins@ineteng.com)) to review or clarify the responses provided below.

## ATTACHMENTS

Please see the following attached documents:

1. Cover Letter
2. Sample Certificate of Insurance
3. Minority Participation Affidavit
4. Proposed Statement of Work
5. Confidential References and Referral Letter
6. Cost Proposal and IE Quote in sealed envelope



**ATTACHMENT A**

**MINORITY PARTICIPATION AFFIDAVIT**

Is the bidder a South Carolina Certified Minority Business?  Yes  No

Is the bidder a Minority Business certified by another governmental entity?  Yes  No

If so, please list the certifying governmental entity: \_\_\_\_\_

Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor?  Yes  No

If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? \_\_\_\_\_

Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor?  Yes  No

If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor? \_\_\_\_\_

If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:

- Traditional minority
- Traditional minority, but female
- Women (Caucasian females)
- Hispanic minorities
- DOT referral (Traditional minority)
- DOT referral (Caucasian female)
- Temporary certification
- SBA 8 (a) certification referral
- Other minorities (Native American, Asian, etc.)

(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

The Department of Administration, Division of Small and Minority Business Contracting and Certification, publishes a list of certified minority firms. The Minority Business Directory is available at the following URL: <http://osmba.sc.gov/directory.html>  
[04-4015-3]

7 – Education RFP References - Redacted



## Network Switch Upgrade RFP Response

February 14, 2022

For: SD #5 of Lexington  
and Richland Counties



**Presented by:**  
Account Manager: Ryan Jenkins  
rjenkins@ineteng.com  
704-943-5642  
Sales Engineer: Bill Baerwalde

## IE RESPONSIBILITIES

### Project Kickoff

IE's Project Team will conduct a meeting with the customer's project team and IE's project team for the purpose of reviewing the tasks necessary to complete the project.

- Identify key contacts.
- Review the Scope of Work (SoW).
- Review SD #5 of Lexington and Richland Counties' IT change control procedures.
- Determine the time of status meetings.
- Obtain virtual and physical access.
- Schedule inventory of project hardware, software, and licenses.

### Staging

- IE will inventory the switches at staging site provided by the district.
- IE will prepare the switches for installation:
  - Unbox and verify all parts present.
  - Label equipment/asset tag and update inventory database if requested.
  - Upgrade to the most recent and recommended firmware.
  - Apply configurations based upon the existing switching.
- IE will move/ship the switches from the staging area to the installation sites.

### MDF Installation

- Physical Installation
  - Install into a standard existing two-post rack, server cabinet, wall mounted rack or wall mounted enclosure as required.
  - Connect the power supply (or power supplies) to a UPS and/or PDU using the included power cord(s).
  - Connect patch cables to the devices making the best use of existing horizontal and vertical cable management hardware.
  - Return all cardboard, packing and removed switches to the district staging facility.
- Migrations
  - Move cables from old devices to the new devices.
  - Verify connectivity to all closets in schools.
  - Verify connectivity to Data Center and Internet.
  - Remote Day Two support for one (1) day on the first day immediately following the migration event.

## IDF Installation

- Physical Installation
  - Installation into a standard existing two-post rack, server cabinet, wall mounted rack or wall mounted enclosure as required.
  - Connect the power supply (or power supplies) to a UPS and/or PDU using the included power cord(s).
  - Connect patch cables to the devices making the best use of existing horizontal and vertical cable management hardware.
  - Return all cardboard, packing and removed switches to the district staging facility.
- Migrations
  - Move cables from old devices to the new devices.
  - Test connectivity of the new devices.
  - Remote Day Two support for one (1) day on the first day immediately following the migration event.

## SD #5 OF LEXINGTON AND RICHLAND COUNTIES RESPONSIBILITIES

- Provide staging area for new switches and for storage of old switches post install.
- Provide physical access to all needed schools and closets.

## PROJECT CONCLUSION

At the conclusion of the project, IE will conduct a meeting with the customer's project team and IE's project team to close the project. During this meeting, IE will:

- Verify project deliverables have been completed.
- Review project acceptance document.
- Obtain customer sign-off indicating project completion.

## ASSUMPTIONS

- Any item not specifically listed in this Statement of Work will be considered "Out of Scope" and will be addressed with a Scope Change Document.
- IE engineers will work during normal business hours, Monday through Friday (excluding holidays), 8:00 AM – 5:00 PM, unless agreed upon by IE and SD #5 of Lexington and Richland Counties.
- This proposal does not include an on-going support contract to cover moves, adds, changes, upgrades to software or hardware, and troubleshooting. Should SD #5 of Lexington and Richland Counties require such services, IE will provide a separate proposal to meet these needs.
- SD #5 of Lexington and Richland Counties shall designate a person to whom all IE communications may be addressed and who has the authority to act on all aspects of this services engagement.
- SD #5 of Lexington and Richland Counties is responsible for providing all necessary physical access to its facilities and remote access as required (e.g., via VPN) within a reasonable timeframe to properly get the project underway. This also includes access to relevant network documentation and existing device configurations.

- Unless otherwise agreed to by the parties, SD #5 of Lexington and Richland Counties shall respond within two (2) business days of an IE request for documentation or information related to the project. SD #5 of Lexington and Richland Counties agrees to provide network and systems designs, configurations, and passwords to accurately complete the project.
- SD #5 of Lexington and Richland Counties shall ensure that contracts with its own vendors and third-parties are fully executed and reflect the correct terms to enable IE to complete the project.
- SD #5 of Lexington and Richland Counties is responsible for managing any and all internal change management procedures.
- SD #5 of Lexington and Richland Counties agrees to prepare the installation site. In particular, this includes ensuring that proper environmental conditions are met, and that adequate power (including UPS) is available.
- SD #5 of Lexington and Richland Counties agrees to be responsible for any necessary licensing and maintenance contracts necessary to complete this project.

8 – Internetwork Engineering Reference Letter - Redacted