



**Princeton**

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TO: Mayor and Council

FROM: Robert McQueen, CIO

DATE: May 22, 2014

SUBJ: Shared Services Agreement – Senior Network Architectural Engineer –  
Princeton Public Schools – Princeton Public Library

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Peter Thompson, Leslie Berger and I have been working on a Shared Services Agreement between Princeton Public Schools, Princeton Public Library and Princeton for a Senior Network Architectural Engineer. Currently we outsource this, for an annual cost of \$65,000.00. Princeton Public Schools had a shared service agreement with Hopewell Township School District for a Senior Network Architectural Engineer, and Princeton Library pays by the hour for a vendor to come in.

After discussions with Peter and Leslie, we all feel that to better serve our residents, visitors, students, faculty and patrons of the library, that hiring a Senior Network Architectural Engineer and sharing those services would be a better option and more cost effective.

Therefore I would like to recommend that Princeton enter into the attached shared service agreement with Princeton Public Schools and Princeton Public Library.

**RESOLUTION AUTHORIZING SHARED SERVICES AGREEMENT WITH  
PRINCETON PUBLIC SCHOOLS, PRINCETON PUBLIC LIBRARY – SENIOR  
NETWORK ARCHITECTURAL ENGINEER**

**WHEREAS**, Princeton recognizes that information technology investments are essential to municipal operations, including critical public safety functions and citizen services; and

**WHEREAS**, the overall objective of management for the Town of Princeton is to ensure effective and efficient management of all Town operations, ensuring equitable and thoughtful investments of tax payer dollars; and

**WHEREAS**, Princeton wishes to enter into an agreement for Shared Services with Princeton Public Schools and Princeton Public Library for a Senior Network Architectural Engineer and,

**WHEREAS**, the Chief Information Officer has recommended entering into a shared services agreement with Princeton Public Schools and Princeton Public Library for sharing a resource that will be cost effective to all parties involved and provide a better service to our residents, visitors and staff;

**NOW, THEREFORE BE IT RESOLVED**, Princeton is hereby authorized to enter into a shared services agreement with Princeton Public Schools and Princeton Public Library as follows:

1. Princeton will manage this position as the employer.
2. Princeton shall hire, the Senior Network Architectural Engineer, and conduct evaluations as deemed necessary by management, (but no less than one per year) with the input of all entities.
3. The initial term of the agreement shall be for a period of twelve (12) months, automatically renewed unless a 90 day written notice of termination from any entity.
4. All costs associated with the employment of the Senior Network Architectural Engineer, including, but not limited to, salary, health benefits and pension costs, shall be shared by Princeton Public Schools, Princeton Public Library and Princeton.
5. The total combined cost associated with the employment of the Senior Network Architectural Engineer shall not exceed \$130,000 during the year. The annual cost shall be divided as follows:
  - a. Princeton shall be responsible for 45.4% of all costs related to the position with an annual not to exceed amount of \$59,000.
  - b. Princeton Public Schools shall pay Princeton 45.4% of all costs related to the position, with an annual not to exceed amount of \$59,000 payable on a monthly basis.
  - c. Princeton Public Library shall pay Princeton 9.2% of all costs related to the position, with an annual not to exceed amount of \$12,000 payable on a monthly basis.

6. Vacation, sick and personal days will be split evenly between Princeton Public Schools, Princeton Public Library and Princeton; days allocated will be based upon Princeton's compensation package.
7. The Senior Network Architectural Engineer will spend 74 hours of the 160-hour work month in Princeton Public Schools, 12 hours in Princeton Public Library, and 74 hours in Princeton.
8. A specific schedule will be worked out between the Princeton Public Schools, Princeton Public Library and the Princeton Technology Directors with clear logging of work time at each entity, taking into account vacations and holiday schedules in each entity. Each Technology Director will establish the assignments and work schedule that best meet the respective entity's individual and shared needs.
9. In emergency situations, any entity can request an adjustment to existing schedules while still maintaining the monthly hours of on-site services per entity.
10. The duration of this Agreement shall be one (1) year from the start of services.
11. This Agreement may not be changed orally and may only be modified or amended by a written statement signed by all entities.
12. If any part of this Agreement shall be held unenforceable, the rest of the Agreement shall, nevertheless, remain in full force and effect.
13. Any dispute related to this Agreement shall be governed and construed in accordance with the laws of the State of New Jersey.
14. Failure to insist upon strict compliance with any of the terms or conditions of this Agreement shall not be deemed a waiver of such terms or conditions.

**NOW, THEREFORE BE IT RESOLVED**, by the Mayor and Council of Princeton, New Jersey that the Administrator is authorized to execute the Shared Service agreement with Princeton Public Schools and Princeton Public Library for a Senior Network Architectural Engineer with an annual cost of \$130,000, and a not to exceed amount of \$59,000 for Princeton.

I, Linda S. McDermott, Clerk of Princeton, County of Mercer, State of New Jersey, do hereby certify that the foregoing is a true copy of a resolution adopted by the Mayor and Council of Princeton at its meeting held May 27, 2014.

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Linda S. McDermott, Clerk

**TITLE: SENIOR NETWORK ARCHITECTUAL ENGINEER**

**QUALIFICATIONS:** 5+ years work experience in networking  
Experience in CISCO, Apple, Hewlett Packard and Microsoft technologies  
B.S. in Computer Science or equivalent experience required  
Required Certifications: CCNA  
Desired Certifications: CCVP/CCNP/CCIE  
Architectural experience with LANS, WANS, Wireless, VRF Tunnels, load balancing and QOS configurations  
Expertise of routing protocols including BGP, EIGRP  
Centralized Management experience of WAPs using WLS, WCS, ACS  
Knowledge of Microsoft Active Directory ideal  
Knowledge of Windows Server 2003, 2008, 2012  
Knowledge of VM Ware virtual servers  
Ability to operate effectively in a team environment  
Ability to operate with minimal supervision  
Ability to work shift work  
Ability to communicate effectively technical information both orally and in writing to management, department members and non-technical audiences  
Ability to lift up to fifty pounds  
Successfully pass a criminal background check completed by Princeton Police

**REPORTS TO: PRINCETON CHIEF INFORMATION OFFICER**

**JOB GOAL:** Responsible for managing the entities' network and transmissions functions which include Internet access, network security, managed switches, VoIP, wireless, redundancy, servers, VM Ware virtual servers, and disaster recovery. Primary duties include designing, implementing, testing, and monitoring all network connectivity within and between school, library and municipal sites.

**PERFORMANCE RESPONSIBILITIES:**

In order to fulfill his/her professional responsibilities, the **NETWORK ARCHITECTUAL ENGINEER** shall:

- Demonstrate experience designing and deploying Cisco routing, switching, VOIP, and Wireless technologies, reengineering when necessary to accommodate growth

- Demonstrate experience with Hewlett Packard managed switches.
- Role sometimes requires scheduling and attendance on overnight maintenance windows or during non production hours either on-site or remotely and needs to be available after hours for emergencies and an on call status
- Required to prepare recommendations and supporting details as part of change control procedures for upgrading network connectivity and configuration modifications
- Act as a team lead to monitor and maintain entities' network systems working directly with team members to ensure project completion and ensure uptime
- Must regularly maintain all compliance standards for public entities and other such standards such as HIPAA, making recommendation / modification according
- Working knowledge of firewalls and implementation, operation of IDS / IPS systems
- Routinely expected to analyze and interpret traffic, utilization, latency of services on network connections and report accordingly
- Implement QOS prioritization queuing and multicasting for optimized communications
- General knowledge of Microsoft Exchange and integration with Cisco Unity
- Ability to design, implement, test disaster recovery site and SRST emergency fallback services
- Converge iSCSI, Fiberchannel, Video and other technologies when appropriate
- Design efficiencies & standardization between entities preparing cost estimates and make purchasing recommendations for new equipment and/or upgrades
- Fully document all aspects of network, properly labeling all equipment, connections, logon information, etc..
- Assist, inform and confer with team members on designing, implementing, troubleshooting and installation activities.
- Keep abreast through formal/informal education, seminars, self-study, and other methodologies of advancements in all network technologies, diagnostics, systems management, etc.
- Study vendor products and assist in presentations to management related to the purchase and installation of hardware, software and peripheral equipment.
- Train other team members when necessary on network operations
- Cisco NAM, SevOne and SolarWinds Orion familiarity for use in troubleshooting networks
- Maintain the privacy and confidentiality of information, protect the assets of the organization, act with ethics and integrity, report non-compliance, and adhere to applicable federal, state and local laws and regulations, accreditation and licensure requirements (if applicable), and entities policies and procedures.
- Inter-building VPN over Verizon FiOS / Comcast PEG and commercial service
- Optimize and Maintain Network Software and Hardware
  1. Configure new system components in a controlled environment
  2. Develop and implement preventive maintenance plans
  3. Review and update network configuration plans
  4. Test and verify that system meets customer/entity specifications

- Perform Network Infrastructure Troubleshooting
  1. Analyze problems and research solutions
  2. Document and communicate problems, solutions and the implementation process
  3. Monitor workload, manage time and prioritize requests
  4. Query manufacturer information and systems specification resources
  5. Recommend, test, and implement a solution.
- Design Local Area Networks
  1. Identify user requirements
  2. Install LAN
  3. Install LAN-WAN interface
  4. Create VLAN's
  5. Manage IP address space, DNS and DHCP
  6. Prepare overall design and integration
- Implement and Monitor Network Security
  1. Develop and implement network system and user security requirements
  2. Perform routine security audits
  3. Develop and implement security plans
  4. Maintain and improve security in response to industry developments and user experience
- Install and Expand New Facilities
  1. Prepare design for the site
  2. Develop the installation work plan
  3. Identify tools, equipment and materials needed for installation
  4. Test equipment and transmission media after installation
  5. Implement new system configuration
  6. Work with software and hardware vendors
- Disaster Recovery
  1. Responsible for all data back up using entities existing backup solution.
  2. Ability to do a bare metal restore of all servers.
  3. Periodic testing of server restores.
  4. Develop a Disaster recovery plan.
  5. Test disaster recovery plan twice a year with written documentation of results.
- Perform other duties within the scope of his/her employment and certification as may be assigned.