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To: Goodhue County Personnel Committee
 CC: Melissa Cushing, HR Director
 From: John Smith, IT Director
 Date: March 15, 2022
 RE: Change to IT Network Security Analyst Position

Summary

The Information Technology Department is requesting that the county approve modifying the job description for the IT Network Security Analyst to make it a full-time county position rather than a shared position with City of Red Wing and Red Wing Public School District as originally submitted.

Background

In July of 2020, the Personnel Committee and the County Board approved hiring an IT Network Security Analyst whose duties, salary, benefits, and related expenses would be allocated at 60%, 20%, and 20%, to Goodhue County, City of Red Wing, and Red Wing Public School District (RWPSD) respectively. The original board communication is attached as reference.

In approximately 18 months, the county has published this opening on three separate occasions, reviewed numerous applications, utilized the services of an external recruiter, and interviewed several candidates. In that time, we have made two job offers and both were rejected.

There is an internal candidate that would be interested in applying for this position, but only if redefined to be a dedicated county position. This employee is currently at grade 84, step 12. For this person to move to the Security Analyst position, they would move to grade 85, step 9 at \$86,257.60, a 2.6% increase.

Assuming an internal candidate is hired as the Security Analyst, the IT Department would backfill the vacated position with a new hire starting at grade 84, step 1 or step 2.

Expense Analysis

If an internal candidate were hired for the Security Analyst position and then backfilling an IT Systems Support Technician would result in the following:

IT Network Security Analyst (currently the IT Systems Support Specialist)	
Current Hourly Rate	\$40.42
New Hourly Rate	\$41.47
Hourly Difference	\$1.05
Current Annual *	\$116,473.39
New Annual *	\$118,988.27
Annual Difference	\$2,514.88

IT Systems Support Specialist (New Hire)	
Current Hourly Rate	\$40.42
New Hourly Rate (Step 2)	\$29.67
Hourly Difference	(\$10.75)
Current Annual *	\$116,473.39
New Annual *	\$90,725.85
Annual Difference	(\$25,747.54)
Net Difference	(\$23,232.66)
Estimated "Staffing Charges" from City and School	\$59,910.00
Budget impact for 2022	\$36,677.34

* Includes Salary, PERA, SS, Medicare, Life, and Family Medical

Alternatives

Do nothing; continue to recruit for position as defined.

In the event an internal candidate is not hired, the County would re-post the amended position externally. This would result in an estimated increase in payroll expenses for the IT Department of approximately \$59,910.00 for 2022.

Recommendation

The Goodhue County Information Technology Department requests that the current job description be amended to remove any references to a shared position with City of Red Wing and Red Wing Public School District, publish the job posting for internal candidates only, and interview the qualified employee(s).



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To: Goodhue County Personnel Committee
CC: Melissa Cushing, HR Director
From: John Smith, IT Director
Date: July 21, 2020
RE: IT Network Security Analyst

Summary

The Information Technology Department is requesting that the county hire a full time Network Security Analyst, whose duties, salary, benefits, and related expenses will be allocated at 60%, 20%, and 20%, to Goodhue County, City of Red Wing, and Red Wing Public School District (RWPSD) respectively.

Background

In 2004, the county contracted with Solbrek Consulting for network security services. Mr. Mark Steege was the security analyst assigned to Goodhue County, and shortly thereafter formed his own consulting company. He has continued serving the county as a “Network Security Consultant” for the past 15 years. During that time, Mr. Steege has also provided network security consulting services for the City of Red Wing, the Red Wing Public School District, and various other government and non-government clients in Minnesota and Wisconsin.

Mr. Steege will be ending his consulting practice and retiring in September of 2020. County Board members serving on the Technology Committee voiced their support for trying to continue the collaborative work that Mr. Steege accomplished while working with the county, the city, and the schools. After consultation with representatives from the City of Red Wing and the Red Wing Public School District, it was decided that the best and most desirable approach to achieving everyone’s goals would be to hire a full time employee that could be shared among the three organizations. Other options were considered and discussed (described in the “Alternatives” section below) but none were thought to be able to provide the cost effective level of service that each organization desires.

The approach being recommended requires that Goodhue County hire a full time employee, and that both the City of Red Wing and the Red Wing Public School District sign a “Shared Employee Agreement” (draft copy attached). Both organizations have agreed to this approach in principle, have confirmed the estimated expenses are within their budget, and are enthusiastic about entering into such a partnership. This same approach is currently in use between Goodhue County and the City of Red Wing in the Surveyor’s Office for a GIS Analyst position.

Expense Analysis

The job description review performed by county Human Resource consultants defined this position as a grade 85. Based on comparisons with other counties and the skill level required for the position, we are recommending a starting range between Step 1 and Step 6:

IT Network Security Analyst	Step 1	Step 6
<i>Hourly Rate</i>	\$29.29	\$36.60
Salary, PERA, SS, Medicare & Life:	\$70,215.46	\$87,723.79
Family medical insurance + HSA*	\$24,028.00	\$24,028.00
TOTAL Compensation	\$94,243.46	\$111,751.79
Total Compensation	\$94,243.46	\$111,751.79
TOTAL City of RW & RWPS Offsets (20% each + \$5,000 misc expense)	(\$47,697.39)	(\$54,700.72)
2021 Budget for Network Security	(\$55,000.00)	(\$55,000.00)
County Budget Impact for 2021	(\$8,453.92)	\$2,051.08

* Assumes the highest cost medical insurance coverage selected

While Mr. Steege has not increased his hourly consulting rate in some time, hiring a full time employee will, of course, include COLA and Merit increases, resulting in increased personnel costs in subsequent years. However, the current budget for Mr. Steege equates to approximately 76 days per year, and 60% of this new position will more than double the amount of time – 156 days per year – that the county has in-house network security expertise.

Comparisons

We reached out to over 20 counties for information on how they currently address the need for network security and received the following responses:

Dodge	No in-house expertise; utilizes services of consultant from twin-cities when necessary
Olmsted	“IT Security Architect” \$79K-\$123K/year salary range
Steele	No specific position; IT Director highly trained in network security from previous consulting experience
Sherburne	No in-house expertise
Chisago	“Senior Security Engineer” up to \$81.5K/year salary range
Morrison	No specific position, but planning to request; duties currently shared by IT Director, Network Administrator, and System Administrator
Dakota	“Senior Security Analyst” X2, reporting to “Security Supervisor”; all three positions over \$100K/year
Blue Earth	“Information Security Administrator” \$59K-\$79K/year salary range

Alternatives

1. Do nothing – Existing IT staff attempt to address all network security requirements.
 - a. Increases risk to county
 - b. Eliminates collaborative network security work with city and school district
 - c. Will require additional training for cyber security specific skills
 - d. Reduces time staff are able to devote to existing priorities
 - e. Reduces IT operating budget by \$55,000/year
2. Consultant – Attempt to retain a new consulting firm that can provide these services
 - a. Less ability to share knowledge and collaborate with city and school district
 - b. Consultants not “invested” in Goodhue County
 - c. Prohibitively expensive – hourly rates would equate to over \$300K/year salary
 - d. No guarantee same consulting staff are assigned or available
 - e. Consultants are able to draw on knowledge and skills of their entire organization
 - f. Consultants do not get sick or take vacation

3. Part Time – Attempt to hire a part time Network Security employee for Goodhue County, with salary and benefits within the \$55,000 amount currently budgeted for Mr. Steege
 - a. Highly unlikely such a skilled position would consider a part time position
 - b. Risks losing employee when they are able to find full time employment
 - c. Not able to provide collaboration with city and school district

Recommendation

The Goodhue County Information Technology Department, with the support of Laura Blair, Administrative Services Director for the City of Red Wing and Kevin Johnson, Director of Buildings, Grounds & Technology (Retired) for the Red Wing Public School District, recommend allowing Goodhue County to hire a full time IT Network Security Analyst and enter into mutually beneficial Shared Employment Agreements allocating the duties and costs of this position to each organization.

GOODHUE COUNTY POSITION DESCRIPTION

Position Title: IT Network Security Analyst
 Department: IT

Date: June, 2020
 Location: Government Center

Supervisor: IT Director
 Phone Number: 651-385-3224

PRIMARY OBJECTIVES OF POSITION:

The primary objective of this position is to proactively design, implement, monitor, and maintain solutions to protect the confidentiality, integrity, and access to data on various networks. This position focuses on network security and works closely with other technical staff, county departments, and affiliated entities to identify security needs and mitigate risks.

This position also provides support for the design, maintenance, and expansion of critical network infrastructure.

JOB TASK AREAS OF RESPONSIBILITY:

ESTIMATED PERCENTAGE OF TIME:

<p align="center">% OF TIME</p>	<p align="center">TASKS</p>
<p align="center">80%</p>	<p>Monitor and Maintain Network Security</p> <ul style="list-style-type: none"> ➤ Install, configure, support, and monitor network security systems and applications ➤ Establish baseline security profiles for monitoring of network equipment, servers, and workstations ➤ Maintain awareness of current security requirements including, but not limited to, HIPPA, CJIS, IRS, and SSA ➤ Maintain awareness of local, state, national, and global security threats and implement or recommend mitigation steps ➤ Research solutions and emerging technologies to improve network security and recommend new or updated tools, systems, and applications ➤ Perform investigations, analysis, and remediation of network security breaches ➤ Troubleshoot and resolve network communication issues related to firewalls, routers, security certificates, DNS providers, etc. ➤ Participate in the evaluation, selection, implementation, configuration, and maintenance of core network components, such as physical and virtual servers, SAN/NAS equipment, firewalls, routers, switches, and network management software and applications ➤ Develop methodologies to harden network equipment, servers, and workstations, providing optimum balance of security and performance ➤ Provide extensive contribution to Disaster Recover, Business Continuity, and Incident Response plans as related to network and data security and recovery ➤ Develop policies, procedures, training materials, and other documentation for technical and non-technical county staff relating to network and information security ➤ Provide training for technical staff in the use and maintenance of security systems and applications ➤ Provide training for non-technical staff related to information security

The duties and responsibilities of this position are performed under the general supervision of the IT Director. This position uses independent judgment to perform many of the tasks associated with the position while still following established department and county policies.

KNOWLEDGE AND SKILL REQUIREMENTS:

Minimum Qualifications

This position requires a 4-year degree from an accredited college or university in Computer Science, Management Information Systems, Cybersecurity, or a related field and two years of experience working with complex, large-scale networking technologies and data security.

OR

A combination of education and experience equivalent to six years of increasingly advanced experience implementing, managing, and supporting enterprise class security systems and applications.

Desirable Qualifications

CompTIA Security+

CISSP – Certified Information Systems Security Professional

CISM – Certified Information Security Manager

CEH – Certified Ethical Hacker

The following are the required knowledge and skills:

- Extensive knowledge of firewall installation, configuration, management, and monitoring
- Extensive knowledge of computer networks, including routers, switches, Ethernet cabling, wireless technologies, servers, and workstations
- Extensive knowledge of Microsoft Windows client and server operating systems
- Extensive knowledge of LINUX operating systems
- Extensive knowledge of network monitoring, logging, and analysis systems, including, but not limited to, IDS, IPS, VPN, and NAC
- Extensive knowledge of installing, maintaining, and troubleshooting network hardware and software
- Substantial knowledge of TCP/IP networking, including DNS, DHCP, SNMP, SFTP, etc.
- Substantial knowledge of LAN/VLAN/WAN/wireless network infrastructure.
- Substantial knowledge of virtual server infrastructure technologies
- Substantial knowledge of data backup, protection, and recovery technologies.
- Substantial knowledge of Storage Area Networks (SAN) and Network Attached Storage (NAS) technologies
- Working knowledge of cloud computing technologies and concepts
- Ability to work independently without close supervision on tasks that require meticulous attention to detail
- Ability to organize and prioritize a fluid workload of highly technical projects with varying levels of importance and urgency
- Ability to work in a team environment
- Ability to understand and follow complex oral and written instructions
- Ability to communicate effectively both orally and in writing
- Ability to work in a professional manner with all types of people and personalities
- Ability to adapt to new procedures and practices
- Ability to work in a confidential manner
- Ability to obtain CJIS certification within 60 days of hire
- Possess a valid driver license

WORK ENVIRONMENT:

The work of this position is generally performed in an office setting. Occasional travel to other county facilities and attendance at training programs and conferences may be required for this position. This position participates in on-call support during non-working hours with other department staff. It is necessary to maintain composure and a calm professional demeanor while dealing with the many types of situations and people throughout the day. Safety risks are present. Overtime is a possibility depending on workload and assignments. Because the position involves access to sensitive and confidential data, adherence to all policies relating to such access is required.

PHYSICAL REQUIREMENTS:

The work of this position requires the physical dexterity to use a personal computer and other modern office equipment. Frequent movement through all county facilities is required. This position requires the movement of items weighing up to forty pounds.

SAFETY AND HEALTH

This position shall follow all established safety and wellness policies of the employer. This position is required to report all injuries incurred while working to the supervisor and Human Resources as soon as possible after an injury occurs.

POSITION CLASSIFICATION

Department Head

Non Union

AFSMCE

LELS

Teamsters

Physical, Mental and Environmental Requirements

Part I: Physical Requirements

Section A

The physical mobility requirements of this job are to spend:

5	hours a day sitting
2	hours a day standing
.5	hours a day walking
.5	hours a day kneeling
	hours a day stooping
1	miles a day walked
4	feet climbed using a ladder
	feet climbed on an incline
yes	feet climbed using stairs

Section B

The physical effort requirements of this job are

# of pounds lifted	
40	pounds lifted waist high
40	pounds lifted shoulder high
40	pounds lifted above the head
40	pounds are carried alone
40	pounds are carried with someone else
	distance weight must be carried (feet)
40	pounds are pushed
40	pounds are pulled
40	pounds are held

Section C

The physical dexterity requirements of this job are to operate:

X	a telephone
X	Computer/electronic equipment
X	hand tools
	Electric tools
X	Manipulate small objects

Part II: Sensory Abilities

The checked items listed below are sensory requirements needed for this job. Items are critical, useful, or not required.

critical	useful	
X		see
	X	distinguish colors
X		hear or listen
NR	NR	taste
	X	smell
X		touch
X		speak

Part III: Mental Effort

The mental efforts required on a daily basis are:

X	reading	X	Analyzing data
X	writing	X	Searching for solutions
X	basic arithmetic	X	Creating methodologies
	mathematics	X	Conducting research
	weighing and/or measuring	X	Managing resources
X	visualizing conclusions		Evaluating performance of others

Part IV: Work Environment

The elements of this job's work environment are (complete all that apply):

8	hours a day spent working under time pressure
3	hours a day spent working rapidly
100	% of time spent indoors

	The condition of the air is clean (controlled)
X	The condition of the air is normal/average
	The condition of the air is dusty/dirty

X	The noise level is normal
	The noise level is loud, requiring ear protection
X	The surface of the working environment is level

0	% of time spent outdoors
1	% of time spent in an automotive vehicle
99	% of time spent at a desk, bench or window
99	% of time spent in an office or control room

	The condition of the air is wet/humid
	The condition of the air is affected by fumes, smoke etc.

	The surface of the working environment is sloping
	The surface of the working environment is uneven
	The surface of the working environment is slippery

Part V: Additional Comments: