Department New Request Form
Fiscal Year 2023

Program	**Central Services**	*Title of New Request:*		*Rank:* 2
Department	Information Technologies			
Request Category	**New**	Key staff positions		
Request Rating	**Expand Level of Service**			
Department Goal	Continuity of Business and Organizational Excellence			

1. How will request assist in achieving Department Goal and benefit the customer

An investment in the addition of two (2) key IT roles is needed to modernize our technology systems, policies and procedures. The 2 positions will boost focus and preparedness against evolving cyber-security threats and command the integration and use of software systems supporting critical operations including upcoming HRIS (Human Resources Information System), Financial Management and Reporting, and more. The Network Security Administrator role is needed to meet the city's **goals for Security, Emergency Preparedness** and **Continuity of Business** and the Software Manager role is needed to meet the city's continuing **focus on strategic communication, collaboration and project management** using new tools in Office 365 like Power BI for results driven management.

2. What specifically is needed to achieve this goal?

Ongoing funding to support 2 new full-time, non-union positions with small one-time support for hardware, training and certification, as needed. HR classified the Software Manager at Grade 20 and the Network Security Administrator at Grade 17. One-time funding to continue the existing temporary Help Desk Specialist position during the new FTE recruitment and stabilization of the IT team. The temporary Help Desk position was funded at the onset of the pandemic in FY21. See supporting information attached

3. Cost Impact of New Program:

Account #	Item	Qnty	Unit Cost	Requested One-Time	Requested Ongoing	FY 2023 Unfunded	FY 2023 Funded	Proposed FY 2024 Ongoing
Ongoing Expenses								
1000.224.410580.110	IT Software Manager	1	107654		107,654	107,654	-	
1000.224.410580.110	Network Security Administrator	1	87045		87,045	87,045	-	
					-	-	-	
					-	-	-	
					-	-	-	
					-	-	-	
					-	-	-	
					-	-	-	
One-time Expenses								
1000.224.419000.220	2 new FTE	2	5000	10,000		10,000	-	
1000.224.410580.110	Help Desk Specialist	1	64068	64,068		64,068	-	
				-		-	-	
				-		-	-	
				-		-	-	
		Expense Sub-Total		**74,068**	**194,699**	**268,767**	**-**	**-**

Revenue Offset:

Account #		Revenue Description	Proposed Onetime Revenue	Proposed Ongoing Revenue
1000.000.334999.00	N	Potential for American Rescue Plan Act (ARPA) one-time support	74,068	
1000	T			194,699
		Revenue Sub-Total	74,068	194,699

4. What sort of data will be used to report results and outcomes of request?

The development and implementation of a strategic framework for software systems to guide processes and procedures in the purchase, development and use of business line applications. Risk / threat assessments, and the development and execution of best practices for information security by city staff. User adoption and satisfaction with new systems.

Requested/Proposed Funding Source

	One-time	Ongoing
Tax or Assessment	-	194,699
Non-tax	74,068	-
Fund Balance	-	-
Total	74,068	194,699

Key metrics and information in support of IT FY23 New Request for 2 FTE

Two key positions are needed to <u>implement unified goals at the city for the secure modernization of our information infrastructure</u>. Critical changes in threats and digital systems requires a significant investment in skilled personnel who will support both cybersecurity and our future software innovations and integration.

CURRENT CHALLENGES

- Lack of IT capacity to manage known threats/deficiencies
- Lack of data/inventories (systems, third party tools, equipment, external users, forms, etc.)
- Lack of standardized processes (data / software permissions, new software requests, etc.)
- Lack of IT policies supporting system configuration and use
- Lack of learning management system for software and system training
- Lack of integration/inoperability between software and systems
- Increase in threats/risk associated with software and systems

IMMEDIATE GOALS/DELIVERABLES FY23

<u>Network Security Administrator</u>
- Create city wide strategy for the security of modern information infrastructure
  - Execute existing software service that will control network access by specified computers and systems, adding resiliency to system security.
  - Execute and manage endpoint security systems city-wide based on defined plan for security updates that includes anti-virus, ransomware, enhanced email security, and more.
  - Plan and implement city-wide training for cybersecurity information protection

<u>Software Manager</u>
- Create city-wide strategic framework to guide processes and procedures in the future purchase /development/deployment/and use of technology.
  - Conduct inventories and gap analysis and prioritize and define approach that is prospective.
  - Assist in provisioning and integrating system upgrades for HR and Finance
  - Advance the use of tools identified in Project Blueprint that increase project visibility, data driven decision making, and process automation.

METRICS SUPPORTING REQUEST for CAPACITY

- **Increase in total system users, ~150 over 5 years.**
  - Ratio of IT team to city personnel 1:70
  - Ratio of Help Desk personnel to City 1:177
- **Increase in IT infrastructure - types of equipment used (~30% increase over 5 years)**
  - 207 servers (physical and virtual)
  - 49 switches
  - 787 computers (desktops, laptops, mobile data terminals [MDT], virtual machines [VM])
- **Changes in personnel and operational management**
  - tele-work/remote work/desk-share
  - in-person/remote/hybrid meetings
  - increase in recruitment / turnover cycles impacting equipment changes/support/onboarding
- **Increase in number of facilities: 2 dozen and growing**
  - City Hall, 400/414 Ryman, Council Chambers/MRA
  - PD (3): Catlin, HIDTA, new CIT on Higgins/Pine

- Fire Stations (5)
- Parks (4): Fort Missoula, Currents, Ops, Splash
- PW (6): Water, Wastewater, Compost, Cemetery office/shop, Streets, Vehicle Maintenance
- Parking Commission office and parking facilities (2)
- Potential future planning: water building on Broadway, Scott Street/White Pine project, Federal Building, Parks community center, new Police Station etc.

- **Increase in the number of and complexity of software systems and their lack of integration**
  - Automation, CIS, SQL, Adobe Sign, Notarize, Civic Plus/HR/Engage, Archive Social, WDesk, Edens, ADP, ESRI, AutoCAD, Adobe Creative Cloud, Visio, Canva, EDR, EcoCounter, T2 Parking, Justware, WatchGuard, CCure, New World, DigiTicket, Alertus, WorkForce, Parks RecTrac, CFA and FIIX for vehicle parts/maintenance tracking, Manage Engine, DUO, VEEAM, BTEP, Escribe, Zoom, O365/Teams, AVI/PolyCom/AudioCodes and more.
  - Future planning for city-wide systems needed: HRIS, Time tracking, Financial Reporting, Power BI, Power Automate, etc.

Proposed Org Chart FY23
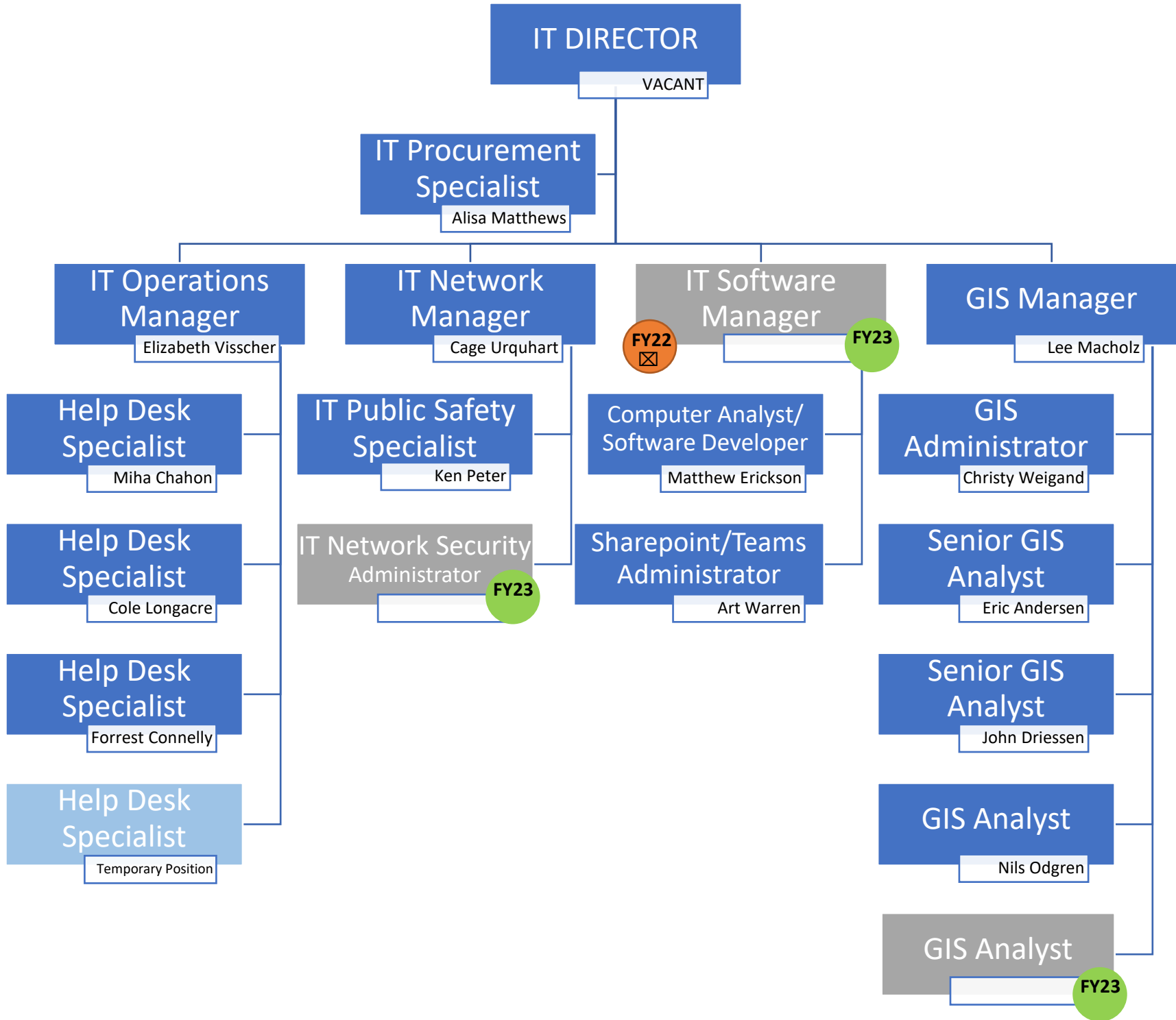
CLASS TITLE: NETWORK SECURITY ADMINISTRATOR   04/22

DEPARTMENT: Information Technology

ACCOUNTABLE TO: IT Network Manager

STATUS: Regular, full-time, non-union

Primary Objective of Position:

The Network Security Administrator is responsible to understand City infrastructure in detail and provide for data security by managing updates, conducting monitoring, evaluating threats, developing protocols, and educating staff. Position will conduct research, perform assessments, investigate/report incidents, and fix vulnerabilities. Manages all cybersecurity related systems including firewalls, spam filtering, network access, endpoint protection and backup. Develops and promotes best practices for information security and provides support and guidance to all City staff. Collaborates with information governance and IT teams to meet Department Goals and ensure the efficiency and security of all City systems.

Job Responsibilities:

- Manage and implement security of network hardware and software, including on-prem and cloud-based data and server backup systems and endpoint protection software and systems.
- Monitor applications, analyze user activity and vulnerabilities, investigate issues, and recommend solutions/improvements.
- Manage deployment of operating system and software updates, including security patches.
- Standardize security procedures and interactions with all City departments, including access management and transmission control for data security.
- Develop and deliver cybersecurity training, information/materials, and technical support for City employees, including specific tools and procedures.
- Assist in planning, designing, and deploying new, secure network systems, as well as network and security enhancements within the City's organization and maintain and troubleshoot all server operating systems.
- Assist in the implementation and improvement of the IT Department's Business Continuity Plan.
- Assist with daily network operations, administration, and management, including scheduling and prioritizing tasks in conjunction with department goals.
- Develop instruction sheets and procedure manuals and maintain records of updates, maintenance, and activity.
- Attend training and conferences and keep apprised of and share information on updates and innovations with systems.

Position requires regular contact with City staff and vendors, movement between departments and facilities, and occasional moving of IT equipment (weighing up to 50 pounds).

Position provides general support to IT department, including Help Desk Specialist unit, and participates in rotating, after-hours on-call system.

Knowledge, Skills, and other Characteristics:

- Knowledge of cybersecurity best practices and implementation, including security information and event management (SIEM).
- Knowledge of server software and administration.
- Knowledge of endpoint management including firewalls, anti-SPAM, anti-virus, anti-malware, anti-ransomware and cloud security administration.
- Knowledge of cloud and on-prem data backup systems.
- Knowledge of remote access, virtual private networks, and internet protocols.
- Proficient in managing and implementing cybersecurity procedures.
- Skill in using DNS, DHCP and Active Directory standards.
- Communicates clearly and effectively using a variety of media and can translate technical jargon into layman's terms.
- Works well independently and can play a leadership role as part of a team.
- Strong problem-solving and analytical skills, detail-oriented, and curious.
- Ability to establish effective relationships with City staff and vendors.
- Ability to think and work quickly to remedy system shutdowns or serious software problems.

Qualifications:

- Any combination of education and experience equivalent to six (6) years of professional network and systems administration, operations, or another relevant field, including two (2) years of cybersecurity experience.
- Microsoft, Palo Alto and Cisco security certifications preferred.
- Government experience is preferred.
- CISSP, CISM/CISA or CCNA/P certification is a plus.
- Must be able to pass a criminal history background check.

| **CLASS TITLE:** | **IT SOFTWARE MANAGER** | 04/22 |

CLASS TITLE: **IT SOFTWARE MANAGER** 04/22

DEPARTMENT: Information Technology

ACCOUNTABLE TO: Information Technology Director

STATUS: Regular, full-time, non-union

Primary Objective of Position:

Under limited supervision, oversees the continuous improvement of software products and processes used by all departments of the City of Missoula. Manage all aspects of business application research, development, and innovation, including system architecture, product strategy, data stewardship, software integration, quality assurance and more. The IT Software Manager leads teams that design/implement new or modified software products and troubleshoot software integration and implemented solutions. They provide guidance and leadership to City departments and are responsible for the effective delivery of quality business technology solutions. Act as a back-up for IT Operations Manager or IT Network Manager in his/her absence.

Primary Duties and Responsibilities:
- Oversee the administration of the division, including the management of software developers and application specialists.
  - Prepares workplans in accordance with strategic goals
  - Recruits, trains, and orients new staff within the division
  - Monitors and evaluates staff performance and maintains a safe and secure work environment
  - Coaches, counsels, and disciplines employees and provides opportunities for personal growth and advancement

- Prepare and present annual budget requests and provide fiscal responsibility for the division's budget.

- Develop / implement/ update strategic framework for computer systems to guide processes and procedures in the purchase / development and deployment of business line applications.
  - Assess business practices and workflows and oversee the research, design, implementation, and management of software applications.
  - Assess systems and services and implement processes and procedures to ensure efficiency, practicality, and quality assurance in operations.
  - Develop metrics that showcase trends, outcomes, and data-driven decision-making opportunities for the City.

- Direct software development and integration to meet business needs, monitor system efficacy, and troubleshoot software issues.

- o Write and implement efficient code and work closely with other developers, UX designers, business and systems analysts.
- o Create technical support documentation for systems and applications, plan change management and training strategies as appropriate.

- Effectively communicate within and outside of City departments and maintain documentation to support future maintenance of systems.
- Provide leadership and support to functional work teams.
- Maintain professional and technical knowledge by attending educational workshops, reviewing professional publications, establishing personal networks, and participating in professional societies.

Knowledge, Skills, and Abilities:
- Ability to develop plans and procedures and coordinate resources to meet strategic department goals.
- Ability to organize projects and people to meet project deadlines while maintaining a positive work environment.
- Interest in the latest technologies and trends, and the ability to learn new systems and technologies quickly.
- Strong interpersonal skills and the ability to communicate complex systems and procedures to non-technical colleagues.
- Exceptional critical thinking and problem-solving ability.
- Knowledge of object-oriented programming concepts and methods.
- Knowledge and/or experience working with relational databases and proficiency with SQL Server programming.
- Knowledge of software development lifecycles (SDLC), program and project management methodologies, and quality assurance principles.
- Knowledge and experience with ASP.NET web forms using C# or VB.net and JavaScript.
- Knowledge on how to use and consume RESTful Services.
- Knowledge and skills with HTTP, JSON, HTML, JavaScript and other server-side web technologies.

Qualifications:
- Any combination of education and experience equivalent to six (6) years in professional software development, computer software engineering, software programming and development, business information systems, or a related field.
- 2+ years' experience in an IT administration/management role.
- Microsoft 365 Certified Developer Associate and/or Power Platform Developer Associate certification preferred.
- Certified Professional Programmer (C++), or other professional programming certifications preferred.
- SQL Server programing skills and working with databases required.
- Experience with all Microsoft Windows environments preferred.
- Experience with municipal government is preferred.
- Must be able to pass a criminal history background check.