

## **SNOHOMISH COUNTY JOB DESCRIPTION**

### **INFORMATION SECURITY ENGINEER, SENIOR**

Spec No. 3306

#### **BASIC FUNCTION**

To ensure the security and accessibility of all County data through use of the most current hardware and software programs. To develop, manage and maintain countywide information security systems. To engineer, analyze, resolve, audit, document, and report to Management in response to issues and developments in the arena of Information and Network Security. Be familiar with a broad range of enterprise-scale technologies in order to effectively work with clients, management, developers, and systems engineering. The individual will be responsible for keeping up to date on the latest security technologies and advances in security tools and assessment techniques as well as communicating these security new techniques to staff.

#### **STATEMENT OF ESSENTIAL JOB DUTIES**

1. Collaborate and provide technical leadership to project teams, applications and engineering project leadership, and direction to all security systems and network engineering staff; assist and train employees as necessary; analyze, resolve and review all security issues.
2. Design, create, document, and maintain test and validation techniques, as well as review all applicable standards for efficiency, sustainability, and recovery in collaboration with applications development, engineering, and operations. Coordinate recommendation, testing, selection, and acquisition of current and proposed security systems hardware and software to meet enterprise requirements and efficiently utilizes information technology resources.
3. Oversees purchase, installation and maintenance of security systems hardware and software at currently supported release levels; ensures implementation conforms to county and department standards, and ensures internal modifications are provided only by the appropriate vendor.
4. Engineer, administer, secure, monitor, and audit systems security software and hardware to ensure optimum performance; oversees applications and engineering reconfigurations as required to accommodate growth and/or changes in security requirements.
5. Evaluate security software and hardware service outages to ensure that they are resolved in an orderly, timely manner and to reduce instances of recurrences.
6. Coordinate security systems engineering activities with operations staff, associated network engineering staff as well as system application programmers to ensure that necessary systems support is provided.
7. Develops or revises new or existing security policies, standards and rules within Snohomish County, and communicates these policies with county staff.
8. Facilitates Communication with management and departments of all issues relating to security policy, standards and procedures.
9. Translates business requirements into system qualities.
10. Form agendas for and leads the monthly IS security team meetings.

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#### STATEMENT OF ESSENTIAL JOB DUTIES (Continued)

11. Perform related duties as required.

#### MINIMUM QUALIFICATIONS

A bachelor's degree in computer science, software engineering, data processing or related field; AND, seven (7) years of professional data processing work experience including two (2) years as an Information Security Engineer or related position. Work related experience in Security Systems and Technologies may be substituted for the required education or training on a year for year basis. Must pass job related tests.

#### SPECIAL REQUIREMENTS

Candidates for employment must successfully pass a criminal background investigation, which includes fingerprinting.

#### KNOWLEDGE AND ABILITIES

Knowledge of:

- security policy creation, management and auditing;
- PKI (Public key infrastructure) as well as Certificate Authorities;
- VPN technology;
- intrusion detection systems;
- implementing UNIX based security solutions (HP-UX, SCO, LINUX);
- TCP/IP protocols (TCP, UDP) and IP outing/sub-netting issues;
- DNS Concepts and Implementation (public and private);
- Internet e-mail (SMTP, POP, IMAP);
- Anonymous/Authenticated FTP servers;
- Firewall implementation (preferably Microsoft's ISA Firewall);
- CISCO (PIX) Network Address Translation (NAT);
- Hardware, software, and in-transit encryption
- Anti spoofing techniques;
- general systems and network security issues;
- multiple authentication protocols and packages, including dual factor identification;
- Smart Card authentication methods;
- Bay and/or Cisco router configurations;
- Virus Protection Strategies and Products;
- Microsoft desktop and server experience.

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#### KNOWLEDGE AND ABILITIES (Continued)

Ability to:

- analyze security systems for defects and weaknesses; work in a diverse network operating system environment, including but not limited to; Windows 7 and Windows 8 operating systems, Windows server 2003, Windows SQL server databases, and all current versions of operating systems and databases; HP/UX, and CISCO;
- identify, recommend for purchase, and use security, management and monitoring tools;
- analyze and resolve problems within the security arena and assist others in resolving like issues;
- create and maintain a multi-level enterprise security architecture, covering external and internal threats. Devise, engineer, design and direct implementation of solutions to complex technical problems relating to security in the Snohomish County enterprise;
- communicate effectively, both orally and in writing;
- establish and maintain effective working relationships with client departments, vendors, associates, and superiors;
- function effectively as a team member and a project leader;
- work under pressure and meet deadlines.

#### SUPERVISION

The employee reports to the Director of Information Services and/or another administrative person as assigned. Acts with authority delegated from the Director. Changes to the security architecture, security tools, and work responsibilities require prior review and approval. The daily work is performed with considerable independence. and is reviewed through periodic reports and meetings.

#### WORKING CONDITIONS

The work is performed in the usual office environment. The employee is on-call during off duty hours and is required to work evenings, weekends, and holidays as necessary.

Snohomish County is an Equal Employment Opportunity (EEO) employer.  
Accommodations for individuals with disabilities are provided upon request.

[EEO policy and ADA notice](#)

Class Established: Pre-1977

Revised: September 1988, October 1996, February 1997, March 2014

Revised & retitled: May 2002

Revised: April 2005, June 2005, July 2005, November 2005, April 2008

EEO Category: 2 - Professionals

Range: 754 Information Services Pay Plan

Worker's Comp: Non-Hazardous