Job Title: Systems Analyst/Programmer I

Career Track: First in a I, II Series

Agency/Department: Office of the Revisor of Statutes

Reporting to: Deputy Revisor for Information Systems. Functional reporting to Systems Analyst/Programmer II, Data Systems Project Manager

Job Grade Level: 8

Job EEO Code:

Date: 9/12/2006 (updated 5/14/08) (updated 9/14/2014)

Primary Objective: The Systems Analyst/Programmer I provides computer programming and systems administration work necessary to develop, operate, and maintain the Revisor’s Office computer systems.

Responsibilities and Tasks:

The Systems Analyst/Programmer I performs programming or systems administration or database-administration functions. Each individual in this job classification, however, has a primary focus in one of these broad areas.

1. Provide computer-programming functions:
   a. Design, program, test, and document new functions and features for in-house developed applications and in developing new XTEND software applications.
   b. Enhance existing functions and features for in-house developed applications needed for better efficiency and more flexibility. This task may include XTEND, web applications, or applications designed in Oracle.
   c. Modify and enhance software purchased for special applications, such as the CINDEX software for indexing.
   d. Evaluate and correct problems that arise in using any of the type of applications in items a to c.

2. Provide one or more systems administration functions:
   a. All system administration functions include the following duties:
      i. Continuous training in relevant technologies
      ii. Planning for the needs of the office, researching hardware and software requirements, and making purchase recommendations to the Deputy Revisor for Information Systems
      iii. Installing both software and hardware to provide for system operation
      iv. Installing software, and optionally hardware, to perform disk backups
      v. Ongoing maintenance, configuration, administration, troubleshooting, and technical support of systems
   b. Microsoft Windows systems administration. This is the system necessary to operate Microsoft Windows applications, such as Word, Excel, and Access, and other applications such as Cindex.
   c. Security firewall administration, including related functions such as the router, shared services (DMZ), and virtual private network concentrator.
d. Network administration, including:
   i. designing, maintaining, and installing terminals, printers, hubs, switches, cables, and routers; and
   ii. network maintenance, to enable reliable operation of the local area network, including services, and internal network components.

e. Linux system administration. Linux is the operating system used to operate the Oracle database and AppServer for the XTEND drafting system and for web components.

f. Storage Area Network (SAN) or (NAS) administration.

g. Answer questions relating to using the network or revisor systems in general.

3. Database administration functions:
   a. Database administration
      i. Perform maintenance operations as assigned. The database should be both highly available and operate at a high performance.
      ii. Monitor database performance.
      iii. Work with legislative programmers to identify software that degrades database performance.
      iv. Protect database contents. Monitor the database for malicious attacks and unauthorized access. Report such incidents to the Deputy Revisor for IS. Work with state security experts to resolve and prevent such incidents.
      v. Preserve database contents. Monitor procedures for preserving the database's contents.
      vi. Continuously learn about the capabilities and limitations of the commercial database in use. Participate in the installing of new versions of commercial database products.
   b. Database-programming assignments
      i. Maintain code for full-text searching of documents stored in the database.
      ii. Design and code SQL statements for use by other programmers.
      iii. Perform batch import, export, and conversion of data.

4. Perform other duties as assigned.

**Budget Responsibility:**

None, other than to recommend hardware or software purchases to the Deputy Revisor for Information Systems.

**Supervisor Responsibility:**

None

**Indirect Supervision:**

Trainer and Help Desk Specialist I and II, regarding specialized applications.

**Scope of Relationships:**

1. External contacts:
   a. Weekly contact with information services staff in other legislative offices
b. Quarterly contact with technical-support engineers to resolve issues in commercial software applications.

2. Internal contacts:
   a. Daily contact with other Revisor’s Office computer staff
   b. Daily contact with independent contractors hired to maintain existing IT systems
   c. Weekly contact with other Revisor’s Office staff such as deck, attorney, or administrative staff

Decision Making and Impact of Error:

1. Discretion. The Systems Analyst/Programmer I typically receives an assignment or project from the Deputy Revisor for Information Systems or the Data Systems Project Manager.
   a. Primary decision making on how to develop and implement the specific project assignment.
   b. Shared decision making on recommended hardware or software purchases.

2. Impact of Error:
   a. Errors in programming could result in an application failing, loss of data, or delay in the ability to produce data.
   b. Errors in system administration could take down all or part of the system, cause loss of data, or allow access to sensitive information.

Working Conditions and Physical Demands:

1. Normal office conditions, about 90 percent of the time
2. Occasional lifting of heavy computer equipment, about 5 percent of the time
3. Occasional long hours to solve computer problems or be on site for troubleshooting, about 5 percent of the time
4. During session, rotate on-call duty with other computer staff, for a one-week period

Minimum Qualifications:

1. Education. The minimum education required is a four-year computer-science degree, or the equivalent, based upon at least three years of work in the computer field.
2. Experience. No work experience is necessary unless it is needed to substitute for the education requirement.
3. Knowledge. Depending on the position, knowledge in one or more of the following areas is required:
   a. Java or PHP, and CSS programming languages
   b. Microsoft Windows servers and a Windows scripting language (e.g. Perl, PowerShell).
   c. Linux servers and Linux scripting languages (e.g., Perl, bash)
   d. Hypervisor software for creating and running virtual servers
   e. Office productivity software such as Microsoft Office applications
   f. Internet concepts and usage such as html, http, telnet, ftp and e-mail
   g. Relational database management systems (RDBMS). Familiarity with Oracle databases preferred.
4. Skills and Abilities. This position requires:
   a. analytical skills to diagnose problems and design corrections or new applications;
   b. resourcefulness to solve a particular computer problem in a manner that will not adversely affect the other system components;
   c. initiative to develop new applications and enhance existing applications;
   d. judgment to determine the best way to solve a problem or design a new application; and
e. communication/relationship skills to be effective in communicating new applications or solving problems.

Desired Qualifications:

1. Knowledge of the legislative process and users’ jobs
2. Advanced knowledge in any of the applicable programming or system administration functions

All identified duties are essential.

Distribution of copies – employee, supervisor, and Human Resources.