



**FY 2018 NCS-X Implementation Assistance Program: Support for Local Law Enforcement Agencies, Part 2** 2018-30226-CA-FU



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This handbook allows you to complete the application process for applying to the FY 2018 NCS-X Implementation Assistance Program: Support for Local Law Enforcement Agencies, Part 2. At the end of the application process you will have the opportunity to view and print the SF-424 form.

<p>*Type of Submission</p>	<p> <input type="radio"/> Application Construction      <input type="radio"/> Preapplication Construction  <input checked="" type="radio"/> Application Non-Construction      <input type="radio"/> Preapplication Non-Construction         </p>
<p>*Type of Application</p>	<p> <input type="text" value="New"/> Type of Revision                  If Revision, select appropriate option                  If Other, specify             </p>
<p>*Is application subject to review by state executive order 12372 process?</p>	<p> <input type="radio"/> Yes This preapplication/application was made available to the state executive order 12372 process for review on  <input checked="" type="radio"/> No Program is not covered by E.O. 12372  <input type="radio"/> N/A Program has not been selected by state for review         </p>

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Verify that the following information filled is correct and fill out any missing information. To save changes, click on the "Save and Continue" button.

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* Is the applicant delinquent on any federal debt? (If Yes is selected, please upload an explanation)	<input type="radio"/> Yes <input checked="" type="radio"/> No
* Employer Identification Number (EIN)	94 - 6000417
* Type of Applicant	County
Type of Applicant (Other):	
* Organizational Unit	San Francisco Police De
* Legal Name (Legal Jurisdiction Name)	City And County of San
* Vendor Address 1	1245 3rd Street
Vendor Address 2	
* Vendor City	San Francisco
Vendor County/Parish	
* Vendor State	California
* Vendor ZIP	94158 -2262 <a href="#">Zip+4 Lookup</a>
<b>Please provide Point of Contact Information for matters involving this application</b>	
* Contact Prefix:	Mr.
Contact Prefix (Other):	
* Contact First Name:	Patrick
Contact Middle Initial:	
* Contact Last Name:	Leung
Contact Suffix:	Select a Suffix
Contact Suffix (Other) :	
* Contact Title:	Grants Manager

*Contact Address Line 1:	1245 3rd Street
Contact Address Line 2:	6th Floor
*Contact City	San Francisco
Contact County:	San Francisco
*Contact State:	California
*Contact Zip Code:	94158 - 2262 <a href="#">Zip+4 Lookup</a>
*Contact Phone Number:	415 837 7213 Ext:
Contact Fax Number:	415 575 6085
*Contact E-mail Address:	patrick.n.leung@sfgov.org <a href="#">Email Help</a>

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*Descriptive Title of Applicant's Project National Incident-Based Reporting System (NIBRS) Implementation for San Francisco Police Department		
*Areas Affected by Project City and County of San Francisco		
Proposed Project		
	*Start Date	October 01 2019
	*End Date	December 31 2023
*Congressional Districts of		
	Project	Congressional District 09, CA Congressional District 10, CA Congressional District 11, CA Congressional District 12, CA
*Estimated Funding		
Federal	\$ 5304000	.00
Applicant	\$ 0	.00
State	\$ 0	.00
Local	\$ 0	.00
Other	\$ 0	.00
Program Income	\$ 0	.00
TOTAL	\$ 5304000	.00

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This page allows you to upload the Budget Detail Worksheet, Financial Management and System of Internal Controls Questionnaire (FCQ) form, Program Narrative, and other Program attachments. Click the attach button to continue.

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**FCQ Attachment**

In accordance with the Part 200 Uniform Requirements as set out at 2 C.F.R. 200.205, Federal agencies must have in place a framework for evaluating the risks posed by applicants before they receive a Federal award. To facilitate part of this risk evaluation, all applicants are to download, complete, and submit the Financial Management and System of Internal Controls Questionnaire.

For your convenience your most recently submitted FCQ Form is attached below. Please review it for accuracy. If you need to make changes, please submit an updated [FCQ form](#), that will replace your most recently submitted FCQ Form.

<a href="#">Most Recently Submitted FCQ form</a>	<a href="#">Update FCQ</a>
--	----------------------------

**Budget and other Program Attachments**

<a href="#">NCS-X Abstract.pdf</a>	<a href="#">Delete</a>
<a href="#">NCS-X Program Narrative.pdf</a>	<a href="#">Delete</a>
<a href="#">NCS-X BudgetDetailWorksheet.pdf</a>	<a href="#">Delete</a>
<a href="#">NCS-X Job Descriptions for Unfilled Positions.pdf</a>	<a href="#">Delete</a>
<a href="#">NCS-X Communications Plan.pdf</a>	<a href="#">Delete</a>
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<a href="#">NCS-X Disclosure of Lobbying Activities.pdf</a>	<a href="#">Delete</a>
<a href="#">NCS-X Disclosure of Pending Applications.docx</a>	<a href="#">Delete</a>
<a href="#">NCS-X Executive Compensation Disclosure.docx</a>	<a href="#">Delete</a>
<a href="#">SFPD Readiness Assessment June 2018.pdf</a>	<a href="#">Delete</a>
Click on the Attach Button to upload an attachment	<a href="#">Attach</a>

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Your file has been successfully attached, but the application has not been submitted to OJP. Please continue with your application.

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To the best of my knowledge and belief, all data in this application/preapplication is true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is awarded.

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Your typed name, in lieu of your signature represents your legal binding acceptance of the terms of this application and your statement of the veracity of the representations made in this application. The document has been duly authorized by the governing body of the applicant and the applicant will comply with the following:

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1. [Assurances](#)
2. [Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace requirements.](#)

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If you are an applicant for any Violence Against Women grants, this includes the Certification of Compliance with the Statutory Eligibility Requirements of the Violence Against Women Act.

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\* - Indicates required field

*Prefix:	Mr.
Prefix (Other):	
*First Name:	William
Middle Initial:	
*Last Name:	Scott
Suffix	Suffix:
Suffix (Other):	
*Title:	Chief of Police
*Address Line 1:	1245 3rd Street
Address Line 2:	
*City:	San Francisco
County:	
*State:	California
* Zip Code:	94158 - 2262 <a href="#">Zip+4 Lookup</a>
* Phone:	415 - 837 - 7000 Ext : <input type="text"/>
Fax:	415 - 837 - 7370
*E-mail:	sfpdchief@sfgov.org <a href="#">Email Help</a>

\*  I have examined the information provided here regarding the signing authority and certify it is accurate. I am the signing authority, or have been delegated or designated formally as the signing authority by the appropriate authority of official, to provide the information requested throughout this application system on behalf of this jurisdiction. Information regarding the signing authority, or the delegation of such authority, has been placed in a file and is available on-site for immediate review.

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<b>APPLICATION FOR FEDERAL ASSISTANCE</b>	<b>2. DATE SUBMITTED</b> June 28, 2018	<b>Applicant Identifier</b>	
	<b>1. TYPE OF SUBMISSION</b> Application Non-Construction	<b>3. DATE RECEIVED BY STATE</b>	<b>State Application Identifier</b>
		<b>4. DATE RECEIVED BY FEDERAL AGENCY</b>	<b>Federal Identifier</b>
<b>5. APPLICANT INFORMATION</b>			
<b>Legal Name</b> City And County of San Francisco		<b>Organizational Unit</b> San Francisco Police Department	
<b>Address</b> 1245 3rd Street San Francisco, California 94158-2262		<b>Name and telephone number of the person to be contacted on matters involving this application</b>  Leung, Patrick (415) 837-7213	
<b>6. EMPLOYER IDENTIFICATION NUMBER (EIN)</b> 94-6000417		<b>7. TYPE OF APPLICANT</b> County	
<b>8. TYPE OF APPLICATION</b> New		<b>9. NAME OF FEDERAL AGENCY</b> Bureau of Justice Statistics	
<b>10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE</b> NUMBER: 16.734 CFDA TITLE: Special Data Collections and Statistical Studies		<b>11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT</b> National Incident-Based Reporting System (NIBRS) Implementation for San Francisco Police Department	
<b>12. AREAS AFFECTED BY PROJECT</b> City and County of San Francisco			
<b>13. PROPOSED PROJECT</b> Start Date: October 01, 2019 End Date: December 31, 2023		<b>14. CONGRESSIONAL DISTRICTS OF</b> a. Applicant b. Project CA12	
<b>15. ESTIMATED FUNDING</b>		<b>16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?</b> Program is not covered by E.O. 12372	
Federal	\$5,304,000		
Applicant	\$0		
State	\$0		
Local	\$0		
Other	\$0		
Program Income	\$0	<b>17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?</b> N	
TOTAL	\$5,304,000		

**18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS REQUIRED.**

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### Submit Application

Your application for the FY 2018 NCS-X Implementation Assistance Program: Support for Local Law Enforcement Agencies, Part 2 has been successfully submitted. You will no longer be able to edit any information submitted. However, you can log in any time to view the application information.

You will be contacted by the Program Office when your application is processed or any other action is required by you.

## **FY 2018 National Crime Statistics Exchange (NCS-X), Part 2**

### **PROJECT ABSTRACT**

The Federal Bureau of Investigation's (FBI) Uniform Crime Reporting (UCR) Program was designed in the 1920s to create a uniform set of crime statistics for use in crime analysis. The FBI oversees the national data clearinghouse and collects information submitted by over 18,000 city, university/college, county, state, tribal, and federal law enforcement agencies voluntarily participating in the program. The FBI is transitioning the standard being used for the UCR Program from the traditional Summary Reporting System (SRS) standard to the National Incident-Based Reporting System (NIBRS). Crime information reported using the SRS standard is organized using a hierarchical rule, wherein only the most severe offense within an incident is reported, even if multiple offenses are tied to the same incident. The newer NIBRS standard collects information using an incident-based approach and reports all offenses involved in a particular incident. The FBI plans to retire the SRS component of the UCR Program and transition to NIBRS on January 1, 2021. To support these efforts, the Office of Justice Programs is offering funding to assist local law enforcement agencies in their NIBRS transition efforts. In this proposal, the San Francisco Police Department is submitting a request to help fund its transition to the NIBRS standard. This request includes a scoping plan to help identify the business processes impacted, the project design requirements, and project implementation strategies. Upon the completion of the scoping plan, the Department expects its transition plan will include increased costs in hardware and software to implement the new data and interfaces, a replacement of the Incident Report Writing System, and updates to other systems that either feed in or receive data elements required by the NIBRS standard. The San Francisco Police Department is committed to transition and adoption of the NIBRS standard in its UCR reporting efforts.

## **FY 2018 National Crime Statistics Exchange (NCS-X), Part 2**

### **PROGRAM NARRATIVE**

#### **1. Agency Overview and Current Crime Data Management Processes**

The City and County of San Francisco is home to 884,363 residents, with a day time population over 1.2 million due to a commuting labor force, visitors and a large tourist base; all encompassed in an area of approximately 47 square miles. Over 300,000 non-residents commute into the city each day, and 25 million tourists visit the city each year. The ethnic composition of San Francisco includes Caucasian (39.1%), Hispanic (15.2%), Asian (35.4%), Pacific Islander (0.4%), African American (5.6%), and (4.3%) are two or more races. The San Francisco Police Department (SFPD) is currently the second largest local law enforcement agency in the State of California and serves the fourth largest municipality.<sup>1</sup> The SFPD currently has a complement of approximately 2,300 sworn members, 600 civilian members, and numerous volunteers. Organizationally, the department is divided into six (6) bureaus: Administration, Chief of Staff, Operations, Special Operations, Professional Standards/Principled Policing, and Airport. The SFPD operates ten (10) District Police Stations and maintains a presence on Treasure Island (located on the San Francisco Bay between San Francisco and Oakland) and at the San Francisco International Airport (located within San Mateo County).

In 2011, the SFPD began implementing its Crime Data Warehouse as its record management system (RMS) over the following four (4) phases:

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<sup>1</sup> FBI Uniform Crime Reporting for 2016  
<https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/tables/table-26/table-26.xls/view>

- **Phase 1 & 2** (Incident Reporting System Replacement) – Creating a new electronic incident report. Implement a searchable crime database; replace the PC-Based Incident Reporting System (IRS); Implement geo-coding of addresses; Implement connect to CAD functionality to instantly associate the CAD call with the incident report; Implement electronic signatures for the first time. Pull field interviews into Crime Data Warehouse for searching.
- **Phase 3** (Records Management) – Create a data warehouse with Business Intelligence capability. Integrating CopLogic, the City’s self-service incident reporting system, into Crime Data Warehouse. Migrate all data from the legacy Crime Assisted Bay Area Law Enforcement system (a 40-year-old mainframe system. Implement Oracle’s Secure Enterprise Search (SES), mapping, reporting, CompStat and UCR reporting, and electronic dashboards. Provide interface for data feeds to the City’s Justice Tracking Information System (JUSTIS) and to DataSF, the City's open data portal.
- **Phase 4** (New Capabilities, in progress) – e-Citations (50 percent rolled out to the field), new arrest module, new case tracking module, new collisions module, new Officer Dashboard, new Officer Complaints dashboard.

While the Crime Data Warehouse is not a shared RMS, data from Crime Data Warehouse is transmitted to the City and County of San Francisco’s Justice Tracking Information System (JUSTIS), a central public safety hub where other public safety agencies can access our data. The Crime Data Warehouse is used to provide information to over 40 other partner agencies. Currently, patrol officers enter incident reports directly into the Department’s Crime Data Warehouse. Once entered, an incident is routed and the Officer-in-Charge validates and verifies the entry before

electronically approving the record, upon which, the incident report is considered final and the record cannot be changed.

For 2017, San Francisco reported 60,993 Uniform Crime Reporting (UCR) Part 1 crimes and produced 137,803 police incident reports. Over the past four (4) years, San Francisco has reported an average of 56,000 UCR Part 1 crimes per year.

<b>UCR PART 1 OFFENSES</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Homicide	45	53	58	56
Rape	355	344	342	367
Robbery	3,224	3,610	3,175	3,220
Aggravated Assault	3,137	2,703	2,616	2,658
Human Trafficking		67	49	33
<b>Subtotal Violent Crimes</b>	<b>6,761</b>	<b>6,777</b>	<b>6,240</b>	<b>6,334</b>
Burglary	5,237	5,186	4,978	4,935
Larceny/Theft	33,730	40,918	36,991	44,587
Auto Theft	6,126	6,915	5,433	4,834
Arson	241	272	256	303
<b>Subtotal Property Crimes</b>	<b>45,334</b>	<b>53,291</b>	<b>47,658</b>	<b>54,659</b>
<b>Total UCR Part 1 Crimes</b>	<b>52,095</b>	<b>60,068</b>	<b>53,898</b>	<b>60,993</b>

The Department generates a monthly report that includes all crime information summarized by UCR incident code. The SFPD Crime Analysis Unit collects and enters these summary statistics into California's UCR system. For arrest information, a nightly batch process is run to collect the arrest information from approximately 10 different systems (including the San Francisco Sheriff's Office booking system, juvenile arrest system, and court citation system). The collected information is sent electronically to the California Department of Justice (DOJ) UCR Program

using the Summary Reporting System (SRS) standard. Under the NIBRS standard, the Department anticipates that the incident summary data could be reported electronically to the state through a system-automated process.

The Summary Reporting System (SRS) standard dates back to the 1920s to create a uniform national standard for reliable crime analysis, with a focus on aggregate crime totals. SRS collects data using a hierarchical rule wherein only the most severe offense within an incident is reported, even if multiple crimes are tied to the same incident. The FBI announced its intentions to retire the SRS on January 1, 2021 and transition to a NIBRS-only system. Effective policing relies upon the quality of the data collected. The biggest limitation of SRS is that users must prioritize what data attributes to collect and store. NIBRS allows agencies to record all offenses within a single incident and collect additional attributes of the event, such as the location, the time of day, and whether the incident was cleared. The transition to NIBRS will bring large changes to the information that the SFPD will collect and how it will be recorded. Currently, the FBI has certified 35 state UCR programs to accept incident-based data from local law enforcement agencies to report NIBRS data into the national system. California does not currently have a NIBRS certified state UCR program, but expects to begin its certification process in mid-2019. The SFPD is included in regular communications with the California DOJ and receives status updates on the progress of the California Incident-Based Reporting System (CIBRS), the state's implementation of NIBRS. In addition to waiting for CIBRS to become operational, the challenges the SFPD faces in its transition to the new NIBRS standard includes how it will collect incident information.

The Department's current Incident Reporting System does not contain NIBRS-based rules or validations. The reporting template was modeled after a paper report that has been in existence

for over 10 years. The current system captures approximately 50 percent of the data elements defined in the NIBRS standard. The Department will need to implement validation rulesets and adopt a completely new electronic Incident Reporting System. However, the Department must postpone its NIBRS transition implementation until the California DOJ has finalized its CIBRS standard.

### **Project Design and Implementation**

The NIBRS transition will require the replacement of the Incident Report Writing System component of the Crime Data Warehouse. The SFPD does not have the staffing with sufficient subject matter expertise to perform the business analysis required to transition from its 20+ year old incident coding to NIBRS. The Department will take advantage of any technical assistance offered by BJS and the FBI and intends to hire a consultant firm that can perform the project management and business analysis for the NIBRS transition. The business analysis will include data analysis, systems analysis, integration analysis, and project scoping. The tasks performed will also include developing a transition strategy, identifying operational and system requirements, design, coding, testing, and project change management. To satisfy jurisdictional needs and requirements, the new NIBRS-compliant Incident Report Writing System will need to be custom developed. For the Incident Report Writing System to be successful, the following three (3) conditions must be met:

1. **Receiving a standardized set of electronic incident report templates that covers how agencies should treat data validations and data attributes for each offense.**

For example, for a robbery incident, the template would stipulate which attributes should be completed by the officer for a robbery and omit extraneous data elements that are not applicable for that incident. This ensures a consistent application of

NIBRS/CIBRS standards and improves the data quality and validity of a report. These efforts will require additional guidance from the FBI and California DOJ.

2. **Having Federal and State standards for data that are in synchronization with the full electronic incident report templates developed.** The Department has previously encountered issues where the State and Federal standards are in conflict, preventing the Department from reporting the information in the same manner. A recent example involves the State's request for Hispanic counts for race and the Federal's request excluding Hispanic from race coding and instead having a separate Hispanic ethnicity field as a "yes/no" category. It took the Department several months to determine how to report the data accurately.
3. **Aligning Federal and State Penal Codes so the Department has clear definitions of offenses.** There can be differences in the legal definitions of an offense, depending on whether one uses the Federal or State description. How should these variances be reconciled? Under what circumstances should one definition take precedence over another? The Department needs to have a table of penal codes that are valid for the state, for our local San Francisco laws, and for the Federal government, so we can report accurate and consistent data to all audiences.

Once these conditions are satisfied, the Department can conduct an enterprise-wide analysis of its existing incident codes. Currently, there are approximately 2,000 incident codes that are used to classify an incident, which includes a catalog of codes for offenses ranging from Robberies to Post-Release Community Supervision. The Department intends to adopt the NIBRS incident codes in the new Incident Report Writing System, but it is also important to understand how the incident codes are used in the current system and which agencies rely upon the data from those codes so

the Department can be sure to include those data and reporting requirement needs in the new system.

Finally, upon completion of the new NIBRS-compliant incident report writing system, the Department will need to analyze and scope the impact to other supportive systems and units, such as CopLogic, the public self-service web-based incident report system; DataSF, the City's open data portal; business processes of the Identification Bureau; e-Citations; arrests; community dashboards; CompStat dashboards; specialized dashboards, such as ones for Critical Incident Team and Hostage Negotiation Team; and the City's JUSTIS system. The Department also needs to analyze the impact on the data feeds that support the functions of other City public safety agencies that are consumers of our incident data. These agencies include the District Attorney's Office, the San Francisco Superior Court, the Sheriff's Office, and the Juvenile Probation Department. All of these entities receive data from the SFPD Crime Data Warehouse incident system. The agencies are consumers of the Department's incident data and will need to update their systems and reports to become compatible with the new NIBRS format once the new incident report writing system becomes operational.

Due to delays in the completion of the specifications for California DOJ's CIBRS system, the SFPD expects the transition to a NIBRS-compliant system to have an extended timeline that starts from October 1, 2019 and runs through December 31, 2023. The NIBRS transition will occur in two (2) phases. Phase 1 will include the following steps:

1. Wait for California DOJ to finalize its data elements, mock electronic incident report, penal codes (for arrests) and reporting templates in CIBRS. (June 2018 to December 2019)

2. Create an RFP to hire a Technology Management Consultant Firm to perform the project. (November 2019 to July 2020)
3. Hire a Technology Management Consultant Firm. (August 2020 to November 2020)
4. Consultant to develop scoping, impact analysis, requirements, deliverables, timeline, interfaces, architecture plan, cost analysis, and roadmap for project. (January 2021 to June 2021)
5. Consultant to develop business architecture diagram showing existing and new hardware and software required to operate new NIBRS system. (January 2021 to June 2021)
6. Consultant to scope the hardware and software necessary to upgrade our existing Oracle environment for the new NIBRS incident and data creation. (January 2021 to June 2021)

Once the NIBRS transition scoping plan has been completed, Phase 2 will commence and include the following steps:

1. The Department will procure new hardware and software as required. (July 2021 to Jan 2022)
2. Consultant to manage the project including design, development, interfaces to other agencies, testing, re-write of all existing reports, data dictionary creation and documentation, map creation or modification, tables, etc. The Department expects the consultant to develop and provide the new process training and technology change for police officers. In addition to the new system, officers will need to be

familiarized with new offense codes, new penal codes, new crime attributes, etc.  
(November 2021 to June 2022)

3. Consultant to develop and execute a Communications and Training Plan for officers, other agencies, the public (for changes to self-service incident reports), etc. (May 2022 to October 2022)
4. Consultant to provide training to officers. (November 2022 to November 2023)
5. The new incident report writing system will go-live once all officers are trained. (December 2023)

The Department will rely upon the Consultant to perform the steps required to achieve Incident-Based Reporting (IBR) certification from the state's UCR program.

The Department expects many improvements to be gained from the NIBRS transition. Reported crime data will have more consistency once agencies begin to collect and report incidents in a similar, approved manner. Currently, each agency manages its own table definitions and validations, which may result in data inconsistencies. For example, the defined valid values for race are different at the local, state, and federal levels. Depending on which standard is being used to record the data, the report can result in different conclusions even if the population used is identical. With NIBRS-based data, the Department will encounter less discrepancies between the reported crime and actual crime characteristics. NIBRS will provide the Department with a better toolbox for which to analyze crime data and will provide the Department with more relevant data in determining how it will deploy its resources to combat crime.

### **Project Communication Plan**

This project will significantly change the manner in which the SFPD collects and reports incident data and will require regular communication with various agency stakeholders. Monthly

updates will be provided to the Bureau of Justice Statistics and the FBI Criminal Justice Information Services, with monthly teleconferences to walk through the updates. The SFPD Command Staff will be updated in the same timeframe. In 2000, the City and County of San Francisco created a Governance Council to oversee the City's Justice Tracking Information System (JUSTIS). An objective of JUSTIS is to allow public safety departments to gather and share information with each other automatically through a centralized hub. The JUSTIS Governance Council includes the Mayor's Office, the City Administrator, Adult Probation, District Attorney, Department of Emergency Management, Juvenile Probation, Police, Public Defender, Sheriff, Department on the Status of Women, Superior Court, and Department of Technology. Many of the departments in the JUSTIS Governance Council will be affected by the transition to NIBRS reporting standard. The Department will make use of the existing framework of the JUSTIS Governance Council to regularly communicate important changes regarding the NIBRS transition to affected local agencies. A Project Communications Timeline document is included as a separate document within this application.

**Transition Costs**

The Department's NIBRS transition will involve major changes to existing systems and processes. These changes are explained in further detail in the Project Design and Implementation section. The Department has prepared a cost estimate for all of the required updates to our systems and processes for this project.

<b>NIBRS Project Transition Costs</b>		
<b>Item Description</b>	<b>Budget</b>	<b>Calculation of Costs</b>
<b>Phase 1. Hire Technology Management Consulting Vendor to scope project.</b>	\$560,000	4 consultants for 7 months @100 per hour for 40 hours per week.

Item Description	Budget	Calculation of Costs
This scoping effort will include agencies and processes impacted, requirements, deliverables, timeline, cost estimating, and roadmap.		
<b>Phase 2. Estimate Costs to execute project as defined in Phase 1.</b>		
Hardware and software to implement new data and interfaces	\$500,000	250k software and 250k hardware
Analyze and implement penal codes for arrests. Ensure local codes can link to state codes and federal codes.	\$384,000	4 consultants for 6 months @100 per hour for 40 hours per week.
Replace Crime Data Warehouse Incident Report	\$1,440,000	5 consultants for 18 months at \$100 per hour
Replace CopLogic self-service Incident Report	\$500,000	Estimated CopLogic vendor cost to replace incident report.
Update Command CAD system with needed changes	\$320,000	2 consultant for 10 months at \$100 per hour
Update e-Citations	\$256,000	2 consultants for 8months at \$100 per hour
Update Arrest Module	\$256,000	2 consultants for 8months at \$100 per hour
Plan and execute migration of old crime data to new system	\$320,000	2 consultants for 10months at \$100 per hour
Update Sheriff Booking System for Arrest Data	\$256,000	2 consultants for 8months at \$100 per hour
Update Juvenile Arrest System for Arrest Data	\$256,000	2 consultants for 8months at \$100 per hour
Update Court Citation System for Arrest Data	\$256,000	2 consultants for 8months at \$100 per hour
<b>Total</b>	<b>\$5,304,000</b>	

The San Francisco Police Department anticipates incurring other associated costs resulting from the NIBRS implementation project that are not allowable under this solicitation. These costs are necessary for a successful transition and the SFPD intends to request funding for these items as part of the City's general fund budget request process. Affected partner agencies will also need to evaluate the changes required to their operations. Once the NIBRS transition implementation project is complete, ongoing maintenance costs for the project will be identified and included in

the Department's yearly operating budget request. The Department has identified the following list items that would require local funding support to ensure a successful NIBRS transition.

<b>NIBRS Project Other Associated Costs</b>		
<b>Item Description</b>	<b>Budget</b>	<b>Calculation of Costs</b>
Replace JUSTIS feed	\$96,000	1 consultant for 6 months at \$100 per hour
Replace District Attorney Feed	\$96,000	1 consultant for 6 months at \$100 per hour
Replace Sheriff Feed	\$96,000	1 consultant for 6 months at \$100 per hour
Replace Compstat Dashboards	\$576,000	4 consultants for 9 months at \$100 per hour
Replace Community Dashboards	\$256,000	2 consultants for 8months at \$100 per hour
Replace specialized unit dashboards (Crisis Intervention Team, Hostage Negotiation Team, etc.)	\$256,000	2 consultants for 8months at \$100 per hour
Develop new training for police officers on new set of penal codes, new set of offense codes, new incident report, new CompStat, and new dashboards	\$512,000	4 consultants for 8 months at \$100 per hour
Train all Police Officers on new process and systems	\$768,000	4 consultants for 1 year at \$100 per hour
<b>Total</b>	<b>\$2,656,000</b>	

### **Capabilities and Competencies**

Chief William Scott is a supporter of this initiative and is moving the Department forward in terms of data collection and standardization. He has a strong interest in NIBRS specifically and is committed to making the new NIBRS standard a departmental priority. Deputy Chief Michael Redmond is an expert in the area of Field Operations and Investigations and will ensure that his team is available to participate in this project. The SFPD Command Staff are all experienced law enforcement professionals who will act as law enforcement subject matter experts. Susan Merritt is an experienced IT Professional with over 25 years of experience in the private and public sector

performing management consulting, IT strategy, Enterprise IT Projects, and IT operations. Will Sanson-Mosier is an expert Project Manager and has successfully led several large scale projects at SFPD, including the move to a new police headquarters, the Body Camera Project, and the e-Citations Project, which is still in-progress.

In addition to current department personnel, this project will require services performed by the selected consultant firm(s) for this project. The Department will need to hire a Management Consulting firm that specializes in enterprise technology change and can provide the business analysis resources and the technology resources required for this project. The Department anticipates the consultant firm to assign the following staffing resources for this project (equivalent City job qualifications and attributes are provided for each position and are included in a separate attachment):

**One (1) Enterprise IT Program Manager, Manager VII, Class Code 0942 -** Responsible for functions and activities of the NIBRS implementation project. Position to provide leadership and direction in developing organizational policies, priorities and objectives; direct and coordinate the implementation of program changes; serve as technical advisor; and perform related duties as required.

**One (1) Incident System IS Manager, Class Code 1071 -** Responsible for directing the information systems activities; managing information systems projects, managing projects across departmental lines and/or managing major development projects; and reconciling conflicting demands from various clients by applying available resources to achieve maximum client satisfaction.

**Three (3) Principal Business Analysts, Class Code 1054** - Provides direct ongoing supervision to other Business Analysts, serves as the top technical authority for one or more related specialties, provides technical leadership and direction and assumes technical responsibility for the completion of major projects; performs or oversees all or most of the systems development life cycle and ongoing administration functions, including needs analysis, cost-benefit analysis, structured systems analysis and design, feasibility analysis, technology and software assessment, telecommunications needs analysis, project planning and management, system installation, implementation and testing, conversion to production status, technical and procedural documentation, user training, and post-implementation assessment and administration; directs and participates in complex studies.

**Three (3) Business Analysis, Senior, Class Code 1053** - Oversees the more difficult and complex aspects of the systems development cycle, including needs analysis, cost-benefit analysis, structured systems analysis and design, feasibility analysis, technology and software assessment, telecommunications needs analysis, project planning and management, system installation, implementation and testing, conversion to production status, technical and procedural documentation, user training, and post-implementation assessment and administration; may be the primary MIS resource for an organization with a complex system.

**Two (2) IS Engineers, Class Code 1044** - Provides direct ongoing supervision to other IS Engineers and provides technical leadership and direction and assumes technical responsibility for completion of major projects, and serves as the top technical authority for one or more related specialties. Performs and reviews complex work involving analysis, planning, designing, implementation, maintenance, troubleshooting and enhancement of

complex large systems or networks consisting of a combination that may include mainframes, mini-computers, LANS, WANs and the physical and logical components that integrate these systems together as an enterprise networking backbone. Serves as the lead technical architect and systems integrator for large complex systems or networks

**Six (6) IS Programmers, 1064** - Provides direct ongoing supervision to other Programmer/Analysts, provides technical leadership and direction and assumes technical responsibility for completion of major programming projects, serves as the top technical authority for one or more related specialties and performs programming functions for those projects requiring the most difficult and complex programming work; works with users to clarify and modify system requirements; analyzes, designs, writes, documents, and maintains the more complex computer application source code in one or more programming languages, generally in a mainframe or other centralized data processing facility.

**Two (2) Quality Assurance Programmers, 1063** - Responsible for performing all aspects of the programming function for those projects requiring difficult and complex programming work; generally works with users to clarify and modify system requirements; analyzes, designs, writes, documents, and maintains computer application source code in one or more programming languages, generally in a mainframe or other centralized data processing facility.

**Two (2) IS Trainers, Senior, 1033** - Provides tutorial instruction on highly complex operational procedures within all City approved software programs, applications, and/or procedures; tutorial/classroom instruction on all levels of the application and/or procedure; and/or tutorial/classroom instruction on the application of the software program itself so

that the users may function with minimum ongoing assistance; may assist in training less experienced trainers.

The SFPD has a long history of collaborating with agencies from all levels of government on crime prevention initiatives. The Department has previously administered grants from BJA, including Project Safe Neighborhood/Anti-Gang Initiative and the Gang Resistance Education and Training (G.R.E.A.T.) program. SFPD currently collaborates with our city partners on the Edward Byrne Justice Assistance Grant (JAG) targeted at reducing crime and violence. The Department has recently received a \$2 million grant from California Office of Traffic Safety to create a Traffic Collision Reporting Module in its Crime Data Warehouse system. The SFPD is collaborating with the San Francisco Municipal Transportation Agency and Department of Public Health on that project as part of the City's Vision Zero initiative to eliminate deaths from traffic collisions by 2025. For its NIBRS implementation project, the SFPD looks forward in working with BJS, CJIS, NCS-X Implementation Team, California DOJ, and all of our local partner agencies to help improve the quality and usefulness of crime incident data.

### **Data Collection and Evaluation**

Throughout the lifecycle of the NIBRS implementation project, the Department will be able to collect data for the performance measures required under this solicitation through its regular meetings with the selected consultant firm for the project and with its partner agencies. The Department will use its Project Communications Timeline to help schedule the collection of performance measures and project evaluation activities requested by BJS and will fulfill all federal reporting requirements for progress reports, financial reports, and audits that are related to this project.

## **Sustainment**

The San Francisco Police Department is committed to implementing the transition from SRS to NIBRS for its incident reporting. The funds being requested will help expedite the Department's efforts to achieve a NIBRS-compliant Incident-Based Report Writing system once the California DOJ has finalized its plans for the state's new UCR program. The rate of progress of the NIBRS transition will depend upon the City's ability to supplement the BJS funding to pay for the other associated costs that will result from the NIBRS transition. The SFPD intends to make every effort necessary to support the NIBRS implementation to its fullest.

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## City and County of San Francisco

### Manager VII (#0942)

\$74.96-\$95.66 Hourly / \$12,994.00-\$16,582.00 Monthly / \$155,922.00-\$198,978.00 Yearly



Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under policy direction, managers in these positions function at the executive level of department management and are responsible for all functions and activities of a major division or area. Incumbents provide leadership and direction in developing new programs and establishing organizational policies, priorities and objectives; direct and coordinate the implementation of program changes; serve as technical advisor; and perform related duties as required. Incumbents in this class report to senior executive-level managers (Department Head or Deputy Director).

#### DISTINGUISHING FEATURES

Distinctions between class levels in the management series are based on the program's complexity, sensitivity and/or size, organizational impact, nature and number of functions/programs managed, decision-making responsibility, level of supervision exercised, nature of positions supervised, and the nature and scope of duties assumed such as hands-on work rather than planning and policy development activities.

Managers in this class make decisions which directly impact the entire department and inappropriate decisions may result in an irreversible impact on the health and welfare of the public.

Manager VII is distinguished from the Manager VI class by the latter's responsibility for major complex, functionally-related areas organized into multiple departmental divisions. Incumbents in Manager VII develop and establish policies and procedures and make decisions which impact the daily operations including management and allocation of resources for a major organizational unit (division/bureau/area). Decisions made by Manager VII incumbents affect multiple divisions and impact the economic vitality of city government or the health and welfare of a segment of the public. These Managers typically interact with executive and regulatory representatives and negotiate solutions to major issues which may involve policy and procedural changes.

Manager VII is distinguished from Manager VIII in that the latter class represents the highest, non-deputy level of executive management and assumes primary responsibility for diverse and complex functions in the largest departments which include institutions,

bureaus or multiple divisions. Manager VIII incumbents make decisions of a highly significant consequence or impact involving developmental operations and recommend new policies, procedures, organizational areas, or services.

### **SUPERVISION EXERCISED**

Incumbents typically exercise supervision over and/or consultation to Division Managers of related functional areas.

### **EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES**

1. Develops and implements division goals, objectives, policies, and priorities; determines service levels and resource allocation.
2. Monitors the work of and coaches subordinates to improve performance.
3. Directs the allocation of resources to achieve timely outcomes and measurable goals within budget; adjusts plans and programs to meet emerging or new programs, while continuing to address major departmental priorities.
4. Plans, organizes, directs, controls and reviews the operation of major departmental functions and activities.
5. Monitors the efficiency and effectiveness of the departmental organization structure, staff assignments, service levels and administrative systems; identifies and analyzes opportunities for improvement; implements improvements.
6. Communicates regularly with executive-level management regarding the Department's activities and coordination of efforts with other City departments in addressing the needs of the City; represents the Department before legislative boards, outside organization mayor's office staff, and the media.
7. Assesses and responds to community needs; provides consultation and advice to boards, committees and representatives from federal, state and local agencies.
8. Participates in budget development by providing detailed justification and persuasive arguments for proposals or initiatives. Implements and closely monitors budget expenditures of the operating budget for a major area of responsibility typically including multiple divisions.
9. Provides executive management with an early warning and practical options to potential cost overruns.

### **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: federal, state and local rules and regulations pertaining to activities and functions of the specific department; and management principles and practices.

Ability to: direct subordinate managers engaged in diverse activities; exercise administrative ingenuity, independent analysis, adaptability and judgment on highly specialized proposals

with difficult, complicated choices of action; make recommendations and present them effectively to the Mayor, executive staff and the public; apply the principles and practices of public administration, financial and personnel management; clearly interpret all applicable laws, ordinances and codes relating to the department; direct research, survey techniques and statistical methods; communicate effectively, orally and in writing; establish and maintain effective working relations with officials, subordinate staff, directors and members of other departments, civic organizations, agencies and the public; and the ability to remain calm and provide guidance to managers in crisis situations.

Special Qualifications including specialized knowledge, abilities, education, experience, or license may be established for individual positions.

### **MINIMUM QUALIFICATIONS**

*The Minimum Qualification guidelines for management classifications can be referenced [here](#). Please note, additional qualifications (i.e., desirable qualifications) may apply to a particular position and will be stated on the exam/job announcement.*

### **DISASTER SERVICE WORKERS**

All City and County of San Francisco employees are designated Disaster Service Workers through state and local law (California Government Code Section 3100-3109). Employment with the City requires the affirmation of a loyalty oath to this effect. Employees are required to complete all Disaster Service Worker-related training as assigned, and to return to work as ordered in the event of an emergency.

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**CLASS:** 0942; **EST:** 1/1/1900; **REV:** 1/1/1900;



## City and County of San Francisco

### IS Trainer-Senior (#1033)

\$46.01-\$55.91 Hourly / \$7,976.00-\$9,692.00 Monthly / \$95,706.00-\$116,298.00 Yearly



Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under general direction, provides tutorial instruction on highly complex operational procedures within all City approved software programs, applications, and/or procedures; tutorial/classroom instruction on all levels of the application and/or procedure; and/or tutorial/classroom instruction on the application of the software program itself so that the users may function with minimum ongoing assistance; may assist in training less experienced trainers. Typically, this classification is found in a large department with a training unit.

#### DISTINGUISHING FEATURES

This classification is the advanced journey level in the Trainer series. The Senior level classification can be distinguished from lower level classifications in this series in that instruction is in a broad range of personal computer software programs at the intermediate level, and at times, the highest levels of complexity. Incumbents perform a full range of duties, possess technical or functional expertise and perform specialized duties in a highly independent manner. Work is judged primarily on overall results with great latitude in determining work methods and assignment requirements. Employee has greater authority over assignments and decisions required to complete the work than lower level positions in this series.

#### SUPERVISION EXERCISED

May involve coordination of a team of workers.

#### EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

*According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.*

1. Coordinate and deliver technical and/or professional training and educational services in personal computer operating systems and a wide variety of applications to IS staff, work with subject matter experts to develop technically complex training modules; provide

instruction at various levels on applications and systems administration, in-house or onsite; develop custom training tailored to client needs; assist contract instructors in teaching custom database development courses.

2. May conduct on-site visits to identify immediate and long range training requirements; develop training plans and schedules, needs assessments and software recommendations in support of current standards; conduct assessments of departmental training budgets and make appropriate recommendations for planning/transfers/use of funds.

3. Develop training curriculum; prepare and deliver instructional training classes for enduser clients on personal microcomputers and the technical aspects of business software applications; develop and implement cost effective classroom and self-study strategies and programs in support of the organization's human resource development programs; meet with various levels of management to determine employee skill deficiencies, project future training demands and establish individual and division-wide professional development programs.

4. Coordinate and conduct technical briefings on selected topics and/or facilitate the delivery of high technology briefings and training to management, including costs, benefits, risks and effort associated with acquiring new products and services.

5. Analyze student feedback and class evaluations; determine opportunities for improvement; may prepare and publish training bulletins and schedules; develop lesson plans and training materials; may assist students, managers and training coordinators in course selection.

6. Research and analyze the impact of new technology and training products, and prepare management reports recommending its use if it helps maximize the City's investment in information technology; coordinate demonstration and evaluation copies of new software for IS staff and management; analyze new releases of software and determine their impact on established training programs; make recommendations for change.

7. Identify and evaluate alternative resources for external training and education services and maintains resource files of approved training providers; research and write technical procedures, advice and articles.

8. Analyze the results of needs assessments and training surveys, and recommend changes as appropriate to management; may facilitate the delivery of high-technology briefings and training to management, including costs, benefits, risks and effort associated with acquiring new products and services.

9. Provide support for the installation of software and courseware files and debug programs on training computers; provide mentor training to less experienced trainers.

## **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: Network communications; data processing methods and applications; common operating systems; training techniques; technical writing; current technologies; project management.

Ability and Skill to: Communicate effectively orally and in writing; provide formal instruction in a classroom or other structured setting; establish and maintain effective working relationships with peers, students, users, vendors, and management; develop complex and specialized training modules; exercise decisiveness and creativity required in situations involving the evaluation of information against sensory and/or judgmental criteria; analyze data and information using established criteria, in order to determine consequences and to identify and select alternatives; present complex subject matter to individuals of various levels; lead and motivate students; read and understand professional journals and literature; prioritize competing requests for service.

## **MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

### Education:

An associate degree in computer science or a closely related field from an accredited college or university OR its equivalent in terms of total course credits/units [i.e., at least sixty (60) semester or ninety (90) quarter credits/units with a minimum of twenty (20) semester or thirty (30) quarter credits/units in computer science or a closely-related field].

### Experience:

Three (3) years of experience in delivering training in computer applications and procedures.

### License and Certification:

Certificates may be required to teach certain software program applications.

### Substitution:

Additional experience as described above may be substituted for the required degree on a year-for-year basis (up to a maximum of two (2) years). One (1) year is equivalent to thirty (30) semester units / forty-five (45) quarter units with a minimum of 10 semester / 15 quarter units in computer science or a closely related field.

## **DISASTER SERVICE WORKERS**

All City and County of San Francisco employees are designated Disaster Service Workers through state and local law (California Government Code Section 3100-3109). Employment with the City requires the affirmation of a loyalty oath to this effect. Employees are required to complete all Disaster Service Worker-related training as assigned, and to return to work as ordered in the event of an emergency.

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**CLASS:** 1033; **EST:** 1/1/1900; **REV:** 1/1/1900;



## City and County of San Francisco

### IS Engineer-Principal (#1044)

\$59.73-\$75.13 Hourly / \$10,352.00-\$13,022.00 Monthly / \$124,228.00-\$156,260.00 Yearly

 Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under general direction, provides direct ongoing supervision to other IS Engineers. and/or provides technical leadership and direction and assumes technical responsibility for completion of major projects, or serves as the top technical authority for one or more related specialties. Performs and reviews complex work involving analysis, planning, designing, implementation, maintenance, troubleshooting and enhancement of complex large systems or networks consisting of a combination that may include mainframes, mini-computers, LANS, WANs and the physical and logical components that integrate these systems together as an enterprise networking backbone. Serves as the lead technical architect and systems integrator for large complex systems or networks.

#### DISTINGUISHING FEATURES

The Principal IS Engineer is the highest level in the Engineer series and may be assigned to function as a supervisor, expert or project leader. When assigned as a supervisor, develops, coordinates and executes policies, methods and procedures, and supervises' personnel.; when assigned as an expert, performs work requiring a very high level of technical knowledge of a specific area or ability to integrate at a high level the knowledge of several areas (this is -not considered to be a part of the normal career path for employees in this series; rather it is reserved for those employees with a mastery of specific technologies or a particular expertise): when as signed as a project leader, manages and provides technical leadership of projects involving large-scale, complex and highly analytical tasks. Positions at this level are distinguished from Senior IS Engineers, in that the latter performs more specific and small-scale, though complex, analytical tasks. Work is performed within a broad framework of general policy and requires creativity and resourcefulness to accomplish goals and objectives, and in applying concepts, plans and strategies which may deviate from traditional methods and practices.

#### SUPERVISION EXERCISED

May supervise subordinate Engineers and technical staff in the assigned work unit; or as a Project leader, coordinate a team of workers within the assigned work unit or jointly with other units. May be expected to provide consultation and guidance to IS professionals and non-IS professionals.

## EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

*According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.*

1. Analyze and evaluate systems software, hardware and communications strategies. Research and conduct feasibility studies on new hardware and software. Provide cost and time allocation estimates. Make recommendations based on these studies.
2. Establish hardware and software standards. Participate in technical committees.
3. May monitor, coordinate and assist in developing the work unit's budget.
4. Analyze and recommend procedures consistent with departmental directives, policies and regulations.
5. Develop strategic plans to meet data processing and technology needs; conduct capacity planning studies to project hardware and software needs.
6. Direct and monitor technical support activities related to complex large systems or networks. Troubleshoot and support the system or network in order to maintain the system or network's integrity and reliability. Contact software and hardware vendors when necessary.
7. Provide problem determination, corrective measures and technical support to anyone utilizing services and functions provided by the system or network. This includes but is not limited to applications programmers, business analysts, operations staff, help desk staff, technicians, administrators, end users- and managers.
8. Oversee data backup and recovery; ensure that sufficient generations of backup are available for data restoration.
9. Determine requirements for the development or enhancement of large complex systems or networks that serve as a data processing backbone for the City and County of San Francisco's information technologies infrastructures. May research and conduct feasibility studies on new technologies.
10. Design, plan, integrate, test, implement, document and enhance the physical and logical components of large complex systems or networks. This may involve the analysis and evaluation of systems software, hardware and communications strategies.
11. Perform very complex systems integration for interoperability over dissimilar platforms and technologies for large systems or networks. This may involve the integration of various protocols, systems software, hardware and communications platforms.
12. Determine the proper installation parameters for software and hardware for smooth integration and efficiency in relation to the enterprise system and network.
13. Write highly complex "user exits" to customize large systems software. This may involve specialized programming languages.

14. Analyze, detect, identify and correct complex systems software or hardware deficiencies.
15. Provide 24-hour on-call support to ensure rapid recovery from software or hardware problems for mission-critical systems and networks.
16. Act as the liaison between vendors, technical support hot-lines and departments to resolve complex systems or network problems. Coordinate and implement corrective measures; this may involve site visits, telephone assistance, remote systems or network management, and participation in technical committees.
17. Train and demonstrate technologies and systems to IS professionals and non-IS professionals.
18. Implement and maintain upgrades/updates/fixes for core operating systems and their related components, without negative impact to the overall availability and reliability of the enterprise systems/networks.
19. Prepare specifications and procedures documentation.
20. Plan, develop and implement backup and disaster recovery procedures for large systems and networks.
21. May supervise, assign, review and may participate in the work of subordinates in assigned unit., Perform as project lead in major projects. Monitor, coordinate and review project tasks and resources, providing technical assistance and guidance.
22. May review and recommend personnel actions in areas of performance, evaluation, training, selection and disciplinary measures. Ensure that appropriate policies and procedures are followed by subordinates.
23. May supervise and coordinate the analysis, planning, installation, integration, maintenance, customization and enhancement of hardware and software for complex large systems or networks that serve as a data processing backbone for the City and County of San Francisco's information technologies infrastructure.
24. May perform as project lead in major projects. Monitor and coordinate project task resources.
25. May act as a project lead to plan, implement and maintain upgrades/updates/fixes for core operating systems and their related components, without negative impact to the overall availability and reliability of the enterprise systems/networks.

## **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: Advanced functions for the core hardware and software components that comprise complex large systems or enterprise networks. Analysis and evaluation techniques to plan, design, integrate, implement, maintain and troubleshoot large complex systems or networks across similar and dissimilar technology Platforms. Techniques and practices of supervision, project management and training.

**Ability and Skill to:** Determine the systems or networking requirements to plan for or enhance the core data processing needs for the Enterprise system or network; solve problems with minimal disruption or impact to the system or network; exercise judgement, decisiveness and creativity in designing, planning, troubleshooting and integration of large complex systems or networks based on the potential benefits and/or consequences; develop alternative solutions within established guidelines and standards; communicate effectively; coordinate, schedule and orchestrate the installation, maintenance and enhancements of large complex systems or enterprise networks; establish good working relationships with employees, other IS professionals, departmental end users and vendors; prioritize competing requests for service; read and understand professional journals and literature; manage and direct a group of workers; advise and interpret policies, procedures and standards.

### **MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

#### **Education:**

An associate degree in computer science or a closely related field from an accredited college or university OR its equivalent in terms of total course credits/units [i.e., at least sixty (60) semester or ninety (90) quarter credits/units with a minimum of twenty (20) semester or thirty (30) quarter credits/units in computer science or a closely-related field].

#### **Experience:**

Five (5) years of experience analyzing, installing, configuring, enhancing, and/or maintaining the components of an enterprise network.

#### **License and Certification:**

#### **Substitution:**

Additional experience as described above may be substituted for the required degree on a year-for-year basis (up to a maximum of two (2) years). One (1) year is equivalent to thirty (30) semester units/ forty-five (45) quarter units with a minimum of 10 semester / 15 quarter units in computer science or a closely related field.

### **DISASTER SERVICE WORKERS**

All City and County of San Francisco employees are designated Disaster Service Workers through state and local law (California Government Code Section 3100-3109). Employment with the City requires the affirmation of a loyalty oath to this effect. Employees are required to complete all Disaster Service Worker-related training as assigned, and to return to work as ordered in the event of an emergency.

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**CLASS:** 1044; **EST:** 1/1/1900; **REV:** 7/5/2016;



## City and County of San Francisco

### IS Business Analyst-Senior (#1053)

We are currently accepting applications for this position.  
To apply, please close this pop-up window and then click on Current Openings.

\$46.79-\$58.86 Hourly / \$8,110.00-\$10,203.00 Monthly / \$97,318.00-\$122,434.00 Yearly

 Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under general direction, oversees the more difficult and complex aspects of the systems development cycle, including needs analysis, cost-benefit analysis, structured systems analysis and design, feasibility analysis, technology and software assessment, telecommunications needs analysis, project planning and management, system installation, implementation and testing, conversion to production status, technical and procedural documentation, user training, and post-implementation assessment and administration; may be the primary MIS resource for an organization with a complex system.

#### DISTINGUISHING FEATURES

The Senior IS Business Analyst is the advanced journey level in the Business Analyst series. Positions at this level are distinguished from the journey level Business Analysts by the greater difficulty and complexity of the analytical tasks, and is distinguished from the Principal by the limited supervisory responsibilities or the responsibility for smaller projects. Positions at this level require highly specialized knowledge, abilities, skills and experience and often exercise independent judgement in the performance of their duties; and possess technical or functional expertise beyond that expected at the journey level. Work is judged primarily on overall results with great latitude in determining work methods and assignment requirements. Employee has greater authority over assignments and decisions required to complete the work than lower level positions.

#### SUPERVISION EXERCISED

May provide limited supervision to professional subordinate positions, or assume responsibility for coordinating a defined program. However, supervisory responsibilities are ancillary to the main intent and focus of the positions.

#### EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

*According to Civil Service Commission Rule 109, the duties specified below are*

*representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.*

1. Identify opportunities for improving business processes through automation; assist in the preparation of proposals to develop new systems.
2. Analyze data processing needs; research and evaluate software on multiple platforms to assist users to meet their departmental goals; assist in developing the evaluation criteria for software.
3. Determine operating characteristics and requirements; develop or modify and document general system design; write detailed design specifications; conduct "walkthroughs" for proposed solutions to system problems.
4. Analyze the feasibility of and develop requirements for new systems and enhancements to existing systems; ensure the system design fits the needs of the users.
5. May install and enhance software; program, test, debug and install new/modified programs.
6. Provide technical support for computer and telecommunications systems.
7. Consult on the analysis of an application; troubleshoot system problems; implement solutions.
8. Conduct system analysis and may conduct programming activities for complex systems; document new and modified systems and programs; coordinate user training in new capabilities; may convert new programming from test to production.
9. Interface with users to determine system needs and requirements; instruct users on newly implemented systems; define system requirements; may design and code programs; review impact of system modifications on existing systems.
10. Prepare, or assist client in preparing, service requests to implement system changes; determine level of effort required and the cost of implementing service requests; prioritize requests.
11. May provide technical production support for on-line and batch systems; assist with set processing schedule; update and produce reports.
12. Coordinate with outside vendors and contractors to complete projects and service requests; define, assign and evaluate their work.
13. May determine structure of databases; normalize data; perform conversion of data between platforms; design, develop and generate routine and ad hoc reports in response to user needs.
14. Determine security levels for systems to ensure data integrity; test database applications to assure functionality and effectiveness in performing to desired specifications.

#### **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: Requirements installation procedures, hardware, software and maintenance of systems; electronic data processing methods; interactive or macro-based applications; functional requirements, structured systems or procedures analysis; personal computer applications development tools; system analysis and design; coding, testing and implementing complex programs; script/procedure languages; common operating systems software and relational database systems; network environments.

Ability and Skill to: Communicate effectively both orally and in writing; establish and maintain good working relations with department personnel, staff, vendors, peers, and management; understand and learn a variety of business procedures and processes; use logic and analysis to solve computer and systems problems; translate functional requirements into systems specifications; analyze data and information using established criteria, in order to determine consequences and to identify and select alternatives; advise and provide interpretation to others how to apply policies, procedures and standards to specific situations; exercise decisiveness and creativity required in situations involving the evaluation of information against judgmental criteria; read and understand professional journals and literature; prioritize competing requests for service.

## **MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

### Education:

An associate degree in computer science or a closely related field from an accredited college or university OR its equivalent in terms of total course credits/units [i.e., at least sixty (60) semester or ninety (90) quarter credits/units with a minimum of twenty (20) semester or thirty (30) quarter credits/units in computer science or a closely-related field].

### Experience:

Three (3) years in the information systems field, including system analysis, business process design, development and implementation of business application solutions or IT project management.

### License and Certification:

### Substitution:

Additional experience as described above may be substituted for the required degree on a year-for-year basis (up to a maximum of two (2) years). One (1) year is equivalent to thirty (30) semester units / forty-five (45) quarter units with a minimum of 10 semester / 15 quarter units in computer science or a closely related field.

## **DISASTER SERVICE WORKERS**

All City and County of San Francisco employees are designated Disaster Service Workers through state and local law (California Government Code Section 3100-3109). Employment with the City requires the affirmation of a loyalty oath to this effect. Employees are required

to complete all Disaster Service Worker-related training as assigned, and to return to work as ordered in the event of an emergency.

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**CLASS:** 1053; **EST:** 1/1/1900; **REV:** 7/5/2016;



## City and County of San Francisco

### IS Business Analyst-Principal (#1054)

We are currently accepting applications for this position.  
To apply, please close this pop-up window and then click on Current Openings.

\$54.18-\$68.15 Hourly / \$9,390.00-\$11,813.00 Monthly / \$112,684.00-\$141,752.00 Yearly

 Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under general direction, provides direct ongoing supervision to other IS Business Analysts, or serves as the top technical authority for one or more related specialties, or provides technical leadership and direction and assumes technical responsibility for the completion of major projects; performs or oversees all or most of the systems development life cycle and ongoing administration functions, including needs analysis, cost-benefit analysis, structured systems analysis and design, feasibility analysis, technology and software assessment, telecommunications needs analysis, project planning and management, system installation, implementation and testing, conversion to production status, technical and procedural documentation, user training, and post-implementation assessment and administration; directs and participates in complex studies.

#### DISTINGUISHING FEATURES

The Principal IS Business Analyst is the highest level in the Business Analyst series and may be assigned to function as a supervisor, expert or project leader. When assigned as a supervisor, develops, coordinates and executes policies, methods and procedures, and supervises personnel; when assigned as an expert, performs work requiring a very high level of technical knowledge of a specific area or the ability to integrate at a high level the knowledge of several areas (this is not considered to be a part of the normal career path for employees in this series; rather it is reserved for those employees with a mastery of specific- technologies or a particular expertise); when assigned as a-project leader, manages and provides technical leadership of projects involving large-scale, complex and highly analytical tasks. Positions at this level are distinguished from Senior Business Analysts in that the latter performs more specific and small-scale, though complex, analytical tasks. Work is performed within a broad framework of general policy and requires creativity and resourcefulness to accomplish goals and objectives, and in applying concepts, plans and strategies which may deviate from traditional methods and practices.

#### SUPERVISION EXERCISED

May supervise Business Analysts, Programmer Analysts, technical, clerical and other functional staff in the assigned work unit; or as a Project Leader, coordinate a team of workers which may include professional, technical and/or clerical staff within the assigned work unit or jointly with other units.

### **EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES**

*According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.*

When assigned to the Supervision specialty:

1. Supervise, assign, review and participate in the work of subordinates in assigned unit.
2. Ensure that appropriate policies and procedures are followed by subordinates; review and recommend a variety of personnel actions in such areas as performance evaluation, training, selection and disciplinary measures.
3. Analyze and recommend procedures consistent with departmental directives, policy regulations that are developed by higher-level management staff.
4. Analyze and resolve complex system problems; develop and implement modification as necessary; prepare special reports; maintain records of system documentation.
5. Consult on special requests for information and reports; participate in audits, integrated reviews and improvement studies, and quality control reviews.
6. Monitor, coordinate and assist in developing the assigned work unit budget.
7. Provide advice and recommendations to meet user needs.
8. Coordinate system related activities with other departments for multi-departmental system projects.
9. Manage complex systems; lead and schedule multiple projects; plan, analyze and develop new systems; develop enhancements to systems; analyze procedures; develop conversion plans; move data from one system to another; provide user training.
10. Review plans for software, hardware and telecommunications equipment and services; prepare specifications; oversee request for proposal process.
11. Develop annual MIS plans, including budgeting, configuring and purchasing hard and software.
12. Monitor and review work in progress, providing technical assistance and guidance.
13. Manage and monitor progress of contractors and vendors; facilitate contract payments; participate in the request for proposal process and re-negotiate amendments; resolve problems.

14. Manage and design the structure and growth of computer and telecommunications systems and networking; design, develop and implement new systems to support departmental activities; set scope, boundaries and objectives for system functions interfaces based on departmental needs.

15. Attend meetings as needed; represent unit on committees.

When assigned to the Project Leader specialty:

1. Analyze and evaluate existing complex systems for cost effective and efficient operation and recommend modifications; prepare feasibility studies; monitor technical design in relation to system changes; gather requirements and general information regarding users business needs relating to new developments or enhancements.

2. Identify opportunities for improving business processes through automation; prepare proposals to develop new systems or enhancements to existing systems, conduct feasibility studies.

3. Determine allocation of resources and installation schedules; prepare feasibility studies; determine operating characteristics and requirements; monitor and report progress of work.

4. Assure proper planning, engineering, documentation, installation and testing of systems to meet end user requirements; manage system maintenance activities.

5. Prepare budgetary cost estimates and develop project implementation proposals, documentation and scheduling; write technical specifications and requests for proposals.

6. Assure coordination and intra-network compatibility; assist with integration of manual and automated system procedures.

7. Coordinate multi-vendor support for the technical and administrative resolution of network troubleshooting problems.

8. Recommend contractor selection, may review contractor and vendor billings; monitor and evaluate quality of contractor/consultant products and services; coordinate interactions and activities of vendors.

9. Analyze regulatory rules and regulatory issues for their impact on current operations.

10. Provide technical support services to other agencies and departments.

11. Develop training exercises for subordinate staff and maintain technical education; may coordinate and/or present training classes.

12. Create work plans and monitor progress of project tasks; review staff work and train staff relating to the project work.

13. Create and document long-term strategies for project related information systems operations; translate business needs into IS directions; identify new information systems technology opportunities; may prepare and present long term plans.

14. Research, analyze and select hardware and software products.
15. May oversee certain project related production functions.
16. Monitor project related work schedules and completion dates.
17. Coordinate and/or attend project team meetings and user meetings.

When assigned to the Expert specialty:

1. Optimize system designs through review and analysis of user needs; customize systems through design and administration.
2. Identify opportunities for improvements in business processes through automation; make recommendations for new procedures and applications.
3. Analyze the feasibility of 'and develop requirements for new systems and enhancements to existing systems; prepare cost estimates and schedules for modifications; set scope, boundaries and objectives for system' functions and interfaces based on departmental needs.
4. Design, develop and implement new systems to support departmental activities.
5. Define system requirements; design, code, test and debug systems; train users on new applications.
6. Develop or modify system design: write detailed design specifications.
7. Provide advice on the functionality of new programs and compatibility of modifications to ensure user needs are met.
8. Evaluate software and hardware products on multiple platforms; make recommendations for compatibility, based on user requirements and systems analysis.
9. Provide analysis and technical support for highly complex systems; troubleshoot systems problems; implement solutions.
10. Support and maintain highly technical systems or networks; analyze and evaluate systems for cost effective and efficient performance; recommend modifications.
11. Coordinate the efforts of analysts, engineers and operators in the implementation of projects spanning multiple systems and sites; multiple platforms.
12. Manage and monitor the progress of contractors and vendors; resolve problems.

#### **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: Requirements, installation procedures, hardware, software and maintenance of systems; practices and techniques of supervision and of project management; training techniques; interactive and macro-based applications; functional requirements, structured systems or procedures analysis; systems analysis and design; coding, testing and

implementing complex. programs; script/procedure languages; common operating systems software and relational database systems; data modeling; electronic data processing methods; network management and coordination; project cost estimating; contracts negotiation and management; long range planning techniques; practices and techniques of project management; training techniques; systems development life cycle; structured. systems or procedures analysis; business applications development; technical writing.

Ability and Skill to: Manage and direct a group of workers, including the ability to provide counseling and mediation; persuade, convince and train others; communicate effectively both orally and in writing; communicate clear expectations to subordinates and motivate them to perform effectively; establish and maintain good working relations with department personnel, staff, vendors, peers and management; understand and learn a variety of business procedures and processes; exercise the judgement, decisiveness and creativity required in situations involving the direction, control and planning of a program or multiple programs; use logic and analysis to solve computer and systems problems; translate functional requirements into systems specifications; decide the time, place and sequence of operations within an organizational framework, as well as the ability to oversee their execution; read and understand professional journals and literature; coordinate highly technical procedures and complex reporting requirements; produce complex reports; prioritize competing requests for service; develop network design; conduct cost/benefit analyses; prepare technical specifications; produce complex reports-, coordinate highly technical procedures and complex reporting requirements; develop new approaches and solutions outside of existing theories and principles, engage in high level consulting.

## **MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

### Education:

An associate degree in computer science or a closely related field from an accredited college or university OR its equivalent in terms of total course credits/units [i.e., at least sixty (60) semester or ninety (90) quarter credits/units with a minimum of twenty (20) semester or thirty (30) quarter credits/units in computer science or a closely-related field].

### Experience:

Five (5) years of experience in the information systems field, including system analysis, business process design, development and implementation of business application solutions or IT project management.

### License and Certification:

### Substitution:

Additional experience as described above may be substituted for the required degree on a year-for-year basis (up to a maximum of two (2) years). One (1) year is equivalent to thirty (30) semester units / forty-five (45) quarter units with a minimum of 10 semester / 15 quarter units in computer science or a closely related field.

## **DISASTER SERVICE WORKERS**

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**CLASS:** 1054; **EST:** 1/1/1900; **REV:** 7/5/2016;



## City and County of San Francisco

### IS Programmer Analyst-Senior (#1063)

We are currently accepting applications for this position.  
To apply, please close this pop-up window and then click on Current Openings.

\$42.40-\$53.39 Hourly / \$7,349.00-\$9,254.00 Monthly / \$88,192.00-\$111,046.00 Yearly



Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under general direction, responsible for performing all aspects of the programming function for those projects requiring difficult and complex programming work; generally works with users to clarify and modify system requirements; analyzes, designs, writes, documents, and maintains computer application source code in one or more programming languages, generally in a mainframe or other centralized data processing facility.

#### DISTINGUISHING FEATURES

The Senior IS Programmer/Analyst is the advanced journey level in the Programmer/Analyst series. This position is distinguished from the journey level classification in the greater complexity of work and the interaction with users; the advanced journey level classifications possess a significant level of specialized, technical or functional expertise beyond that expected at the journey level. The Senior classification is distinguished from higher level positions in the lower technical leadership displayed and little supervisory responsibilities. Positions at this level require highly specialized knowledge, abilities, skills and experience and often exercise independent judgement in the performance of their duties. Work is judged primarily on overall results with great latitude in determining work methods and assignment requirements. Employee has greater authority over assignments and decisions required to complete the work.

#### SUPERVISION EXERCISED

May provide supervision to professional subordinate positions, or assume responsibility for coordinating a defined program. However, supervisory responsibilities are ancillary to the main intent and focus of the positions.

#### EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note,*

*additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

1. Determine requirements for new systems and enhancements to existing systems; develop or modify and document general system design; establish a production environment and migrate approved programs to production.
2. Design and code programs with a high level of complexity for a clean compile; prepare comprehensive test plans and ensure that programs are tested; debug problem programs; implement new programs.
3. Ensure program specifications are complete; produce basic components, such as program overview, listing of files and related programs and sub-programs, charts and screen flow diagrams and the like, to ensure complete programming; review specifications submitted by vendors and user departments to ensure compatibility with current systems.
4. Analyze, research and repair program logic and systems; modify program logic; analyze service requests for system changes or new requirements to determine the most effective approach and the appropriate staff time required to achieve the needed modification.
5. Test new software technologies; report results; recommend software purchases.
6. Monitor systems for space usage; coordinate batch processing.
7. Evaluate programs and systems; present alternatives for more effective and efficient use; study the feasibility of developing new systems and enhancements to existing systems; develop project estimates; establish completion targets.
8. Train users on procedures and applications; provide technical assistance on the use of systems.
9. Meet with users to discuss service requests, needs and operating characteristics; initiate and attend design meetings; consult with other staff members to provide technical assistance as needed.
10. Provide emergency technical support for on-line and batch systems, problem resolution to ensure system availability, data integrity and timely and accurate reporting.
11. Identify opportunities for operational improvements; participate in special projects as necessary.
12. Assess production problems; prioritize needs; resolve problems.
13. Document program specifications, structure charts, job-control procedure listings, test data listings, test run output, input/output data specifications and the like.
14. Prepare user and technical manuals and instructions.

## **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: Computer languages; electronic data processing; interactive or macro-based

applications; job flow within a large scale data processing environment; script/procedure languages; personal computer applications development tools; emerging technologies and software; systems development life cycle; common operating systems software and relational database systems; coding, testing and implementing complex programs; systems analysis and design.

**Ability and Skill to:** Communicate effectively orally and in writing; use logic and analysis to solve computer and systems problems; establish good working relationships with other employees in IS positions, vendors and end users; develop multi-platform based applications; perform data and process modeling and normalization; translate functional requirements into systems specifications; analyze data and information using established criteria, in order to determine consequences and to identify and select alternatives; advise and provide interpretation to others how to apply policies, procedures and standards to specific situations; exercise decisiveness and creativity required in situations involving the evaluation of information against judgmental criteria; read and understand professional journals and literature; prioritize competing requests for service.

## **MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

### **Education:**

An associate degree in computer science or closely related field from an accredited college or university OR its equivalent in terms of total course credits/units [i.e., at least sixty (60) semester or ninety (90) quarter credits/units with a minimum of twenty (20) semester or thirty (30) quarter credits/units in computer science or a closely-related field].

### **Experience:**

Three (3) years of experience in application or software development or programming

### **License and Certification:**

### **Substitution:**

Additional experience as described above may be substituted for the required degree on a year-for-year basis (up to a maximum of two (2) years). One (1) year is equivalent to thirty (30) semester units / forty-five (45) quarter units with a minimum of 10 semester / 15 quarter units in computer science or a closely related field.

## **DISASTER SERVICE WORKERS**

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**CLASS:** 1063; **EST:** 1/1/1900; **REV:** 7/5/2016;



**City and County of San Francisco**  
**IS Programmer Analyst-Principal (#1064)**

\$49.38-\$62.13 Hourly / \$8,558.00-\$10,768.00 Monthly / \$102,700.00-\$129,220.00 Yearly



Notify Me when a Job Opens for the above position(s)

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### **DEFINITION**

Under General direction, provides direct ongoing supervision to other Programmer/Analysts, or provides technical leadership and direction and assumes technical responsibility for completion of major programming projects, or serves as the top technical authority for one or more related specialties and performs programming functions for those projects requiring the most difficult and complex programming work; works with users to clarify and modify system requirements; analyzes, designs, writes, documents, and maintains the more complex computer application source code in one or more programming languages, generally in a mainframe or other centralized data processing facility.

### **DISTINGUISHING FEATURES**

The Supervisor IS Programmer/Analyst is the highest level in the Programmer/Analyst series. When assigned as a supervisor, develops, coordinates and executes policies, methods and procedures, super-vises personnel and may perform the more complex work of the unit; when assigned as an expert, performs work requiring a very high level of technical knowledge of a specific area or ability to integrate at a high level the knowledge of several areas (this is not considered to be a part of the normal career path for employees in this series; rather it is reserved for those employees with a mastery of specific technologies or a particular expertise); when assigned as a project leader, manages and provides technical leadership of projects involving large-scale, complex and highly analytical tasks. Positions at this level are distinguished from Senior IS Programmer/Analysts in that the latter perform more specific and small-scale, though complex, analytical tasks. Work is performed within a broad framework of general policy and requires creativity and resourcefulness to accomplish goals and objectives. Judgement is required both in interpreting established policies, goals and objectives, and in applying concepts, plans and strategies which may deviate from traditional methods and practices.

### **SUPERVISION EXERCISED**

May supervise subordinate Programmer/Analysts, Business Analysts, technical, clerical and other functional staff in the assigned work unit; or as a Project leader, coordinate a team of workers within the assigned work unit or jointly with other units.

## EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

*According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.*

1. Provide assistance to staff in the analysis and determination of appropriate action to respond to service requests and problem reports; evaluate user service requests to determine and recommend the most appropriate solution which meets user business and application system requirements; coordinate scheduling between technical support staff and departments; prepare project plans, time and cost estimates of new projects and enhancements or changes to existing systems/applications.
2. Plan, analyze, design and implement a variety of new systems establishing internal and external controls; develop procedures for access, update and retrieval of information; ensure programs designs meet user requirements; ensure design/program adherence to standards.
3. Determine requirements for new systems and enhancements to existing systems; develop or modify and document general system design; establish a production environment and migrate approved programs to production.
4. Review departmental work-flows, functions performed and procedures used; consult with departmental personnel to obtain information on existing systems procedures; develop proposals and plans for installing new or revised complex systems.
5. Design, code, test and debug programs for special projects and interfaces; prepare final systems design and documentation necessary for programming; review the work of others and provide technical assistance.
6. Analyze, research and repair program logic and systems; modify program logic.
7. Analyze and respond to service requests; determine the most cost effective approach and the appropriate staff time required to achieve needed modifications; recommend appropriate solutions to meet user needs and project requirements.
8. Ensure program specifications are complete; produce basic components to ensure complete programming; review specifications submitted by vendors and users to ensure compatibility with current systems.
9. Analyze and logically design database systems to support on-line and batch reporting including data analysis and normalization, record specification and definition or logical relationships between records; define functional requirements.
10. Write, modify and/or run programs to provide reports and for extraction of database information and downloading to personal computers as necessary.
11. Assist users and other analysts in diagnosing complex program failures; develop recovery and backup procedures; detect, identify and correct software deficiencies.

12. Assist in developing and maintaining standards of hardware and software utilization.
13. Develop detailed specifications necessary to support applications programming.
14. Advise management on the capabilities and limitations of current systems and recommend improvements.
15. May create and document long term strategies for project related information systems operations; identify new information systems technologies.
16. May prepare project plans, time and cost estimates of new projects and enhancement or changes to existing systems/applications; coordinate integration into existing systems and procedures.
17. May prepare project budgetary cost estimates; develop project implementation proposals, documentation and scheduling; write technical specifications and request for proposals.
18. Coordinate and/or attend project team meetings, user meetings and the like as needed.
19. Monitor project related work schedules and completion dates.
20. Monitor and review work in progress, providing technical assistance and guidance.
21. Conduct studies of designated operations, work with assigned user department personnel; define projects.
22. Prepare user and technical manuals and instructions; instruct users on new capabilities.
23. Performs related duties and responsibilities, as assigned.
24. Write, modify and/or run programs to provide reports or file processing as necessary.
25. Provide advice and consult with users regarding problems, special reports, revisions and enhancements to existing systems; provide progress reports on programming activities.
26. Provide technical support for complex systems; monitor system performance to ensure proper functioning, interaction with other subsystems, and timely and accurate report production.
27. Analyze and resolve system problems; develop and implement solutions; resolve technical problems with end users in the implementation, maintenance and modification of complex application programs.
28. Coordinate with other agencies, units and vendors regarding interfaces and program requirements, or new development; advise and assist user departments in system planning.
29. Review, evaluate and purchase technical literature and documentation for reference, training and education; develop and implement training programs for staff or users as needed.
30. Analyze and recommend procedures consistent with departmental directives, policies

and regulations which are developed by higher level management staff.

31. May research and evaluate new technologies, software and hardware products; consult with vendors regarding product functions and features; recommend software and hardware purchases.

32. May supervise, assign, review and participate in the work of subordinates in assigned unit.

33. May review and recommend a variety of personnel actions in such areas as performance evaluation, training, selection and disciplinary measures.

34. May ensure that appropriate policies and procedures are followed by subordinates.

35. May monitor, coordinate and assist in development of the assigned work budget.

### **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: Computer languages; electronic data processing and its applications; requirements, installation procedures, hardware, software and maintenance of systems; emerging technologies and software; systems development life cycle; common operating systems; job flow within a large scale data processing environment; systems analysis and design; multi-platform applications and software; script/procedure languages; designing, coding, testing and implementing highly complex programs; relational database systems; functional requirements, structured systems or procedures analysis; data modeling; business applications development; technical writing; network environments; multi-platform applications and software; LAN and mainframe communications; systems development life cycle; training techniques; techniques and practices of supervision and project management.

Ability and Skill to: Manage and direct a group of workers, including the ability to provide counseling and mediation; persuade, convince and train others including the ability to act in a lead worker capacity; decide the time, place and sequence of operations within an organizational framework, as well as the ability to oversee their execution; exercise the judgement, decisiveness and creativity required in situations involving the direction, control or planning of a program or multiple programs; communicate effectively orally and in writing; use logic and analysis to solve computer and systems problems; prepare budgets and cost estimates; establish and maintain good working relationships with other employees in IS positions, vendors and end users; translate functional requirements into system specifications; perform data and process modeling and normalization; read and understand professional journals and literature; prioritize requests for service; develop new approaches and solutions outside of existing theories and principles; engage in high level consulting.

### **MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

**Education:**

An associate degree in computer science or closely related field from an accredited college or university OR its equivalent in terms of total course credits/units [i.e., at least sixty (60) semester or ninety (90) quarter credits/units with a minimum of twenty (20) semester or thirty (30) quarter credits/units in computer science or a closely-related field].

**Experience:**

Five (5) years of experience in applications or software programming or development.

**License and Certification:****Substitution:**

Additional experience as described above may be substituted for the required degree on a year-for-year basis (up to a maximum of two (2) years). One (1) year is equivalent to thirty (30) semester units or forty-five (45) quarter units with a minimum of 10 semester / 15 quarter units in computer science or a closely related field.

**DISASTER SERVICE WORKERS**

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**CLASS:** 1064; **EST:** 1/1/1900; **REV:** 7/5/2016;



## City and County of San Francisco

### IS Manager (#1071)

\$62.69-\$89.30 Hourly / \$10,866.00-\$15,479.00 Monthly / \$130,390.00-\$185,744.00 Yearly



Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under administrative direction, is responsible for directing the information systems activities for a department, or major subdivision of a large department with a very complex and varied system, or a large, distinct and varied section of a major Information Systems unit with responsibilities for serving a number of City Departments and accountability to a number of Department Heads; manages information systems projects of a department through subordinates, or manages projects across departmental lines and/or manages major development projects; reconciles conflicting demands from various clients by applying available resources to achieve maximum client satisfaction.

#### DISTINGUISHING FEATURES

The IS Manager is the first of two levels in the IS director/manager series. It is distinguished from the IS Project Director by the higher complexity and scale of the units managed, the higher and more complex level of accountability, the higher numbers and levels of subordinates, and the criticality to the functioning of City business of the units and projects managed. IS Manager is distinguished from IS Director in that the latter is responsible for directing, through subordinates, the provision of information systems services to multiple departments and managing the largest and most complex information systems in the City. Work is accomplished within a broad framework, with sole authority and responsibility in a given functional area(s) of service.

#### SUPERVISION EXERCISED

Most positions in this class manage supervisory, professional and technical staff, as well as consultants or contractors performing duties related to assigned projects. Some positions may manage subordinate managers in this classification.

#### EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

According to Civil Service Commission Rule 9, the duties specified below are representative of the range of duties assigned to this class(es) and are not intended to be an inclusive list.

1. Direct day-to-day operations of a major Information Systems (IS) unit and processes with

critical impact on the functioning of the City and County, ensuring business operations comply with standards and procedures; develop and implement unit goals, objectives policies, priorities and procedures for assigned programs; determine and improve customer satisfaction levels as necessary.

2. Assume full management of IS projects, system projects, systems and applications and/or data center operations; plan, staff and manage all phases of implementation for IS projects; establish projects to implement new information systems or enhance existing systems and monitor their progress; direct the design, development and implementation of new projects and applications; direct the analysis of current procedures and available technology; plan and manage projects to improve operations; establish hardware installation priorities and plans.

3. Manage projects: with multiple, highly complex applications; critical to functioning of City Business and affecting entire City, such as 911, Computer Aided Dispatch, Citywide payroll or accounting systems, human resources data and processes; involving the design and implementation of several Local Area Networks or a Wide Area Network.

4. Manage projects across sectional or departmental lines; make decisions on priorities, make compromises and build consensus among several clients with conflicting needs.

5. Organize and direct the work of subordinate staff through managers and supervisors, at levels up to and including Manager; direct the assessment of training needs, and the development, implementation and maintenance of information systems training activities and materials.

6. Direct preparation and administration of annual budget for IS, and monitor expenditures; negotiate and manage contracts including developing, monitoring and maintaining contracts for consultants and hardware/software vendors.

7. Develop and update information systems Master Plan and participate with other managers to develop strategic plans; implement the plan; analyze new mandates and regulations for department impact; change systems and procedures as necessary; advise departmental managers, board members and commissioners on the evaluation of communications strategies, hardware and software, and new products.

8. Manage the provision of technical support to users; review and provide guidance in various technical service requests and associated procurement issues.

9. Monitor and supervise maintenance of interface products and procedures between systems; ensure quality of data reporting; direct the development and implementation of audit procedures for automated data processing systems; direct the capacity planning function; may oversee the development of data center utilization measurement and reporting facilities.

10. Perform related duties and responsibilities, as required.

## **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of: development and maintenance of Information Technology; technical,

operational and programming problem solving analysis; computer languages; systems or network design; common operation systems and relational database systems; interactive or macro-based applications; multi-platform environments; job flow within a large scale data processing environment; project management techniques; techniques and practices of supervision.

Ability to: manage and direct a group of highly technical employees; provide conflict-resolution and consensus-building in order to meet the needs of several clients with conflicting needs; predict and plan for future events and make strategic and tactical decisions for the purpose of meeting IT goals for a department; communicate effectively orally to persuade, convince and train others; communicate effectively in writing to produce complex reports, instructions to subordinates and users, and for other purposes; exercise judgment, decisiveness and creativity; establish and maintain good working relationships; use logic and analysis to solve information technology problems.

### **EXPERIENCE AND TRAINING**

Possession of the above Knowledge and Abilities.

### **LICENSE OR CERTIFICATE**

None

### **DISASTER SERVICE WORKERS**

All City and County of San Francisco employees are designated Disaster Service Workers through state and local law (California Government Code Section 3100-3109). Employment with the City requires the affirmation of a loyalty oath to this effect. Employees are required to complete all Disaster Service Worker-related training as assigned, and to return to work as ordered in the event of an emergency.

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**CLASS:** 1071; **EST:** 1/1/1900; **REV:** 1/1/1900;



## City and County of San Francisco

### Project Manager I (#5502)

We are currently accepting applications for this position.

To apply, please close this pop-up window and then click on Current Openings.

\$65.83-\$65.83 Hourly / \$11,410.00-\$11,410.00 Monthly / \$136,916.00-\$136,916.00 Yearly



Notify Me when a Job Opens for the above position(s)

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#### DEFINITION

Under administrative direction, the Project Manager plans, organizes, directs and controls all or part of either a highly complex engineering, architectural or information systems project from concept through design and construction to closeout of the project contract.

Engineering/Architectural Project Manager positions are responsible for: preparing and monitoring the project budget, including occasionally obtaining funding; overseeing the completion of conceptual design; overseeing planning activities; coordinating work of a multi disciplinary technical staff across organizational boundaries; working extensively with the public, private contractors, special interest groups, governmental funding and regulatory agencies, and City and County departments; coordinating EIR processes and/or obtaining permits; controlling project cost and schedule; reviewing change orders; serving as primary contact for all parties involved in the project; and other duties as required.

Information Technology Project Manager positions are responsible for: preparing and monitoring the project budget, including occasionally obtaining funding and controlling project costs; project design and system architecture/infrastructure planning; developing and implementing strategic and change management planning; directing or managing the development of technical and functional requirements; selecting and negotiating with software vendors and/or integration partners; coordinating the work of a multi-disciplinary staff which may cross more than one department, technical, and functional areas; managing the performance of project staff, including contractors and City and County employees; developing training plans for project staff during development and for all users at implementation; managing eventual deployment of the new system; and may require working extensively with contractors, City and County departments and boards and commissions.

The Project Manager may be responsible for a number of projects, but a significant portion of the position's time must be spent in management of projects that meet the criteria below.

A project is a temporary endeavor undertaken to create a unique product or service. The Project Manager class is used for projects which meet the following general criteria: They

are at a substantial dollar level; they continue over a multi year period; they require significant involvement in negotiation and consensus building among a variety of interested individuals and groups; they may involve complex, information systems architecture/infrastructure planning and design, or complex, unusual or unique construction or fabrication methods; and they are generally highly visible and of great interest to elected officials.

## **DISTINGUISHING FEATURES**

There are four levels in the Project Manager series. Engineering/Architectural Project Manager levels are distinguished from one another by project size / value, technical complexity, sensitivity and degree of involvement by the public and governmental agencies. Information Technology Project Manager levels are distinguished from one another by project value/supervisory responsibilities, technical complexity, criticality, degree of innovation and degree of involvement by interested parties. Project Managers are distinguished from engineers and architects or IS/IT professionals in that the latter are typically responsible for the technical aspects of a project, or for construction or technology systems management, but not usually involved in the broader range of planning, coordination, oversight, negotiation, contract administration, presentation, public information, financial analysis, budget management, conflict resolution and management functions of the Project Manager.

Project Managers may supervise other Project Managers and technical staff.

### **Project Manager I**

#### **Engineering/Architectural Project Manager I**

**Project Size / Value** - Project is approximately \$5 to \$30 million.

**Technical Complexity** A single component employing standard techniques; a substantial renovation of an existing facility or system; two or more disciplines.

**Sensitivity** Completion is not essential to continued functioning of department; could be deferred (although not indefinitely); no significant consequences if not completed on time.

**Degree of Involvement by Interested Parties** Multiple contacts, but not unusually controversial; provides information and explains but may not need to persuade, negotiate, or defend beyond normal working out of differences. Routine environmental and other permitting, routine interactions with other government agencies and City departments.

#### **Information Technology Project Manager I**

**Project Value/Supervisory Responsibilities:** Project is at least \$1 million and/or requires the supervision or direction of the activities of four or more IT professional staff.

**Technical Complexity** Project does not cross organizational lines within a department.

**Criticality** - Completion is not essential to continued functioning of department operations or City services; could be deferred (although not indefinitely); no significant consequences if not completed on time.

**Innovation** - Involves upgrades to an existing system or systems; or implementation of "off-the-shelf" software without substantial customization.

**Degree of Involvement by Interested Parties** Multiple contacts, but not unusually controversial; provides information and explains but may not need to persuade, negotiate, or defend beyond normal working out of differences. Routine interactions with other

government agencies and City departments.

#### Project Manager II

Engineering/Architectural Project Manager II

Project Size / Value Project is approximately \$20 to \$75 million.

Technical Complexity A single component employing non standard techniques, or a large number of ordinary components; three or more disciplines.

Sensitivity Firm completion requirements; delay would cause difficulty for department functioning; little interconnection with other projects.

Degree of Involvement by Interested Parties Multiple contacts, expected to be somewhat controversial; may need to convince regulatory agencies or public interest groups of worth and wisdom of project; requires interaction with departments not generally contacted.

#### Information Technology Project Manager II

Project Value/Supervisory Responsibilities: Project is approximately \$1 to \$5 million and/or requires supervision or direction of the activities of more than four IT professional staff.

Technical Complexity Project crosses the boundary of two or more departments or organizational units within a department.

Criticality - Firm completion requirements; delay would cause difficulty for department operations or City services; little interconnection with other systems.

Innovation - Involves major upgrades to an existing system or systems; development and implementation of a new system or systems; or implementation of "off-the-shelf" software requiring moderate customization.

Degree of Involvement by Interested Parties Multiple contacts, is expected to facilitate effective communication between stakeholders; may need to provide department management with documentation, returns on investments ("ROI"), or other information to inform City and County departments, boards and/or commissions, and external agencies including public interest groups or other stakeholders, of the necessity of the project; responsible for making sure all stakeholders are kept informed as to the status of the project; requires interaction with departments not generally contacted.

#### Project Manager III

Engineering/Architectural Project Manager III

Project Size / Value Project is approximately \$50 to \$150 million.

Technical Complexity - Multi-component projects, or projects of significant size with high level of technical complexity, or major part of a very large citywide project; four or more technical disciplines.

Sensitivity Urgent projects affecting health or economic well being of City; cannot fall behind schedule without impact on other projects.

Degree of Involvement by Interested Parties High degree of political sensitivity and visibility; may be making statements for media, obtaining controversial permits, dealing with public interest groups; unique environmental permits or preservation of historical buildings may be involved; agencies have oversight with potential to stop or hold up work.

Supervision May supervise other Project Managers and technical or support staff.

#### Information Technology Project Manager III

Project Value/Supervisory Responsibilities: Project is between approximately \$5 to \$20 million and/or requires the supervision or direction of the activities of ten or more IT

professional staff. Project requires the supervision or direction of the activities of other sub-Project Managers and support staff.

Technical Complexity Encompasses the functionality of multiple organizational units Citywide or nearly Citywide.

Criticality- Project affects significant department operations or City services; cannot fall behind schedule without impact on other systems and/or City operations.

Innovation- Extensive implementation of a system or systems requiring the direction of a multi-disciplinary staff involving: upgrades to an existing complex system or systems, development and implementation of a new complex system or systems, or implementation of "off-the-shelf" software requiring substantial customization.

Degree of Involvement by Interested Parties - High degree of political sensitivity and visibility; is expected to facilitate effective communication between stakeholders; responsible for making sure all stakeholders are kept informed as to the status of the project; required to provide comprehensive project briefings to City and County departments, boards and/or commissions, and external agencies including public interest groups or other stakeholders; interactions and negotiations with departments, boards, and/or commissions. Bears primary and ultimate responsibility for all aspects of successful project completion.

#### Project Manager IV

Engineering/Architectural Project Manager IV

Project Size / Value Project is at least \$100 million.

Technical Complexity Very large city wide project over long time period with many component parts or a major component of a very large project, high level of technical complexity; four or more technical disciplines.

Sensitivity Project vitally affects health or economic well being of City; completion on schedule is crucial.

Degree of Involvement by Interested Parties Extremely politically sensitive, highly volatile, complicated funding and permitting process Supervision May supervise other Project Managers and technical staff; reports to department head, high level deputy or high level elected official.

#### Information Technology Project Manager IV

Project Value/Supervisory Responsibilities: Project is at least \$20 million and requires the supervision or direction of the activities of other sub-project managers and IT professional staff.

Technical Complexity Very large external or internal Citywide project spanning multiple years, with many complex integrated functions and a high level of technical complexity.

Criticality - Project vitally affects economic well-being of the City or critical department operations or City services; implementation is time-sensitive.

Innovation - Involves development and implementation of a new and highly complex system or systems, requiring extensive customization and/or multidisciplinary project staff.

Degree of Involvement by Interested Parties - Likely to be extremely politically sensitive; involves complicated funding and contracting processes; is expected to facilitate effective communication between stakeholders; responsible for making sure all stakeholders are kept informed as to the status of the project including providing comprehensive project briefings to multiple contacts; responsible for continued communication with City and County departments, boards and/or commissions, external agencies. Bears primary and

ultimate responsibility for all aspects of successful project completion.

## **KNOWLEDGE, SKILLS AND ABILITIES**

Knowledge of:

Engineering/Architectural Project Manager Positions.

Technical aspects of architectural, civil, mechanical, electrical, structural, and geotechnical engineering design and specifications; financing, estimating and budgeting, including planning and estimating, calculating overhead, design and construction costs; working knowledge of various funding sources and restrictions; legal requirements for City projects; regulations and regulatory agencies and commissions affecting planning, zoning, design and construction; requirements of final bid packages; construction management techniques and practices.

Information Technology Manager Positions.

Current trends in applications technology, including web-based architecture, security, workflow and systems design; government enterprise business processes; project management and information systems development and maintenance; technical, operational, and programming problem solving analysis; data processing methods; job flow within a large scale data processing environment; financing, estimating and budgeting, including planning and estimating, calculating overhead, design, development and implementation costs; custom software development and third-party software integration; working knowledge of various funding sources and restrictions; legal and procedural requirements for City projects.

Ability to:

Engineering/Architectural Project Manager Positions.

Schedule and budget complex capital projects; develop and enforce work statements; monitor, review and revise job orders, schedules and budgets; monitor and track project progress and expenditures and implement cost controls; use computer based project management systems; work effectively in a team environment; understand and communicate to others the larger context in which the project is being completed; negotiate and resolve contract disputes; maintain client contractor relationships; make effective presentations to clients and the community; and communicate effectively with the public, community groups, the media, other City departments, agencies, and private contractors.

Information Technology Project Manager Positions.

Supervise technical, functional, and operational managers and staff; function in a high-stress environment and meet project deadlines; work effectively with all levels of management and with diverse work teams; manage contract negotiations; analyze business problems and opportunities, and articulate business requirements; modify existing policies, strategies and/or methods to meet unusual conditions within the context of existing management principles; manage multiple vendor relationships including issues, change management and testing enhancements to the selected software; monitor and track project progress and expenditures and implement cost controls; use computer based project management systems; make effective presentations to clients and the community; and communicate effectively with the public, community groups, the media, other City

departments, agencies, and private contractors.

## **EXPERIENCE AND TRAINING**

Any combination of education, training and experience that could likely provide the required knowledge and abilities may be qualifying. A typical way to obtain this would be:

Project Manager I

Engineering/Architectural Project Manager I.

Bachelor's Degree in architecture, engineering, planning, or landscape architecture; plus four years of responsible architectural, engineering or construction management experience, OR

A Bachelor's Degree in another field plus six years of responsible experience in a field directly related to the project, OR

Eight years of architectural, engineering, or construction management experience in a field directly related to the project, OR

California registration as professional engineer or architect.

Information Technology Project Manager I.

A Bachelor's Degree in Computer Science, Information Technology or other related field and two years of experience implementing and managing integrated information systems projects, OR

Six years of experience implementing and managing integrated information systems projects.

Project Manager II

Engineering/Architectural Project Manager II.

Same as Engineering/Architectural Project Manager I plus two additional years of project coordination experience.

Information Technology Project Manager II.

Same as Information Technology Project Manager I plus two additional years of experience implementing and managing integrated information systems projects.

Project Manager III and IV

Engineering and/or Architectural Project Manager III/IV.

Same as Engineering/Architectural Project Manager II plus two additional years of project coordination experience for major architectural, engineering or construction projects.

Professional training in project management is desirable and may be a requirement in some departments.

Essential duties require the following physical skills and work environment: Work is performed in the office and in the field, involving attendance at meetings in the community and visits to construction sites, which may be in remote locations. Some assignments may require driving and/or extensive night or weekend work.

Information Technology Project Manager III/IV.

Same as Information Technology Project Manager II plus two additional years of experience of project coordination experience for major information systems projects.

Project management methodology certifications such as the following are highly desirable and may be required in some departments:

Project Management Professional Certification from the Project Management Institute, OR  
Information Technology Infrastructure Library Practitioner Certification in Prince2

### **DISASTER SERVICE WORKERS**

All City and County of San Francisco employees are designated Disaster Service Workers through state and local law (California Government Code Section 3100-3109). Employment with the City requires the affirmation of a loyalty oath to this effect. Employees are required to complete all Disaster Service Worker-related training as assigned, and to return to work as ordered in the event of an emergency.

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**CLASS:** 5502; **EST:** 1/1/1900; **REV:** 1/1/1900;

**National Incident Based Reporting (NIBRS)**

**Project Communications Plan**

**San Francisco Police Department**

	2018	2019												2020								
Phase	Jun-Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Project Kickoff Teleconference with BJS, CJIS, NCS-X team																						
Project Kickoff with SFPD Command staff																						
Monthly Phone conferences with BJS, FBI, and NCS-X Teams.																						
Complete Grant Updates																						



**National Incident Based Reporting (NIBRS)**

**Project Communications Plan**

**San Francisco Police Department**

<b>Phase</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
Project Kickoff Teleconference with BJS, CJIS, NCS-X team				
Project Kickoff with SFPD Command staff				
Monthly Phone conferences with BJS, FBI, and NCS-X Teams.				
Complete Grant Updates				

**National Incident Based Reporting (NIBRS)**

**Implementation Timeline**

**San Francisco Police Department**

	2018	2019												2020										
Phase	Jun-Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Apply for funding																								
California DOJ developing data requirements for California law enforcement agencies.																								
Create Request For Proposal for NIBRS Scoping and detailed planning.																								
Select Technology Management Consultant																								
Consultant to complete Scoping Project to include Agencies and processes impacted, Requirements, Architecture plan, Interfaces, Deliverables, timeline, cost analysis, Communications and Training Plan, and roadmap.*																								
Consultant to design new NIBRS system, including screens, reports, data elements, maps, tables, interfaces to other systems, etc.																								
Consultant to develop and test new system, screens, reports, interfaces, etc.																								
Consultant to develop and execute training and communications plan																								
Consultant to train officers																								
Cutover																								

\* Project start dependant on California completing the final version of data elements.

**National Incident Based Reporting (NIBRS)**

**Implementation Timeline**

**San Francisco Police Department**

Phase	2021												2022										
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
Apply for funding																							
California DOJ developing data requirements for California law enforcement agencies.																							
Create Request For Proposal for NIBRS Scoping and detailed planning.																							
Select Technology Management Consultant																							
Consultant to complete Scoping Project to include Agencies and processes impacted, Requirements, Architecture plan, Interfaces, Deliverables, timeline, cost analysis, Communications and Training Plan, and roadmap.*																							
Consultant to design new NIBRS system, including screens, reports, data elements, maps, tables, interfaces to other systems, etc.																							
Consultant to develop and test new system, screens, reports, interfaces, etc.																							
Consultant to develop and execute training and communications plan																							
Consultant to train officers																							
Cutover																							

\* Project start dependant on California completing the final version of data elements.

**National Incident Based Reporting (NIBRS)**

**Implementation Timeline**

**San Francisco Police Department**

Phase	2023																
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Apply for funding																	
California DOJ developing data requirements for California law enforcement agencies.																	
Create Request For Proposal for NIBRS Scoping and detailed planning.																	
Select Technology Management Consultant																	
Consultant to complete Scoping Project to include Agencies and processes impacted, Requirements, Architecture plan, Interfaces, Deliverables, timeline, cost analysis, Communications and Training Plan, and roadmap.*																	
Consultant to design new NIBRS system, including screens, reports, data elements, maps, tables, interfaces to other systems, etc.																	
Consultant to develop and test new system, screens, reports, interfaces, etc.																	
Consultant to develop and execute training and communications plan																	
Consultant to train officers																	
Cutover																	



\* Project start dependant on California completing the final version of data elements.

# DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

0348-0046

(See reverse for public burden disclosure.)

<b>1. Type of Federal Action:</b> <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. Report Type:</b> <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change <b>For Material Change Only:</b> year _____ quarter _____ date of last report _____
<b>4. Name and Address of Reporting Entity:</b> <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> :  <b>Congressional District, if known:</b>	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>   <b>Congressional District, if known:</b>	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>  CFDA Number, <i>if applicable</i> : _____	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b> \$ _____	
<b>10. a. Name and Address of Lobbying Registrant</b> <i>(if individual, last name, first name, MI):</i>	<b>b. Individuals Performing Services</b> <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i>	
<b>11.</b> Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
<b>Federal Use Only:</b>		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

## INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.  
  
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

## **FY 2018 National Crime Statistics Exchange (NCS-X), Part 2**

### **DISCLOSURE OF PENDING APPLICATIONS**

The San Francisco Police Department does not have any pending applications for federally funded grants or cooperative agreements that include requests for funding for the activities being proposed in this grant proposal submission.

## **FY 2018 National Crime Statistics Exchange (NCS-X), Part 2**

### **DISCLOSURE OF PROCESS FOR EXECUTIVE COMPENSATION**

The disclosure process for executive compensation is not applicable to our proposal. The San Francisco Police Department is a local government agency. All executive compensation schedules are readily available to the public from the City and County of San Francisco's Department of Human Resources website.

# NCS-X NIBRS Readiness Assessment

The intent of this readiness assessment is to gain an understanding of the capabilities and barriers that exist in your agency with regards to collecting and reporting crime incident data according to the FBI's NIBRS standard. Please note that some states have additional incident-based reporting requirements beyond the Federal NIBRS standard presented in this self-assessment tool. Please check with your state UCR program to determine what, if any, additional incident-based reporting requirements may exist for your state.

The following questions are intended to help identify and understand the existing system(s) that would be used by your agency to capture and report NIBRS data. These systems could include your Records Management System, a field-based data entry system, or a computer aided dispatch system. Answers to these questions will assist the NCS-X team, in conjunction with your agency, in developing a general cost estimate for implementing NIBRS reporting in your agency which will also help BJS understand where investments need to be made to meet reporting requirements for the agencies included in the NCS-X sample.

**Instructions:** Please complete this questionnaire for each system your agency uses that may provide incident information in support of reporting data according to the NIBRS standard. Please answer questions to the best of your ability. If any question is not applicable to the particular system, please write "N/A".

**Agency Name: San Francisco Police Department**

**Respondent: Susan Merritt**

**Date: June 25, 2018**

## Overview

This section asks about the name of the system being assessed and the primary functions and users of the system.

1. What is the name of the existing system? **Crime Data Warehouse**
2. What are the primary functions of the system? **Incident creation, Search, Crime Mapping, Reporting, Case Tracking, People tab, e-Stops, e-Citations, UCR Reporting, Self Service Crime Dashboards, Automated Compstat, feeding incident data to other Public Safety Agencies.**
3. Who are the system users? **SFPD Sworn Personnel.**

## NIBRS-Specific Requirements

The section asks about specific elements of the NIBRS data standard the the ability of the system to collect and store data according to this standard.

4. According to the survey you completed for NCS-X that asked about your ability to collect information according to the NIBRS standard, your response noted the following about major aspects of the NIBRS standard. Please confirm these responses.

**Our current system does not allow us to collect NIBRS data. Our plan is to re-write the incident report portion of our system.**

**Specifically, we have nearly 2,000 “incident codes” that include both type of incident and attributes of the incident. For example, we have “robbery with a gun” and “robbery at a gas station” and “robbery of ATM”. The current method of using incident codes would require a re-write of the incident report within our Crime Data Warehouse to separate the offense from the attributes of the offense. We want to keep the incident writing within our Crime Data Warehouse as it allows us to make changes or additions for local San Francisco initiatives. Local requirements and changes are a big part of what we need to be able to do in addition to the NIBRS requirements.**

NIBRS Standard Requirement	Your Agency’s Response
Able to collect information about all offenses in an incident	Please see above.
Detailed offense code assigned to each offense in an incident	Please see above.
Demographic information stored for each victim in an incident	Please see above.
Victim injury stored for each victim in an incident	Please see above.
Demographic information stored for each known offender in an incident	Please see above.
Relationship between each victim and offender stored for all offenses in an incident	Please see above.
Track multiple clearances	Please see above.
Track whether an incident was exceptionally cleared	Please see above.
Record and store exceptional clearance date	Please see above.

5. Please review the NIBRS elements in the below table to determine if and how the system collects and stores each NIBRS element. Each of these data elements is described in detail in the NIBRS user manual available at <https://www.fbi.gov/about-us/cjis/ucr/ucr-program-data-collections#National>.

**We have to do a complete re-write of our current incident report to comply with NIBRS. We require extensive business analysis to determine how to convert our 2,000 incident codes into the new Offense codes used by NIBRS. Because of the new NIBRS way of collecting data, we cannot use or re-use existing data elements within our incident report. However, we want the new NIBRS data fields to be able to integrate with the rest of our system (e-citations, collisions, etc.) Additionally, there is a timing issue in that California is not**

scheduled to finalize the data elements to the California Incident-Based Reporting System (CIBRS) until December, 2019.

Data Element #	Description	System Collects (Y/N)	System uses NIBRS Code Values	Can you derive the NIBRS Code Value? How?
1	ORI			Please see above.
2	Incident Number			Please see above.
2A	Cargo Theft			Please see above.
3	Incident Date			Please see above.
4	Cleared Exceptionally			Please see above.
5	Exceptional Clearance Date			Please see above.
6	UCR Offense Code			Please see above.
7	Offense Attempted/Completed			Please see above.
8	Offender Suspected of Using			Please see above.
8A	Bias Motivation			Please see above.
9	Location Type			Please see above.
10	Number of Premises Entered			Please see above.
11	Method of Entry			Please see above.
12	Type Criminal Activity/Gang Information			Please see above.
13	Type Weapon/Force Involved			Please see above.
14	Type Property Loss/Etc			Please see above.
15	Property Description			Please see above.
16	Value of Property			Please see above.
17	Date Recovered			Please see above.
18	Number of Stolen Motor Vehicles.			Please see above.
19	Number of Recovered Motor Vehicles			Please see above.
20	Suspected Drug Type			Please see above.
21	Estimated Drug Quantity			Please see above.
22	Type Drug Measurement			Please see above.
23	Victim Sequence Number			Please see above.
24	Victim Connected to UCR Offense Code			Please see above.
25	Type of Victim			Please see above.
25A	LEOKA – Type of Officer Activity/Circumstance			Please see above.
25B	LEOKA – Officer Assignment Type			Please see above.
25C	LEOKA – Officer – ORI Other Jurisdiction			Please see above.
26	Age of Victim			Please see above.
27	Sex of Victim			Please see above.
28	Race of Victim			Please see above.
29	Ethnicity of Victim			Please see above.
30	Resident Status of Victim			Please see above.
31	Aggravated Assault/Homicide Circumstances			Please see above.

Data Element #	Description	System Collects (Y/N)	System uses NIBRS Code Values	Can you derive the NIBRS Code Value? How?
32	Additional Justifiable Homicide Circumstances			Please see above.
33	Type Injury			Please see above.
34	Offender Number to be Related			Please see above.
35	Relationship of Victim to Offender			Please see above.
36	Offender Sequence Number			Please see above.
37	Age of Offender			Please see above.
38	Sex of Offender			Please see above.
39	Race of Offender			Please see above.
39A	Ethnicity of Offender			Please see above.
40	Arrestee Sequence Number			Please see above.
41	Arrest Transaction Number			Please see above.
42	Arrest Date.			Please see above.
43	Type of Arrest			Please see above.
44	Multiple Arrestee Segments Indicator			Please see above.
45	UCR Arrest Offense Code			Please see above.
46	Arrestee Was Armed With			Please see above.
47	Age of Arrestee			Please see above.
48	Sex of Arrestee			Please see above.
49	Race of Arrestee			Please see above.
50	Ethnicity of Arrestee			Please see above.
51	Resident Status of Arrestee			Please see above.
52	Disposition of Arrestee Under 18			Please see above.

6. Does the application or system enforce any of the NIBRS data edit and validation checks at the time of data entry? The full list of data edit checks is available in the current NIBRS Technical Specification available at <https://www.fbi.gov/about-us/cjis/ucr/ucr-program-data-collections#National>.

**No. Our current system has only a small number of validations such as geo-validation, address validation, clearance codes, incident codes, CAD codes. Most data fields are free form optional fields. Again, this is why this project requires a re-write of our entire incident report.**

7. Does your current system create or have the ability to create a NIBRS or UCR report/export file?  
**Yes, we currently send a file to report UCR to the state.**

- a. If yes, in what format? How done? **FTP**
- b. If no, how do you report NIBRS? State website? Other?
- c. What reporting methods are available for submitting UCR/NIBRS data? **FTP**

8. Does your state have additional incident based reporting requirements (e.g., ONIBRS in Oregon) that would need to be met beyond the federal NIBRS standard? If yes, does the system have the ability to capture these additional data elements? **The state of California will have additional elements. They are scheduled to be complete by December, 2019. In addition, San Francisco has additional requirements. We are looking for a consulting firm to perform this analysis and**

identify requirements.

## General System Information

The purpose of this section is to develop an overview of the system being reviewed to better understand its design and use with respect to collecting and reporting NIBRS data. **If a vendor is responsible for development work, questions 16 – 20 are optional.**

9. At what location is the system hosted? **Department of Emergency Management, 1011 Turk Street, San Francisco.**
10. Who is responsible for the daily operation, management, and availability of the system? **SFPD Technology is responsible for applications. Department of Technology (City IT group) is responsible for middleware, Oracle hardware and database.**
11. Who is responsible for development work on the system? If a vendor performs this work, then provide name of the vendor. **This is a mix of Oracle and SFPD Applications Technology Team.**
12. What are the availability requirements of the system? **Always on high availability (no down time ever). The reason is that we write incidents as well as citations on this system. We are also planning for collisions. These are real time entered into a live system using smart phones and Mobile Data Terminals (MDT)s.**
13. What is the network connectivity to the system (assuming a web-based or client-server system)? Is the system connected to the Internet? Describe how you share information from your system with outside organizations (DA, state, etc.). **We are an intranet web-based system. We do not connect to outside organizations. We provide data to a central hub, called JUSTIS. The other agencies pick up the data there to pull into their systems.**
14. Are there logging and auditing requirements for the system? Do you need to know who accessed what information and when it was accessed? If so, how are they implemented? **Yes, there are auditing requirements. We use Oracle logging functions for this.**  
On which programming platform/language (Java, .NET, COBOL, etc.) was the system developed? **Oracle Application Express (APEX)**
15. Which version of the programming platform/language does the system use? **Version 3.6.**
16. On what operating system does the system run? **Oracle database version 12C. Oracle Business Intelligence version 11G.**
17. What brand and version of database does the system use? **Oracle version 12C.**
18. What type of application server does the system use (Websphere, Oracle Application Server, JBoss, Weblogic, Windows IIS, etc.)? **Weblogic Apache version.**

## Information Exchanges/Sharing Capabilities

The purpose of this section is to better understand the system's ability to share and exchange data which is an inherent part of the NIBRS reporting standard.

19. Do you currently participate in any information exchanges that utilize this system? Please identify the information exchanges (answer a - e for each exchange)?

**We participate in two information exchanges. The first is California DOJ.**

- a. Name of exchange: **UCR Reporting to California DOJ. We send electronic files from this system.**
- b. Is the exchange batch or real-time? **Batch**
- c. How is the exchange implemented (FTP, E-mail, EDI, Web Services, etc.)? **FTP**
- d. Does the system provide or consume information or both? **It provides information.**
- e. What access method is used to extract data from or load data into your system? **Extract, Transform, Load**

**The second is the City and County of San Francisco's Justice Tracking Information System (JUS.T.I.S.)**

- a. Name of exchange: **Incident reporting to JUS.T.I.S. We send electronic files from this system.**
- b. Is the exchange batch or real-time? **Batch**
- c. How is the exchange implemented (FTP, E-mail, EDI, Web Services, etc.)? **FTP**
- d. Does the system provide or consume information or both? **It provides information.**
- e. What access method is used to extract data from or load data into your system? **Extract, Transform, Load**

20. Describe all of the methods available to access the database/data on your system other than through the user interface?

- a. Does the system expose key functionality (processes or data edits) through APIs? **No**
  - i. Are those APIs published?

- ii. Does your organization have the documentation for the APIs?
  - iii. How have you used?
- b. Does the application allow data access using direct database connectivity? (e.g., ODBC) **Yes, for connect to cad functionality – ODBC. It is a one way pull.**
21. Does the application allow data access using Stored Procedures (SQL)? **No.** Where are data edits and business rules applied: user interface, database layer, middle tier? **User interface, middle tier.**
22. What messaging mechanisms are available in your system (FTP, RPC, Web Services, Messaging)? **None are available.**
- a. Does the vendor place any licensing restrictions on the use of these capabilities?
23. What capabilities does the system have for triggering information exchange? How would the system generate and send web services calls or other messages (data exchanges) based on the occurrence of events or other triggers in the application? **Nothing is triggered. Everything is done through batch process other than connect to CAD.**

## Staffing/Resources

The purpose of this section is to understand how data is entered into the system and the extent to which staff members in your department can work within the system.

24. How is crime incident data currently entered into this system? By an officer? By a central data processing staff? **By all officers.**
25. Are any of the data first collected via a paper form and then entered into the system? **No.**
26. If moving to NIBRS would entail significantly more data collection for each crime incident than is currently being done, how will training needs be affected? **This will be a significant training. The original incident entry training for police officers took six months for 2,000 officers. This is double the amount of data entered so it will likely take 8 months to a year to train all officers.**
27. If internal staff will be responsible for development work, how experienced are staff members with the application architecture and/or code of the system? **We use a mix of employees and consultants to do coding. They are very familiar with the application architecture.**
28. If internal staff will be responsible for development work, how experienced are staff members with producing data extracts and in loading data provided through external means? **Very familiar with loading and sending data.**
29. How experienced are staff members/vendors with designing, coding, implementing and

maintaining information exchanges? **Very familiar.**

- a. Have they used Web Services? If not, what tools and techniques have they used? **They are using Oracle Application Express.**
- b. To which, if any, web services specifications (WS-I BP, WS-Addressing, WS-Reliable Messaging, etc.) does the system currently conform? Which version of the specification does the system support? **Conforms to Oracle Application Express.**
- c. Does your organization have plans for adopting web services standards for information exchange? If so, which web services standards will be used, and how will they be implemented? **This is something a technical architect would have to be hired to determine.**

**Notes:**