Information Technology Sourcing Strategy - Update

San Diego City Council
Rules, Open Government, & Intergovernmental Relations Committee
Meeting of January 12, 2011
Introductions

– Wally Hill, Assistant Chief Operating Officer
– Alan Watkins, IT Operations & Security Manager
– Kevin Parikh, CEO, Avasant LLC
– George Clark, Principal, Avasant LLC
IT Sourcing Strategy – Topics

- Background – City Council Request
- Updated IT Sourcing Strategy Report
- Conclusions & Recommendations
- Transaction & Transition Timeline
Background – City Council Request

– Dec. 6th Council Resolution (R-316418)

• Update IT Sourcing Strategy Report
  – Use fixed-price, performance-based service contracting models
  – Address incumbent worker retention
  – Local, small business utilization, where economical
  – Additional IT services, where cost savings are timely
  – Review of net transition costs by Auditor & IBA
Updated IT Sourcing Strategy Report

– Addresses Items Contained in City Council Resolution
– Provides Clarification of Several Areas where City Council Members had Questions

• Stakeholder interview topics & questions
• Additional data related to the risk analysis for the different scenarios
• Pre-Qualification of New Providers
• Early Termination Conditions
Conclusions & Recommendations

Under the existing relationship between the SDDPC and the City of San Diego, the City retains many of the risks associated with an Insourced IT environment without achieving the benefits of cost reduction and industry standard practices associated with strategic sourcing (managed services)

- If the City continues to receive services from the SDDPC, the services should be delivered under a Managed Services model

Based on the City’s requirements, in scope services, the financial model, and the risk profile, the City of San Diego should move forward with a fixed priced performance-based managed services RFP (competitively bid)

- A single RFP should be structured in a modular fashion to allow for a Single Provider or Multiple Providers by Service Tower (e.g., Data Center, Network, Applications Development and Maintenance)
- Service Providers will be required to propose an option where all services will be provided by onshore resources

In Scope Service for the RFP

- Data Center Services
  - Including Departmental Data Center / Server Rooms
- Voice and Data Network
- Applications Development and Maintenance
- Other Optional Services
  - ERP Technical Support (external contracts)
  - Help Desk / Deskside Support (for consideration after Year 3)
Transaction & Transition Timeline

The chart below shows the approximate timing of transaction activities once provider contract(s) have been executed.

Transaction Execution Phase

- **RFP Release**
- Provider Downselect
- Select Winning Provider(s)
- Sign Contract(s)

Transition Phase

- **BAFO, Finalist Selection and Negotiations**
- **Transition of Services**
- **Migration of Assets / Data Center**
- **Transformation***

* Timing of Transformation is dependent on the criticality of getting off legacy equipment. Transformation planning can occur during Transition with actual Transformation activities occurring immediately after Transition.
Questions?
# Phase 1 Scope and Methodology

The diagram below shows the scope and methodology Avasant has used for the Sourcing Strategy phase of its engagement with the City:

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- The Sourcing Strategy Development phase is an iterative process that involves “deep dive” analyses of the City’s current IT environment, including utilized resources and associated costs.
- The ultimate goal of the Sourcing Strategy phase is to recommend a specific sourcing strategy to the City, which aligns with the City’s business and IT goals and objectives (i.e., Sourcing Drivers).
# City of San Diego – Important Dates / Milestones

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<tr>
<th>Major Milestone</th>
<th>Targeted Dates</th>
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<td>Planning Meeting</td>
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<td>Primary Interviews, Data Collection, Site Visits</td>
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<td>Brief City of SD Mayor</td>
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<td>Sourcing Strategy Finalization</td>
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<td>Finalize Phase 2 Scope Refinement / Contract</td>
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<td>Collect Additional RFP Requirements</td>
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<td>Review Market Scan</td>
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Information and Data Gathering

- Data Gathering
- IT Operations and Department Management Questionnaires
- Baseline Data
The purpose of the Information and Data Gathering activity is to:

- Determine City stakeholders’ key IT requirements, business drivers, and their points of view on the current and potential future IT sourcing models through an in-person interview and written questionnaire process.
- Understand each stakeholder’s IT and business environment through the collection of financial and technology-associated data.
- Develop an understanding of the current financial and IT environments within each stakeholder group.

The results of the Information and Data Gathering step is used as input to subsequent strategy development steps where key sourcing drivers are identified and specific IT sourcing alternatives are evaluated against key findings.
Project Background

**Current City Environment**

- The City currently receives most of its IT services through the San Diego Data Processing Corporation ("SDDPC“ or “DPC“), which is a non-profit corporation formed in 1979 with the explicit purpose of providing IT services to the City.
- The sole Member of the SDDPC is the City of San Diego. In its capacity as sole Member, the City acts through the Mayor and the City Council.
- From 1979 until 2009, the SDDPC provided the City with most of its IT infrastructure and support services.
- In 2009, the help desk and computer support services were put out to bid, resulting in a managed services contract with En Pointe Technologies in April 2010.
- Approximately 88% of the SDDPC’s current revenues come from the City. The other approximately 12% are derived from other local government clients (e.g., ARJIS, SDCERS).
- The City continues to rely heavily on the SDDPC for most of its IT infrastructure and applications development and support needs.

**Avasant’s Involvement with the City**

- The City engaged Avasant to conduct a comprehensive analysis of the City’s IT environment and develop a recommended sourcing strategy for the City’s future IT direction relative to the scope of services that the SDDPC and other 3rd Parties are currently providing the City.
- The stated drivers related to the City’s RFP and subsequent retention of Avasant were cost reduction, addressing obsolete equipment, and moving to Industry Standards where cost neutral.
- Based on sourcing strategy findings and resulting recommended strategy, the City will decide how to proceed.
Stakeholders Interviewed

Avasant interviewed business and IT representatives from the following City Departments:

- City Attorney
- Development Services
- Engineering and Capital Projects
- Environmental Services
- Finance
- Fire-Rescue
- General Services
- Human Resources
- Information Technology
- Library
- Personnel
- Police
- Public Utilities
- Risk Management

Avasant also interviewed the following individuals from the SDDPC:

- Larry Morgan
- David Taylor
- Laura Atkinson
Operations Interview Questions: Operations

- What Policies and procedures are published for services?
- What diagnostic tools and/or test equipment is available at the Data Center?
- How are users’ trouble calls administered?
- How are vendors notified of system troubles?
- Are there incident reports and resolution reports for all outages?
- Are incident and service reports maintained at a central site?
- Who reviews incident reports and at what frequency (e.g., daily, weekly, monthly)?
- How are recurring or chronic outages tracked?
- What preventive Maintenance procedures are performed and at what intervals?
- What safety and security procedures are in place for vendor access?
- What level of maintenance spares are available?
- Where are maintenance spares stored?
Operations Interview Questions: MACs & Projects

- What is the procedure for requests for new services and equipment?
- What is the procedure for requests for MACs (Moves, Adds & Changes)?
- How many MACs are administered yearly?
- Of the total MACs, how many are software only changes?
- How is system spare capacity tracked?
- What level of spares are allocated to MACs?
- What are the procedures for administering MACs?
- Are there any current in-flight projects or near-term projects? If yes, could you provide a brief summary of activities, locations, platforms, etc.?
Operations Interview Questions:
Data Center Services

What are the data center services that you currently provide?

**Service Delivery Activities**
- Capacity Management
- Performance Management
- Service Level Monitoring and Reporting
- Security
- Backup and Recovery
- Technology Refreshment and Replenishment
- Operations and Administration
- Maintenance

**Lifecycle Activities**
- Planning and Analysis
- Implementation and Migration
- Integration and Testing
- Asset Management
- Software License Management
- Acquisition and Management
- Documentation

**IT Service Support Activities**
- Incident and Problem Management
- Root Cause Analysis
- Configuration Management
- Change Management and Release Management
- Account Management
- Financial Planning / Chargeback Management
- Job Scheduling and Execution
- Third Party Agreements Management
- Personnel Management
- Client Policies, Procedures and Standards Management
- Facilities, Entities and Service Locations Management
Operations Interview Questions (cont’d):
Data Center Services

- What are the key initiatives impacting or impacted by data center services over the next 6 to 12 months?

- How are planning, prioritization, funding and oversight of data center services accomplished? What governance groups are involved (ex. Steering committee)? How effective are these processes currently?

- How many non-SDDPC resources are providing Data Center services? City of San Diego employees? Other personnel / vendors?

- Facility Information
  - Square Footage (used as Data Center)
  - Raised Floor / Data Center Usable Space Square Footage
    - Utilized
    - Available
  - Power Consumption
  - Age of Equipment – Electric, Cooling, Fire Suppression, etc.
  - DR Location / Approach
Operations Interview Questions:
Application Development & Maintenance (ADM)

- Could you summarize the ADM services which your organization is delivering to the City of SD?
  - Application Development/Enhancement (what defines enhancement/development/projects?)
  - Application Maintenance/Support

- Are ADM services delivered currently by your organization at the SDDPC center or other locations?
  If others, could you summarize what services are delivered from various locations (on-site, near-site, near-shore, off-shore)?

- How do you manage Issue Resolution?

- How do you determine the quality of the staff assigned to your account? Are the ADM staff primarily your own internal staffs or out-side hire/contractors or third parties?

- How are upgrades planned and scheduled?

- Do you measure SEI CMM or ISO certification of your ADM staff? If yes, how are they measured?

- Could you explain if any projects you have delivered were to improve quality and/or productivity?

- Were any projects associated with improving the accuracy of estimates, both in work effort and completion of activities on time?

- How are additional skills acquired when necessary?

- Are measurements implemented which indicate level of output and effectiveness?

- How do you respond to problems and out of plan incidents?

- Are there any other services provided by your organization or third parties for ADM services?
Operations Interview Questions:  
Business Continuity / Disaster Recovery Preparedness

- Has there been a recent business disruption event? If so, please describe the event.
- Does the City of SD require Disaster Recovery to comply with state or federal regulations?
- Are there auditor/audit committee reports or corporate policies that indicate Disaster Recovery is required?
- Are Disaster Recovery requirements implicit or explicit in your contracts with the City of SD?
- Is there a corporate policy that requires BC/DR?
- Is there an overall coordinator for DR activities?
- Has a risk assessment been performed on the Data Center?
- Has your organization conducted a security assessment (e.g., network, platform, application, work center, & data)?
- Has your organization consolidated or will consolidate the work/data centers or networks?
- What is the DR solution for data centers and other sites (e.g., hot-site, mobile)?
- What are your computer platforms (IBM, HP, Compaq, Sun) at the recovery location(s)?
- Have you identified your critical processes and applications?
- Do you have DR strategies for the following: Data Center? Data Network? Applications? Platforms? Data?
Operations Interview Questions (cont’d):
Business Continuity / Disaster Recovery Preparedness

- Has the City of SD identified these recovery elements:
  - Recovery procedures
  - Recovery site information (addresses, contact numbers)
  - Contact list (including after hours reach numbers)
  - Recovery objectives (recovery time, recovery point)
  - Level of service in recovery mode

- Is critical data stored off-site? Do they do data off-site storage with an external vendor?
- Do they do any type of data mirroring or electronic vaulting?
- Does the DR strategy take into account the unavailability critical personnel?
- Does the DR strategy address impact to Data Center interfaces (e.g., external companies, other centers)
- Is there a BC/DR plan formally documented and approved? If possible, please provide a copy.
- Does the City of SD have incident management plans?
- If there is no formally documented BC/DR Plan, how would you manage in the event of a disaster?
- Is a BC/DR Plan maintained off-site for availability at the time of a disaster?
- Do you exercise the BC/DR plan? If so, how recently has it been exercised?
- Based on the current BC/DR Plan, are all of the required resources available (e.g., data network, recovery site, personnel) to execute the plan?
Operations Interview Questions:
SLA Information (by Service Area)

- Please list and describe, in reasonably sufficient detail, all performance metrics tracked.
- How is each metric measured? For example, what is the scale of measure used - time (seconds, minutes, hours, days), or other?
- How are service levels tracked (workflow) and by which team are they tracked within the organization?
- What is needed to access the tools necessary for the metrics?
- How often does information on each metric get delivered?
- Are there specific dates for delivery?
- To whom is the information delivered?
- How is the information for each metric interpreted and managed?
Management Interview / Workshop Questions: Relationship & Governance

- What is your overall evaluation of your department’s relationship with the Supplier(s)?
- What kinds of added value did Supplier(s) bring to the table?
- How is the Supplier(s) performing?
- How flexible is the Supplier(s) in responding to new and changing requirements?
- Are there any short comings with regard to any of Supplier’s processes?
- How would you recommend managing interfaces between potentially multiple suppliers including in-house services not in-scope?
- Have you achieved material improvements (or possibly degradations) in terms of:
  - General services levels (effectiveness, responsiveness, professionalism, end user satisfaction)?
  - Cost reduction?
  - Expertise in new business concepts, processes, and technologies?
  - Responsiveness to business transformations and new programs?
- What major initiatives do you anticipate for your department over the next 6-24 months that will impact IT services?
- What risks do you perceive from the current IT Service Providers and what risks do you want to manage from potentially moving to a new Service Provider?
Quantitative Data Gathering – IT Resources

In addition to the qualitative data Avasant gathered through interviews and completed Department questionnaires, Avasant also gathered quantitative data related to the City’s IT environments:

One of the main goals of the quantitative data gathering during the Sourcing Strategy phase is to derive a quantity of Resource Units for the in scope services.

What are Resource Units?

- Resource Units (or “RUs”) are units of measures related to various IT service areas
- Resource Unit Examples
  - For Data Center – Mainframes, servers (by type/size), storage (per GB or TB), email mailboxes (accounts), database instances
  - For Network – Routers, switches, firewalls, circuits
  - For Voice – Circuits, handsets

What are Resource Units Used For?

- RUs are used to estimate what the City might reasonably expect to pay for services associated with the RUs under the different sourcing scenarios that are modeled for potential sourcing strategy consideration
- RUs form the principal basis by which managed IT service providers develop pricing for customers
- Avasant maintains a database of historical RU costs from service providers in the marketplace, based on actual deals it has been involved in over the last 12 months and beyond (spanning several hundred transactions over the last decade)
Interview Results Summary

The following are key takeaways obtained through the interviews of City IT stakeholders:

- Because the SDDPC has been providing many of these services to departments for quite some time, most departments rely on the SDDPC’s familiarity with departments’ IT and business environments and their ability to provide them with IT services in an efficient and knowledgeable manner.

- Flexibility when it comes to service requests is important.

- Areas of focus are controlling costs, accurate invoicing, third party support, project management skills, strategic focus, effective communication, change order costs, and technical expertise.

- Risks associated with a potential transition of services to a new provider include: loss of knowledge and key personnel, understanding departments’ business and IT drivers, service continuity, understanding departments’ unique and often heavily customized applications/systems, service responsiveness, loss of control, and loss of data (including historical data).
The Financial Analysis Model analyzes the current City IT Costs to develop a **Base Case**. Costs include:

### Direct SDDPC (FY 2011 Budget)

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<th>Applications</th>
<th>Other</th>
<th>Data Center</th>
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- $37 million in Direct SDDPC spend on Data Center, Network, and Application technical services targeted for Strategic Sourcing
- $92 million in total City IT Spend includes SDDPC Pass Through, Department of IT, OneSD, Direct Purchases, and Department Pers. Exp.

### Software Total

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<tr>
<th></th>
<th>City of SD: Department of IT (2011)</th>
<th>City OneSD Support Dept (FY2011)</th>
<th>City Direct Purchase (FY2011)</th>
<th>City of SD: Departments (2011) / Pers Exp</th>
<th>City Subtotal</th>
<th>City and SDDPC Total</th>
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<td>Other**</td>
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Public Utilities/Water CIP Project (SAP Customer Care System)* $10,800,000

### Budgeted FTEs

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<th>Data Center FTEs</th>
<th>Applications FTEs</th>
<th>Network FTEs</th>
<th>Voice FTEs</th>
<th>Network FTEs</th>
<th>Data FTEs</th>
<th>Mgmt / Arch / Admin FTEs*</th>
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IT Sourcing Drivers
Sourcing Drivers

The following sourcing drivers are motivating the City’s sourcing strategy:

- **Cost Reduction**
  - If the City is to enjoy the same level of IT services in the future, it will need to find a way to decrease costs and lower its financial risk

- **Addressing Obsolete Equipment / Technology / Technology Refresh**
  - Mainframe environment exists and will need to be migrated
  - Many telephone system components are beyond end of life (posing a technology and business risk) and need replacement
  - Transforming to a converged voice and data network environment would drive cost savings

- **Move to Industry Standards Where Cost Neutral**
  - Level of some contracted services can be improved by typical managed services providers’ offerings
    - Data Center Facilities – The DPC facility is not well situated geographically (poses an operational risk being located near a fault line, in a valley, and fairly close to the location where services are delivered), is not as sophisticated as most providers’ standard offerings, and is a potential source of revenue if sold or leased
    - Service Levels – While the current City / DPC relationship includes service levels for a number of core service level metrics (e.g., availability, time to resolve), there are a number of industry standard service metrics Avasant recommends, which would enhance the City’s level of IT services and lower performance risk
    - Managed Service Approach – Outcome based sourcing that focuses on cost effective management and delivery of required services by a service provider according to contractually enforceable service levels (including fee reductions)
  - Managed services providers bring a wealth of Industry Standards to bear due to economies of scale and a singular focus on managed IT services
Sourcing Drivers (cont’d)

Other

- Flexibility
  - Providing maximum flexibility to meet changing City demands
  - Providing flexibility to retain key functions and IT activities and to retain business knowledge
- Security
  - Lowering security risks and ensuring that services meet the City’s security requirements and other local, state and federal regulations (e.g., network security, physical/logical security, data security, ISO, HIPAA)
- Scalability in Human Capital
  - Providing scalable (up or down) and qualified IT resources with a flexible fee structure based on fixed unit rates
  - Ability to utilize a “rate card” for additionally needed services on a temporary / project basis
- Technical Expertise
  - Ability of the provider to provide resources that have a high level of technical expertise for the in scope services
Process Analysis and Governance
Process Analysis

Sourcing Strategy Development Steps

Key Operational/Management Processes Gap Analysis

- The purpose of the Operational & Management Processes Gap Analysis activity is to:
  - Operational: Determine what parties (i.e., SDDPC, other third party providers, Department of IT, and City departments) are currently performing typical IT functions and processes associated with the scope of services that are under consideration (i.e., Data Center, Data Network, Voice Network, and Applications Development and Maintenance)
  - Management: Determine what parties are currently performing management practices and cross-functional services (i.e., Competency Centers, Project Management, Service Level Management, Relationship Management, and Governance/Program/Contract Management, etc.)
  - Analyzing how the parties’ delivery of each of these functions compares to Industry Standards for managed IT services in today’s marketplace

- The results of the operational & management gap analysis steps are used as input to subsequent strategy development steps where specific IT sourcing alternatives were identified and evaluated from financial and risk perspectives
**Operational Processes Responsibility Matrix**

The table which follows indicates what party or parties are currently responsible for performing IT functions/processes associated with Data Center, Data Network, Voice Network and Applications Development and Maintenance.

- An “X” indicates responsibility for the identified party
- A “Y” indicates responsibility associated with a City department as part of their independent data center operations
- In some instances, further explanation has been provided related to the nature of a party’s responsibility

<table>
<thead>
<tr>
<th>Function/Process</th>
<th>City Department</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Network</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice Network</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications Development and Maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Operational Processes Responsibility Matrix

<table>
<thead>
<tr>
<th>Process</th>
<th>SDDPC</th>
<th>Other Provider(s)</th>
<th>Dept. of IT</th>
<th>Department(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IT Service Management (ITSM) / Cross Functional Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Management</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Planning and Analysis</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Requirements Definition</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Design Specifications</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition Management</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration and Testing</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation and Migration</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and Knowledge Transfer</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>End User Administration</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break/Fix and Maintenance</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology Refreshment and Replenishment</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Capacity / Availability Management</td>
<td>X</td>
<td>X (carriers)</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Performance Management</td>
<td>X</td>
<td>X (carriers)</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Service Level Monitoring and Reporting</td>
<td>X</td>
<td>X (carriers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Asset Management</td>
<td>X</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
</tbody>
</table>

- An "X" indicates responsibility for the identified party
- A "Y" indicates responsibility associated with a City department as part of their independent data center operations
- In some instances, further explanation has been provided related to the nature of a party’s responsibility
### Operational Processes Responsibility Matrix (cont’d)

<table>
<thead>
<tr>
<th>Process</th>
<th>Non-City</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IT Service Management (ITSM) / Cross Functional Services (cont’d)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software License Management</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Financial / Chargeback / Contract Management</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Incident and Problem Management</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Root Cause Analysis</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Configuration Management</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Change and Release Management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- An “X” indicates responsibility for the identified party
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- In some instances, further explanation has been provided related to the nature of a party’s responsibility

- Some Departments (e.g., Police) manage their software licensing
- Some departments (e.g., Public Utilities) have Incident/Problem Management systems or processes in place
- Assumption that those departments that conduct Incident/Problem Management also engage in Root Cause Analysis activities
### Operational Processes Responsibility Matrix (cont’d)

<table>
<thead>
<tr>
<th>Process</th>
<th>Non-City</th>
<th>City</th>
<th>Dept. of IT</th>
<th>Department(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Center Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Server Operations &amp; Administration</td>
<td>X</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Storage &amp; Data Management</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Remote Access</td>
<td>X</td>
<td></td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Application Support</td>
<td>X</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Database Administration</td>
<td>X</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Middleware Administration:</td>
<td>X</td>
<td></td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Software that sits between applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>that may be working on different</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>operating systems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g., EAI, transaction monitoring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Messaging</td>
<td>X</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>IT Service Continuity and Disaster Recovery</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Web Support</td>
<td>X</td>
<td></td>
<td></td>
<td>Y</td>
</tr>
</tbody>
</table>

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## Operational Processes Responsibility Matrix (cont’d)

<table>
<thead>
<tr>
<th>Process</th>
<th>Non-City</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SDDPC</td>
<td>Other Provider(s)</td>
</tr>
<tr>
<td><strong>Data Network Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design and Engineering</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Network Provisioning</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Data Network Operations and Administration</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Network Monitoring and Reporting</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Circuit Support</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Network Documentation</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Firewall Management, DMZ and Internet</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security Intrusion Prevention and Detection</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Security Penetration</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Security Incident Management</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Voice Network</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premise Phone Service</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Voice Network Services</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Voice Messaging Services</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Directory Services</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Voice Conferencing Services</td>
<td>X</td>
<td>X (carriers)</td>
</tr>
<tr>
<td>Contact Center Services</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

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- In some instances, further explanation has been provided related to the nature of a party’s responsibility
## Operational Processes Responsibility Matrix (cont’d)

<table>
<thead>
<tr>
<th>Process</th>
<th>Non-City</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application Development and Maintenance Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Development Services</td>
<td>SDDPC: X</td>
<td>Other Provider(s): X, Dept. of IT: X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Warranty Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Maintenance Services</td>
<td>SDDPC: X</td>
<td>Other Provider(s): X, Dept. of IT: X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Monitoring, Reporting and Review Services</td>
<td>SDDPC: X</td>
<td>Other Provider(s): X, Dept. of IT: X</td>
</tr>
<tr>
<td></td>
<td>(upon City request)</td>
<td></td>
</tr>
</tbody>
</table>

- An “X” indicates responsibility for the identified party
- A “Y” indicates responsibility associated with a City department as part of their independent data center operations
- In some instances, further explanation has been provided related to the nature of a party’s responsibility

- Some departments (e.g., Public Utilities, Police) have staff that do application development
- Some departments (e.g., Public Utilities, Police) have staff that do application maintenance
## Service Level Gap Analysis – Cross Functional Services

<table>
<thead>
<tr>
<th>Service Level Title</th>
<th>Description</th>
<th>Industry Standard</th>
<th>DPC Contractual SLA?*</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Order Response</td>
<td>Proposals in response to customer Work Orders (e.g., installation of new servers due to a new application)</td>
<td>Deliver proposal within 10 business days, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>System Software Refresh and Updates</td>
<td>Performance of System Software versions or major release modifications and service pack/minor release modifications and patch modifications</td>
<td>Deploy Emergency Maintenance Releases, Non-Emergency Maintenance Releases, Implementation of Enhancement Releases, and Implementation of Major Release Updates within specified timeframes, 98-99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>System/Security Administration</td>
<td>Time to provide proposal for security remediation following discovery of a security risk</td>
<td>Deliver proposal within 2 business days, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Incident Resolution</td>
<td>Time to notify of and resolve Incidents following responses to different incident priority classifications</td>
<td>Time to resolve Priority 1-4 incidents = 98% (within 3 hours to 5 business days depending on priority level of incident)</td>
<td>Yes, but lower than industry standard</td>
<td>Resolution metrics are mostly 95% within 4-8 hours for P1 incidents, and (90%) within 8-24 hours for non-critical</td>
</tr>
<tr>
<td>Root Cause Analysis</td>
<td>Time to provide initial report of Incident cause</td>
<td>Initial finding within 24 business of Incident Resolution, 98% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Backup and Restoration</td>
<td>Frequency and accuracy in backing up and / or restoring service delivery for failed data, applications and component configurations</td>
<td>Restore Requests: ≤ 3 hours – 3 business days from Customer request, 95-99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Asset Tracking and Management</td>
<td>Accuracy of data in asset database (e.g., Serial Number, Location, and Hardware/Software Configuration)</td>
<td>Accuracy level of asset database elements at least 97%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>Frequency of customer satisfaction survey and associated performance target</td>
<td>Customers surveyed should be very satisfied or satisfied 90% of the time</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

* “No” indicates that there is no contractual SLA for that service. A Managed Service Provider will be responsible for Fee Reductions for missing an SLA target which fundamentally goes beyond the standard in place with the SDDPC.
## Service Level Gap Analysis – Data Center Services

<table>
<thead>
<tr>
<th>Service Level Title</th>
<th>Description</th>
<th>Industry Standard</th>
<th>DPC Contractual SLA?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Availability</td>
<td>Availability of infrastructure components including servers, external storage, System Software and network connection</td>
<td>Availability of system by system classification = 99.9% - 99.5%</td>
<td>Yes</td>
<td>99.7% for hosted resources; 99.8% for storage; 99.5% for applications; mainframe 99.8%; 99.5% for databases; 99.0% for IVR systems; 99.5% for iNet; 99.5% for doc. mgmt.; 99.5% for SAP; 99.8% for Altiris; 99.8% for file/print; 99.8% for email</td>
</tr>
<tr>
<td>Unscheduled Downtime for Each City Application</td>
<td>Unscheduled Downtime for Each City Application</td>
<td>Each application down fewer than 3 time per month</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Notification of Priority 1, 2 or 3 Outages to City Service Desk</td>
<td>Time to notify City Service Desk of Outages</td>
<td>Notify City Service Desk of Priority 1, 2 and 3 Outages within specified timeframes, 99.9-100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Batch Processing</td>
<td>Completion of Scheduled Production Batch, Demand and Test Batch jobs</td>
<td>Completion of Scheduled Production Batch, Demand and Test Batch jobs within approved timeframe, 95-100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>General Administrative Functions</td>
<td>Setup or Modify Job Scheduler Definition and Dependencies; One Time Schedule Change for Existing Scheduled Jobs</td>
<td>Completion of functions within specified timeframes, 98% of the time</td>
<td>Unclear</td>
<td>SLA document indicates service would have to be requested and SLA established by mutual agreement</td>
</tr>
<tr>
<td>Storage Allocation</td>
<td>Notification to Allocate Additional Storage Resources</td>
<td>Notification to Allocate Additional Storage Resources when capacity reaches 80% of installed capacity, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>On-demand Disk Storage Capacity Change Requests</td>
<td>Time to deploy Disk Storage Capacity Change Requests</td>
<td>Deploy Disk Storage Capacity Change Requests Increases/decreases of 10% of installed storage capacity within 7 Business Days of City request, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Service Level Title</th>
<th>Description</th>
<th>Industry Standard</th>
<th>DPC Contractual SLA?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity/Performance Trend Analysis and Reporting</td>
<td>Provide monthly and interim analysis and reporting</td>
<td>Timely provision of interim and monthly reports, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>On Target Web Deployments</td>
<td>Conducting City coded application deployments in QA/production environment</td>
<td>On target City packaged application deployments, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Database Instance Creation &amp; Refresh</td>
<td>Response to customer requests to deploy database instances</td>
<td>Creation and refresh of instances within specified timeframes, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Database Administration Requests</td>
<td>Response to customer requests to common database administration requests</td>
<td>Deployment within specified timeframes, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Database Schema Changes and Stored Procedures</td>
<td>Response to customer requests to for database schema changes and stored procedures</td>
<td>Deployment within specified timeframes, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Performance Tuning and Maintenance</td>
<td>Response to ac-hoc customer requests</td>
<td>Response within specified timeframe, 98% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Server Acquisition</td>
<td>Time to deliver a requested server</td>
<td>Time to deliver a requested server is within 30 calendar days of authorized request, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Virtual Server Provisioning</td>
<td>Time to provision a virtual server</td>
<td>Time to provision a virtual server &lt; 12 hours from Authorized Request to provision, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Server Administration</td>
<td>Server admin activities (e.g., provisioning servers and creating an OS, user ID requests, administration requests)</td>
<td>Tasks must be completed within specified timeframes at least 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>IT Continuity and Disaster Recovery (DR)</td>
<td>Time to recover the affected Client Services after a declared DR incident and/or successful DR test</td>
<td>Time to Recover applications based on application recovery rankings, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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# Service Level Gap Analysis – Data Network Services

<table>
<thead>
<tr>
<th>Service Level Title</th>
<th>Description</th>
<th>Industry Standard</th>
<th>DPC Contractual SLA?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Availability</td>
<td>The time during which the Network is fully functioning and normal business operations can be carried out with no data loss, downtime, or performance degradation (excludes maintenance window)</td>
<td>24x7 availability by network type/classification, 99.99% - 99.7% of the time depending on network type/classification</td>
<td>Yes</td>
<td>99.9% WAN and wireless availability; 99.7% non-backbone WAN; internet 99.99%</td>
</tr>
<tr>
<td>Network Transit Delay</td>
<td>Round trip transit delay from ingress and egress ports on premise devices</td>
<td>Delay less than 120 milliseconds, at least 99.99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Packet Delivery Ratio</td>
<td>The number of data packets received by the destination network nodes divided by the number of data packets transmitted by the source network node</td>
<td>Successful packet transmission at least 99.95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Jitter</td>
<td>Variation in timing, or time of arrival, of received packets</td>
<td>Time variation less than 10 milliseconds, at least 99.95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Network Capacity Monitoring</td>
<td>Proactive monitoring and notification to advise the customer of need to increase network capacity</td>
<td>Monitor and respond to customer if sustained avg. daily utilization reaches 60% of circuit provisioned capacity (in and out of in scope components), 98% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>IMACs (Software and Hardware)</td>
<td>Response time to customer requests for physical and logical installation, move, add and change of network components</td>
<td>Completion of requests within specified timeframes, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Implementation of Standard and Emergency Firewall Changes</td>
<td>Response time for changing, adding/deleting firewall rules</td>
<td>Implementation within specified timeframes, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>NIDS</td>
<td>Continually monitor for current attack signatures; Review all positive Severity Level 1 and Severity Level 2 alerts and notify customer by E-mail</td>
<td>Monitor 24x7, 100% of the time; review and notify customer of all Severity 1 and 2 alerts within 15 minutes, 99.9% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Security Vulnerabilities &amp; Penetration Testing</td>
<td>Successful completion of annual network penetration test</td>
<td>Conduct successful annual test of the entire network and reporting of results</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

* “No” indicates that there is no contractual SLA for that service. A Managed Service Provider will be responsible for Fee Reductions for missing an SLA target which fundamentally goes beyond the standard in place with the SDDPC.
## Service Level Gap Analysis – Voice Network Services

<table>
<thead>
<tr>
<th>Service Level Title</th>
<th>Description</th>
<th>Industry Standard</th>
<th>DPC Contractual SLA?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice Availability</td>
<td>Availability of the voice communications network, including all circuits and all associated hardware (includes blocked calls)</td>
<td>24x7 availability of the overall voice communications network, 99.99% of the time</td>
<td>Yes</td>
<td>DPC provides &quot;best effort&quot; for voice availability in its direct control, due to the age and condition of some equipment</td>
</tr>
<tr>
<td>Technology Solution Design</td>
<td>Customer requests for technology solution design for voice services</td>
<td>Response to customer request within 2 weeks, 99.9% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Install Access Line</td>
<td>Customer requests to install a new access line</td>
<td>Completion of installation within 45 business days of request, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>System Hardware Capacity Changes</td>
<td>Customer requests for system hardware capacity changes</td>
<td>Completion of changes within 4 hours of request, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>User Account Changes</td>
<td>Customer requests for user account changes</td>
<td>Completion of changes within 4 hours of request, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>IMACs</td>
<td>Customer requests for IMACS</td>
<td>Completion of changes within 2 business days of request, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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## Service Level Gap Analysis – Application Development and Maintenance Services

<table>
<thead>
<tr>
<th>Service Level Title</th>
<th>Description</th>
<th>Industry Standard</th>
<th>DPC Contractual SLA?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application Development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Estimation Methods and Tools Used for Cost and Schedule</td>
<td>Provider must use project estimation methods and tools used for cost and schedule</td>
<td>Provider must use project estimation methods and tools used for cost and schedule 100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Project Estimation (actual cost vs. estimated cost)</td>
<td>Accuracy of Provider’s estimated to actual project costs</td>
<td>Actual cost must not be more than +/- 10% of estimate</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Service Requests</td>
<td>Delivery of proposals for application development projects</td>
<td>Deliver proposal within 3 business days, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Milestone Completion – Milestones on the Critical Path</td>
<td>Completion of milestones on the critical path</td>
<td>Completion of milestones by scheduled completion date, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Milestone Completion – All Milestones NOT on Critical Path</td>
<td>Completion of project milestones not on the critical path</td>
<td>Completion of milestones by scheduled completion date, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Functional Requirements Met</td>
<td>Scale-based Opinion Survey to determine of functional requirements have been met by the provider</td>
<td>Must score 4.5 or higher on a 5.0 point scale, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>Application Maintenance/Enhancements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Requests – Minor Enhancements</td>
<td>Reply to customer service request for minor enhancements</td>
<td>Delivery enhancement proposal within 5 days, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Service Request Milestone Completion</td>
<td>Completion of established milestones on time per schedule</td>
<td>Completion of milestones by scheduled completion date, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Service Requests Performance</td>
<td>Performance against estimated project hours</td>
<td>Actual within 10% of estimate or 15 hours over estimate, whichever is larger, 95% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Availability of Qualified Staff</td>
<td>Provider to have qualified staff for project</td>
<td>As defined by the client, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>Quality of service, as defined by number reworks</td>
<td>Less, than 1 rework instance per 20 changes into production, 99% of the time</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>SEI/CMM Level</td>
<td>Target SEI/CMM level for services</td>
<td>Level 2 Compliant with Level 3 Characteristics, 100% of the time</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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Managed IT Sourcing Governance Approach

Four Levels:
- **Executive:** Executive Strategy Committee (ESC)
  - Quarterly Meetings
  - Primary focus on Alignment & Relationship
- **Management – City/Provider(s) Agreement:** Management Review Committee (MRC)
  - Monthly Meetings
  - Primary focus on Performance
- **Management – Projects:** Project Review Committee (PRC)
  - Weekly Meetings
  - Primary focus on Projects Status and Performance
- **Operational – Steady State:** Operations Review Committee (ORC)
  - Weekly Meetings
  - Focus on short term, steady state operations

Supplemented by Day-to-Day Joint Operations Teaming
- City Tower Leads & Provider(s) Service Delivery Managers positional authority
- City and Provider(s) program/project managers day-to-day project collaboration

Linked Through Overlapping Membership
- No attendance substitutes

Formal Standing Agendas

Formal Meeting Minutes Published

Sourcing Governance Approach Example

- Executive Strategy Committee
  - Meets Quarterly
  - Dir – ISD (Chair)
  - Asst Dir – ISD
  - Sr Mgr Shared Svc
  - VP – Outsourcing
  - Service Performance
  - Business Alignment
  - Relationship Quality

- Management Review Committee
  - Meets Monthly
  - Dir – ISD
  - Sr Mgr Shared Svc
  - VP – Outsourcing
  - Service Performance
  - Business Alignment
  - Relationship Quality

- Project Review Committee
  - Meets Weekly
  - Asst Dir – ISD
  - Sr Mgr Shared Svc
  - Proj Mgrs
  - Service Performance (Projects)
  - “XYZ Chair is overseer role – SP has primary accountability for meeting content”

- Operations Review Committee
  - Meets Weekly
  - Sr Mgr – Steady State (Chair)
  - Mgr SDM
  - Mgr SDM
  - Service Performance (Steady State)
Governance Functional Roles

During Phase 2 and Phase 3 of the City of San Diego Sourcing Initiative, Avasant recommends the City evaluate their governance mechanisms and that the following sourcing governance roles be put in place during transition to manage the Service Provider(s):

- Sourcing Program Manager / Provider Relationship Manager (typically 1-2 FTEs)
- Client Relationship Manager (multiple FTEs)
- Performance Manager (multiple FTEs)
- Architectural Manager (multiple FTEs)
- Delivery Demand Manager (typically one FTE)
- Contract Manager (typically less than or equal to one FTE)
- Finance Manager (typically less than or equal to one FTE)
- Compliance & Risk Manager (typically less than or equal to one FTE)
- Transition, Migration, and Transformation Manager (multiple FTEs – some temporary)

Note that the number of people in the various roles, and the ability of one person to fulfill 2 different roles is dependent on the size and complexity of the sourced environment and the underlying client organization. In the case of the City:

- Based on the fact that we have Data Center, ADM, and Network in scope, we will need multiple people in the Performance Manager and Architectural Manager roles. Many of these roles may already be filled by existing City IT staff performing similar functions
- Having a permanent contract manager and permanent finance manager will be very important. Often a client will use resources that are brought in late in the process. This is a common point of failure since it is crucial that these 2 roles play an active function that is extremely familiar with all aspect / documents of the sourcing agreement
Timing of Governance Roles

When a given governance role needs to be put in place depends on the lifecycle of the Sourcing Transaction

- Some roles need to be put in place so they own the solution, which means that they need to be part of the provider selection and/or negotiations
  - Sourcing Program Manager: This person needs to understand and be part of all elements of the transaction (e.g., provider selection, financial terms, contractual terms)
  - Transition & Optimization Manager: The providers will propose a timeline that this person must believe is achievable. The final negotiated transition plan (services transition, migration, and transformation) should be thoroughly reviewed by this role and changed where appropriate
  - Contract Manager: Similar to the Transition and Optimization Manager, the person in this role must understand the contract inside and out, including: SLAs, fee reductions, in scope services / SOWs, MSA, etc.
  - Finance Manager: Same as above. The fee sheets, fee reductions, resource units, fee reductions, etc., must be thoroughly understood

- Other roles can be put in place as the Agreement is signed (or about to be signed). It is Avasant’s position that all important governance roles should be in place by the time the provider starts transition
  - This is important since the provider’s operational procedures will be developed based on the input from the Client governance organizations
  - Further, Avasant finds that most sourcing transactions have issues because the proper processes were not put in place during transition and the first 6-9 months of the Sourcing Agreement. Setting up the right processes and procedures will enable success over the life of the program
City-Retained Functions

What functions should be considered for external sourcing?

**Demand Functions**
- Executive and business unit relationship management
- Architecture and Technology Planning
- Security Management
- Program Management
- Requirements definition / Demand Management

**Supply Functions**
- Delivery of Ongoing Services
- Operations, including Network and Security Operations Centers
- Monitoring of all Operations
- Technical Support and Problem Resolution
- Capacity Management
- Delivery of Projects
- Architecture and Technology Design
- Reporting

**Key Conclusion:** Demand functions are too important to the enterprise to turn over to outside management – they should be retained. Supply functions can be considered for external managed sourcing.
Security Functions

How should management of security functions be split?

**Demand Functions**
- Establishment of policies, standards and procedures
- Developing and maintaining Security Architecture
- Performing Security Audits
- Approving all security operational functions provided by the Data Center Service Provider

**Supply Functions**
- 24x7 Security Operations Center (SOC)
- Monitoring of system security configurations
- Security patch implementation (approved by client)
- Anti-virus management and updates
- Network Intrusion Detection/Prevention

**Key Conclusion:** Industry trends and best practices call for the client to retain security management functions and the provider to perform security operational activities as a part of the Data Center or Telecom service areas.
Key SDDPC Personnel

Based on interviews conducted and similar IT environments, approximately 28-35 SDDPC Resources have been identified as Key/Critical Personnel, with lengthy and deep knowledge of the City of San Diego’s department business processes and systems

- Several City Departments identified losing these dedicated and/or embedded personnel as a substantial risk to their business

Service Providers often take on Client or other Key Personnel in similar situations

- Often a provider will independently request key personnel be transferred to ensure they can deliver services during the initial phases of the program

To ensure continuity of service, the City of San Diego should require the Service Provider to take on the Critical Personnel that will be identified by category in the RFP

- The key personnel should be specifically identified by the City and analyzed for potential changes by the Service Provider during Due Diligence (after down-select, just prior to Best And Final Offers)
- Confirmation of key personnel will be subject to Service Provider and City agreement, where the Service Provider will be responsible for justifying any differences
Introduction and Context

Sourcing Strategy Development Steps

Scenario Planning and Risk Analysis

- The purpose of the Scenario Planning and Risk Analysis activity is to evaluate potential IT services sourcing models for the delivery of City IT services.

- Each potential model represents a scenario that is evaluated according to its risk profile.

- The results combined with scenario cost related analysis will contribute to the development of a recommended future City IT sourcing approach in subsequent strategy development steps.

- The IT Sourcing Strategy contemplates scenarios that range from maintaining the status quo to changing the way that services are delivered to the City through a Managed Service contract.
  - There are in fact dozens, if not hundreds, of possible sourcing scenarios that can be modeled based on several variables (e.g., service delivery model, asset ownership, # of providers, transformation, etc.)
  - After considering potential scenarios, the selected, modeled scenarios were considered to be the most likely scenarios or alternatively the scenarios that would give the best view of the potential outcomes. Each of the primary 4 scenarios can be adjusted by different variables.
Services Targeted for RFP

Services Performed by SDDPC for the City

- Cross Functional IT Service Management and Lifecycle Services provided by the SDDPC
- Data Center Services
  - Services included: Data Center Operations and Administration, Storage and Data Management, Applications Support, Database and Middleware Administration, Messaging (e-mail), IT Service Continuity and Disaster Recovery
- Network Services
  - Data Network
    - Services included: Design and Engineering Support, Provisioning, Operations and Administration, Monitoring and Reporting, Data Circuit Support, Network Security Management
  - Voice Network
    - Services included: Premise Phone Services, Provisioning and Engineering Support, Operations and Administration, Network Monitoring and Reporting, Voice Circuit Support, Voice Messaging
- Application Development and Maintenance
  - Services included: Application Development Lifecycle / Projects & Major Enhancements, Application Warranty Services, Application Maintenance and Enhancements, Managed Time and Materials

Infrastructure, Network, and Application Services supported by non-SDDPC personnel should be priced as an option within the RFP

- Department Data Center / Server Rooms
- ERP Technical Support (external contracts)
- Help Desk / Deskside Support
## Current Base Cost Summary – Network Costs

<table>
<thead>
<tr>
<th>BASE CASE (AS IS)</th>
<th>Network Base Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SW</td>
</tr>
<tr>
<td><strong>Voice Network</strong></td>
<td></td>
</tr>
<tr>
<td>5-digit dialing usage, monthly voice/data 1MB line, NEC costs</td>
<td>$1,844,140</td>
</tr>
<tr>
<td>Voice Network</td>
<td>$24,507</td>
</tr>
<tr>
<td>Voice Network Total</td>
<td>$24,507</td>
</tr>
<tr>
<td><strong>Data Network</strong></td>
<td></td>
</tr>
<tr>
<td>Blackberry License</td>
<td>$90,593</td>
</tr>
<tr>
<td>Network Access (VPN, Dept Dedicated ckt)</td>
<td>$428,712</td>
</tr>
<tr>
<td>SANNET</td>
<td>$361,006</td>
</tr>
<tr>
<td>Data Network Total</td>
<td>$880,311</td>
</tr>
<tr>
<td><strong>Total Network</strong></td>
<td>$904,818</td>
</tr>
</tbody>
</table>

**Voice Network Costs breakdown:**
- $1,237,218 of $1,884,140 – usage cost, voice/data line annual cost
  - $646,922 of $1,884,140 – RMC labor, NEC labor, and other parts costs
- $1,621,483 of $1,887,015 – voice carrier circuit cost
  - $265,532 of $1,887,015 – SDDPC labor cost
- Other Voice Costs: $310,356 of $539,147 – voice maintenance cost and $228,791 – HW depreciation

**Data Network Costs breakdown:**
- $2,424,405 of $4,619,407 – SDDPC labor cost
- $2,195,002 of $4,619,407 – data carrier circuit cost
- $805,244 of $2,364,960 – hardware maintenance cost
- $1,559,716 of $2,364,960 – projects and hardware asset capitalized depreciation cost
## Voice Network Options

### Option 1: Manage legacy voice “as is”
- **38 PBX systems**
- **50 keyset systems**

#### Transition Period
- Data/Voice Circuit Convergence

#### Mo 1
- Transition Period

#### Mo 4
- Manage voice systems “as is” and replace “as needed”

#### Mo 6
- Transition Period

#### Mo 13
- Manage voice systems “as is” and replace “as needed”

### Option 2: Transform legacy PBX to I-PBX

#### Transition Period
- Data/Voice Circuit Convergence

#### Mo 1
- Transition Period

#### Mo 4
- Transformation Data/Voice Circuit Convergence

#### Mo 6
- Replace all legacy TDM PBX to I-PBX

#### Mo 13
- Replace voice systems With Cisco Call Managers

### Option 3: Transform legacy PBX to Cisco VoIP

#### Transition Period
- Data/Voice Circuit Convergence

#### Mo 1
- Transition Period

#### Mo 4
- Transformation Data/Voice Circuit Convergence

#### Mo 6
- Replace voice systems With Cisco Call Managers

---

**Option 1 – Manage & maintain legacy PBX “as is”**
- Continuing to operate an end-of-life voice system poses many risks to the City of San Diego
  - Replacement parts are not available, out-of-date software is not supported, support calls are billed at T&M (expensive) labor rates, and there is a limited ability to expand City’s existing voice system with feature functionality

**Option 2 – Transform legacy PBX to I-PBX**
- Replacing all PBX to I-PBX systems does not leverage current investments in Cisco router upgrades – IP routers
  - Need to replace all 38 PBX systems currently in place which could cost over $3M annually (provider owned and leased service)
  - New I-PBX can be proactively managed remotely reducing the need for on-site staffs as well as elimination of T&M labor rates
  - Solution still requires data and voice management and engineering staffs to manage Data and Voice systems
  - Transformation can begin (using a phased approach) following voice/data circuit convergence – critical sites first

**Option 3 – Transform legacy PBX to Cisco VoIP based Managed Service solution**
- Within the 1st year, transform legacy voice systems to Cisco VoIP solution with Call Managers and SIP (soft) Phones
  - Leverages the current investments in Cisco routers, and the data network staff can manage these devices, thus, increased efficiencies
  - Requires investments in Cisco Call Managers and QoS/CoS management modules (over $600k+) to support current 38 sites where PBX resides as well as 50 locations where legacy key sets reside
  - Eliminates the need for traditional TDM voice environment including voice circuits and TDM PBX/Keysets
  - Assumes that current Cisco routers are being refreshed on a regular basis – with IP routers (may incur additional costs)
  - Transformation can begin (using a phased approach) following voice/data circuit convergence
Option 3 – VoIP Transformation Timeline

Provider will be able to provide a utility based managed service pricing model including VoIP (Cisco Call Manager, IP Routers, Voicemail) services and leverage its data network staffs to manage all network equipment for increased efficiencies.

Above timelines are aggressive based on current City of San Diego voice system reliability and availability needs:
- Past outages impact
- Most recent outage impact (Water Department voice system outage)
- The City of San Diego will need to transfer the “ownership” of the data network assets from SDDPC to the City or replace using provider provided data network equipment (owned by the provider and leased back to City).

Transition in Month 1 to Month 3
- New provider (Services Transition)

Transformation for Circuit convergence (Month 4 – Month 6)
- Voice/Data circuit convergence
- Eliminates duplicate voice/data circuits by implementing MPLS services
- VoIP implementation planning can be performed during the initial voice/data network convergence transformation

Transformation for VoIP services (Month 5 – Month 12)
- VoIP transformation including deployment of new technologies (e.g., Cisco Call Managers, Voicemail, Soft IP Phones)
- Begin site assessment/design during transition services and as voice/data convergence completes by site, begin deploying VoIP systems
Business Case - Legacy Voice vs. VoIP

The Base Case and Renegotiate with DPC assumes that legacy PBX (voice systems) will continue to degrade 15% year over year due to age of the PBX/Keyset equipment – applying FY11 financial data

- Voice/data circuit convergence was analyzed in the financial model (6 months transformation of circuit convergence)
- Voice Maintenance (including any emergency services) and HW Parts costs will increase year over year (out of warranty and T&M services) – 15% year over year
- As certain parts may not be readily available, the City of San Diego will need to upgrade legacy voice system based on site / user criticality and age of the system – assuming $250k each year and depreciated over 7 year term
- Data Network fees include annual HW depreciation of $1,559,716 (data asset refresh projects, asset lease)
- Current SDDPC voice support costs are kept constant at current cost

In the Managed Service Provider scenario we assumed VoIP solution including voice/data circuit convergence

- Voice/data circuit convergence was analyzed in the financial model following 3 months of Transition services (3 months transformation of circuit convergence); also included VoIP asset deployment in 2nd half of 1st year
- Provider will be able to provide a utility based pricing, model including VoIP (Cisco Call Manager, IP Routers/Switches, Voicemail) services, leveraging its data network staffs to manage all network equipment for increased efficiencies
- Leverages provider’s significant investments in IT, automation tools, enterprise level solutions, and provider owned assets
- Transformation costs of over $500,000 was estimated (Call Manager implementation, cable/wiring upgrades, etc.)
- Applied $150/unit for “soft” IP Phones (owned by City of San Diego and depreciated over 7 year term)
Service Delivery Model

- **Onshore / Offshore – Service Delivery Locations**
  - Service Providers can deliver services to their clients using many different combinations of service delivery locations.
  - Clients often require the Service Providers to design their delivery solutions using client’s business and IT requirements.
    - Overall cost considerations (highest $$$ – onsite; lowest $ – offshore)
      - For the size of the City of San Diego environment, the City will save approximately $250,000 - $500,000/year for utilizing 10% offshore resources.
    - Service level requirements / Business requirements / End user experience requirements.

- **Service Providers should provide a solution and price for a fully Onshore (within County of San Diego) option if they are proposing to use Offshore resources in their primary response.**
Contract Term & Termination
- Length of Contract Term

- **Relatively shorter contract terms (< 5 year mandatory term)**
  - Pros
    - Increases the City’s flexibility to move to a new provider if things aren’t working well
  - Cons
    - Steady state operations will be on the relatively shorter side, as transition activities (e.g., transition, migration, and transformation) can take up to 24 months to complete
    - Costs the City will be higher, as the provider will not be able to optimize their services

- **Relatively longer contract terms (≥ 5 year mandatory term)**
  - Pros
    - Encourages the provider to be more of a true “partner” with the City (they’re in it for the long haul)
    - Allows the City to enjoy a relatively longer period of steady state services from the provider
    - Lower overall and yearly costs
  - Cons
    - Locks the City into a longer term with a provider that might not be working well for them
    - The City would have to terminate for convenience if they wanted to get out of the contract before end of term

- **Exiting the contract**
  - The City will have the ability to Terminate the contract for various reasons, including: Convenience, Change of Control, and Default
    - The City will be responsible for Termination Fees in some cases (e.g., termination for convenience)
IT Sourcing Scenario Summaries

Based on stakeholder interviews and initial data collection activities, the sourcing strategy development team evaluated the following IT sourcing models as part of the IT sourcing strategy initiative:

1. **As Is – Base Case** – Renew the DPC contract with the same model and cost structure, and same general terms and conditions.

2. **Renegotiating Exclusively with the current service provider (SDDPC) for an Improved Model and Cost Structure** – Continuation of the current model where the SDDPC provides services, however with contractual improvements made to better align the future services and pricing with industry standards for standard managed services agreements of a similar size and scope. This Scenario includes voice/data circuit convergence in Year 1 as part of SDDPC’s service improvement project.

3. **Insourced** – The City would replace current DPC contracted services with City employees; the City would attempt to “rebadge” current DPC employees. Current department City IT staff and direct contractors would remain in place. If selected as the future IT sourcing approach the City would conduct a human resources hiring process to fill vacated DPC positions.

4. **Managed IT Services** - Managed IT services provided by an external IT service provider for all in scope services, based on contractual statements of work and service level agreements.
## IT Sourcing Scenario Summaries

<table>
<thead>
<tr>
<th>Key Characteristics</th>
<th>As Is – Base Case: Renew the DPC Contract with the Same Terms and Conditions</th>
<th>Renegotiate with Current Service Provider for Improved Model and Cost Structure</th>
<th>Insourced</th>
<th>Managed Services (competitively bid)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Delivery Approach</strong></td>
<td>Current model – Service provider staff working at DPC and embedded in departments</td>
<td>Current model – Service provider staff working at DPC and embedded in departments</td>
<td>All IT services delivered by City employees</td>
<td>Service provider delivers performance based managed IT services (e.g., data center, network management) based on SOWs, SLAs and fixed unit pricing</td>
</tr>
<tr>
<td></td>
<td>The provider manages and directs overall service delivery</td>
<td>The provider manages and directs overall service delivery</td>
<td>City fully responsible for service delivery</td>
<td>Data center services delivered out of provider’s facilities; mix of onsite and remote support in other service areas</td>
</tr>
<tr>
<td></td>
<td>Data center services out of the current DPC location; all FTEs local/onsite</td>
<td>Data center services out of the current DPC location; all FTEs local/onsite</td>
<td>Data center services provided from the current DPC location; all FTEs local/onsite</td>
<td>Local hosting of some applications and/or data that can not move out of the City to an appropriate location</td>
</tr>
<tr>
<td></td>
<td>DPC responsible for data center maintenance and technology</td>
<td>DPC responsible for data center maintenance and technology</td>
<td>City responsible for data center maintenance and technology currency</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Scope of IT Services &amp; Service Delivery Locations</strong></th>
<th>Enterprise services (data center, telephony and data network, operations, security)</th>
<th>Enterprise services (data center, telephony and data network, operations, security)</th>
<th>Enterprise services (data center, telephony and data network, help desk, security)</th>
<th>SOW based services in the following areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select application development and maintenance, project management, database services</td>
<td>Select application development and maintenance, project management, database services</td>
<td>Select application development and maintenance, project management, database services</td>
<td>Data Center - from provider remote facility</td>
</tr>
<tr>
<td></td>
<td>Embedded staffing in departments</td>
<td>All staff onsite</td>
<td>All staff onsite</td>
<td>Disaster Recovery – remote site</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Data Network Management - Onsite and remote services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Voice System Management - Onsite and remote services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Applications Development/Maintenance - Onsite and remote services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cross-Functional Services (e.g., IT lifecycle, service management, security) - Onsite and remote services</td>
</tr>
</tbody>
</table>
## IT Sourcing Scenario Summaries

<table>
<thead>
<tr>
<th>Key Characteristics</th>
<th>As Is – Base Case: Renew the DPC Contract with the Same Terms and Conditions</th>
<th>Renegotiate with Current Service Provider for Improved Model and Cost Structure</th>
<th>Insourced</th>
<th>Managed Services (competitively bid)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transition Considerations</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Single Provider, Provider Data Center</strong></td>
</tr>
<tr>
<td></td>
<td>• No service transition or migration required</td>
<td>• Transition to new contract requirements</td>
<td>• City to hire staff to replace outgoing DPC staff; will likely want to try to retain key DPC employees</td>
<td>• Physical migration of servers to service provider facilities</td>
</tr>
<tr>
<td></td>
<td>• Voice and Data Network risk must be mitigated</td>
<td>• No physical migration</td>
<td>• Transition period approx. 3 to 4 months</td>
<td>• Transition to provider’s IT management tools, processes and procedures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Transition period approx. 3 to 4 months</td>
<td>• Transition period approx. 6 to 8 months including hiring process</td>
<td>• Transition to new contract requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Transformation of voice/data circuit convergence in 1st 6 months</td>
<td>• Knowledge transfer not required to the extent that the City rebadges DPC employees</td>
<td>• Knowledge transfer required</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Total transition period approx. 12 – 24 months (assumes a new service provider)</td>
</tr>
<tr>
<td><strong>Cost Elements</strong></td>
<td>• Ongoing service provider fees</td>
<td>• Ongoing service provider fees</td>
<td>• Fully burdened City staff FTE costs for the replaced DPC employees</td>
<td>• Fixed fees for a baseline level of resource units</td>
</tr>
<tr>
<td></td>
<td>• City IT operations management and contract management costs</td>
<td>• City IT operations management and contract management costs</td>
<td>• HR recruiting, training, knowledge transfer, program management costs</td>
<td>• Asset acquisition, maintenance and refresh costs for voice and data network assets</td>
</tr>
<tr>
<td></td>
<td>• City (DPC) data center ongoing maintenance costs</td>
<td>• City (DPC) data center ongoing maintenance costs</td>
<td>• City (DPC) data center ongoing maintenance costs</td>
<td>• Transition costs: knowledge transfer, provider tools/processes implementation, and City program management (assumes a new provider)</td>
</tr>
<tr>
<td></td>
<td>• Reduced voice circuit fees through data circuit convergence</td>
<td></td>
<td></td>
<td>• Transformation costs (one-time)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Contract governance and relationship management staff costs</td>
</tr>
</tbody>
</table>
Risk Analysis Objectives and Definitions

The purpose of this Risk Analysis is to assess the level of risk associated with each of the contemplated sourcing scenarios. Each scenario is evaluated in 7 key risk areas that commonly impact IT sourcing decisions. Each risk area is rated on a scale from 1 to 5, with 5 being the highest relative risk rating. A total weighted risk score for each scenario is provided to indicate its total relative risk rating.

The analysis and risk ratings are based on each scenario’s key characteristics and aspects of the City’s current business and IT environment as determined through stakeholder interviews, data examined in the strategy initiative, and Avasant’s experience in the IT sourcing advisory field. Risks were also evaluated relative to the previously identified sourcing drivers that are motivating the City’s sourcing initiative. The results of the analysis provides insight into the relative risk level of each scenario and in formulating a suitable sourcing strategy that best addresses the City’s objectives, requirements, drivers, competencies and constraints. The following provides definitions of the risk analysis components.

- **Financial Risk** (Cost Reduction) – Risk to the City’s ability to predict and control IT costs. Contributing factors include predictability/variability of IT costs, cost savings opportunities (e.g., through economies of scale), labor costs, technology costs, transition costs and governance costs

- **Technology Risk** – Risk that the City will not meet stakeholder technology requirements and maintain technology currency across the City. Contributing factors include technology competency levels related to acquisition, installation and maintenance of the tools, technologies, IT assets and processes

- **Human Capital Risk** (Scalability) – Risk that the City will not achieve its service delivery objectives due to a lack of or misalignment of human capital. Contributing factors include resource availability, flight of human capital, resource scalability/flexibility, qualifications of resources, and labor relations issues

- **Performance / Operational Risk** (Industry Standard Services) – Risk that the City will not achieve its IT related business and service delivery objectives or meet stakeholder requirements. Contributing factors include competency levels, service delivery model benefits and constraints, and the required operational level of effort needed to successfully execute each scenario
Risk Analysis Objectives and Definitions (cont’d)

- **Transition Risk** – Risk that transition to the scenario model will disrupt City business. Contributing factors include level of change in the new model, amount of physical migration, knowledge transfer requirements such as the level of documentation required, and policies and procedures development involved with initial implementation.

- **Security Risk** – Risk to the City’s ability to implement security controls, detect threats and vulnerabilities and prevent breaches. Contributing factors include security competency levels related to the acquisition, installation and maintenance of the security tools, technologies and processes.

- **Governance Risk (Flexibility)** – Risk that the City will not effectively govern the relationship between the IT service delivery organization, City management and stakeholders. Contributing factors include level of change, complexity, and available governing mechanisms inherent in the scenario model.
As Is, Base Case: Renew DPC Contract with Same Terms and Conditions

### Risk Areas and Key Contributing Factors

<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Risk Score</th>
<th>Contributing Factors</th>
</tr>
</thead>
</table>
| Financial Risk             | 4          | + Model shifts limited financial risk to the provider; not as much as with a larger scale non-City-affiliated provider  
/+ Some cost predictability due to fixed fees for unit volume, however out of scope projects may increase variable costs  
- Limited scale and scope of DPC’s operations will limit economies of scale-based cost reduction opportunities  
- Requires periodic capital investment in the DPC data center in order to maintain technology currency |
| Technology Risk            | 3.5        | + Potential for increased standardization across the City  
- DPC’s data center may not have the level of technology and facility capabilities that the City will require to deliver the data center scope of services and at the contractual service levels  
- DPC will likely not be very proactive in new/improved technology innovation and adoption, due to their small scale and lack of diversified customer base  
+ IT and technology expertise is the DPC’s core competency and mission |
| Human Capital Risk         | 4.5        | - Lack of incentives/fee reductions do not motivate DPC’s personnel in meeting established service level metrics  
+ DPC’s focus is IT and must maintain qualified IT staff meet contract requirements  
+ DPC’s staff is already familiar with the City’s environment and current IT model  
- DPC’s ability to bring equivalent IT talent compared to large scale managed service providers may prove challenging  
- DPC’s ability to scale up is not as deep as large scale managed service providers (no deep bench) |
| Performance/Operational Risk | 4          | + Some operational risk is shifted from the City to the provider  
+ Delivering industry standard IT is the provider’s core competency and mission  
- DPC is contractually required to perform to set requirements however no financial penalties for missed SLAs  
- Relative size and level of sophistication level of DPC’s organization could pose future scalability/flexibility issues  
- DPC might not perform to contractual levels if the contract is not properly managed  
- City assumes some indirect responsibility for evolving DPC data center capacity and technology requirements  
- Location of DPC data center in an earthquake region, near a freeway and in a valley poses service continuity risks |
| Transition Risk            | 0.5        | + Risks associated with transition are eliminated for the City since DPC is the current provider  
+ No physical transition required  
- Voice network must be transformed or the risks of keeping the status quo must be mitigated |
| Security Risk              | 2.5        | - Current model does not have any security specific SLA metrics or contractual penalties for missed security SLAs  
- Security operations limitations due to use of the DPC data center  
+ DPC will drive some amount of standardization across the City which reduces overall security risks |
| Governance Risk            | 3.5        | - Governance approach is currently driven largely by the City’s IT governance policy; does not appear to be a high level of shared governance  
- City may not sufficiently invest in governance and relationship management organizations required for improved model  
+ Governance requirements are contractual  
- Not clear if there are performance measures to facilitate the reporting and governance process |

**Total Risk Score: 20.5**
### Renegotiate with Current Service Provider for Improved Model and Cost Structure

**Total Risk Score: 19.5**

<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Key Contributing Factors</th>
</tr>
</thead>
</table>
| **Financial Risk**         | + Model shifts some financial risk to the provider, but not as much as with a larger scale non-City-affiliated provider  
|                            | + Higher cost predictability due to fixed fees for unit volume  
|                            | - Limited scale and scope of DPC’s operations will limit economies of scale-based cost reduction opportunities  
|                            | - Requires periodic capital investment in the DPC data center in order to maintain technology currency and keep pace with Industry Standards |
| **Technology Risk**        | + Potential for increased standardization across the City  
|                            | - DPC’s data center may not have the level of technology and facility capabilities that the City’s improved model will require to deliver the data center scope of services and at the contractual service levels  
|                            | - DPC may be able to leverage new technologies and share Industry Standards with customers, but this will be limited due their small and undiversified customer base  
|                            | + IT and technology expertise is the DPC’s core competency and mission  
| **Human Capital Risk**     | + Contractual incentives/fee reductions encourage meeting requirements and quality as opposed to FTE quantities  
|                            | + DPC’s focus is IT and must maintain qualified IT staff meet contract requirements  
|                            | - DPC’s ability to bring/retain equivalent IT talent compared to large scale service providers may prove challenging  
| **Performance / Operational Risk** | + Some operational risk is shifted from the City to the provider  
|                              | + Delivering industry standard IT is DPC’s core competency and mission  
|                              | + DPC is contractually required to perform to set requirements and SLAs, with fee reductions for missed SLAs  
|                              | - Relative size and level of sophistication level of DPC’s organization could pose future scalability / flexibility issues  
|                              | - DPC might not perform to contractual levels if the contract is not properly managed  
|                              | - City assumes some indirect responsibility for evolving DPC data center capacity and technology requirements  
|                              | - Location of DPC data center in an earthquake region, near a freeway and in a valley poses service continuity risks  
| **Transition Risk**        | + Risks associated with transition are significantly reduced for the City since DPC is the current provider  
|                            | + No physical transition required  
|                            | - Shift to improved model may cause service disruption if not planned and executed well  
| **Security Risk**          | + Improved model would allow for security SLAs and contractual penalties  
|                            | + DPC will drive some amount of standardization across the City which reduces overall security risks  
|                            | - DPC data center does not possess the same level of security as those of top managed service providers  
| **Governance Risk**        | - Improved model will require a shift from current governance approach  
|                            | - City may not sufficiently invest in governance and relationship management organizations required for improved model  
|                            | + Governance requirements are contractual  
|                            | + Clear performance measures will facilitate the reporting and governance process  

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## Insourced IT Services with City IT Staff

### Total Risk Score: 25

<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Key Contributing Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Risk</strong></td>
<td>- Flexibility is limited since major costs are FTE based (not volume based), limiting cost savings opportunities</td>
</tr>
<tr>
<td></td>
<td>- Requires periodic capital investment in the City's data center and any remaining department specific data centers and server rooms, as well as all other IT assets used to deliver the services</td>
</tr>
<tr>
<td></td>
<td>- HR policies can be a barrier to managing staff budgets to volume increases and decreases</td>
</tr>
<tr>
<td><strong>Technology Risk</strong></td>
<td>- Delivering enterprise IT is not the City's core mission/expertise and the City will have to acquire and maintain all the IT tools, processes and technologies required to run an enterprise operation</td>
</tr>
<tr>
<td></td>
<td>- Critical technology refreshes (e.g., mainframe migration, voice network) are more risky with City resources</td>
</tr>
<tr>
<td></td>
<td>- Model lacks a catalyst for technology standardization or innovation across the City</td>
</tr>
<tr>
<td><strong>Human Capital Risk</strong></td>
<td>- The City will have to recruit, hire and maintain all needed resources and evolving skill sets on an ongoing basis</td>
</tr>
<tr>
<td></td>
<td>- Managing and performing basic IT operational functions is not highly related to the City's core mission therefore it will likely not attract top IT talent</td>
</tr>
<tr>
<td></td>
<td>- Lack of flexibility in staffing levels and required IT skill sets (e.g., City HR policies and long hiring lead times)</td>
</tr>
<tr>
<td></td>
<td>- Limited performance incentive options if IT objectives are not being met by IT staff</td>
</tr>
<tr>
<td><strong>Performance / Operational Risk</strong></td>
<td>- The City assumes all of the operational risk in delivering IT services</td>
</tr>
<tr>
<td></td>
<td>- Managing and performing basic IT operational functions is not highly related to the City’s core mission and therefore may not keep up with IT service delivery industry trends and advances</td>
</tr>
<tr>
<td></td>
<td>- Typically difficult to institute guarantees of service quality / service levels to customers since there are no/few contractual requirements and non-performance “penalties” that can be instituted</td>
</tr>
<tr>
<td></td>
<td>- City assumes full responsibility for meeting evolving DPC data center capacity and technology requirements (assumes the City were to take over DPC’s data center and deliver centralized services from there)</td>
</tr>
<tr>
<td></td>
<td>- The DPC data center lacks IT service delivery industry certifications relative to most large scale providers</td>
</tr>
<tr>
<td></td>
<td>- Location of DPC and department data centers/server rooms in an earthquake region poses service continuity risks</td>
</tr>
<tr>
<td><strong>Transition Risk</strong></td>
<td>+ The City would likely rebadge current DPC employees, diminishing the need to go to the market for insourced staff</td>
</tr>
<tr>
<td></td>
<td>- A significant recruiting and HR process is required</td>
</tr>
<tr>
<td></td>
<td>+ The City has full control over all hires</td>
</tr>
<tr>
<td></td>
<td>+ No physical migration required</td>
</tr>
<tr>
<td><strong>Security Risk</strong></td>
<td>- IT security is important to the City’s business however delivering IT security operations is not the City’s core mission therefore it may not keep up with the latest security techniques as well as an IT specialty firm</td>
</tr>
<tr>
<td></td>
<td>- The model lacks a catalyst to consolidate security operations across the City</td>
</tr>
<tr>
<td></td>
<td>+ Addresses potential concerns regarding perceived exposure of sensitive data to non-City staff</td>
</tr>
<tr>
<td><strong>Governance Risk</strong></td>
<td>+ City can potentially hire current DPC staff to staff, form, implement and maintain a successful governance model</td>
</tr>
<tr>
<td></td>
<td>- Lacks a catalyst for implementing and managing governance processes (e.g., performance, demand, relationship management) that could lead to better efficiency across the City</td>
</tr>
</tbody>
</table>
Managed Services (competitively bid): Single Provider, City-owned Assets (data center), Provider Data Center

<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Key Contributing Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Risk Score: 15.5</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Financial Risk**         | + Model shifts most financial risk to the provider in that they contract for fixed unit fees  
                              + Higher cost predictability due to fixed fees for unit volume and no future capital costs for network asset refresh, maximizing cost saving opportunities  
                              + Model facilitates a transparent chargeback approach that stakeholders require (i.e., unit fees)  
                              + Provides a minor year 1 cost savings if provider purchases City’s voice and data network assets                                                                                                                                 |
| **Technology Risk**        | + IT is the provider’s core competency and expertise, and leads or is exposed to technology advances  
                              + Provider leverages technological changes and shares Industry Standards with customers  
                              + Provider is more likely to meet contractual service levels for voice and data network since those assets are owned by the provider  
                              + Potential for increased standardization across the City environment  
                              - A new provider may not understand City requirements or be able to deliver solutions that address City requirements                                                                                                                                 |
| **Human Capital Risk**     | - The City will have to train and maintain its staff to align with new service model  
                              - Any retained DPC staff will need to learn new provider’s processes, if awarded to a provider other than DPC  
                              + Incentives/fee reductions encourage meeting requirements and quality as opposed to FTE quantities  
                              + IT providers specialize in IT and must maintain scalable and qualified IT staff to compete and meet contracts requirements                                                                                                                                 |
| **Performance/Operational Risk** | + Most operational risk lies with the provider  
                              + Provider can better meet data and voice network contractual requirements and industry standard SLAs because of asset control  
                              - Provider might not perform to contractual levels if the contract is not properly managed or solutions are a “one size fits all” and does not meet some department requirements  
                              - Provider solutions may not be of uniformly high quality for all in scope service areas  
                              + Provider hardened data center facilities lowers service continuity risk  
                              + Services will likely be delivered from IT service delivery industry certified facilities (e.g., ISO, SAS70, HIPAA, SOX)                                                                                                                                 |
| **Transition Risk**        | + Large providers have experience and process in managing transitions  
                              + Single vendor lowers overall transition complexity and therefore risk  
                              - Requires a physical migration to the provider’s remote facilities for data center services that must be planned, managed and executed well  
                              - Shift to improved model may cause service disruption if not planned and executed well  
                              - Knowledge transfer may be inadequate                                                                                                                                                                                                                           |
| **Security Risk**          | + Model allows for security SLAs and contractual penalties  
                              + Security operations is a likely provider core competency and possesses security industry certifications  
                              + Provider will drive consolidation and standardization across the City reducing overall security risks  
                              + Single vendor is better able to control security-related aspects of the service environment                                                                                                                                 |
| **Governance Risk**        | + “One throat to choke” for all of the in scope services  
                              - Improved model will require a shift from current governance approach  
                              - City may not sufficiently invest in governance and relationship management organizations required for new contract  
                              + Governance requirements are contractual  
                              + Clear contractual performance measures facilitate the reporting and governance process                                                                                                                                 |

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Scenario Risk Scores Comparison Summary: Financial Risk

- As Is, Base Case: 4
- Renegotiate with SDDPC for Improved Model and Cost Structure: 3.5
- Insourced: 4.5
- Managed Services: Single Provider, Provider Data Center: 2
Scenario Risk Scores Comparison Summary:
Technology Risk

- **As Is, Base Case**: 3.5
- **Renegotiate with SDDPC for Improved Model and Cost Structure**: 3
- **Insourced**: 4
- **Managed Services: Single Provider, Provider Data Center**: 1.5

**Scoring Legend**
- 0: Low Risk
- 5: High Risk

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Scenario Risk Scores Comparison Summary: Human Capital Risk

As Is, Base Case: 2.5

Renegotiate with SDDPC for Improved Model and Cost Structure: 3

Insourced: 4

Managed Services: Single Provider, Provider Data Center: 2

Low Risk | High Risk
Scenario Risk Scores Comparison Summary: Performance/Operational Risk

- **As Is, Base Case**: 4
- **Renegotiate with SDDPC for Improved Model and Cost Structure**: 3.5
- **Insourced**: 5
- **Managed Services: Single Provider, Provider Data Center**: 2.5

Scale: 0 (Low Risk) to 5 (High Risk)
Scenario Risk Scores Comparison Summary:
Transition Risk

- As Is, Base Case: 0.5
- Renegotiate with SDDPC for Improved Model and Cost Structure: 1.5
- Insourced: 2.5
- Managed Services: Single Provider, Provider Data Center: 3

0 1 2 3 4 5
Low Risk High Risk
Scenario Risk Scores Comparison Summary: Security Risk

- **As Is, Base Case**: 2.5
- **Renegotiate with SDDPC for Improved Model and Cost Structure**: 2
- **Insourced**: 3
- **Managed Services: Single Provider, Provider Data Center**: 2
Scenario Risk Scores Comparison Summary: Governance Risk

As Is, Base Case
Renegotiate with SDDPC for Improved Model and Cost Structure
Insourced
Managed Services: Single Provider, Provider Data Center

Low Risk High Risk

0 1 2 3 4 5

3.5 3 2 2.5
Scenario Risk Scores Comparison Summary: All Risk Areas (without weightings)

- **As Is, Base Case**: 20.5
- **Renegotiate with SDDPC for Improved Model and Cost Structure**: 19.5
- **Insourced**: 25
- **Managed Services: Single Provider, Provider Data Center**: 15.5

The chart shows the risk scores for different scenarios, with the lowest risk at 0 and the highest risk at 35. Avasant is a Trademark of Avasant, LLC or its affiliates.
Scenario Risk Scores Comparison Summary: All Risk Areas with Sourcing Drivers-Based Weightings

Using the raw scores for each risk area under each scenario, weights were also applied in order to factor in the Sourcing Drivers previously identified. Weights were assigned as follows: Financial Risk 4x weighting, Technology Risk 2x weighting, all other risk areas 1x weighting.

The chart below shows the comparison among the different scenarios with the above-referenced weighting factors:

- **As-is Base Case**: 36
- **Renegotiate with SDDPC for Improved Model and Cost Structure**: 33
- **Insourced**: 42.5
- **Managed Services: Single Provider, Provider Data Center**: 20.5

Legend:
- Low to Negligible Risk
- Manageable Risk
- High Risk
Financial Model
### Building the Base Case:
We broke the City IT costs into Hardware, Software, and Services

- Services in the context of the City of San Diego targeted scope typically includes the costs of people, data center facilities, associated software (e.g., middleware), etc.
- Hardware is sometimes in scope, and other times the Client will choose to retain the assets
- Software: Application software is not usually included in a Managed Services Sourcing transaction

### Financial Impact of Timing

#### Timing of Sourcing Transaction / Rough High Level Timeline

- **Issue RFP:** February / March 2011
- **Response Deadline:** May 2011
- **Provider Selection:** June / July 2011
- **Contract Signature:** September 2011 (fiscal year 2012)
- **Services Commencement Date / Cutover:** January 2012

The Financial Model / Business Case will be impacted by Transition Costs. The Transition Costs typically happen in the first year of the Sourcing Transaction, which depending on how the City plans to account for one-time costs, will impact the business case in Year 1.

Transition Costs will be different based on the target scenario and ultimate RFP winner:

- **Transition of Services:** Typically takes 3-6 months. Providers will often absorb transition costs if needed
- **Migration of Facilities/Assets:** Typically takes 6-15 months. Migration costs can be high and are often not absorbed
- **Transformation of Technology:** Timing and costs are specific to the City IT requirements

Transition Costs can potentially be offset against the sale of the DPC Assets
The SDDPC Services that are ideally suited for Managed Services Sourcing total $37.2 million in FY2011.

Likely scenarios were financially modeled to determine cost savings options (all scenarios assumed 2% inflation rate).

The Financial Model for Managed Services has 2 variations, with different Resource Delivery Locations:
- One Time Costs are included.

### Financial Model Table

<table>
<thead>
<tr>
<th></th>
<th>Data Center</th>
<th>Network</th>
<th>Applications</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Services Total</strong></td>
<td>$4,236,274</td>
<td>$8,390,562</td>
<td>$15,540,607</td>
<td></td>
</tr>
<tr>
<td><strong>Software Total</strong></td>
<td>$2,625,813</td>
<td>$904,818</td>
<td>$320,425</td>
<td></td>
</tr>
<tr>
<td><strong>Hardware Total</strong></td>
<td>$1,986,571</td>
<td>$2,904,107</td>
<td></td>
<td>$284,693</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$8,848,658</td>
<td>$12,199,487</td>
<td>$15,861,032</td>
<td>$284,693</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$37,193,870</td>
<td></td>
<td></td>
<td></td>
</tr>
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* Assuming Transition Starts in September 2011 (FY2012), the first full year of savings occurs in FY2013.
Financial Model - Transition Costs and One Time Costs

- Transition and One Time Costs
  - Potential Transition and One Time Costs fall into the following categories
    - New Service Provider: Transition of Services, Migration of Assets, Transformation of Environment
    - Existing Service Providers: Support of Transition of Services, Dual Run Costs, Termination Fees for existing contracts
    - Other Potential Costs & Considerations: SDDPC Liquidation Costs
  - Most Transition costs are incurred by the new Service Provider

- New Service Provider
  - The RFP will require the new Service Providers to give a cost for Transition of Services, Migration of Assets, and the Transformation of the Environment
  - The costs in the RFP responses will be a contractual commitment with penalties for non-performance

- Existing Service Provider
  - Costs typically associated with the existing provider transitioning to a new provider include:
    - Overtime associated with knowledge transfer
    - Dual run costs associated with the potential winding down of the SDDPC data center
    - Termination of existing contracts associated with services to the City that can’t be assigned or mitigated
  - Costs associated the potential liquidation of the SDDPC would not typically be considered a Transition cost
    - Potential costs and liabilities should be balanced against assets

- The actual transition costs will be known after the RFP responses are analyzed and the transition (including migration and transformation) timelines are solidified
Conclusion & Sourcing Action Plan
Conclusions & Recommendations

- Under the existing relationship between the SDDPC and the City of San Diego, the City retains many of the risks associated with an Insourced IT environment without achieving the benefits of cost reduction and industry standard practices associated with strategic sourcing (managed services)
  - If the City continues to receive services from the SDDPC, the services should be delivered under a Managed Services model

- Based on the City’s requirements, in scope services, the financial model, and the risk profile, the City of San Diego should move forward with a fixed priced performance-based managed services RFP (competitively bid)
  - A single RFP should be structured in a modular fashion to allow for a Single Provider or Multiple Providers by Service Tower (e.g., Data Center, Network, Applications Development and Maintenance)
  - Service Providers will be required to propose an option where all services will be provided by onshore resources

- In Scope Service for the RFP
  - Data Center Services
    - Including Departmental Data Center / Server Rooms
  - Voice and Data Network
  - Applications Development and Maintenance
  - Other Optional Services
    - ERP Technical Support (external contracts)
    - Help Desk / Deskside Support (for consideration after Year 3)
  - Services that are not specifically in scope will be subject to a negotiated rate-card that is part of the RFP
The chart below shows the approximate timing of transaction activities once provider contract(s) have been executed.

* Timing of Transformation is dependent on the criticality of getting off legacy equipment. Transformation planning can occur during Transition with actual Transformation activities occurring immediately after Transition of Services.
Phase 2 & 3 Activities

**Phase 2**
- Develop RFP Documents
  - Statements of Work (SOWs)
    - ITSM (IT Service Management) and Lifecycle (IT Lifecycle)
    - Data Center
    - Data Network
    - Voice Network
    - Application Development and Maintenance
  - SOW Service Environment Appendices
    - Update / finalize data gathering for in scope resources
  - Service Levels Agreements and associated Fee Reduction Weighting Factors
  - Master Services Agreement
  - Additional key contract documents
    - Relationship Management
    - Fees
    - Fee Reductions
    - Benchmarking
    - Transition, Migration and Transformation Plan
    - Financial and Operational Responsibilities Matrix
  - RFP Instructions and Response template
    - Includes Provider corporate information
  - Provider Pricing Response template
- Develop Weighted Provider Scoring Model
- Issue RFP

**Phase 3**
- Manage Provider Selection Process
  - Engage in Q&A period with providers before RFP responses are due
  - Conduct Bidders’ Conference with qualified providers
  - Receive and evaluate provider-submitted proposals
  - Downselect to Best and Final Offer (BAFO) providers
- Develop Negotiation Strategy and Due Diligence
  - Develop BAFO package
  - Issue BAFO package to downselected providers
  - Conduct BAFO process meetings with BAFO Providers
  - Conduct parallel MSA/SOW negotiations with BAFO providers
  - Conduct due diligence on provider proposals
  - Receive and evaluate provider-submitted BAFO proposals
  - Select winning provider(s)
- Develop Transition Plan
- Negotiate Final Sourcing Agreement
  - Support provider due diligence on City data
  - Conduct final contract negotiations with winning Provider(s)
  - Sign negotiated contract(s)
Provider Qualification

In choosing a Provider(s), the City must strike a balance between ensuring that only those providers that can reasonably perform the requested services are considered, while on the other hand encouraging opportunities for smaller and/or local IT companies to be involved.

- Properly constructed Minimum Qualifications to Bid criteria in the RFP Instructions can ensure that in considering new providers, only qualified primary contractors are considered. Such criteria could include:
  - Minimum number contracts of similar size and scope the provider has entering into in the last 5 years
  - Minimum amount of average gross revenue in IT outsourcing services over the last 5 years
  - Certifications that the provider and its officers are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency
  - Certification that the provider has not within a 3 year period preceding the RFP been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property
  - Certification that the provider has not within a 3 year period preceding the RFP had one or more contracts terminated for cause or default

- The RFP Instructions will include requirements from existing City policies in regards to the Small Local Business Enterprise Program and other applicable contracting programs