



**Exhibit to Data Center Services
Service Component Provider
Master Services Agreement**

DIR Contract No. DIR-DCS-SCP-MSA-002

Between

**The State of Texas, acting by and through
the Texas Department of Information Resources**

and

ACS State & Local Solutions, Inc.

**Exhibit 2.4
Data Center Services Services
Statement of Work**

December 30, 2011

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EXHIBIT 2.4
DATA CENTER SERVICES STATEMENT OF WORK

Update Methodology to Exhibit 2.4

The following update methodology is incorporated as part of Exhibit 2.4:

Title	Methodology for Updating Exhibit
<u>Exhibit 2.4</u> Data Center Services SOW	<u>Exhibit 2.4</u> may only be modified by formal amendment, in accordance with <u>Section 21.7</u> of the MSA.

Introduction

Service Provider will provide a solution that supports all of the business processes described in this Statement of Work and its Attachments, and that all Services, unless otherwise specifically stated, are included in the Base Charges.

Service Provider will be responsive to the current and future requirements of DIR and DIR Customers, by proactively anticipating needs, and adjusting Services accordingly within the Base Charges. Requirements for New Services will be handled in accordance with Section 11.5 of the Agreement and Service Provider will work with DIR to assess the impact of these requirements on DIR’s and DIR Customers’ operating environment and supported Applications in accordance with the terms of the Agreement.

This Exhibit sets forth the Services that Service Provider will provide, as of the Commencement Date unless otherwise specified, for all Data Center Component Services in the Consolidated Data Centers described this Exhibit.

The Service Provider is also required to provide the Services in Exhibit 2.1.2 including integration with enterprise ITIL Service Management processes, in conjunction with the Services described in this Exhibit.

Service Management

DIR bases its Service Management practices on the Information Technology Infrastructure Library (ITIL), a world-wide recognized best-practice framework for the management and delivery of IT services throughout their full life-cycle. Accordingly, DIR requires that Service Provider Service Management practices, which are used to support the Services, be based on the ITIL framework and guidance. The primary structure of the requirements in the Statements of Work are based on an ITIL v2 foundation with ITIL v3 guidance in select functional areas (e.g. Request Management and Fulfillment) with the expectation of migrating towards ITIL v3 progressively as process improvements are incorporated into the Service Management Manual.

Service Provider responsibilities include:

1. Intentionally deploy and actively manage a set of Service support processes and Service delivery processes that are based on ITIL guidance to enable consistent management of process-driven IT services seamlessly across a variable number of environments and among DCS Service Providers.
2. Ensure that ITIL-based processes effectively integrate with the processes, functions and roles deployed within and used by DIR and DIR Customers and other DCS Service Providers.
3. Execute detailed activities and tasks that are common to IT service operation and maintenance according to the guidance set out in the policies and procedures described in **Exhibit 2.1.2**, including the broader guidance provided regarding the ITIL-based Service Management processes.
4. Design processes to enable the effective monitoring and reporting of the IT services in a Multi-Supplier Environment.
5. Ensure that enterprise processes (e.g. Change Management, Configuration Management, Problem Management) are followed across the DCS Service Provider and Third Party Vendor(s) processes.
6. Coordinate the execution of all the processes across Service Provider, DIR, DIR Customers, and all Service Component Providers in order that all the individual components that make up the IT Services are managed in an end-to-end manner.

A.0 SERVICE REQUIREMENTS

All activities required to provide the Services set forth in this Statement of Work, including project-related support activities, are included in the Charges.

Service provider will have responsibility for the following requirements associated with operation and maintenance of Fully Managed Services and Co-location Services in the Consolidated Data Centers identified in **Exhibit 7**.

A.1 Operations

Service Provider responsibilities include:

1. Monitor the environments, alarm systems and environmental controls, and the transmission and reception of polling information related to the Consolidated Data Center environment from outside and/or internal organizations.
2. Provide and maintain sufficient environmental systems, security and environmental controls.
 - 2.1. Provide sufficient cooling and maintain cooling systems (e.g. CRAC, HVAC).
 - 2.2. Provide sufficient power, and install power whips and power distribution as required, to support operations, implementations, projects, and meet the Service Levels.
3. Take appropriate action to resolve incidents and/or problems, including escalating (as appropriate) the incident and/or problem to the proper Support group.
4. Perform proactive failure trend analysis.
5. Produce trend reports to highlight incidents and problems and establish predetermined action and escalation procedures when incidents and problems are encountered.
6. Perform periodic and emergency environmental systems maintenance in accordance with procedures established to minimize the impact to DIR's and DIR Customers' businesses.
7. Maintain tables, calendars, parameters, definitions and processes for tools used to automate manual procedures or to automate and improve the quality of the operations.
8. Maintain and update the operational documentation for all operations procedures and services, including maintaining accurate information about all Configuration Items (CIs) in the Configuration Management System (CMS) and related Configuration Management Database (CMDB). Including maintaining timely and accurate information for all CIs related to the Services.
9. Provide feedback to DIR regarding the impact of potential Consolidated Data Center architecture and design changes.
10. Provide and maintain Operational standards.
11. Proactively monitor and report to DIR on resource shortages, and report utilization statistics and trends to DIR on a monthly basis.
12. Analyze performance metrics and respond proactively to potential problem areas.

13. Coordinate or assist in the installation of the DCS Service Provider, DIR, DIR Customer Equipment (e.g. servers, appliances, gateways, tape, disk, backup systems and other Equipment) or Third Party provided Co-location equipment required to maintain the support level necessary to meet ongoing DIR and DIR Customer business requirements.
14. Physically powering up or down equipment component(s) at the request of authorized DCS Service Providers, DIR Customer or Third Party and in compliance with procedures as set out in the Service Management Manual.
15. Responding to media mount requests as needed for the Equipment and Co-Location Services as described in further detail in Section A.4 below.

A.2 Facilities Management and Support

Facilities management will provide proper maintenance and safe operation of IT infrastructure for the Consolidated Data Center(s).

Service Provider responsibilities include:

1. Establish and maintain proper and adequate facilities, related Equipment, and supplies at Consolidated Data Centers, as well as a properly trained and appropriately sized management and support staff.
 - 1.1. Clean and maintain floor space and Equipment to minimize problems and outages, at intervals established with DIR or in compliance with stated and written specifications.
2. Establish and maintain proper and appropriate security at the facilities as designated in **Exhibit 17**.
3. Properly manage, coordinate, and oversee (and inform DIR of the results of) all maintenance, testing, and monitoring of facilities systems, air handlers and uninterruptible power supply systems at the Consolidated Data Centers, which include:
 - 3.1. Provide guidance and coordination for all activities during Equipment installations, project implementations, routine maintenance, problem and crisis management including interfacing with facilities and technology groups, Third Party Vendor(s) and other relevant groups.
 - 3.2. Establish and publish, in the Service Management Manual, available Site times for Equipment installation and de-installation by Service Component Providers, DIR Customer or Third Party in compliance with Change Management and Physical Security guidelines.
4. Comply with DIR policies, State of Texas laws and policies (e.g. TAC 202) and applicable Federal laws and regulations, including security, data and records management, and electronic records and data archiving.
5. Provide any and all communication connectivity and capability (data, voice, video, or other) that is required at Service Provider-owned facilities (or between Service Provider-owned facilities and the Consolidated Data Centers) in order to provide the Services.
6. Create, update, and maintain complete documentation of the Equipment that is located in Consolidated Data Center(s) (for example inventories, wiring, cabling, and installed

Equipment diagrams) using computer-aided drafting (CAD) Software tools for changes to existing documentation and newly created documentation.

- 6.1. Provide access to documentation as requested by DIR or other Third Parties as directed by DIR.
7. Provide physical access procedures and standards for the Consolidated Data Centers
8. At Consolidated Data Centers, initiate and track requests for space, power, and other facility modifications in support of Equipment and Co-Location equipment installations.
9. Provide requests to DIR sixty (60) days in advance for space and power modifications in support of Equipment at the SDC.
10. Coordinate with DIR and provide for physical access and facilitate inspections by government authorities with statutory authority for auditing the conduct of government business.
11. Integrate its Facilities Management process with DIR's, DIR Customers', and other DCS Service Providers' Facilities Management processes, where the processes interact.
12. Integrate its Facilities Management process with Service Management processes, especially Change Management, Incident Management, Service Continuity Management and Availability Management.

A.2.1 Physical Security Administration

In addition to the requirements as identified in **Exhibit 17**, Service Provider responsibilities include:

1. Communicate the physical and logical security management processes to Service Provider personnel and each DCS Service Provider.
2. Comply with the security requirements of DIR and DIR Customers.
3. Comply with Service Provider physical and logical security responsibilities including:
 - 3.1. In particular, ensure that proper segregation of duties exists where appropriate, including where processes span to Service Provider, other DCS Service Providers, Third Party Vendor(s) or Third Parties.
 - 3.2. If during the implementation of changes or management of crises it is not feasible to observe a proper segregation of duties, immediately inform DIR of this fact and will keep a record of all actions performed.
 - 3.3. Discuss such record with DIR within two (2) days after the change or crisis.
4. Inform DIR immediately if Service Provider becomes aware of any vulnerability or weakness in the Services, and recommend a solution or mitigation.
5. Provide reports, on at least a weekly basis, to DIR and DIR Customers to identify the physical access right that should be removed from DIR and DIR Customer locations.
6. Integrate the Physical Security Administration process with Service Management processes, especially IT Service Continuity Management.

A.2.2 Wiring Services

Service Provider responsibilities include:

1. Plan, procure, install, operate, administer, maintain, and manage the Wiring within Service Provider physical demarcation boundaries.
2. Manage Wiring installations, repairs, and removal using a Software-based cable plant management system where applicable.
3. Document changes to the Wiring plan in the Site survey records, and all changes thereto in the Asset Inventory and Management System.
4. Comply with DIR Wiring standards.
 - 4.1. In the absence of a DIR standard, use industry standards that meet or exceed local code or other requirements of applicable authorities as approved by DIR.
5. Document, label, and map cable and wire runs in the appropriate Site survey records.
6. Use DIR approved and certified cable and wire installers to perform Wiring Services.
7. Maintain up-to-date cable records in communications closets, wiring distribution rooms, and other areas where a high concentration of cable and wire exists.
8. Audit and certify wire and cable as required by DIR.
9. Maintain a secure, clean, well-lit, clutter-free Wiring and Cabling environment in all telecommunications closets and cable plant areas.

A.3 Technical Support

A.3.1 General Technical Support

Service Provider responsibilities include:

1. Provide appropriate response to incidents and/or problems and continued support through resolution as required in order to meet scheduled availability.
2. Interface between the groups implementing changes or responding to incidents.
3. Enforce documentation standards in compliance with Service Management Manual directives.
4. Develop, where appropriate, and install productivity tools or utilities, as well as performing all required operational modifications for the efficient and proper delivery of the Services.
5. Develop and maintain technical and functional specifications and requirements for all environments and related interfaces.
6. Provide product research, project support, and advice on Environmental Equipment tuning and efficiency improvements.
7. Manage, prioritize, and coordinate all preventive and remedial maintenance and updates for environmental systems and other facility management systems.

8. Provide consultation support as DIR reasonably requests. (For example: product research, project support, and efficiency improvements).

A.3.2 Capacity Management

The Service Provider is required to assist DIR and DIR Customers in understanding the future business requirements, the organization's operation, and the IT infrastructure related to Service provided by the Data Center Component Services, as well as to provide all current and future capacity and performance aspects of the business requirements (e.g. floor space utilization, power demand, tape media utilization) in a cost effective manner.

The Service Provider responsibilities include the following:

1. Perform activities required for monitoring and optimizing performance in order to reduce costs or improve Service Levels.
2. Provide performance monitoring, tuning, and reporting.
3. Conduct environmental system performance testing and provide the testing results and analysis to DIR.
4. Perform upgrades to provide effective capacity and to meet architectural requirements.
5. Coordinate with the business partners, , other DCS Service Providers, DIR, DIR Customers and Third Parties as appropriate on projects to install/upgrade hardware and software.
6. Integrate these capacity planning functions with the on-going Capacity Management activities required in **Exhibit 2.1.2**.

A.4 External Storage Media Management

A.4.1 Operations and Processing

Service Provider responsibilities are for the Consolidated Data Centers and include:

1. Assume in coordination with other Service Component Providers operational responsibilities for all External Storage Media management functions, both on-site and off-site, for External Storage Media library operations and administration.
2. Utilize the most efficient and effective storage media, tools, and processes for DIR Customers' data and programs.
3. Recycle media regularly, manage media replacement (worn or damaged media), and recycle media to provide data integrity and quality.
4. Retrieve External Storage Media from on-site and off-site storage as requested by DIR, DIR Customers, other DCS Service Providers and Co-Location Third Parties, or as required in an emergency.
5. Wipe or erase the data and configuration information resident on the media prior to disposal or re-use, and in accordance with TAC 202.

6. Dispose of retired media in an environmentally sound manner after purging any DIR or DIR Customer data using DIR Customer, State and/or Federal guidelines/policies (e.g. TAC 202) prior to disposing of media.
7. Operate media libraries and library management systems as required to provide the Services.
8. At the request of other Service Component Providers, DIR Customers or Co-Location Third Parties provide all External Media Storage handling (e.g. tape mounts, physical tape library, tape retrieval) functions required in the Consolidated Data Centers.
9. Properly clean and maintain Equipment to minimize problems and outages, at intervals established with DIR or in compliance with stated and written specifications.
10. Perform External Storage Media mounts to support operational activities at the Consolidated Data Centers.
11. Initialize new External Storage Media.
12. Coordinate the creation and handling of tapes identified as Do Not Destroy (DND) with DIR Customers and other DCS Service Providers, as requested, and in compliance with the Service Management Manual.

A.4.2 Administration

Service Provider responsibilities are for the Consolidated Data Centers and include:

1. Utilize and provide input to a database cataloging the archival system for the media libraries.
2. Monitor External Storage Media Equipment in case of malfunction, and initiate corrective action with other DCS Service Providers, DIR Customers, and DIR Customer designate in accordance with established procedures.
3. Maintain the integrity of External Storage Media libraries system.
4. Monitor External Storage Media for reliability and minimization of read/write errors during the entire period of retention.
5. Monitor and report on External Storage Media usage and provide usage information to DIR, DIR Customers and other DCS Service Providers as set forth in the Service Management Manual.
6. Monitor External Storage Media in coordination with other DCS Service Providers to comply with DIR, DIR Customers and applicable government requirements and reporting.
7. Coordinate with other Service Component Providers to provide new External Storage Media for growth as well as replacement External Storage Media (e.g. cartridges or reel tapes) that is defective or causes unrecoverable read/write errors.
8. Provide and maintain adequate supplies for the External Storage Media.
9. Follow, maintain, and update procedures in the Service Management Manual, described in **Attachment 6-B**, which governs cycling/rotation of External Storage Media, External Storage Media management, and External Storage Media retention periods, in accordance

with DIR's and DIR Customers' Security Policies, MSI guidelines and with attention to auditing purposes.

10. Maintain an existing inventory control system to properly manage External Storage Media in storage and prepare them for shipment to the contingency site.
11. Provide media racks and space for media.
12. Perform Audits of media locations as required per DIR Customer and Service Management Manual Guidelines.

A.5 Off-Site Media Storage Management

Service Provider responsibilities are for the Consolidated Data Centers and include:

1. Operational responsibility for off-site media storage, including:
 - 1.1. Integrity checking
 - 1.2. Definition of storage requirements
 - 1.3. Manage off-site vaulting of data on media as scheduled
 - 1.4. Cataloging off-site content
 - 1.5. Retrieving backup tapes
 - 1.6. Compliance with DIR's, DIR Customers' and/or applicable government requirements
2. Develop requirements, procedures, and standards for off-site storage, in consultation with DIR and DIR Customers, and obtain approval from DIR. DIR will have the right to request modifications to such procedures as required.
3. Store External Storage Media and business-recovery-related paper documentation at secure off-site vault storage. Off-site vault storage also includes External Storage Media business recovery functions, such as packaging and transportation to and from storage and contingency sites as defined in **Exhibit 15**.
4. Provide off-site vault storage in a physically and environmentally controlled and protected area with appropriate fire protection and with multiple layers of physical security designed to prevent unauthorized access as defined in **Exhibit 17**.
5. Follow off-site External Storage Media storage procedures, including:
 - 5.1. Provide secure off-site transport containers.
 - 5.2. Prepare media for off-site storage or to go to other Third Parties as requested by DIR or DIR Customers, or as otherwise required.
 - 5.3. Log and track all physical External Storage Media in and out of the Consolidated Data Centers.
 - 5.4. Ship and receive media to and from the off-site storage location(s) on a daily basis, or as required.
 - 5.5. Support ad hoc requests for tape retrieval from off-site locations in a timely manner.

- 5.6. Maintain the rotation of the External Storage Media that is required for off-site storage.
- 5.7. Return media as required to the originating DIR or DIR Customer location.
- 5.8. Transport materials to and from off-site storage in secured environmentally controlled vehicles operated by bonded personnel or as agreed to by DIR.
- 5.9. Audit the off-site vendor for compliance and control procedures, and provide an audit report to DIR.
- 5.10. Maintain the integrity of data shipped to and from off-site storage.
- 5.11. Manage Third Party Vendors that provide off-site storage services, and notify DIR and affected DIR Customers of any problems.
- 5.12. Advise DIR of any modifications to agreements with Third Party Vendors that would improve the efficiency of the Services or otherwise benefit DIR or DIR Customers.
- 5.13. Manage and provide a daily reconciliation of media that is moved to and from offsite storage to ensure that media flagged for movement is properly moved and logged in the appropriate media tracking and inventory systems.
- 5.14. Manage and provide a reconciliation of all media that is removed from off-site storage following scheduled DR tests and return of media to either off-site storage or the on-site media library.
- 5.15. Provide an emergency media return process.
- 5.16. Comply with, and review compliance with, physical specifications, retention periods, and security.

A.6 Authorized User Support

Service Provider responsibilities include:

1. Provide support, advice, and assistance to DIR Authorized Users in a manner consistent with current practices.
2. Perform analysis to provide optimal use of production resources.

A.7 Backup and Recovery Services

Service Provider responsibilities include:

1. Assist in meeting DIR's and DIR Customers' system data backup requirements as they relate to the Services and associated guidelines in the Service Management Manual, including:
 - 1.1. Manage off-site vaulting of data on media as scheduled.
 - 1.2. Catalog off-site content
 - 1.3. Retrieve backup tapes

2. Participate in the establishment of a process by which Authorized Users can request recovery of data or files, and assist in documenting the process in **Attachment 6-B**.

A.8 Co-location Services

The following requirements apply only to Co-Location Services and are in addition to all other requirements in this Exhibit.

The Service Providers responsibilities include:

1. On a quarterly basis, Service Provider will provide an update of the Co-location equipment (e.g. racks, servers, peripherals) including the floor space location and identification of any additions or deletions for the preceding three-month period.
2. Service Provider will not expand the Co-location Services without prior written approval by DIR.
3. Provide transition assistance as part of the Services to any DIR Customers receiving Co-location Services that may transition to Fully Managed Services under the Agreement.
4. At the request of DIR, provide additional Co-location Services at the Consolidated Data Centers to new customers that qualify as DIR Customers.
5. Upon DIR's written request for the provisioning of Co-location Services for a new or existing DIR Customer, Service Provider will respond to DIR within 45 days with a final proposal.
6. Assist DIR Customers with continuity of service if the DIR Customer Co-Location IT infrastructure management transfers from one Third Party to another Third Party; including the following:
 - 6.1. Assist DIR Customer or Third Party with any required transfer of asset inventory for Co-location equipment.
 - 6.2. Assist DIR Customer or Third Party with knowledge transfer related to the Co-location equipment.
 - 6.3. Assist DIR Customer or Third Party with process and procedure transfer related to the Co-location equipment.
 - 6.4. Update the Service Management Manual to contain processes and procedures changed as a result of the transfer.
7. Provide migration services to relocate a DIR Customer's Co-Location Services equipment to or install Co-location equipment into the Co-location Services including the following:
 - 7.1. Assist the DIR Customer or Third Party with the planning activities for the relocation or installation of Co-location equipment.
 - 7.2. Provide required electrical power connections, including power drops to Co-location equipment.
 - 7.3. Provide Wiring (e.g. WAN, LAN, SAN) installation for the Co-location equipment.

- 7.4. Assist the DIR Customer or Third Party with the receipt and unpacking of Co-location equipment.
- 7.5. Install Co-location equipment cabinets
- 7.6. Assist DIR Customer or Third Party with test and start-up of Co-location equipment.
- 7.7. Provide on-site support for activities relative to Co-location equipment received and check-out, testing of utilities provided at the Consolidated Data Center.
8. Assist DIR Customer or Third Party with de-installation of Co-location equipment that is to be removed from the Consolidated Data Center.
9. Coordinate with DIR Customer or Third Party to provide new media or to replace worn or damaged media.