



STATEMENT OF WORK - Service Description

Mainframe on Demand

1 Scope of services

1.1 Mainframe on Demand

1.1.1 Description

Executive Summary

Atos is a comprehensive IT services provider who can provide any services that state and local entities need, from Mainframe to High Performance Computing. Atos has extensive experience in similar environments to yours and delivers with a “Service Beyond Reason” mentality.

Government Expertise

With more than \$13 billion in annual revenue, Atos provides IT services across the spectrum of technology with a **company focus in the State & Local and Public Sector** as illustrated by the following highlights:

- 11,000+ business technologists focused on delivering public sector projects and solutions
- More than 22 percent of total revenues coming from work for central, regional, and local governments
- 40 years’ experience of designing and delivering public sector projects



We have experience in transitioning large, complex state and local governments, such as the State of Texas, from existing incumbent providers, including the provision of the future today via our Atos government cloud framework. This allows ultimate flexibility and service choice for state agencies, local governments and educational institutions, including the provision of services to those shown in the graphic above.

Atos is also an expert at providing Mainframe services to local and state government entities with various compliance requirements. We have designed the services within this proposal to support normal generic state and local requirements, but any specialized requirements can be accommodated with adjustments to meet the specific requirements. The following sections describe the services provided in more detail.

Service Beyond Reason

Atos’ foremost objective is to ensure **we exceed expectations and fulfill our client’s vision**. With **one of the highest contract renewal rates in the industry**, Atos lives and breathes a “**Client for Life**” approach for our clients.

What is Service Beyond Reason? It means understanding your goals and your needs and managing the services to those as opposed to a only a contract. It means over-communicating and going the extra mile to be sure we deliver for you and for your clients as well. Service Beyond Reason is not



measured via SLAs or KPIs, but purely via the satisfaction of our clients as communicated daily, weekly and monthly.

Being the **best in providing public sector services** to states, cities and counties, no other company has the proven experience, capabilities and happy clients like Atos—we are **bringing our best to you!** We look forward to meeting with you and working together to ensure your ongoing success.

Mainframe on Demand Service Overview

Mainframe on Demand provides a fully managed IBM mainframe Infrastructure consisting of Hardware and Operating System (OS) Software, transaction processing, database, and timesharing Software.

This Service provides the following:

- ▶ Delivery of mainframe functionality where and when the Customer demand requires
- ▶ Access to up-to-date mainframe Hardware, Software and Support

Mainframe on Demand provides *Supplier (Atos)-owned* Hardware, Software and technical support 24 hours a day, 365 days a year. It provides remote access for development, training and additional capacity for applications.

Mainframe on Demand is provided from secured, twin data centers using shared resources. The twin data centers are located in two (2) buildings several kilometers apart, providing the required infrastructure and mainframe system capability for a full contingency solution. This contingency solution results in a risk reduction, designed to restore the Customer's mainframe environment in the event of a major outage.

The Infrastructure components (Hardware and Software) are kept up-and-running, up-to-date, and ready-to-use. Atos monitors performance of the infrastructure and changes the capacity available to deliver the Service as required.

Mainframe on Demand includes the following components:

- ▶ Production Support
- ▶ Security Management – Basic
- ▶ Security Management – Extension
- ▶ Managed Mainframe Environment
- ▶ Hardware – CPU
- ▶ Software – Kernel
- ▶ Software – DBDC
- ▶ Software – Optional
- ▶ System Administration – Kernel Software
- ▶ System Administration – DBDC
- ▶ Technical Administration – DBDC
- ▶ System Administration – Other Software
- ▶ Hardware – Storage
- ▶ Hardware – Robotic
- ▶ Storage and Backup Management – Storage
- ▶ Storage and Backup Management – Backup
- ▶ Hardware – Disaster Recovery
- ▶ Disaster Recovery Management
- ▶ Availability Management
- ▶ Performance and Capacity Management – Basic
- ▶ Performance and Capacity Management – Extension

1.1.2 Production Support and Batch Production Control

Vendor shall provide Production Support to Customer. Production Support incorporates console operations, event management, and automated operations.

Attended operations are delivered 24 hours a day and 7 days a week, to operate and monitor the services, and to maintain availability at premium performance.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 1 Production Support Responsibility Matrix

No.	Task	Supplier	Customer
1.	Automatically schedule operational activities, regular housekeeping of the system and maintenance activities.	X	
2.	Start, shut down, and restart Systems as required.	X	
3.	Coordinate the recovery of the Service and its components to a known/consistent state prior to the occurred Failure.	X	

Vendor shall provide Batch Production Control support to Customer. This service consists of two (2) categories:

- ▶ Base: batch schedule infrastructure (batch scheduling back office activities)
- ▶ Optional: specific job scheduling (batch scheduling front office activities)

BASE:

The base component delivers the ability to effectively schedule and run scheduled batch autonomously by the Customer's users. It is fully integrated with Automated Operations and can therefore benefit from the add-on capabilities under Automated Operations (e.g. automated notification of abended jobs).

OPTIONAL:

The optional component extends the service to maintaining and executing the scheduled batch. In this case, Customer provides Vendor with the job schedule and job specifications. Vendor is responsible for the actual execution and monitoring.

Table 2 Batch Control Base

Service Level Element Batch Control Base	Reporting	Service Level Value
Batch operations	Incident Ticket	For batch job Failure, an Incident Ticket is generated and followed up on according to the agreed Incident management process.

Table 3 Batch Control Optional

Service Level Element Batch Control Optional	Reporting	Service Level Value
Batch operations	Incident Ticket	For batch job Failures, an Incident Ticket is generated and followed up on according to the agreed Incident management process.
Batch job run times		On a monthly basis, Vendor will compare predicted and actual run times for scheduled batch. In the event that there is a significant deviation, Vendor will take the initiative to further investigate the cause and come up with suggestions for mitigation.

Service Level Element Batch Control Optional	Reporting	Service Level Value
Batch job scheduling (initiating daily batch schedules)		24 hours a day, 7 days a week
Batch job monitoring		24 hours a day, 7 days a week
Monitoring critical batch	Incident Ticket	Batch jobs requiring special attention and any related actions are specified in the Service Operations Guide (SOG).
Escalation & call-out	Incident Ticket	24 hours a day, 7 days a week
Job and schedule maintenance	Change Ticket	Maintenance of schedule and job definitions in the batch scheduling control system. The functional requirements of the changes are laid down in change requests entered by the customer.

1.1.3 Security Management – Basic

Security is provided on an organizational level by using a set of administrative Security guidelines, a Security baseline, and a Security Matrix.

The Security baseline implies the implementation and maintenance of a set of standard Security Policies on the mainframe environments, such as user authentication, application, and dataset access.

Authentication is carried out at the initial log-in to a Service applicable to an authorized user holding a valid user ID and password combination that's unique to that user.

The Supplier shall manage the mainframe environment in accordance to the Supplier's Security baselines.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 3 Security Management – Basic Responsibility Matrix

No.	Task	Supplier	Customer
1.	Use the Supplier's Security baselines, administrative Security guidelines, and Security Matrix.	X	
2.	Implement, maintain, and enforce the standard Security Policies on the mainframe environment.	X	
3.	Monitor for Security violations, take appropriate actions, and report to the Customer's Security officer.	X	
4.	Implement and maintain the Security baseline (including the Security Matrix) on the Customer mainframe landscape.	X	
5.	Test the Security product and the reporting/management Tooling during the installing of Security or related products or a new z/OS release once (generally every two (2) years).	X	
6.	Manage Security Incidents and Changes.	X	
7.	Back up the Security management database.	X	

1.1.4 ITIL Process Delivery and Service Desk Support

Atos will provide our global ITIL-based process governance framework, branded as the Atos Service Management Methodology (ASMM). This methodology is designed using a combination of industry best practices and Atos' practical experience in delivering managed services in an enterprise environment. The services are delivered through an independent delivery organization, the US based Atos Service Management Center (SMC), which is dedicated to the process governance activities required to ensure the successful deployment and delivery of services in a managed outsourcing engagement. The SMC leads will define, document and maintain the process flows, integration points and procedures necessary to support the mainframe services included in this contract. As shown in the following table the SMC will provide the following process level functionality in support of the mainframe services.

Process	SMC Responsibility
Incident Management	Responsible for managing lifecycle of all incidents. The SMC will monitor the process to ensure it is efficient and effective, identify trends, improve recovery time, and identify service improvements
Major Incident Management	Work to effectively and efficiently manage Major Incidents ensuring appropriate communication and swift resolution
Change Management	Manage IT changes and deliverables while managing risk. The SMC will manage changes related to the services and the change process including: Prioritize and categorize Authorize and schedule, implementation Review the implementation Participate in the CAB meetings Additionally, the SMC will ensure that standardized analysis, reviews and approval processes are followed, artifacts captured, and the appropriate audit focus given.

Problem Management	Responsible for managing the lifecycle of all problems. The SMC will identify needed corrective actions, create and manage action plans to resolve known errors, update the knowledge database, provide quality assurance (root cause analysis, actions identified and closed), and provide proactive problem analysis to identify trends
Request Fulfillment	Responsible for end-to-end management of the Service Request Lifecycle. The SMC will monitor the process to ensure it is efficient and effective, identify service improvements, provide management reporting and quality assurance (consistent delivery, manage backlog, information gathering)
Service Asset & Configuration Mgmt.	Provide and maintain information on Configuration Items required to deliver an IT service, including their relationships
Capacity Management	Responsible for ensuring that the capacity of the IT service meets the business requirements in a cost-effective, efficient, and timely manner
Knowledge Management	Responsible for working with the towers to ensure knowledge articles are developed and maintained with the internal and customer-specific knowledge
Process Service Manager	Contributes to overall service delivery improvement process strategy in collaboration with the AMO and other delivery lines

Atos will implement our Atos Technology Framework (ATF) including ITSM functionality and an extensive integrated toolset that serves as the foundation for Atos' service management services. The underlying advanced autonomies, discovery, monitoring, and management tool sets are fully integrated within the platform and deliver alert information to automated processing correlation tools, which then trigger Atos ServiceNow for automated ticketing and direct routing to Atos support teams or automated resolution.

The Atos Service Desk will support the delivery of these ITIL process based services, taking calls for any needed changes or to report incidents and using ServiceNow will ensure that the processes described above are delivered effectively. Atos service desks take millions of calls per year and has experience across all sectors and services.

1.1.5 Managed Mainframe Environment

With the managed mainframe environment component, the Software and support Infrastructure that facilitates basic mainframe computing is provided. Together with the Hardware Infrastructure, the mainframe operating system is a compilation of products that enables the following functions:

- ▶ Batch and online processing
- ▶ Time sharing
- ▶ Programming

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 5 Managed Mainframe Environment Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide support for the applicable mainframe OSs (z/OS, z/VM, z/VSE and Linux on Z).	X	
2.	Provide an automated batch planning environment to process a series of interdependent batch jobs.	X	
3.	Provide batch scheduling Software, the initial set-up of the batch schedules, and the ongoing maintenance of the schedules within the batch scheduler.	X	
4.	Manage the Customer's batch environment in a fully controlled and automated way, if required.	X	
5.	Provide online access to Customer Applications and databases to End Users.	X	
6.	Provide standard access to web Applications and/or access via 3270 workstations.	X	
7.	Provide interactive data processing and Application development tools.	X	
8.	Provide compilers to enable the Customer to develop maintain their Applications.	X	
9.	Apply mainframe resource and Application access through Security products.	X	
10.	Support database management products.	X	
11.	Provide facilities to design and run online Applications.	X	

1.1.6 Hardware – CPU

The Hardware – CPU component provides the mainframe processing capacity and basic connectivity.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 6 Hardware — CPU Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide mainframe processing capacity and basic connectivity for the Customer LPAR.	X	
2.	Configure the following parts: <ul style="list-style-type: none"> ▶ Mainframe capacity <ul style="list-style-type: none"> • General and special purpose processors • Internal memory • I/O channels • OSA adapters 	X	
3.	Provide Network connectivity between the two (2) sites of the Supplier HUB data centers and to the Supplier service network.	X	

1.1.7 Software – Kernel

The Software – Kernel component provides Software products that are common for all Mainframe on Demand Customers and for which no alternatives are supported by the Supplier. This category provides products such as the z/OS, JES2, TSO and Network components such as VTAM and NCP.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 7 Software — Kernel Responsibility Matrix

No.	Task	Supplier	Customer
1.	Obtain the kernel Software license for the Customer.	X	
2.	Use the kernel Software to manage the system and Application landscape.		X

1.1.8 Software – DBDC

The Software – DBDC component provides Software packages which are installed at the request of the Customer. A Package consists of a middleware product (such as a database management system) and the accompanying management products.

The Customer and the Supplier shall comply with the responsibilities, as set out in the following table.

Table 8 Software — DBDC Responsibility Matrix

No.	Task	Supplier	Customer
1.	Obtain the DBDC Software licenses for the Customer for applicable packages: (for example) <ul style="list-style-type: none"> ▶ CICS ▶ DB2 ▶ IMS ▶ WebSphere MQ 	X	
2.	Use the DBDC Software to manage the system and Application landscape.		X

1.1.9 Software – Optional

The Software – Optional component provides Software products which are not provided by the Software – kernel and Software – DBDC components.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 9 Software — Software Optional Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide Optional Software products as agreed with Customer	X	

1.1.10 System Administration – Kernel Software

The system administration – kernel Software component provides for the management of the primary kernel Software products on the z/OS environment.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 10 System Administration — Kernel Software Responsibility Matrix

No.	Task	Supplier	Customer
1.	Install and test a new z/OS release on the Supplier installation environment.	X	
2.	Conduct a compatibility test with the included Software products.	X	
3.	Distribute the new z/OS release.	X	
4.	Install a new z/OS release every two (2) years.	X	
5.	Provide preventive maintenance twice a year on a schedule agreed with the Customer.	X	
6.	Agree to the preventive maintenance schedule.		X
7.	Provide reactive maintenance as required by an Incident.	X	
8.	Install and test maintenance patches on the Supplier installation environment.	X	
9.	Validate the distribution of maintenance patches to the Customer environment.		X
10.	Distribute maintenance patches to the Customer environment.	X	

1.1.11 System Administration – DBDC

The Customer and the Supplier shall comply with the responsibilities, as set out in the following table.

Table 11 System Administration — DBDC Responsibility Matrix

No.	Task	Supplier	Customer
1.	Manage the database or transaction processing image as agreed with the Customer.	X	X
2.	Install and test a new release of the DBDC Software on the Supplier installation environment.	X	
3.	Distribute the new release of the DBDC Software.	X	
4.	Provide preventive maintenance at least once annually on a schedule agreed with the Customer.	X	
5.	Agree to the preventive maintenance schedule.		X
6.	Provide reactive maintenance as required by an Incident.	X	
7.	Install and test maintenance patches on the Supplier installation environment.	X	
8.	Validate the distribution of maintenance patches to the Customer environment.		X
9.	Distribute maintenance patches to the Customer environment.	X	

1.1.12 Technical Administration – DBDC

The technical administration – DBDC component provides ready-to-run DBDC instances and performs the operational management of the database and transaction processing environments.

Customer database administration activities such as space management and database reorganization are not part of this component.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 12 Technical Administration — DBDC Responsibility Matrix

No.	Task	Supplier	Customer
1.	Administer parameters of the DBDC image.	X	
2.	Proactively monitor the production environments.	X	
3.	Proactively monitor the resource usage and space control of the system part of the DBDC environment.	X	
4.	Conduct housekeeping of the system part of the DBDC environment.	X	
5.	Maintain exits and self-written programs.	X	

1.1.13 System Administration – Other Software

The system administration – other Software component provides management of software products that are not part of the kernel or the DBDC Software products.

The Customer and the Supplier shall comply with the responsibilities, as set out in the following table.

Table 13 System Administration — Other Software Responsibility Matrix

No.	Task	Supplier	Customer
1.	Manage the Software lifecycle of the products	X	
2.	Install and upgrade the products	X	
3.	Perform corrective maintenance of the products	X	
4.	Provide second-level support for Software errors.	X	
5.	As reasonable, provide general instruction to the Customer for using the Software.	X	

1.1.14 Hardware – Storage

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 14 Hardware — Storage Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide the Customer with an external disk Storage Infrastructure (e.g., Hardware, Software, maintenance, and housing).	X	
2.	Provide fully redundant disk Storage, where two (2) disk configurations are installed in the Primary and Secondary data centers (Network connectivity between the two (2) disk configurations).	X	

1.1.15 Hardware – Robotic

The Hardware – Robotic component provides tape storage Infrastructure that's used for backup and archiving purposes. Tape data is asynchronously mirrored between the Primary and Secondary data centers

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 15 Hardware — Robotic Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide the Customer with a virtualized tape Storage Infrastructure including Hardware, Software, maintenance, Network connectivity, and housing.	X	
2.	Provide tape management system to measure tape storage.	X	
3.	Provide access to historical data through electronic vaulting.	X	

1.1.16 Storage and Backup Management – Storage

This component provides the activities to manage the direct access Storage Infrastructure efficiently.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 16 Storage and Backup Management — Storage Responsibility Matrix

No.	Task	Supplier	Customer
1.	Manage the space of the direct access Storage Infrastructure.	X	
2.	Manage the catalog for the direct access Storage Infrastructure.	X	
3.	Provide Capacity Management and forecasting for the direct access Storage Infrastructure.	X	
4.	Provide the Supplier, four (4) times a year, with an eighteen (18)-month forecast on DASD space.		X
5.	Notify the Supplier at least six (6) weeks ahead of additional, significant, capacity requirements that exceed the forecast.		X
6.	Notify the Vendor at least thirty (30) days ahead of any requirement to reduce Customer Storage allocation.		X
7.	Supply backup Windows, where backup activities can take place without interfering with active processes.		X
8.	Maintain the integrity of the Application data.		X

1.1.17 Storage and Backup Management – Backup

This component provides the activities to manage the backup Infrastructure and the backup and restore activities for system and Customer data.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 17 Storage and Backup Management — Backup Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide specifications for Customer data backup.		X
2.	Backup Customer data based on Customer specifications.	X	
3.	Backup system data.	X	
4.	At Customer's request perform data restore.	X	
5.	In the case of a system failure or upon Application failure, perform data restore.	X	
6.	Provide tape management for backed up data.	X	
7.	Provide Capacity Management and forecasting for backup of system and Customer data.	X	

1.1.18 Hardware – Disaster Recovery

This component provides the processing capacity reserved to recovery the Customer mainframe landscape in the case of a Major Outage.

Disaster Recovery (DR) has three (3) parts:

- ▶ Hardware and maintenance
- ▶ Network
- ▶ Housing

During Service setup, the required capacity is initially calculated and reserved. During the term of this Service Schedule, the DR capacity will be aligned with the actual capacity of the Customer landscape.

The exact configuration and specification depend on the following Customer-specific factors:

- ▶ Maximum outage of mission-critical Applications that the business can endure in a major outage
- ▶ Actual capacity and performance (e.g. CPU, storage, and bandwidth) required in a major outage situation
- ▶ Network and communications Infrastructure

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 18 Hardware — Disaster Recovery Plan Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide Hardware, maintenance, housing, and Network connectivity for Disaster Recovery of the mainframe environment.	X	
2.	Align the Disaster Recovery capacity with the actual capacity of the Customer landscape.	X	

1.1.19 Disaster Recovery Management

This component provides a Disaster Recovery plan that can be invoked and implemented in the event of a Major Outage.

The initial setup of the Customer' Disaster Recovery plan and conducting the periodic DR tests are not part of this component.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 19 Disaster Recovery Management Responsibility Matrix

No.	Task	Supplier	Customer
1.	Develop a Disaster Recovery Plan (DRP) ¹ with the information for the Services to be invoked and implemented in the event of an unacceptable outage.	X	
2.	Define the minimum Customer environment that must be recovered in case of an outage. ²	X	
3.	Develop a testing program to evaluate and confirm Hardware and Software compatibility and backup media validity.	X	
4.	Agree to a schedule of one (1) full DR test per year.		X
5.	Participate in DRP testing as requested by the Supplier.		X
6.	Maintain the generic DRP.	X	
7.	Maintain the DR Infrastructure.	X	

¹ The plan is structured to recover from a complete destruction of the primary data center and from lesser outages by using all or part of the plan.

² This consists of the Applications, number of users, number of subsystems, Hardware capacity, the task sequence, and resources required for recovery to the Customer-specified environment.

1.1.20 Availability Management

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 20 Availability Management Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide automated availability monitoring.	X	
2.	Provide automated restart in case of unplanned outages	X	

1.1.21 Performance and Capacity Management – Basic

Capacity Management enables the IT Infrastructure or IT Infrastructure objects to be provided at the right time in the right volume.

The Customer and the Vendor shall comply with the responsibilities as set out in the following table.

Table 21 Performance and Capacity Management – Basic Responsibility Matrix

No.	Task	Supplier	Customer
1.	Perform trend analysis on the resource utilization monitoring data. For internal analysis, weekly reports are generated for the critical system resources.	X	
2.	Provide an eighteen (18)-month forecast on the Customer's server capacity requirements four (4) times a year on an agreed schedule.		X
3.	Notify the Supplier at least six (6) weeks ahead of additional significant capacity requirements that exceed the forecast.		X
4.	Notify the Vendor at least thirty (30) days in advance of any request to reduce assigned capacity.		X
5.	Adjust the IT Infrastructure or IT Infrastructure objects to comply with Service Levels agreed with the Customer.	X	
6.	Expand capacity in time when a capacity shortage is foreseen.	X	

1.1.22 Performance and Capacity Management – Extension

This component extends the Basic Performance and Capacity management with pro-active aspects and reporting.

The Customer and the Supplier shall comply with the responsibilities as set out in the following table.

Table 22 Performance and Capacity Management – Extension Responsibility Matrix

No.	Task	Supplier	Customer
1.	Provide proactive Performance Management.	X	
2.	Work collaboratively with the Customer to define thresholds for resource utilization.	X	
3.	Work collaboratively with the Vendor to define thresholds for resource utilization.		X

No.	Task	Supplier	Customer
4.	Monitor resource utilization of disk, memory, and processor against thresholds defined in cooperation with the Customer.	X	
5.	Provide capacity modeling and forecasting.	X	

2 Service Levels

2.1 Mainframe on Demand Service Levels and Service Requests

2.1.1 Service Level Management

The Vendor shall use Service Level management enabling technology/tools (e.g., ITSM Tool) in order for Vendor to implement and deliver Service Level metrics and reporting. Vendor shall measure and report on Service Level performance. Vendor's Service Level management processes shall monitor and report on the agreed Service Levels and support regular governance reviews.

2.1.2 Service Level Responsibilities

Vendor shall be responsible for promptly investigating Service Level Failures to meet the Service Levels by:

- ▶ Initiating Problem investigations, including completion of RCA documentation.
- ▶ Reporting Service Level Failures with the escalation process set forth in the agreed upon Governance procedures.
- ▶ Reporting potential and actual Incidents and Problems that are interfering with Vendor's ability to meet the Service Levels.
- ▶ As applicable and appropriate, making written recommendations for improvement in procedures that are negatively affecting Service Level achievement.

2.1.3 Service Availability

The following Service Availability will be provided with this Service.

Table 23 Service Availability

Value		Service Availability
Service Availability Window	7 days, 24 hours (all days) 24 hours a day	
Maintenance Window	Standard Maintenance Window: Monthly, per the published Infrastructure Release Schedule.	The Infrastructure Release schedule is published on an annual basis and will be agreed upon 30 days in advance of the calendar year.
	Extended Maintenance Window: Twice a year, typically Sunday 0800 - Sunday 1600	Exact dates/times will be agreed between the Customer and the Vendor, and incorporated into the Infrastructure Release Schedule.

2.1.4 Support Availability

The following Support Availability will be provided with this Service.

Table 24 Support Availability

Value	
Support availability Window	
5 days, 10 hours (Business Days) 0800–1800	X

Value	
Incident handling Window	
Priority 1 and 2: 7 days, 24 hours: All days, 24 hours a day Priority 3 and 4: 5 days, 10 hours: Business Days, 0800 – 1800 h	X
Standard Change Handling Window	
5 days, 10 hours: Business Days, 0800 – 1800 h	X
Support language	
English (Local language)	

2.1.5 Service Level Agreements

Service Level Agreements (SLAs) will provide the linkage within the total IT suite of contracted services. These agreements will define the operating environment that will exist between the Customer and the Vendor to afford seamless and efficient operation.

The following Service Level targets will be measured and reported monthly for support Incidents, problems, and queries, taking into consideration the various time zones and adjusted to meet local requirements.

Table 25 Service Level Targets

Priority Level	Response Time	Resolution Time	Target
Priority 1	1 hour or less	4 continuous hours (24x7)	95%
Priority 2	2 hours or less	8 continuous hours (24x7)	95%
Priority 3	4 hours or less	18 continuous hours Business Days (8x5)	95%
Priority 4	8 hours or less	45 continuous hours Business Days (8x5)	95%

Response Time is defined as the amount of time between the request being initiated and the technician's acceptance of the request in the Ticketing system.

Table 26 Incident Priority Definitions

Priority Level	Definition
Priority 1	Total loss of one (1) or more systems or business services(s) preventing a user or a large group of users from working thus creates a significant business impact. A Workaround does not exist.
Priority 2	Loss of business service preventing a user from working, or a group of users from performing some degree of work having a business impact. A temporary system Workaround is available.
Priority 3 (Default)	A user is in a degraded mode, but their situation is not critical, and the problem is not having any significant business impact.
Priority 4	A user has a small problem that needs to be addressed, but the impact is not significant. Remaining issues that do not impede a user from using their system.

2.1.6 Availability of Vendor Facilities

Table 27 Vendor Facility Availability

Service Level Element	Service Level Target
Availability of the facility to meet Customer's processing requirements.	99.8% availability Calculated as: $\text{Scheduled Uptime} - \text{Service Interruption Time} /$

Service Level Element	Service Level Target
Includes power, water, fire suppression, physical security, etc.	Scheduled Uptime

2.1.7 Availability of Customer Application Systems

Table 28 Customer Application Systems Availability

Service Level Element	Service Level Value
Mainframe Hardware and OS CICS Production Regions DB2 Production Regions Datacom Production Regions	<ul style="list-style-type: none"> - 99.8% availability <p style="text-align: center;">Calculated as:</p> $\frac{\text{Total Scheduled Uptime} - \text{Service Interruption Time}}{\text{Total Scheduled Uptime}}$ <p>Provided:</p> <ul style="list-style-type: none"> - Only unscheduled outages are included in the system availability Service Level calculation.

2.1.8 Availability Definitions

“Availability” shall mean the Actual Uptime expressed as a percentage of the Scheduled Uptime for a particular Service (i.e., $\text{Availability \%} = ((\text{Actual Uptime}) / (\text{Scheduled Uptime})) \times 100$)

“Scheduled Uptime” shall mean that period of time during which a particular Service is expected to be available to the Customer for normal business use, excluding “Scheduled Downtime”

“Scheduled Downtime” is a planned and approved interruption to the service to facilitate a change to the service, or the planned maintenance of the service and its components, and also includes any downtime that is incurred as a result of an ad hoc request from the Customer for service interruption.

A “Service Interruption” is defined as the period that a User is unable to perform work. Service Interruptions exclude Scheduled Downtime. A Service Interruption is further defined to:

- ▶ Start from the time Customer reports an interruption to the Vendor; or Vendor has detected an interruption via active monitoring systems

End at the time the service is restored and the Customer is notified of restoration. If Customer is unavailable and Vendor cannot notify Customer of restoration, then the fault shall be reported as cleared at restoration time.

2.1.9 Availability Calculation

For example, Customer experiences one (1) eight (8-) hour outage due to OS Failure. The month is a thirty (30-) day month, with four (4) weekends with one (1) four (4-) hour planned outage during the month. The calculation will be as follows:

- ▶ Scheduled Uptime = 716 hours (30 days, times 24 hours=720 hours -4 hours for Scheduled Downtime)
- ▶ Service Interruption = 8 hours
- ▶ Actual Uptime = 708 hours (716-8)
- ▶ Availability Percentage = 98.88% (708/716x100%)

2.1.10 SLA Failure Reporting

In the event Vendor fails to meet the Incident Priority 1 Service Levels in Section 3.1.5, then upon request of the Customer, the Vendor shall, at its own cost and expense within thirty (30) days, prepare a comprehensive root cause analysis of the Failure and prepare a plan for preventing such Failure in the future. At the Customer's request, the Vendor will meet with the Customer to discuss the root cause analysis and implementation of such plan. Upon approval of such plan, the Vendor will be responsible for implementing it at no additional charge to the Customer.

2.2 Standard Reports

The following Standard Reports will be provided with this Service.

Table 29 Standard Reports

Report Name	Description	Level/Value	Reporting Period
Processor usage	MIPS per HOUR per LPAR	MIPS per hour	Monthly
Disk usage	Allocated disk space usage in GB	GB in use	Monthly
Tape Usage	Allocated tape space usage in GB	GB in use	Monthly
Availability	Availability per LPAR against agreed uptimes	Percentage Availability	Monthly

3 Transition

3.1 General Principles

Vendor shall have the overall responsibility for completion of the Transition Program. Customer shall contribute by providing information, contributing to planning, and fulfilling its responsibilities as described in this SOW document. Vendor shall develop plans and manage the overall execution of the Transition. To achieve the principles defined herein, Customer and Vendor shall work in close cooperation with mutually written agreements (Project Definition).

3.2 Transition Approach

Vendor shall plan, manage, and implement the Transition Plan according to its methodology. Vendor Transition methodology, templates, and processes shall be used to execute and control the Transition Plan. The Transition methodology shall contain processes and procedures to manage the Transition Plan.

Vendor's Global Transition Management (GTM) is a methodology and set of tools that supports the technical and personnel-related aspects of outsourcing. GTM describes the processes and Projects required for managing the migration of Services and the transformation of the environment over time.

3.3 Transition and Transformation Program Overview

During the first 30 days of the Transition Project, Vendor shall complete a detailed, written Transition Plan. This baseline plan shall be mutually agreed by both parties and shall describe the tasks, schedules, milestones, Deliverables, and required acceptance criteria.

To the extent unforeseen factors have an adverse impact upon the completion of the milestones, the parties shall work together to make adjustments to the Transition Plan and requirements, and shall attempt to perform workarounds to achieve the dates or adjust the milestone targets as required. The parties shall work collaboratively to adjust the Transition Plan as required to mitigate unplanned Events negatively impacting the achievement or completion of the Transition Period.

3.4 Transition Activities

3.4.1 Pre-Transition Activities – Operational Readiness

Table 30 Pre-Transition Activities

Activity
Kickoff meeting
Solution and data validation; Discovery
Setting up and finalizing Transition Project Team (Customer and Vendor)
Completion of Transition Plan
Project Management and reporting
Network connectivity and tooling implementation & configuration

	Initial Network and connectivity validation
	Knowledge transfer, update, and documentation of process and procedures

3.4.2 Transition Phases

Table 31 Transition Phases

Activity
End-to-end Network and connectivity testing
System Assurance testing
User Acceptance Testing and Pilot tests
Go-Live and stabilization period

3.4.3 Transition Organization

Vendor shall have a program for Transition that shall be managed by the overall Program Director assigned by vendor. Vendor Program Director shall have overall responsibility for all tasks needed to migrate the in-scope Infrastructure environment from the Effective Date to the Transformation closure. Customer shall secure participation from its relevant Third Parties in the Transition Program and shall contribute with planning, managing, and fulfilling its responsibilities as set out in this SOW document.

3.4.4 Vendor Roles and Responsibilities

Vendor shall provide the main roles in the program, and shall comply with the responsibilities, as set out in the following table.

Table 32 Vendor Roles and Responsibilities

Role	Responsibilities
Vendor Transition Program Director	<ul style="list-style-type: none"> ▶ Manages the Vendor Transition Program team to agreed Transition Plan (scope, time, cost, quality) ▶ Manages program issues, decisions, and risks, including escalation to Customer and Vendor sponsors ▶ Reports program progress, status, and forecast to defined governance bodies ▶ Manages scope Changes to the program ▶ Is the program's primary Vendor liaison to the Customer ▶ Provides access to the Customer and Vendor program sponsors ▶ Manages Vendor program staffing ▶ Establishes individual Projects that are properly planned, documented, and monitor progress against baseline through formal review ▶ Manages the governance of Changes within the programs and Projects ▶ Validates that the program and Projects conform to agreed standards ▶ Documents all Transformation Project completions in a close out report ▶ Is responsible to name the competencies required to fulfill the Transformation Deliverables where external support is required
Technical Project Lead(s)	<ul style="list-style-type: none"> ▶ Provides design and technical leadership and guidance to produce Project Deliverables ▶ Tracks and escalates Project issues, decisions, and risks ▶ Reports Project progress, status, and forecast ▶ Captures and shares lessons learned ▶ Manages the delivery of agreed outcome, products, and artifacts, reporting Projects progress formally and as required

Role	Responsibilities
	<ul style="list-style-type: none"> ▶ Defines the solution aligned to the program and business objectives, and defines Changes to the architecture for submission to the defined bodies ▶ Manages and governs the solution to verify the solution design, and effectively manages the governance of the solution baseline and solution Change management ▶ Supports the program director to deliver the program, establishes a clear documented baseline of the program, and manages process and governance under clear Change Management

3.4.5 Customer Roles and Responsibilities

Customer shall comply with the responsibilities as set out in the following table.

Table 33 Customer Roles and Responsibilities

Role	Responsibilities
Customer Transition Program Director (Single Point of Contact)	<ul style="list-style-type: none"> ▶ Peer established to match the Vendor Transition Program Director ▶ Works and coordinates requirements of the Transition Services ▶ Manages program issues, decisions, and risks, including escalation to vendor program sponsors ▶ Provides access to the vendor program sponsors ▶ Coordinates the required inputs from technical, process, and administrative requirements
Subject-Matter Experts (SME)	<ul style="list-style-type: none"> ▶ SMEs provide appropriate technical references on in-scope Services, such as Asset transfer, Third-Party contracts, procurement Service, and in-flight Projects

3.5 Communication

Customer and Vendor shall participate in communication activities for the purpose of Transition and transformation as set forth in the following table.

Table 34 Communications

Communication	Communication Subject	Medium	Frequency
Program status report by Vendor	<ul style="list-style-type: none"> ▶ Overall Status Achievements ▶ Next Steps ▶ Critical Issues/Escalations ▶ Open Issues ▶ Timelines/Milestones ▶ Needed Decisions 	Microsoft PowerPoint	Weekly
Transition Plan report by Vendor	<ul style="list-style-type: none"> ▶ Timeline Base Plan/Current Plan ▶ Progress ▶ Achieved Milestones ▶ Delayed Milestones 	Microsoft PowerPoint	Monthly

3.6 Transition Responsibilities

3.6.1 Transition Roles and Responsibilities

Customer and Vendor shall comply with the responsibilities as set out in the following table.

Table 35 Transition Responsibility Matrix

No.	Task	Vendor	Customer
1.	Plan the Transition Program.	X	
2.	Manage the Vendor Transition resources.	X	
3.	Manage the Vendor Production resources.	X	
4.	Develop a Communications Plan and processes.	X	
5.	Assess stakeholders and channels.		X
6.	Execute the Communication Plan.	X	
7.	Manage Customer Transition stakeholders.		X
8.	Provide in-flight Projects data.		X
9.	Assess in-flight Projects.	X	
10.	Implement Project Office.	X	
11.	Establish onsite office accommodations and facilities.		X
12.	Implement initial Service Levels as agreed in Section 2.1 of this SOW.	X	
13.	Implement initial Service Level reporting as agreed in Section 2.2 of this SOW.	X	
14.	Review Milestones achieved.	X	
15.	Conduct Operational readiness review.	X	
16.	Review Service commencement and stabilization of Service.	X	
17.	Conduct Go-Live and Service stabilization.	X	
18.	Set up Service Management.	X	
19.	Set up Interim process for Service Management if required.	X	
20.	Perform Test according to Test Concept.	X	
21.	Review Test results.		X
22.	Accept Test results.		X
23.	Perform Pilot according to Pilot Concept.	X	
24.	Accept Pilot results.		X

No.	Task	Vendor	Customer
25.	Deploy Services and Processes.	X	
26.	Accept Services and Processes.		X
27.	Hand over to Steady State team.	X	X
28.	Conduct Project closure.	X	X

3.7 Customer Obligations

Vendor shall have overall responsibility for the Transition Program. In supporting the Program, Customer shall fulfill the following obligations:

- ▶ Customer will provide agreed information to support the development and delivery of the Transition Program in an accurate and timely manner.
- ▶ Customer will provide, free of charge, office space and ordinary/customary office Infrastructure as required during Transition, beginning on the Project start date.
- ▶ Customer will provide Customer personnel for the purposes of knowledge transfer until the Service Commencement Date of the respective Service according to the agreed detail Project plans.
- ▶ Customer will name pilot users for participation in the pilot stage and encourage pilot user participation according to agreed Project Plan.
- ▶ Customer will provide any existing documentation as available, such as a Service operation handbook, in electronic form within two (2) weeks of Transition start date.
- ▶ Customer will approve Transition Deliverables in a reasonable timeframe.

All Customer obligations and provisions will be provided by Customer promptly (or as otherwise agreed) free of charge and shall be of such quality as is reasonably necessary to enable Vendor to comply with the Transition Plan.

3.7.1 Knowledge Transfer

During Transition, Vendor shall develop a knowledge transfer plan that is a workstream within the Transition phase and will be tailored for the Customer to address the Transition of knowledge of the current environment and baseline the knowledgebase for Service delivery

Vendor will work with the Customer to clearly understand and define the knowledge elements that need to be transferred to deliver the Services and maintain Service continuity. These elements, once defined, will be documented into Vendor operating processes and procedures in support of the Customer so that the appropriate, Vendor steady-state personnel can be progressively trained in their use of such elements, provided they are constantly involved in the provisioning of Services.

3.7.1.1 Knowledge Transfer Process

Members of Vendor's Transition team will work with the Customer to clearly understand and define the knowledge elements that need to be transferred to provide for successful delivery of the Services. These elements, once defined, will be documented into Vendor's standard operating processes and procedures in support of the Customer so that the appropriate, Vendor steady-state individuals can be trained in their use.

Types of knowledge transfer include the following:

- ▶ **Knowledge Mining** – This would include knowledge exports from existing vendors as well as documentation, policies, procedures, processes, and the identification of other knowledge collateral. The information is uploaded to a central repository on the Vendor site for the purpose of sharing across the transition team.
- ▶ **Knowledge Transfer** – The transfer process includes assessment activities that are managed through workshops and also includes a formal process to transfer work from existing operational resources to the Vendor through what is called our Work Transfer Process.
- ▶ **Knowledge Creation** – Following our assessment of the existing documentation, gaps in the knowledge repository will be identified, and documentation will be created so that all Customer processes and procedures are documented. Subject matter experts from the Customer and Vendor will be engaged to help develop any missing elements.

Customer and Vendor shall comply with the responsibilities as set out in the following table.

Table 36 Knowledge Transfer Responsibility Matrix

No.	Task	Vendor	Customer
1.	Identify knowledge areas and key expectations to be met.	X	
2.	Identify procedures and standards.	X	
3.	Identify current experts and SMEs.		X
4.	Assess current knowledge.	X	
5.	Decide on the required Transition approach.	X	
6.	Create Transition Knowledge Transfer Plan.	X	
7.	Establish organizational setup.	X	
8.	Approve Transition Knowledge Transfer Plan.		X
9.	Gather information.	X	
10.	Identify gaps.	X	
11.	Create documentation.	X	
12.	Validate that all knowledge has been explained, understood, and handed over.	X	

3.7.2 Pilot Testing

The entire solution shall be piloted in a full life environment with selected pilot users.

Customer and Vendor shall comply with the responsibilities as set out in the following table.

Table 37 Pilot Responsibility Matrix

No.	Task	Vendor	Customer
1.	Define pilot concept.	X	
2.	Define number of pilot users.	X	
3.	Define pilot use cases.		X
4.	Define pilot acceptance criteria.		X
5.	Execute pilot test(s).	X	
6.	Document pilot test results.	X	
7.	Pilot acceptance and declaration of readiness.		X

Customer and Vendor shall apply the following acceptance criteria:

No.	Deliverable	Acceptance Criteria
1.	Pilot use cases successfully executed	All pilot use cases are executed in the defined quantity and the defined thresholds are met.

3.7.3 Deployment of Service Management and Services

After the pilot passes, the implementation phase shall commence.

Customer and Vendor shall comply with the responsibilities as set out in the following table.

Table 38 Deployment Responsibility Matrix

No.	Task	Vendor	Customer
1.	Deploy Service Management and Services according to Transition Plan.	X	
2.	Define interim acceptance points/quantities per Service.	X	
3.	Review and approve acceptance points/quantities per Service.		x
4.	Accept services as deployed according to solution design.		X
5.	Support the Deployment as agreed.		X

Customer and Vendor shall apply the following acceptance criteria in defining the Program preparation tasks.

Table 39 Deployment Acceptance Criteria

No.	Deliverable	Acceptance Criteria
1.	Interim Acceptance points	As agreed interim acceptance points have to be performed. These can be according to sites, user groups etc. completed
2.	Final acceptance	Deployment is completed

3.7.4 Handover

After deployment is completed, both parties will hand over responsibility for service management to the line organization.

Customer and Vendor shall comply with the responsibilities as set out in the following table.

Table 40 Handover Responsibility Matrix

No.	Task	Vendor	Customer
1.	Handover final Vendor service responsibility to steady state organization – Vendor Account Management and Service Delivery Management.	X	
2.	Declare Vendor internal handover complete.	X	
3.	Handover final Customer service responsibility to steady state organization.		X
4.	Provide Customer acceptance for Handover.		X

Customer and Vendor shall apply the following acceptance criteria:

Table 41 Handover Acceptance Criteria

No.	Deliverable	Acceptance Criteria
1.	Handover acceptance report	The completion of the project including handover to the line organization is accepted by Customer

4 Appendix A: Volumes and Assumptions

4.1 Minimum volumes

The following table lists the Mainframe on Demand minimum volumes required to obtain the published pricing.

Table 42 - Minimum Volumes

Quantity	Resource Unit
40	MIPS
60	DASD GB
N/A	VTS GB

4.2 Assumptions

- ▶ Customer System Software is at an adequate level that it can run in the Atos HUB