



Indiana Office of Technology

Powering a State that Works

Governor Eric Holcomb  
Director and Chief Information Officer Tracy Barnes

# **IOT Services Catalog - Mainframe** *(IOT's Product Code Reference Manual)*

## **Fiscal Year 2024**

*July 1, 2023 – June 30, 2024*

***Version 2023.7.28***

## Purpose

This document provides Indiana Office of Technology's (IOT) customers a central place to find information about its Mainframe services.

## Contents

Mainframe related products contained in this document include:

<a href="#">1066</a>	Scheduling – Batch & Script Workloads
<a href="#">1092</a>	Disk Storage Subsystem
<a href="#">1094</a>	Tape Storage Subsystem
<a href="#">1206</a>	Batch / System
<a href="#">1207</a>	Relational Database - DB2
<a href="#">1209</a>	CICS

**Note:** There is a separate [document](#) for all other IOT provided services.

# Service Responsibilities Definition

IOT has developed a RACI Matrix to help their Agency Partners, their Supplier Partners and IOT better understand their specific responsibilities for each of IOTs service offerings. Each service offering described in this document will contain the appropriate portion of that RACI Matrix. Please review that information before requesting the service to make sure you understand your specific responsibilities for the service.

**RACI Codes:**

The following are the Codes used to indicate specific responsibilities.

Code	Roles	Definition
<b>R</b>	Responsible	Person or People responsible for correct execution - getting the job done.
<b>A</b>	Accountable	Person who has ownership of quality and the end result. <b>Only one person can be accountable for each activity.</b>
<b>S</b>	Supportive	Person that provides additional resources to conduct the work or plays a supportive role in implementation.
<b>C</b>	Consulted	People who are consulted and whose opinions are sought. They have involvement through input of knowledge and information.
<b>I</b>	Informed	People who are kept up to date on progress. They receive information about process execution and quality.
<b>V</b>	Verifies	Person or group that checks whether the acceptance criteria have been met.
<b>O</b>	Signs Off	Person who approves the decision and authorizes the product handover.

**Example:**

**Responsibility** R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off

Service Name / Activities	Agency Partners	Supplier Partners	IOT
<b>Disk Storage Subsystem</b>			
Provide a Computer with Network Access	RAVO	SC	SCI
Supply Available Storage Upon Demand.	ICVO	SC	RAS
Ensure High Performance Throughput at all Times.	IC	SC	RASIVO
Provide recoverability/restoration of disk files	IC	SC	RASIVO
Provide disaster recovery of Disk Storage Subsystem	IC	SC	RASIVO
Request changes to access control for Disk Resources	RAVO	SC	SCI
Manage access control to Disk resources	SCIVO	SC	RAS
Maintain hardware reliability and current microcode levels	IC	RSC	RASCIVO

<b>Name</b>	<b>Jobs Production</b>
<b>Code</b>	1066
<b>Purpose</b>	Scheduling and Monitoring of Batch or Script processing on a variety of operation system platforms:  ✓ <b>IBM System z Mainframe</b> ✓ <b>MS/Windows</b> ✓ <b>UNIX</b> ✓ <b>Linux</b> ✓ <b>AIX</b>
<b>Included</b>	<b>Around the clock service</b> Conducted 24 / 7 / 365  <b>Large Scale Scheduling Capability</b> <b>Professionally managed</b> to cover any scheduling requirement. <ul style="list-style-type: none"><li>○ Independent, Dependent and Interdependent organization of batch and scripted workloads.</li><li>○ Currently scheduling<ul style="list-style-type: none"><li>▪ Hundreds of work threads.</li><li>▪ Tens of Thousands of jobs and events daily.</li><li>▪ Hundreds of Thousands of jobs and events managed overall.</li></ul></li></ul> <b>Automatic Scheduling</b> <ul style="list-style-type: none"><li>○ Conducted by CA-7 Workload Automation product from Computer Associates, Inc.</li><li>○ Automatically <b>start</b> a single job, many jobs, a thread of jobs or many threads of jobs under a variety of interdependent conditions:<ul style="list-style-type: none"><li>▪ <b>Time-of-Day – Calendar Driven</b> – Includes holiday and weekend scheduling<ul style="list-style-type: none"><li>✓ Start work at a specified time of day or by special date consideration.</li></ul></li><li>▪ <b>Prerequisite Work</b><ul style="list-style-type: none"><li>✓ Start new work when preceding work has completed.</li></ul></li><li>▪ <b>Milestones</b><ul style="list-style-type: none"><li>✓ Start or resume paused work pursuant to consumer direction.</li></ul></li><li>▪ <b>Data and/or Resource Availability</b><ul style="list-style-type: none"><li>✓ Start or resume paused work when prerequisite files or required computer resources are available.</li></ul></li></ul></li></ul> <b>On Demand Scheduling</b> <p>Request initiation of a single job or many threads of work.</p> <b>Monitoring and Tracking</b> <p>Ensure scheduled work meets deadlines.</p> <b>Advance Tardy Notification</b> <p>Notification to key consumer individuals when run times for one job or threads of jobs are discovered slipping which could impact deadlines.</p> <b>Scheduling Consultation</b> <p>Conspire with IOT Workload Automation Schedulers to produce comprehensive and concentrated event scheduling plans.</p> <b>Scheduling Validation</b> <p>Coincidental to Scheduling Consultation, ensure that workloads are sequenced to avoid impact with one another</p> <b>Scheduling Management</b> <p>Consumer alerting and coordination of workload scheduling requirements to ensure deadlines are met while managing workloads through stand-alone activities which may impact workload processing. An example of a stand-alone activity is implementation or conduct of operating system maintenance.</p>

**Rate** \$1.0696 Per Scheduled Job or Event  
**Service Owner** Remick, Lois [Click to email the Service Owner a question.](#)  
**Standard** Not Applicable  
**Responsibility** R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off

Service Name / Activities	Agency Partners	Supplier Partners	IOT
Understanding of and timely delivery of scheduling requirements for jobs, series of jobs	RASCIVO		RSCIV
Translation of scheduling requests into computerized scheduling product(s).	I	RSC	RASCVO
Monitoring of workloads including the delivery of alerts where scheduling or throughput anomalies occur.	RIV	RSC	RASCV
Scheduling Software Technical Support		RASCV	RSCIVO

**SLO**  
**Requests:** **Individual job requests – Same Day**  
 Multiple job and small job series scheduling changes – 3 Business Days  
 Large Job Series scheduling changes – 5 Business Days  
**Availability** 99.9% Availability 24/7  
**Incident** All circumvented incidents resolved the same day  
 IOT Recognizes the schedule impacts during throughput anomalies.

**Impact/Priority** High/High  
**Usage** **3.13 Million Jobs \ Scripts Scheduled (FY 2023)**  
 -- Non-Mainframe platforms ..... 1.4 Million Jobs.  
 -- Mainframe ..... 1.73 Million Jobs.

**Reports** Monthly IOT Performance Metrics – Click [here](#)

**Order** Click [here](#) to request this service.

**Cancel** Click [here](#) to cancel your existing service.

**Name** Disk Storage Subsystem

**Service Code** 1092

**Purpose** **Data Storage on Disk:** Mainframe disk storage measured in megabytes measured daily.

**Included** **Usage:** ✓ Entry Sequenced ( Flat ) Files ✓ Indexed Files ✓ Relative Record Files  
**Note:** Improved Performance available for the above using Virtual Storage functions.  
 ✓ Data Base Extents; Any database operation including available DB2  
 ✓ Wide variety of user specified files

**Hardware:** IBM Disk Storage Subsystem Model 8910 ( [DS8910F](#) )

**Available storage:** 10 TB

**High Performance:** Average response time of just over one microsecond with the vast majority of input/output operations completing, on average, in less than a microsecond.

**Retention Policy:** Determined by agency and applied to file properties at time of allocation.

**Dynamic Recoverability:** ✓ Available depending on data type and usage.  
 ✓ Conducted by the agency; Convenience!  
 ✓ IOT assist support available as needed

**User Data Set Retention:** ✓ Retained online for 180 days  
 ✓ Migrated to tape for 3 years  
 ✓ Final Disposition: Deleted.  
 ✓ Dynamically recoverable by data set owner; Convenience!

**Disaster Recovery:** Synchronous replication of all disk data to the Disaster Recovery site in Bloomington, Indiana using local retention polices. See **Mainframe Services**, [here](#), for description of mainframe Disaster Recovery services.

**Dependencies** System Security Authorization to allocate disk data sets.

**Rate** \$0.0003 Per MB Stored Per Day

**Responsibility** R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off

Service Name / Activities	Agency	Supplier	IOT
	Partners	Partners	
Provide a Computer with Network Access	RAVO	SC	SCI
Supply Available Storage Upon Demand.	ICVO	SC	RAS
Ensure High Performance Throughput at all Times.	IC	SC	RASIVO
Provide recoverability/restoration of disk files	IC	SC	RASIVO
Provide disaster recovery of Disk Storage Subsystem	IC	SC	RASIVO
Request changes to access control for Disk Resources	RAVO	SC	SCI
Manage access control to Disk resources	SCIVO	SC	RAS
Maintain hardware reliability and current microcode levels	IC	RSC	RASCIVO

**Service Owner** Remick, Lois [Click to email the Service Owner a question.](#)

**SLO** **Request:** Available within 3 Business days.  
**Availability:** 100% Availability during regular scheduled mainframe operation  
**Incident:** 90% Resolved within 16 IOT Business Hours (6am-6om, M-F excl. Holidays)

**Impact/Priority** High/High

**Usage** **Does not include database activity**  
 Approximately.....32 Million files opened annually. (FY 2023)  
   14 Million Files allocated for Output  
   18 Million Files opened for Input  
 Approximately.....3,786 Billion Input / Output Operations annually (FY 2023)  
 Approximately.....86,733 Trillion Bytes of data transferred annually (FY 2023)  
   -- 23,457 Average bytes transferred in each I/O Operation

**Reports** Monthly IOT Performance Metrics – Click [here](#)

**Order** Click [here](#) to request this service.

**Cancel**

Click [here](#) to cancel your existing service.

<b>Name</b>	<b>Tape Storage Subsystem ( Gigabytes of Consumed Tape Storage )</b>																																
<b>Service Code</b>	1094																																
<b>Purpose</b>	<b>Supply Virtual Tape</b> storage access to all mainframe workloads measured by individual mounting of any subsystem virtual tape.																																
<b>Included</b>	<p><b>Hardware:</b> IBM Tape Storage Subsystem Model 7760 ( <a href="#">TS7700</a> )            No Mylar/Oxide tapes – High Reliability – High Performance – High Availability</p> <p><b>High Performance Throughput:</b> Processing at the speed of disk</p> <p><b>Virtual Tape Storage Capacity:</b> 140 TB</p> <p><b>Virtual Tape Volumes:</b> 300,000 maximum</p> <p><b>Individual Tape Volume Capacity:</b> 6GB</p> <p><b>Maximum Virtual Tapes Mounted:</b> 512 at once (256 at Disaster Recovery Site)</p> <p><b>Disaster Recovery:</b> Grid Communication for asynchronous replication of all virtual tape data to a TS7760 at the Disaster Recovery site in Bloomington, Indiana using local retention polices. See <b>Mainframe Services</b>, <a href="#">here</a>, for description of mainframe Disaster Recovery services.</p> <p><b>High Availability:</b> Three TS7760 cluster operations, two in Indianapolis and one in Bloomington, provide seamless and immediate access, via Grid Communication, for local mainframe operation to all replicated tape volumes at the Disaster Recovery site in Bloomington, Indiana for any failure occurring to either of the two local TS7760s in operation.</p>																																
<b>Dependencies</b>	System Security Authorization to allocate tape data sets.																																
<b>Rate</b>	\$0.0516 Per Gigabyte of Consumed Storage																																
<b>Standard</b>	<b>Not Applicable</b>																																
<b>Responsibility</b>	R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off																																
	<table border="1"> <thead> <tr> <th>Service Name / Activities</th> <th>Agency Partners</th> <th>Supplier Partners</th> <th>IOT</th> </tr> </thead> <tbody> <tr> <td>Technical skills to code work that accesses virtual tape services.</td> <td>IC</td> <td>SC</td> <td>RASIVO</td> </tr> <tr> <td>Supply Available Storage Upon Demand.</td> <td>ICVO</td> <td>SC</td> <td>RAS</td> </tr> <tr> <td>Ensure High Performance Throughput at all Times.</td> <td>IC</td> <td>SC</td> <td>RASIVO</td> </tr> <tr> <td>Provide disaster recovery of Tape Storage Subsystem</td> <td>IC</td> <td>SC</td> <td>RASIVO</td> </tr> <tr> <td>Request changes to access control for Tape Resources</td> <td>RAVO</td> <td>SC</td> <td>SCI</td> </tr> <tr> <td>Manage access control to Tape resources</td> <td>SCIVO</td> <td>SC</td> <td>RAS</td> </tr> <tr> <td>Maintain hardware reliability and current microcode levels</td> <td>IC</td> <td>RSC</td> <td>RASIVO</td> </tr> </tbody> </table>	Service Name / Activities	Agency Partners	Supplier Partners	IOT	Technical skills to code work that accesses virtual tape services.	IC	SC	RASIVO	Supply Available Storage Upon Demand.	ICVO	SC	RAS	Ensure High Performance Throughput at all Times.	IC	SC	RASIVO	Provide disaster recovery of Tape Storage Subsystem	IC	SC	RASIVO	Request changes to access control for Tape Resources	RAVO	SC	SCI	Manage access control to Tape resources	SCIVO	SC	RAS	Maintain hardware reliability and current microcode levels	IC	RSC	RASIVO
Service Name / Activities	Agency Partners	Supplier Partners	IOT																														
Technical skills to code work that accesses virtual tape services.	IC	SC	RASIVO																														
Supply Available Storage Upon Demand.	ICVO	SC	RAS																														
Ensure High Performance Throughput at all Times.	IC	SC	RASIVO																														
Provide disaster recovery of Tape Storage Subsystem	IC	SC	RASIVO																														
Request changes to access control for Tape Resources	RAVO	SC	SCI																														
Manage access control to Tape resources	SCIVO	SC	RAS																														
Maintain hardware reliability and current microcode levels	IC	RSC	RASIVO																														
<b>Service Owner</b>	Remick, Lois <a href="#">Click to email the Service Owner a question.</a>																																
<b>Metric</b>	100% Availability during regular scheduled mainframe operation																																
<b>SLO</b>	<p><b>Request:</b> Completed within 3 Business days.</p> <p><b>Availability:</b> 100% Availability during regular scheduled mainframe operation</p> <p><b>Incident:</b> 90% Resolved within 16 IOT Business Hours (6am-6om, M-F excl. Holidays)</p>																																
<b>Impact/Priority</b>	High/High																																
<b>Usage</b>	<p>Approximately.....6 Million tape mounts annually. (FY 2023)</p> <p style="padding-left: 40px;">-- 4.2 Million Mounts for Input</p> <p style="padding-left: 40px;">-- 1.8 Million Mounts for Output</p> <p>Approximately.....98.4 Billion Input / Output Operations annually (FY 2023)</p> <p>Approximately.....2,429 Trillion Bytes of data transferred annually (FY 2023)</p> <p style="padding-left: 40px;">-- 24,654 Average bytes transferred in each I/O Operation</p>																																
<b>Reports</b>	Monthly IOT Performance Metrics – Click <a href="#">here</a>																																
<b>Order</b>	Click <a href="#">here</a> to request this service.																																
<b>Cancel</b>	Click <a href="#">here</a> to cancel your existing service.																																



<b>Name</b>	<b>Batch / System</b>		
<b>Service Code</b>	1206		
<b>Service Index</b>	<a href="#">Database Services</a>	<a href="#">24 / 7 / 365 Support</a>	<a href="#">Modernized COBOL</a>
( Click to Go )	<a href="#">File Management</a>	<a href="#">Virtual Tape Services</a>	<a href="#">Library Management</a>
	<a href="#">Alert Services</a>	<a href="#">Disaster Recovery</a>	<a href="#">Transaction Server</a>
	<a href="#">Report Distribution</a>		
<b>Service Purpose</b>	<p>Highly configurable, highly reliable, highly recoverable, high performance and cost controlled operation in all areas of application system throughput and delivery. The following services are <b>immediately available</b> for customer assignment or Proof of Concept anywhere IOT Network services are found:</p> <ul style="list-style-type: none"> <li>• <b>Time Sharing Option – ( TSO )</b> Highly configurable interactive access and operation for a variety of work and in a variety of scripting and programming languages. Interfaces with various aspects of the operating system including the ability for various forms of interactive SQL in DB2.</li> <li>• <b>Java / Node.js</b> – Support for development and operation of this popular language.</li> <li>• <b>C++</b> - Support for development and operation of this popular language.</li> <li>• <b>Apache / WebSphere Application Services</b> – Host your Web applications here.</li> <li>• <b>Modernized COBOL</b> development and operation</li> <li>• Sophisticated development program <b>library management</b> and change control.</li> <li>• <b>IBM's File Manager</b> - User friendly tools for comprehensive file management and data manipulation, working with many file structures and databases present or operating on the IBM System z mainframe. Among File Manager capabilities is the definitions of files, browsing, editing, copying and printing of data stored in a variety of forms:             <ul style="list-style-type: none"> <li>○ Unix files</li> <li>○ Flat files</li> <li>○ Virtual Managed files (VSAM)</li> <li>○ Indexed files</li> <li>○ <a href="#">CICS</a> Storage Resources</li> <li>○ <a href="#">DB2</a> – Various data and resources</li> <li>○ <a href="#">IMS</a> – Manipulate elements and data</li> <li>○ Map record elements</li> <li>○ Sort data</li> <li>○ Perform Sophisticated Comparisons</li> <li>○ Invoke REXX routines; Automation</li> </ul> </li> <li>• <b>Alert Services</b> for anomalous change in application system or subsystem operation delivered by eMail.</li> <li>• <b>Report Distribution</b> – On-demand delivery directly from mainframe operation to network printers and eMail boxes in a variety of formats.</li> <li>• <b>24 / 7 / 365 Support</b> – Continuous operational staffing for response to all operational needs.</li> <li>• <b>Virtual Tape Library</b> - No Mylar/Oxide tapes - High Reliability - High Performance - 140 TB Click <a href="#">here</a> to access <b>Virtual Tape Library</b> service</li> <li>• <b>Comprehensive Disaster Recovery ( DR ) – Included</b> <ul style="list-style-type: none"> <li>○ <b>A Twin IBM System z</b> mainframe operation, located at the University of Indiana, operating as disaster recovery warm site.</li> <li>○ <b>Nearly Instantaneous Replication</b> of all disk and tape storage to DR operation in Bloomington, Indiana.                 <ul style="list-style-type: none"> <li>▪ 140 TB of tape storage</li> <li>▪ 10 TB of disk storage                     <ul style="list-style-type: none"> <li>✓ Includes separate semi-daily disk snapshots for a total of three off-site versions</li> <li>✓ Semi-Daily disk snapshots permit full Disaster Recovery event testing with zero impact to continuous live operation in Indianapolis; zero impact.</li> </ul> </li> </ul> </li> <li>○ <b>Available three times each calendar year</b> for disaster recovery assurance testing</li> </ul> </li> </ul>		

- Hardware, Software and Operation included in the service rate.
- DR testing services are a collaboration between the Agency, Mainframe Services, and Middleware Operational service teams organized, managed, conducted and documented by DR Project Management Services. Click [here](#) for additional Disaster Recovery information from IOT.
- **Complete Network Access** to live or test DR operation from anywhere IOT Network services are found.
- Recovery Time Objective (RTO – Downtime) - This requirement directs restoration of service 6 hours from the time the CIO declares an actual disaster upon advice from the Governor.
- DR Recover Point Objective (RPO – Data loss) will be worked agency specific, as they may vary with the agency system

**Extended Services** Available for development and customization to user specification without procurement. Arrangement by [Service Owner](#).

**Performance Metrics Reporting**

- Highly detailed and/or summarized reporting, delivered to customer inboxes, is available on a variety of performance, throughput and resource consumption metrics. From transaction response time to data throughput, reporting demonstrates that SLA requirements, determined and agreed upon by IOT and the customer, are being met. Reporting is also available for customer application performance tuning. A wealth of performance and throughput reporting is available.

**Obtainable Services** Available for procurement or development by arrangement of [Service Owner](#).

**Linux High Performance Hosting**

- Host Linux applications, application suites or databases on a high performance Linux operation, participating as a local or distributed operation. When operating, this extended service Includes [Disaster Recovery](#) services.

**Application Program Interface**

- SOAP or RESTful API interface to mainframe application operation. Deliver APIs to a variety of application services including HTTP.

**API Management**

- Manage, deliver and secure APIs.

**Rate** \$0.1735 Per CPU Second

**Explanation:** Product 1206 consist of the accumulated CPU seconds for both the TSO and Batch transaction records found in the SMF Type 30 records that are generated from activity occurring on the mainframe. Below you will find the record detail and subtypes definition.

**SMF Type 30 - Contains z/OS address space accounting information**

**Subtype 1 - Address Space Start**

**Subtype 2 - Activity through previously recorded interval - Intermediate accounting record**

**Subtype 3 - Activity for the last interval before step termination**

**Subtype 4 - Step Totals**

**Subtype 5 - Address Space Termination**

**Subtype 6 - System Address Space**

**Service Owner** Remick, Lois [Click](#) to email the Service Owner a question.

**Standard** Not Applicable

**Responsibility**

R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off

Service Name / Activities	Agency Partners	Supplier Partners	IOT
Provide a computer with network access and appropriate terminal emulator software for access to the IBM System z	RAIVO	SC	RSIV
Knowledge and Skills to develop and implement executable programs and interpreted scripts	RAIVO	SC	RSIV
Provision of coded program compilers customized to Agency Partner subsystem as noted in the IOT Service Catalog	IVO	SC	RASIV
Provide operating system documentation related to all aspects of batch processing including subsystem interfacing	RIVO	SC	RASCIV
Knowledge and Skills to develop all aspects Job Control Language to render a batch job stream	RAIVO	SC	RSIV
Knowledge and Skills to diagnose and interpret and resolve basic and complex operating system abnormal end codes	RAIVO	SC	RSIV
Collaboration and cooperation with IBM System z administrators at IOT and IOT Computer Operations as needed for guidance in composition, parameter definition and operation of batch work	RAIVO	SC	RSCIV
Provide IBM System z support of all aspects of Agency Partner development effort and for live, production operation	IVO	SC	RASCV
Provide method for implementation of new and updated batch work	IVO	SC	RASV
Provide standard and appropriate requests to IOT Operations standard for managing to manage implementation, update and deletion of batch work. Includes Product 1066 - Production Jobs	RAIV	SC	RSV

**Metric**

99.9% Mainframe Availability 24/7 – IBM, IMS, DB2 – See **Reports** below.

**Impact/Priority**

High/High

**Lead Time**

**None Required.** Immediately available for operating mainframe application systems.

**Measurement**

Mainframe operating system IBM System z Operating System; z/OS Version 2 Release 3  
TSO ----- 45.8 Million Standard Business Day Transactions (FY 2023) – 47.2 Million Total

**Reports**

Monthly IOT Performance Metrics – Click [here](#)

**Dependencies**

None

**Order**

Click [here](#) to request this service.

**Cancel**

Click [here](#) to cancel your existing service.



- DR testing services are a collaboration between the Agency, Mainframe Services, and Middleware Operational service teams organized, managed, conducted and documented by DR Project Management Services. Click [here](#) for additional Disaster Recovery information from IOT.
- **Complete Network Access** to live or test DR operation from anywhere IOT Network services are found.
- Recovery Time Objective (RTO – Downtime) - This requirement directs restoration of service 6 hours from the time the CIO declares an actual disaster upon advice from the Governor.
- DR Recover Point Objective (RPO – Data loss) will be worked agency specific, as they may vary with the agency system
- **IBM's File Manager** - User friendly tools for comprehensive file management and data manipulation, working with many file structures and databases present or operating on the IBM System z mainframe. Among File Manager capabilities is the definitions of files, browsing, editing, copying and printing of data stored in a variety of forms:
  - Unix files
  - Flat files
  - Virtual Managed files (VSAM)
  - Indexed files
  - [CICS](#) Storage Resources
  - [DB2](#) – Various data and resources
  - [IMS](#) – Manipulate elements and data
  - Map record elements
  - Sort data
  - Perform Sophisticated Comparisons
  - Invoke REXX routines; Automation
- **Alert Services** for anomalous change in application system or subsystem operation delivered by eMail.
- **Report Distribution** – On-demand delivery directly from mainframe operation to network printers and eMail boxes in a variety of formats.
- **24 / 7 / 365 Support** – Continuous operational staffing for response to all operational needs.
- **Virtual Tape Library** - No Mylar/Oxide tapes - High Reliability - High Performance - 140 TB  
Click [here](#) to access **Virtual Tape Library** service

## Extended Services

Available for development and customization to user specification without procurement. Arrangement by [Service Owner](#).

### Performance Metrics Reporting

- Highly detailed and/or summarized reporting, delivered to customer inboxes, is available on a variety of performance, throughput and resource consumption metrics. From transaction response time to data throughput, reporting demonstrates that SLA requirements, determined and agreed upon by IOT and the customer, are being met. Reporting is also available for customer application performance tuning. A wealth of performance and throughput reporting is available.

## Obtainable Services

Available for procurement or development by arrangement of [Service Owner](#).

### Linux High Performance Hosting

- Host Linux applications, application suites or databases on a high performance Linux operation, participating as a local or distributed operation. When operating, this extended service Includes [Disaster Recovery](#) services.

### Application Program Interface

- SOAP or RESTful API by JSON interface to existing or newly developed mainframe application operation. Deliver APIs in HTTP to a variety of application services on any platform.

### API Management

- Manage, deliver and secure APIs.

**Rate** 0.3407 Per CPU Second  
**Explanation:** Product 1207 consists of the accumulated CPU seconds for all DB2 transactions records found in the SMF Type 101 records that are generated from activity occurring on the mainframe. Below is the record description.

**SMF Type 101 - DB2 - Account for resources during a transaction**

**Service Owner** Remick, Lois [Click to email the Service Owner a question.](#)

**Standard** **Not Applicable**

**Responsibility** R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off

Service Name / Activities	Agency Partners	Supplier Partners	IOT
Physical Database Administration - (production databases)	RV	SC	RASV
Physical Database Administration - (development databases)	RAV	SC	SC
Logical Database Administration - (all subsystems)	RAV	SC	SC
Database System Administration - (all subsystems)	CI	SC	RAS
Request changes to access control	RAV	SC	CS
Manage access control to DB2 resources	I	SC	RAS
Produce appropriate requests for product services (for example: requests to Physical DBA for production subsystems)	RV	SC	RASV
DB2/QMF or other mainframe software Version or Version level upgrades	IVO	SC	CRASV
DB2 Runtime client (on agency servers)	RAVO	SC	SC
DB2 Runtime client (on IOT servers)	IV	SC	CRASVO
Other agency server software connecting to DB2 subsystems	RA	SC	SC
Monitoring software	I	SC	CRASVO

**Metric** 99.9% Mainframe Availability 24/7 – IBM, IMS, DB2 – See **Reports** below.

**Impact/Priority** High/High

**Lead Time** **None Required.** Immediately available for operating mainframe application systems.

**Measurement** Mainframe operating system IBM System z Operating System; z/OS Version 2 Release 1  
 DB2 ----- 75 Million Standard Business Day Transactions (Fy 2023) – 76.5 Million Total

**Reports** Monthly IOT Performance Metrics – Click [here](#)

**Dependencies** None

**References** **DCS** ..... Viswanath Atluri  
**FSSA** ..... Sandy Mowery  
**FSSA** ..... Rick Shull

**Order** Click [here](#) to request this service.

**Cancel** Click [here](#) to cancel your existing service.

<b>Name</b>	<b>CICS</b>																																				
<b>Service Code</b>	1209																																				
<b>Service Index</b>	<u><a href="#">Transaction Server</a></u>																																				
<b>Service Purpose</b>	<p><b>IBM's Customer Information Control System – CICS Transaction Server</b></p> <ul style="list-style-type: none"> <li>○ A First Class application transaction server</li> <li>○ Including operation of transactional Java applications – Node.js</li> <li>○ Utilization of SOAP and RESTful APIs ( See Obtainable Services, <a href="#">here</a> )</li> <li>○ Read more about the CICS Transaction Server <a href="#">here</a>.</li> </ul>																																				
<b>Extended Services</b>	<p>Available for development and customization to user specification without procurement. Arrangement by <a href="#">Service Owner</a>.</p> <p><b>Performance Metrics Reporting</b></p> <ul style="list-style-type: none"> <li>• Highly detailed and/or summarized reporting, delivered to customer inboxes, is available on a variety of performance, throughput and resource consumption metrics. From transaction response time to data throughput, reporting demonstrates that SLA requirements, determined and agreed upon by IOT and the customer, are being met. Reporting is also available for customer application performance tuning. A wealth of performance and throughput reporting is available.</li> </ul>																																				
<b>Obtainable Services</b>	<p>Available for procurement or development by arrangement of <a href="#">Service Owner</a>.</p> <p><b>Application Program Interface</b></p> <ul style="list-style-type: none"> <li>• SOAP or RESTful API (JSON) to existing or newly developed mainframe application operation. Deliver APIs in HTTP to a variety of application services on any platform.</li> </ul> <p><b>API Management</b></p> <ul style="list-style-type: none"> <li>• Manage, deliver and secure APIs.</li> </ul>																																				
<b>Rate</b>	<p>\$0.0542 Per CPU Second</p> <p><b>Explanation:</b> Product 1209 consists of the accumulated CPU seconds for all CICS transactions records found in the SMF Type 110 records which are generated from activity occurring on the mainframe. Below is a description of this record type.</p> <p><b>SMF Type 110 - CICS Transaction Server - Transaction data collected at event monitoring points</b></p>																																				
<b>Service Owner Responsibility</b>	<p>Remick, Lois <a href="#">Click to email the Service Owner a question</a>.</p> <p>R=Responsible, A=Accountable, S=Supportive, C=Consulted, I=Inform, V=Verifies, O=Sign-Off</p> <table border="1" data-bbox="380 1205 1523 1621"> <thead> <tr> <th>Service Name / Activities</th> <th>Agency Partners</th> <th>Supplier Partners</th> <th>IOT</th> </tr> </thead> <tbody> <tr> <td>Provide a Computer with Network Access</td> <td>RAIVO</td> <td>RSC</td> <td>RSC</td> </tr> <tr> <td>Install, maintain, configure, implement, and support CICS system software</td> <td>SIVO</td> <td>RSC</td> <td>RASCV</td> </tr> <tr> <td>Install, maintain, and support all CICS related program products</td> <td>SIVO</td> <td>RSC</td> <td>RASCV</td> </tr> <tr> <td>Implement new maintenance and fixes in a manner which minimizes risk and Agency Partner impact</td> <td>SIVO</td> <td>RSC</td> <td>RASCVO</td> </tr> <tr> <td>Plan, coordinate, and deploy new CICS related program products and/or update existing CICS software</td> <td>SIVO</td> <td>RSC</td> <td>RASCVO</td> </tr> <tr> <td>Perform System Administrator functions for all CICS systems</td> <td>SCIVO</td> <td>RSC</td> <td>RASCVO</td> </tr> <tr> <td>Develop, test, and deploy CICS applications</td> <td>RASCIVO</td> <td>RSC</td> <td>RSCIV</td> </tr> <tr> <td>Resolve CICS application problems</td> <td>RASVO</td> <td>RSC</td> <td>RSC</td> </tr> </tbody> </table>	Service Name / Activities	Agency Partners	Supplier Partners	IOT	Provide a Computer with Network Access	RAIVO	RSC	RSC	Install, maintain, configure, implement, and support CICS system software	SIVO	RSC	RASCV	Install, maintain, and support all CICS related program products	SIVO	RSC	RASCV	Implement new maintenance and fixes in a manner which minimizes risk and Agency Partner impact	SIVO	RSC	RASCVO	Plan, coordinate, and deploy new CICS related program products and/or update existing CICS software	SIVO	RSC	RASCVO	Perform System Administrator functions for all CICS systems	SCIVO	RSC	RASCVO	Develop, test, and deploy CICS applications	RASCIVO	RSC	RSCIV	Resolve CICS application problems	RASVO	RSC	RSC
Service Name / Activities	Agency Partners	Supplier Partners	IOT																																		
Provide a Computer with Network Access	RAIVO	RSC	RSC																																		
Install, maintain, configure, implement, and support CICS system software	SIVO	RSC	RASCV																																		
Install, maintain, and support all CICS related program products	SIVO	RSC	RASCV																																		
Implement new maintenance and fixes in a manner which minimizes risk and Agency Partner impact	SIVO	RSC	RASCVO																																		
Plan, coordinate, and deploy new CICS related program products and/or update existing CICS software	SIVO	RSC	RASCVO																																		
Perform System Administrator functions for all CICS systems	SCIVO	RSC	RASCVO																																		
Develop, test, and deploy CICS applications	RASCIVO	RSC	RSCIV																																		
Resolve CICS application problems	RASVO	RSC	RSC																																		
<b>Metric</b>	99.9% Mainframe Availability 24/7 – IBM, IMS, DB2 – See <b>Reports</b> below.																																				
<b>Impact/Priority</b>	High/High																																				
<b>Lead Time</b>	<b>None Required.</b> Immediately available for operating mainframe application systems.																																				
<b>Measurement</b>	Mainframe operating system IBM System z Operating System; z/OS Version 2 Release 3 CICS ----- 46.6 Million Standard Business Day Transactions (FY 2023) – 47.2 Million Total																																				
<b>Reports</b>	Monthly IOT Performance Metrics – Click <a href="#">here</a>																																				
<b>Dependencies</b>	None																																				
<b>Order</b>	Click <a href="#">here</a> to request this service.																																				

**Cancel**

Click [here](#) to cancel your existing service.