

CICS System Services

December 31, 2014

Last updated: December 31, 2014

1. Rate per CICS unit \$0.145

2. General Overview:

CICS System Services provide an interactive transaction-based processing environment to host business applications that are reliable, scalable, and secure. CICS features include:

- Ability to process a high volume of transactions. In FY12, approximately 5.25 million CICS transactions were processed daily, with sub-second response times.
- Ability to efficiently support event processing, dynamic scripting, web browser (HTML), and 3270 presentation of data.
- Ability to access multiple types of data structures, such as relational databases, hierarchical databases (IMS), and VSAM data sets.
- Ability to support other application features such as; report printing, document imaging, application help functionality, and other z/OS automation capabilities.

3. Service Description:

Services included:

- 24/7 CICS application and business event hosting with traditional 3270 and web browser presentation.
- z/OS Enterprise mainframe security and protection for CICS application software, application data, and user security.
- 24/7 Help Desk support. This includes ‘incident troubleshooting’ for CICS application environments.
- Complete CICS application data backup and recovery services.
- Complete CICS application disaster recovery facilities and services provided.
- z/OS System automation available for unique CICS application mainframe requirements.
- CICS automated services to coordinate application “On-line” and “Batch” processes.
- Automated software to generate CICS maps.
- Automated software to assist applications with reporting (style sheets).
- Automated software to assist applications with providing “user help” facilities.
- Automated software to assist applications with providing “document imaging” facilities.
- Automated software to assistance application developers with abend resolution.
- Testing and training environments included for CICS application development and user training. Embedded within the test environments is a multiple-tiered application development environment with full software migration capabilities (CCF/MMF process).

- Professional management of all CICS resources including application entities.
- Centralized management and support of the CICS environments, within the overall management of the entire z/OS Enterprise Mainframe Computing (EMC) system of software and hardware.
- CICS Service reporting via CICS Value Reporting. Reports via OBIEE include: cost/usage/ROI for CICS applications.

Services **NOT** included:

- Design, development, and debugging of application code.
- Providing application developer training for the development tools.
- Providing user training for usage with third-party products and their functionality.

Benefits:

- z/OS EMC System attributes. CICS is executed as a subsystem under the z/OS EMC System, so the following are inherent benefits within the CICS service:
- Reliability. z/OS platform has built-in redundant processors, automated data storage (DASD & tape), automatic data replication, disaster recovery procedures and facility, 24/7 help facilities, z/OS automation and scheduling facilities, and hardware/software vendor support.
- z/OS Security. This includes: application software, application data, and user security. z/OS uses the latest technologies to prevent “data hacking” and “security breaches” within CICS applications.
- Scalability. Again CICS executes as a subsystem under z/OS, so it is easily scalable to meet the needs of any client.
- Databases (DB2 & VSAM).
- CCF/MMF. Provides a multiple-tiered development and testing environment for application development with migration processes, audit capabilities, and code back-out/recovery features.

CICS attributes:

- CICS is a very reliable and efficient platform that allows applications to be developed and maintained that support critical business requirements.
- Supports a variety of development languages; COBOL, Java, Assembler, C, C++, and PL/I.
- CICS provides a platform that is very well suited for processing large volumes of transactions, that is scalable, and with sub-second response times.
- CICS supports both data presentations via traditional 3270 and web browser.
- Point in time data recovery processes for applications.
- Application development tools.
- Security is based upon z/OS mainframe standards; therefore it is “rock solid”.
- CICS Services provides for an all-inclusive rate, which is based upon transactions usage. This rate includes all costs for: facility, staffing, hardware, software, security software, some storage, electricity, uninterruptable power facilities, backup and recovery facility and processes, application software management, testing and training environments, help desk

support, vendor support, database support, application development and feature software, and other features provided in a mainframe environment.

4. Roles and Responsibilities:

CICS Systems Staff:

- Maintain all resource definitions and attributes for each application.
- Evaluate and maintain CICS/TS software and keep it current.
- Evaluate and maintain all third-party software products and keep them current.
- Maintain current disaster recovery plans.
- Maintain current backups for on-line data recovery.
- Provide all troubleshooting efforts for CICS System related problems.
- Provide operating environment redundancy services as necessary.
- Provide test and training regions.
- Provide transaction security and maintain initial 'Logon Menu' for clients.
- Provide Excessive Usage Reporting.
- Provide CICS Value Reporting.

Client's Application Staff:

- Provide all application design and coding. Use current CICS coding standards when possible that will provide more stable, efficient, and better overall code.
- Provide all application code debugging.
- Provide information for resource definition attributes via 'CICS Application Resource Request Spreadsheet'.
- Research and eliminate CICS application abends/inefficiencies timely.
- Use the 'OCIO Ticket System' for all service requests.
- Maintain necessary knowledge for understanding of the "Third-Party Product Functions".
- Either provide a RACF Administrator or work with the z/OS RACF Administrator to maintain all security settings necessary for controlling data sets, application functions, and users.

5. Requesting Service

Please contact the OCIO Help Desk at (402)471-4636 or toll free at (800)982-2468 or via email at cio.help@nebraska.gov.

6. Billing Information:

The Office of the CIO uses a system of Billing Accounts, Job Codes and Work Orders for authorizing work and tracking costs for specific projects. The customer may designate which job code and work order to use or request a new job code or work order. Contact the Office of the CIO for assistance with developing an accounting structure that meets the needs of the agency.

Clients are billed monthly for their CICS charges via CICS Units consumed. Each CICS unit represents a composite of mainframe resources consumed consisting of z/OS units, zIIP units, CICS units, and database units. As applications are designed, the developers have defined 'client units of work' or interactive requests that are called CICS transactions. Then as the user is executing the transactions, CICS units will be calculated based upon the mainframe resources required to fulfill the requirements of each request. Clients are billed for both production and test transactions and each transaction must have a Job Code and Work Order.

The average number of transactions executed per CICS unit is 39.27 from FY12, which makes each transaction cost about \$0.00369.

CICS Value Reporting is now available also. With this reporting you can see details of application usage trends, efficiency of code, and better overall understanding of how and when applications are being used.

7. Service Hours, Response Times and Escalation:

When service is requested from the CICS Systems staff, please submit a ticket to the OCIO Help Desk with all relevant information. If you don't have access to the OCIO Help Desk to complete a ticket, you can send an E-mail to 'CIO.HELP@NEBRASKA.GOV' or call 402-471-4636 or 800-982-2468 and they will complete a ticket for you. Each service ticket should clearly describe the service being requested, with a clear description of the problem, and **it should include all relevant information such as, but not limited to:**

- User name(s) and phone number
- Application Analyst name and phone number
- Application being used (and application ID)
- Function being performed
- When the incident occurred
- Data key information
- Description of the problem and magnitude of the incident. (Is it just affecting one user, many users, all, or unknown?)
- Importance of request.
 - The CICS Systems services are available 24x7 to support our clients. Each client is asked to define their SLA, which includes their interactive and batch processing windows, so we can fulfill their requirements. Downtime is tracked by the Weekly Availability Report. Rarely does downtime occur for a client, but when it does we use automated processes to minimize the downtime if possible.
 - The z/OS System maintenance is scheduled for every other month on a Sunday from the hours of 9:00pm to 11:30pm, which includes all CICS System software. These times can vary slightly, and there are methods to avoid this down-time if required.

For further information, please contact:

Office of the CIO Help Desk
cio.help@nebraska.gov
402-471-4636 or 800-982-2468