CICS Compatible Software for Solaris™ Operating Environment

With thousands of customers worldwide and billions of transactions processed daily, CICS still supports a large number of business-critical applications, virtually all of these running on mainframes. These enterprise applications retain valuable business models, often unique to the particular company. They are time proven and high quality.

Today’s economy demands that costs are driven out of all business processes, and IT is no exception to this. For those businesses with mainframes, this is an increasing challenge. With no real competitors left in the mainframe business, the cost of mainframes has stayed much higher than competing Unix servers, and shows no sign of reducing. The challenge for mainframe based businesses today is how to keep the value of proven CICS based applications, while dramatically reducing the costs associated with mainframes.
Enterprise Application Management for Today

Sun Mainframe Transaction Processing (MTP) software responds to your challenges by enabling you to reuse your existing applications and data on much more cost effective Sun servers. Sun Mainframe Transaction Processing software allows you to reuse your well-tested application code, reuse the data files, and reuse the expertise of your existing staff. With Sun Mainframe Transaction Processing software, the power, comprehensiveness, and security previously only known on mainframes is duplicated on Sun servers. In fact, many of our customers find improvements in performance, reliability, scalability, and productivity once they’ve moved applications off their mainframes and onto Sun Mainframe Transaction Manager software on Sun servers. Using Sun Mainframe Transaction Manager software, moving enterprise applications from the mainframe provides most organizations with substantial operating cost reductions.

Sun Mainframe Transaction Processing Primary Functions

Sun Mainframe Transaction Processing software implements a high-performance, highly reliable CICS application management system. It provides the functionality allowing significant source compatibility. It provides access to data and services across IBM CICS systems via various standard communication protocols. The primary functions of Sun Mainframe Transaction Processing software can be described as:

• Application Transaction Management
• Resource and Session Management
• Interoperability & Distribution
• Security
• Administration

Application Transaction Management

Sun Mainframe Transaction Processing software allows CICS-managed applications to be rehosted to Sun servers with little or no change required to the program code. What this means for previously mainframe-bound CICS applications, is that they continue to enjoy a high-throughput transaction processing system supporting a network of many thousands of concurrent users and concurrent access to large, heterogeneous databases. Sun Mainframe Transaction Processing software augments the Solaris Operating Environment providing enterprise-class management and configuration to these less expensive and very powerful platforms.

Sun Mainframe Transaction Manager software is a logically-threaded CICS system providing a complete environment for running a CICS transaction. Sun Mainframe Transaction Manager software complements Sun servers providing enterprise application management functions. Without the capabilities afforded by Sun Mainframe Transaction Processing software, there is unnecessary risk when large numbers of users access an application, in allocating and freeing resources, and when providing requested system services as they need to be deployed. Sun Mainframe Transaction Processing software provides the management capabilities to allow the partitioning of business rules necessary for today’s superior, multi-tier architectures. The result of a Sun Mainframe Transaction Manager software system is an enterprise OLTP environment ensuring consistent, extremely fast, secure, and reliable processing of applications with the separation of business rules from infrastructure.
Resource and Session Management

Sun Mainframe Transaction Processing software supports resource management capabilities associated with enterprise applications. Among these are:

• allocation of shared or multiplexed resources including client terminals and PCs
• heterogeneous databases and associated file accesses
• integrity parameters, such as commitment and recovery functions
• security constraints associated with authentication and authorization
• plus other system configuration definitions associated with transaction processing

From the time a Sun Mainframe Transaction software application is initiated and until it completes, it interacts between other processes (such as server processes), database connections, and enqueued resources within the physical server, across terminals or workstations, or across distributed systems. Sun Mainframe Transaction Manager software configuration management includes a table manager controlling the attributes of application regions, a screen layout generator, tools for loading, online management of files, and backup and recovery services. Sun Mainframe Transaction Processing software supports all popular relational database management systems supported for Solaris Operating Environment. And, it supplies its own VSAM file services, allowing mainframe CICS applications using VSAM to be rehosted easily.

Interoperability & Distribution

Sun Mainframe Transaction Processing software’s superior middleware design supports an enviable range of interoperability and distribution functions.

Sun Mainframe Transaction Processing software supports the distribution of resources in the same way that the IBM CICS mainframe does. Sun Mainframe Transaction Processing supports Terminal Owning Regions (TOR), Application Owning Regions (AOR), and Data Owning Regions (DOR), each may reside on another machine and the communications between the regions are compatible with IBM’s.

Sun Mainframe Transaction Processing software, with its connectivity extensions, provides a large set of distribution and intercommunication services between Sun Mainframe Transaction Manager and IBM CICS systems.

To Sun Mainframe Transaction Processing, the IBM CICS mainframe system appears as a “remote region”, allowing Sun Mainframe Transaction Manager to support Intersystem Communication (ISC), MQSeries, and SNA networking (fig 2).

Security

Sun Mainframe Transaction Processing software provides a RACF-like level security through various options based upon customer requirements. For certain requirements in the areas of more refined resource level access control, more comprehensive administration and audit facilities, or customized security requirements, the Sun Mainframe Transaction Processing software security is integrated with External Security Manager facilities or can be extended through customizable user exits.
Administration

Sun Mainframe Transaction Processing software supplies and supports a variety of administration tools easing the tasks required for enterprise application management, including: table management, file management (which includes VSAM catalogs and files), record editing, resource and access management, and problem determination (such as database recovery and problem trace facilities).

Sun Mainframe Transaction Processing software also provides administration assistance for integration with external complementary production environment software such as schedulers, print spoolers and distribution, security, and RDBMS software.

Sun Mainframe Transaction Processing software accounting collects information on system usage allowing you to track resource utilization information including transaction execution, program execution, CPU utilization, file access, elapsed time, and numerous other criteria. This accounting facility can be used for capacity planning for one or more systems. Sun Mainframe Transaction Processing software provides customers with the option to collect this information based on transaction identifier or user. Resource Definition Online allows attributes of resources (such as maps and programs) associated with a Sun Mainframe Transaction Processing Region to be added, removed, or modified dynamically.

Performance

Sun Enterprise™ and Sun Fire™ servers running Solaris Operating Environment and Sun Mainframe Transaction Manager software are fully competitive with mainframe performance. With configurations delivering thousands of Mainframe equivalent MIPS, Sun servers provide a realistic alternative to mainframes with comparable or better performance at much lower cost.

With Sun Mainframe Transaction Processing, applications take advantage of multiple client and presentation options. Using sockets, EPI, or ECI interfaces, Sun Mainframe Transaction Processing supports the appropriate client option for the organization. Java technology can be used to enhance application functions, including client presentation; or the green screens and 3270 terminals can continue if necessary. Some Web presentation development is accomplished in minutes. With multiple client support, Sun Mainframe Transaction Processing software applications support a variety of client devices, including desktop workstations, web browsers, telephones, ATMs, voice recognition units, kiosks, smart-cards, or other internet-enabled appliances (fig 3).

Sun Mainframe Transaction Processing Software Programming

Sun Mainframe Transaction Processing software provides immediate reuse advantages with the ability to move CICS transaction applications from the mainframe and reuse them on Solaris Operating Environment, generally with few or no program code changes. You write or extend Sun Mainframe Transaction Processing programs in much the same way as to you write any other programs using Java, COBOL, C, or PL/I. Services are provided that allow J2EE™ Platform Enterprise Edition applications to access transactions defined in the Sun Mainframe Transaction Processing. The services provided adhere to the Java specifications for interoperability.

Sun Mainframe Transaction Processing Software Client Services

With Sun Mainframe Transaction Processing, applications take advantage of multiple client and presentation options. Using sockets, EPI, or ECI interfaces, Sun Mainframe Transaction Processing supports the appropriate client option for the organization. Java technology can be used to enhance application functions, including client presentation; or the green screens and 3270 terminals can continue if necessary. Some Web presentation development is accomplished in minutes. With multiple client support, Sun Mainframe Transaction Processing software applications support a variety of client devices, including desktop workstations, web browsers, telephones, ATMs, voice recognition units, kiosks, smart-cards, or other internet-enabled appliances (fig 3).
Cornerstone of the Sun Mainframe Rehosting Solution

Sun Mainframe Transaction Processing software is the cornerstone for enterprise value, providing middleware solutions supporting today’s business-critical applications and integrating tomorrow’s leading technology and development models. With Sun Mainframe Transaction Processing software solution, customers have significantly reduced their annual IT costs for hardware, software, and support. Many have experienced a return on their investment in 12 months or less. These astounding results are possible only with a solution like Sun Mainframe Transaction Processing software, which reuses existing investments and provides mainframe-equivalent (or better) performance and reliability. And because Sun Mainframe Transaction Processing software supports numerous standards and protocols, your applications improve as needed using popular, industry-proven development technologies. Sun Mainframe Transaction Processing technology has an extensive track record proven by hundreds of our customers. Sun Mainframe Transaction Manager software alone demonstrates the ability to support enterprise applications without extensive rewriting or reengineering of the original application. Sun Mainframe Transaction Processing software expands your applications future evolution.

Today, you can integrate new processes and ideas using exciting, Java technology-based tools and beans to build enterprise components. With Sun Mainframe Transaction Processing software, you move quickly to future business initiatives, building on applications that have merited substantial investments. Sun Mainframe Transaction Processing software serves as the risk-wise solution for enterprise value for today and tomorrow.