

UniKix Transaction Processing Environment Software



Highlights:

- Provides a native, mainframe-compatible OLTP environment on open systems
- Typically lowers annual IT operational costs 30–70%
- Supports a wide range of open systems platforms including HP-UX, IBM® AIX®, Linux®, Linux on IBM System z®, Oracle® Solaris™ and Microsoft® Windows®
- Offers extensive compatibility with mainframe systems – reducing migration risk, time, and complexity
- Utilizes authentication and resource-level security similar to IBM® RACF® technology
- Includes built-in diagnostics, a Java-based administration facility, and remote monitoring capabilities
- Supports leading relational databases and VSAM file types
- Offers high-availability configurations
- Integrates with JEE application environments
- Delivers a proven platform for future application evolution

Comprehensive mainframe transaction processing on open systems

Deployed at over 1300 sites worldwide, UniKix™ Transaction Processing Environment (TPE) software is a proven, highly available deployment platform for running and evolving mainframe applications and data on cost-effective open systems. By preserving valuable business logic and end-user environments that have developed over years of use and providing an integrated platform for extending these assets with new JEE, SOA, and Web Services initiatives, UniKix TPE software offers a solid foundation for satisfying evolving business requirements and safely extending the life of mission-critical legacy workloads.

The UniKix advantage

A fundamental part of Clerity's mainframe rehosting software suite, UniKix TPE protects well-tested application investments as well as related source code, data files, and screen definitions. UniKix TPE software provides a native online processing environment with a fully-functional, alternative implementation of IBM® CICS® application servers and a high degree of compatibility with IMS® TM® transactions, IDMS DC, and related legacy systems. Given the high degree of compatibility between UniKix and mainframe systems, UniKix TPE solutions typically lower operational costs by 30 to 70 percent while maintaining Quality of Service (QoS) and enabling a safe path forward in an extensible, open framework.

Unlike risky reengineering or Commercial-Off-the-Shelf (COTS) alternatives, applications remain intact with the UniKix approach, enabling rapid and cost-effective migrations with minimal business disruption. Development resources easily adapt to the new environment and application end-users usually require no retraining.

Scalable and robust transaction management

Central to UniKix TPE software is a powerful, logically-threaded engine which provides a rich transaction processing environment. Built on a highly scalable architecture designed to take full advantage of a shared pool of server processes, UniKix TPE performance improves linearly as additional CPUs are added to a deployment platform.

Since UniKix TPE software utilizes multiple threads, there is no need to run numerous regions or replicate environments to support high volume workloads. This means applications that were previously mainframe-based continue to

enjoy a high-throughput transaction processing system while supporting a network thousands of concurrent users and accessing large, heterogeneous databases without complex configuration requirements.

To maintain robust transactional integrity and consistency after a migration, UniKix TPE software supports parameters, such as commitment and recovery, as well as user level file locking, lock contention, and resolution.

Connectivity and interoperability

Offering a high degree of compatibility with mainframe systems, UniKix TPE software provides a flexible alternative for the most complex legacy environments.

The connectivity extensions in UniKix technology handle a large set of distribution and intercommunication services between UniKix TPE software and IBM CICS systems. To another mainframe, UniKix TPE software appears as a “remote region.” Interoperability between regions can be addressed by Intersystem Communication (ISC), IBM® MQSeries® technology, and SNA networking.

UniKix TPE software supports Transaction Routing, enabling it to act as a Terminal Owning Region (TOR), Application Owning Region (AOR), or Data Owning Region (DOR). Support is also provided for Resource Definition Online (RDO), which allows attributes of resources associated with a UniKix TPE software region such as maps and programs to be added, removed, or modified dynamically.

Data access and integrity

UniKix TPE software supports all three major mainframe VSAM file types – KSDS, RRDS, and ESDS – as well as popular relational databases such as IBM® DB2® (UDB), Microsoft SQL Server, Oracle® database, and Sybase. The technology allows for recovery of VSAM files, temporary storage queues, transient data queues, and asynchronous transaction starts. All interactions with relational databases and VSAM files are controlled and synchronized using XA-compliant architecture. To ensure data integrity, full two-phase Commit and Rollback commands are supported and database recovery facilities are provided.

Application types

UniKix TPE software provides immediate reuse advantages with the ability to move a large number of application languages and utilities from mainframe to open systems environments, generally with few or no program code changes.

Support is provided for distributed COBOL platforms such as the isCOBOL Application Platform Suite from Veryant and Micro Focus Server Express. PL/I programs are supported through Open PL/I. Applications written in the C language as well as Java can also be executed in a UniKix TPE software environment.

End-user interface options

In addition to a wide range of application types, UniKix TPE software supports multiple client and presentation options, allowing mainframe applications to be rehosted with minimal or no change to user interfaces and therefore no disruption to end-users.

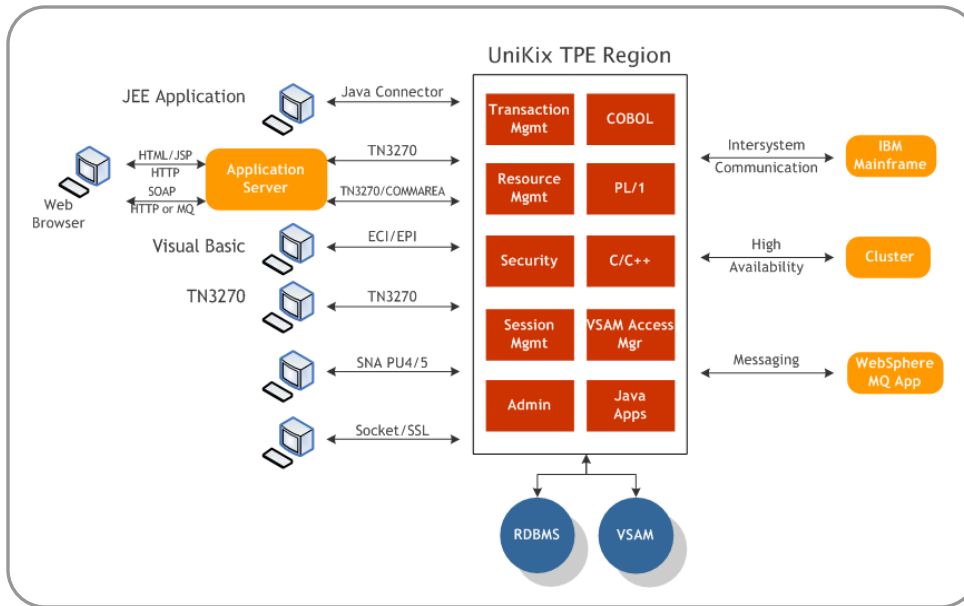
A variety of client devices are supported with UniKix TPE technology, including desktop workstations, web browsers, telephones, ATMs, voice recognition units, kiosks, smartcards, or other Internet-enabled appliances. Supported client types include TN3270 and TN3270E, SNA 3270 terminals, BMS, ECI and EPI, TCP/IP socket, SSL, WebSphere® MQ, SOAP, Java, JEE adapter, CICS Web Interface, and IBM CICS Transaction Gateway. UniKix TPE software’s scalable communication servers can handle over 50,000 simultaneous clients in a single region.

System administration and monitoring

UniKix TPE software supplies and supports a variety of administration tools, easing the tasks required for enterprise application management. Facilities are provided for 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.

UniKix™ Manager is included with UniKix TPE software to enable remote monitoring of UniKix TPE regions. By displaying real-time system status and processing rates, UniKix Manager software’s Java-based GUI provides a flexible and comprehensive interface for enhancing the efficiency and performance. It also features an alerting capability which allows administrators to be automatically notified of potential application bottlenecks or issues.

UniKix TPE software accounting resources collect information on system usage allowing administrators to track resource utilization information including transaction execution, program execution, CPU utilization, file access, elapsed time, and numerous other criteria. This information can then be utilized by leading third-party accounting packages, as well as used for capacity planning for one or more systems.



By protecting valuable business logic investments and offering a high degree of compatibility with legacy protocols and clients, UniKix TPE provides a complete solution for processing mainframe online workloads on open systems.

Flexible and secure environments

The UniKix TPE software allows a wide range of security options. Basic user sign-on validation is provided through the administration of sign-on table entries, as well as through External Security Management (ESM) systems. Customizable user exits can also be used for individual resource-level access control and audit requirements.

UniKix™ Secure is an extensible ESM available for UniKix TPE software environments which uses a Role-based Access Control (RBAC) security model to handle regions and associated resources that includes support for LDAP. Through the definition of roles and resources, UniKix TPE software with UniKix Secure provides a flexible and secure environment for application resource control.

Software development

A comprehensive development environment is available for UniKix TPE software, enabling developers to maintain current productivity levels and broaden their skill sets through the use of leading, open systems solutions.

Developers continue to write, maintain, support, and extend UniKix TPE software application programs in much the same way as they did on the mainframe for Java, COBOL, C, or PL/I programs. Clarity has also extended The Workstation Group's uni-SPF offering to facilitate a customized development platform similar to the mainframe ISPF environment that many sites are accustomed to.

A complete lifecycle approach to services and support

To ensure that customers are well-equipped to actively develop, manage, and evolve application environments following any implementation, Clarity offers a range of post-migration lifecycle services in addition to its full

service delivery of migration, modernization, and optimization solutions.

Clarity customers can take advantage of comprehensive product support with one number to call and Clarity has significant knowledge of many 3rd party products typically implemented in conjunction with a UniKix TPE system. As a result, our world-class technical support team can become an organization's application support triage arm and manage issues from root cause analysis to final resolution.

Evolutionary path forward

After moving an application to a UniKix TPE environment, new processes, architectures, and end-user interfaces can be realized and initiatives such as Web Services and SOA can be implemented in a cost-effective, scalable platform. UniKix technology supports the Web and Document CICS APIs and services are provided to allow JEE applications to access transactions as defined in UniKix TPE software.

Comprehensive legacy investment and modernization solutions

With UniKix TPE technology, companies can move quickly to future business initiatives, building on existing application investments, and bridging legacy with new solutions -- minimizing risk both today and in the future.

UniKix TPE technology is part of a larger suite of migration and modernization offerings from Clarity that enhance, extend, and transform legacy assets. Clarity recognizes that companies have significant investments in core applications and procedures and provides a wealth of low risk, high value solutions to reduce IT costs without sacrificing functionality and service level agreements.

Find more details about these solutions at www.clarity.com.

About Clerity

Clerity is a leading full-service provider of legacy migration, modernization, and optimization solutions. Drawing from over 16 years of experience, Clerity recognizes that companies have significant investments in core applications and procedures and provides a wealth of low risk, high value tools, technology, and services to reduce IT costs without sacrificing current functionality and service level agreements. Headquartered in Chicago, Illinois with offices worldwide, Clerity has customers in all in major countries, including some of the largest financial services ISVs and Fortune-class end users.

Learn how Clerity can provide an evolutionary path forward for your application and data environments at www.clerity.com.



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