CLERITY SOLUTIONS, INC | DATA SHEET

UniKix Mainframe Rehosting Software for Microsoft Windows Server Platforms

Highlights:

- Provides native, mainframe-compatible online and batch environments on standards-based systems
- Lowers TCO up to 70 percent; delivering competitive economies of scale for ongoing operations
- Eliminates need to re-engineer presentation interfaces and retrain end users during a migration
- Includes comprehensive security and administration features, as well as option to preserve investments in batch JCL, jobs, and procedures
- Lowers overall project risk and duration, providing high ROI and accelerated payback
- Enhances IT flexibility and data interoperability
- Delivers a cost-effective platform for accelerated SOA enablement and further modernization initiatives
- Available on popular platforms such as Microsoft® Windows® Server 2008, Windows Server 2003, and Windows Vista

Complete and secure migration technology for Microsoft Windows platforms

UniKix™ Mainframe Rehosting software from Clerity provides a mission-critical environment for rehosting mainframe IBM® CICS® transactions, COBOL programs, JCL, IBM® IMS® applications, IDMS, Adabas Natural, and other legacy assets on open systems.

By leveraging existing applications, skill sets, and data investments, UniKix mainframe rehosting technology reduces ongoing IT costs up to 70 percent and optimizes legacy investments without sacrificing current functionality or introducing risk into the migration process. Migrating to standards-based Windows Server platforms with Clerity dramatically reduces ongoing operational costs and provides a dynamic, flexible environment for subsequent modernization initiatives such as SOA integration, user-interface transformation, and selective business process management improvements.

Flexible and robust online transaction processing

Central to the UniKix Mainframe Rehosting software suite is a powerful, logically-threaded engine which provides a rich online transaction processing environment for Microsoft Windows Server platforms. Built on a highly scalable architecture, UniKix™ Transaction Processing Environment (TPE) software takes full advantage of shared server processes and delivers linear performance improvements as additional processor cores are added to a system.

UniKix TPE software supports parameters such as commitment and recovery, user level file locking, lock contention, and resolution to maintain robust transactional integrity and consistency on a new target platform. To other mainframe IBM CICS regions, UniKix TPE software appears as a "remote region," due to its extensive support of connectivity extensions and intercommunication services such as Transaction Routing. Support for Resource Definition Online (RDO) is provided, which allows attributes of resources associated with a Clerity software region such as maps and programs to be added, removed, or modified dynamically.

As seen in Figure 1, *Sample Clerity Deployment Reference Architecture*, when combined with server virtualization technologies such as Hyper-V, multiple server roles such as production and development can be deployed as separate virtual machines or partitions on a single physical system, optimizing server hardware investments and lowering total cost of ownership. Failover clustering in platforms such as Windows Server 2008 can add additional redundancy and eliminate single points of failure.

Comprehensive mainframe batch execution environment

Clerity delivers a complete, native batch processing environment for Windows Server platforms to address the considerable batch workload investments typically associated with ERP, customer-relationship management (CRM), financial reporting, and other legacy systems. With comprehensive Job Control Language (JCL) translators, pre-built integration with common mainframe and 3rd party batch utilities, and native support for standard mainframe data file types, UniKix™ Batch Processing Environment (BPE) software enables batch investments to be rapidly migrated to distributed systems without excessive code change and complex integration requirements. With UniKix BPE, organizations have the choice of either continuing to program in JCL or to move to standardized shell scripts.

UniKix BPE software supports IBM® z/OS® and IBM® z/VSE® operating system environment JCL as well as scripts and common utilities such as IDCAMS, IEBGENER, and SORT. Native support is included for sequential files, GDGs for COBOL, Concatenated Data Sets, and other standard mainframe data types, meaning less data conversion work and fewer changes to customer code during a migration. The rehosted batch environment technology is administered from a browser-based interface which offers robust management and reporting functionality, as well as support for common mainframe batch elements such as job prioritization and classes.

Reuse valuable application assets

Mainframe rehosting with Clerity provides the immediate advantage of being able to migrate business-critical applications and utilities from mainframe to standards-based environments, generally with few or no program code changes. COBOL support is provided for by the isCOBOL™ Application Platform Suite from Veryant. Applications written in the C language, Natural, as well as Java can also be executed in the target rehost environment.

Robust data access

Clerity supports all three major mainframe VSAM file types – KSDS, RRDS, and ESDS – in addition to sequential files, GDGs for COBOL, Concatenated Data Sets, and other standard mainframe data types. The technology allows for recovery of VSAM files, temporary storage queues, transient data queues, and asynchronous transaction starts. The popular relational database, Microsoft SQL Server, is also fully supported.

All interactions with relational databases and VSAM files are controlled and synchronized using a XA-compliant architecture. To ensure data integrity, Commit and Rollback commands are supported and database recovery facilities are provided.

Implement the appropriate level of security

Implementing proper security can be paramount when migrating mission-critical legacy environments to standards-based systems and Clerity offers wide range of options:

- Basic user sign-on validation is provided though the administration of sign-on table entries.
- Customizable user exits can be implemented for individual resource-level access control and audit requirements.
- An extensible External Security Manager (ESM) is available for environments with role-based access control (RBAC) security models such as IBM® RACF® security. Clerity's ESM allows for the definition of various roles and resources and includes support for LDAP-compliant directory services such as Microsoft® Active Directory®.

Comprehensive management tools

Clerity provides a comprehensive set of administration tools with its UniKix rehosting software to ease the tasks required for enterprise application management. Businesses can also choose to integrate with Microsoft System Center solutions to further enhance service delivery and optimize datacenter productivity.

Facilities are included 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. Remote, real-time monitoring of transaction processing environment regions, system status, and processing rates is provided and administrators can be automatically alerted of potential application bottlenecks or performance issues.

Minimal development impact

With UniKix Mainframe Rehosting software, developers can maintain current productivity levels and broaden their skill sets through the use of leading, standards-based solutions. Developers continue to write, maintain, support, and extend rehosted software application programs in much the same way as they did on the mainframe for Java, COBOL, or C programs. Clerity has extended The Workstation Group's uni-SPF offering to facilitate a customized development platform similar to the mainframe ISPF environment. Integration with Microsoft Visual Studio is also an option for target rehost systems.

No disruption to end users

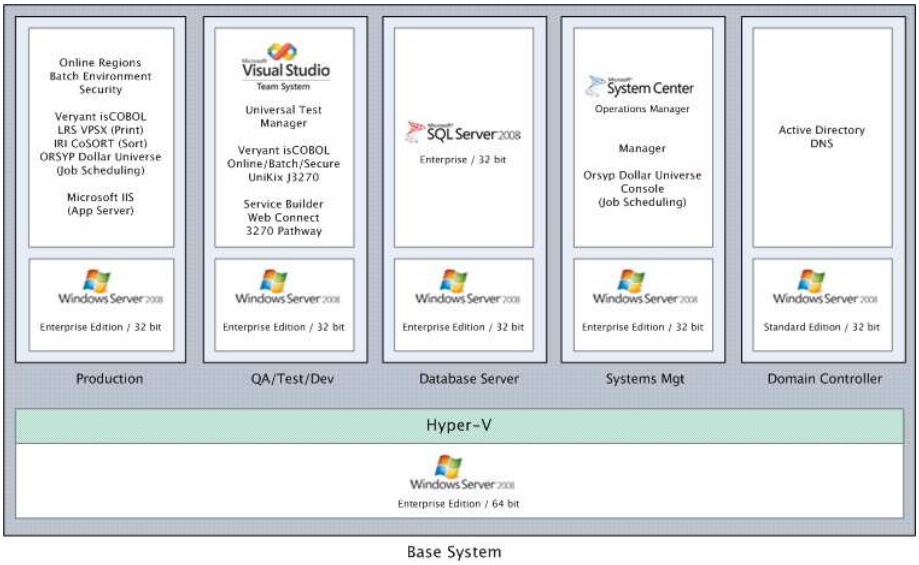

Figure 1. Sample Clerity Deployment Reference Architecture

UniKix Mainframe Rehosting environments support multiple client and presentation options, allowing applications to be migrated with minimal or no change to user interfaces and therefore no disruption to end users.

Supported client types include TN3270 and TN3270E, ECI and EPI clients, TCP/IP socket clients, MQ clients, SSL clients, Java clients, and IBM CICS Universal Client. Organizations with 'green screen' 3270 BMS Maps and TN3270 emulators supporting hundreds or thousands of end users can preserve existing investments in green screen interfaces to ensure continuity in their user interaction with the rehosted application. Depending on corporate goals and requirements, 3270 screens can also be mapped to a JSP or HTML-based interface during the rehost project or replaced over time using native Web services.

Completing the picture

Moving core applications and data is typically just part of an overall mainframe rehost implementation. Mainframe application environments can utilize a wide-range of infrastructure tools and utilities, therefore, Clerity has applied its considerable systems infrastructure expertise to develop a mainframe rehosting reference architecture for the Windows Server platform which demonstrates how these third party tools and utilities can be deployed in conjunction with a UniKix Mainframe Rehosting environment.

Evolve at your own pace

To further extend the inherent value of legacy applications, many organizations follow-up a rehosting project with an incremental modernization endeavor. After moving to standards-based platforms, new processes, architectures, and end-user interfaces can be affordably realized and initiatives such as Web Services and SOA can be implemented on flexible open systems. Additional technology such as Clerity® Service Builder can also be leveraged to integrate and deploy web services to the Microsoft .NET Framework.

A complete lifecycle approach

Clerity's extensive mainframe and open systems service experts can provide professional project management for the complete lifecycle of any migration.

Clerity works with an organization before a migration to review corporate IT objectives and develop the appropriate plan forward for mainframe workloads. Our delivery experts then tailor a flexible migration solution with the level of service required to make an implementation successful, and our infrastructure experts can offer consultative advice for other necessary hardware and software components as required. To ensure that our customers are well-equipped to actively develop, manage, and evolve application environments following any implementation, Clerity also offers a range of post-migration lifecycle services.

Clerity's deep service bench, comprehensive understanding of mainframe and distributed platforms, and proven migration methodologies mean no disruption to ongoing operations, minimal risk for migration, and rapid return on investment for your chosen solution path.

About Clerity

Clerity is a leading full-service provider of mainframe 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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