



ClearPath Connection

A Quarterly Newsletter for Unisys ClearPath Customers

June 2013

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ClearPath Software: Driving Innovation from the Inside Out



By Chris Mount, VP, ClearPath MCP and Communications

“It’s what’s on the inside that counts.”

Timeworn cliché that it is, this statement is also a perfect way to describe ClearPath platforms. When you consider all of the aspects that contribute to the mission-critical nature of ClearPath systems, it may be easy to overlook the software that underpins the system. But take a moment to think about it, and you’ll realize just how important software is to enabling the security, scalability, performance, and reliability that have become synonymous with your ClearPath environment.

Every new software release introduces a suite of enhancements that updates existing attributes and reflects emerging market dynamics, increased auditor scrutiny, evolving standards for security and performance, and new feature suggestions from the ClearPath user community. Moreover, many of these enhancements reflect the time we’ve invested in finding fresh ways to innovate – and delivering IP that helps you do the same.

Consider the ways ClearPath software helps you achieve the following goals:

- Onboarding new developers
- Maximizing security
- Taking advantage of new technologies >>



Onboarding New Developers

New innovations in ClearPath software, coupled with our existing, industry-standard technologies, allow ClearPath applications to more easily expand their reach in the data center. This is a critically important quality in any era, but especially today, as organizations are looking to add talented new developers to their teams. But pursuing people who know how to enrich the applications that run your business often requires a new set of development technologies. Providing these resources has been a focus of Unisys investments for several years.

To this end, we've made sure your ClearPath platform contains software new professionals can use to make quick, valuable contributions to the organization. For example, industry-standard development environments, such as the ClearPath MCP and OS 2200 IDEs *for Eclipse™*, feature useful plugins and wizards that enable new members of the team to rapidly add value to your ClearPath environment. What's more, Eclipse has a very active user community, which gives developers an additional layer of support and guidance. Importantly, Unisys investments in this area are designed to provide optimal alignment between the ClearPath environment and your applications.

Likewise, the development environment of the ClearPath ePortal specialty partition is based on Microsoft® Visual Studio®, providing a familiar toolset that helps recent college graduates enrich ClearPath applications by extending them to the Web, mobile devices, and Service Oriented Architecture (SOA) environments – even if they have no prior ClearPath experience.

And, we offer all of your developers ongoing support through our newly expanded course catalogs for [ClearPath OS 2200 software](#), [ClearPath MCP software](#), and the [ClearPath OS 2200 and MCP specialty partitions](#).

The combination of our support for contemporary languages and widely adopted technologies, enhanced development environments, easy-to-use modernization tools, and new course catalogs provides an excellent way to jump start new developers – and rapidly add business value to your applications.

Maximizing Security

Security is – and will remain – a primary concern for both Unisys and ClearPath users. That's why we continue to invest in the resources required to accelerate and improve our technology in this critical area – and ensure it reflects new industry and regulatory standards, as well as client concerns.

To this end, we've strengthened and increased system security across the board – and made investments that support the most current industry trends.

For example, changes to system software provide increased security in mobile environments that have individuals signing on and off numerous times throughout the day, rather than just once in the morning and once when they leave work. New auditing software can help you spot and report unusual patterns that might represent potential penetration attempts. And, enhanced encryption and extended protection for information flowing across the network assist in your efforts to meet industry regulations and audit requirements.

Taking Advantage of New Technologies

The innovations built into ClearPath software provide the foundation your organization needs to easily adopt and benefit from a wide variety of new technologies. For example, our continued investments in ClearPath software led to the development of s-Par®, an innovative technology that enables the use of secure partitions in our platform architectures. >>

And, we continue to enhance ClearPath advanced data management technologies. For example, improvements to the query engines used for relational data access have increased the performance of RDMS and MCPSQL.

This allows your organization to use native, mission-critical transactional data in multiple business intelligence applications.

The ability to use your ClearPath data in the Apache™ Hadoop® framework is yet another example of our focus on enhancing the platform's data management technologies. Other integration capabilities, such as message queuing and web services, extend this paradigm to the business logic contained in your applications, enabling it to be combined with the growing number of integration processes and tools on the market.

Our goal with each of these enhancements is to make it easier for you to expand the use and reach of the business data and logic running on your ClearPath platforms.

Innovation Starts on the Inside

Ensuring ClearPath platforms remain a mission-critical component of your operations is at the heart of everything we do. That's why we're so intensely focused on listening to client suggestions, exploring new ways of updating and refining the software, and making sure it continues to live up to established ClearPath ideals.

Because when it comes to driving innovation, what's on the inside truly does count.

The New ClearPath MCP Release is Here!

We are pleased to announce the availability of ClearPath MCP Release 15.0! This major release of the integrated software stack for ClearPath MCP platforms delivers two new products – Locum Safe & Secure and dbaTOOLS AccessLog. Plus, it provides numerous enhancements to 38 products, many of which were the result of new feature suggestions from the ClearPath user community.

And, all of them have been designed, developed, tested, and integrated to work together and provide the performance and reliability your mission-critical applications require.

Together, the updates and new features of MCP Release 15.0 deliver immense value across three important areas:

- Application Modernization
- Security
- Data Center Transformation

Application Modernization

When it comes to modernizing your ClearPath applications, MCP 15.0 will help you:

- Provide expanded capabilities for secure, anytime, anyplace access to mission-critical applications across a wider variety of mobile devices
- Leverage greater scalability to better support business growth
- Integrate business processes both inside and outside of your organization

Here's how:

- **ClearPath ePortal for MCP:** The ClearPath ePortal for MCP specialty partition has been updated to provide support for even more development environments, including Enterprise Application Environment (EAE) and Agile Business Suite (AB Suite). In addition, MCP 15.0 includes ClearPath ePortal for MCP 5.1, the latest release of the software, which delivers:
 - The ability to access MCP applications from devices running Microsoft Windows® 8 and

the Windows Phone 8, in addition to Apple®, Android™, and Blackberry® mobile devices

– A new T27 emulator and designer runtime

- **Java:** Support for the latest version of Java SE 7 running on the ClearPath MCP JProcessor specialty partition is included in this release, ensuring that the most-recent stability enhancements are incorporated into the MCP environment. MCP 15.0 also features JBoss 5.1.2, the newest version of JBoss open-source software, which provides improvements to Java development and operations, along with a better process for tuning and implementing a Java EE environment.
- **Enterprise Output Manager:** Enterprise Output Manager Release 10.0 is included in MCP 15.0. Among the wide array of enhancements delivered in the latest version of our cutting-edge output management solution are the following key features:
 - An integrated, enterprise-class PDF writer that enables you to generate PDF documents natively within the Enterprise Output Manager environment – and protect them with 128-bit encryption for PDF/A compliance – helping you accelerate output while minimizing the need for costly software licenses
 - Security enhancements that allow you to apply 128- or 256-bit encryption to any files that are distributed via email or transferred to a file directory for archiving purposes
 - Updates to the Web Assistant feature that improve security, allow you to see the presentation attached to an email, and search by date >>

- New email functionality that enables you to set a size limit for incoming messages and automatically notify the sender of exceptions
- New enhancements to the Email, Print, and Back-up attributes, which support file compression properties – and enable you to compress large files into a .ZIP file, saving disk space
- **ClearPath MCP IDE for Eclipse:** ClearPath MCP 15.0 includes numerous new features that improve editing and build processes in the Eclipse environment, including:
 - The inclusion of working storage variables in the code assist/completion function
 - Sequence number validation for local files
 - A bar that shows the progress of creating a work file, updating a work file, and adding new work files to the project
 - A new scroll bar that reflects the actual size of the file and allows the file to be more easily positioned
 - The ability to compile an entire project using a Work Flow Language (WFL) file
 - The Eclipse Auto Build feature, which frees developers from the need to manually build applications for release
 - Improvements to the error-reporting process
- **Client Access Services:** MCP 15.0 features new updates that make it easier for your ClearPath system to share resources with Windows environments. For example, the release includes compatibility with newer versions of Windows, beginning with Windows 7. Plus, it gives you new ways to convert files between common MCP and Windows file formats.
- **Web Transaction Server:** Updates to Web Transaction Server improve the file upload process and enable you to identify the client's actual IP address when using trusted HTTP proxies.
- **Scalability Enhancements:** Improvements delivered in MCP 15.0 – such as support for larger messages, increased connectivity, and more space for user-defined variables – help you scale your mission-critical applications to better support business growth. (See the [SRA](#) for specifics.)

Security

The enhancements delivered in MCP 15.0 improve security by enabling you to:

- Reduce the risk of lost revenue, client dissatisfaction, regulatory sanctions, and legal costs associated with security breaches
- Protect sensitive data from unauthorized access and tampering
- Monitor and review all database access, including inquiries

Here's how:

- **Locum Software Products:** MCP Release 15.0 includes the following security alerting, assessment, auditing, and administration products from Locum Software:
 - **Locum Safe & Secure** – This product centralizes and simplifies security administration in both the Userdatafile and COMS Cfile – and offers a wide range of tools through the integrated AdminDesk GUI, including extensive inquiry and search facilities. It also provides an easy-to-use, single point of control in multi-system environments. Please note that Locum Safe & Secure is now available from Unisys in North America. It continues to be available from Locum in other parts of the world.
 - **Locum SafeSurvey** – New functionality expands the user privileges snapshot to include role-based access control permissions and COMS CFILE privileges. This update enables you to show auditors what users can and cannot do. >>

– **Locum RealTime Monitor** – The configuration and administration of security alerts have been simplified through increases to message size, displays that enable the detection of peak and trough message activities, and the ability to send alerts to multiple email addresses.

– **Locum SecureAudit** – An updated data retention policy enables the automatic or on-demand deletion of data and report queries after a user-specified time period.

- **Media Encryption:** MCP 15.0 includes Media Encryption Version 2. This update provides better protection for the sensitive data on tapes, DVDs, and CDs by increasing the security of existing algorithms, checking the integrity of encrypted data multiple times, and giving you the option to use the Institute of Electrical and Electronics Engineers (IEEE) standard AES GCM encryption algorithm. Please note that Media Encryption Version 2 is an optional feature that is only available with Library Maintenance. Version 1 remains the default.
- **Enterprise Database Server (DMSII):** ClearPath MCP 15.0 can automatically log DMSII database inquiry and update actions, helping your organization better secure sensitive data – and do so in accordance with audit and regulatory standards. As a result, you can show auditors who accessed what data, what they did to it, and when they did it. In addition, this feature enables the DBA to control which database structures are logged, and when, as well as incremental CPU and storage resource usage.
- **dbaTOOLS AccessLog:** This new module of dbaTOOLS enables you to extract data access log records from the system sumlog and generate customized reports with DBA-specified filters and sorting. The dbaTOOLS modules help you to monitor, control, and tune your ClearPath database environments.

Data Center Transformation

Using MCP 15.0 to transform your data center environment enables you to:

- Reduce operating expenses through increased automation
- Increase the availability of your mission-critical applications

Here's how:

- **Workload Management for ClearPath MCP:** A key update to Workload Management for ClearPath MCP enables you to view a real-time, month-to-date picture of your MIPS usage, helping you understand your usage since the beginning of the current billing cycle.
- **Business Continuity Accelerator:** ClearPath MCP 15.0 includes new Business Continuity Accelerator functionality that allows you to perform a controlled failover of a running system – giving you a useful tactic for testing disaster recovery procedures without disrupting end users. The controlled failover capability also includes integration with DMSII database quiesce/resume features.
- **Secure Shell (SSH) for ClearPath MCP:** SSH for ClearPath MCP provides a new capability that allows you to automate the configuration of the Secure Shell File Transfer (SFTP) server.
- **FTP Services for ClearPath MCP:** Updates made to FTP Services for ClearPath MCP enable you to automate the management of transferred files.
- **TCP/IP Interprocess Communications Services:** MCP 15.0 enables you to seamlessly move an IP address from a failing device to an alternate, functioning device in the same IP subnet, helping you reduce the impact device failures have on end users. >>

- **Operations Sentinel:** [Operations Sentinel](#) 13.0 is included in MCP 15.0. The latest version of our automated systems management tool delivers many new features. Most notably, it includes an all-new, simplified web interface you can use to view the status of managed devices and the alerts page – and access system status from a tablet that’s connected to your Intranet.

Additional highlights of Operation Sentinel 13.0 include:

- Visual representations of the status and CPU, memory, and hard disk utilization for all monitored systems – all through a single point of control
- The ability to import and export Operations Sentinel configuration files in XML format
- Integration with Enterprise Output Manager, which allows you to reformat, print, email, and save a log file to the Web

Learn More About ClearPath MCP 15.0

The resources below will help you learn all about the new products, software, and enhancements included in MCP Release 15.0:

- [Launch Webinar](#)
- [Software Release Announcement](#)
- [Software Product Catalog](#)



ClearPath Services: Helping You Optimize Your Application Environment

By Isaac Levy, Global Manager, ClearPath Services Solutions



Throughout our meetings with customers, we're consistently impressed by the amount of time, energy, and resources organizations have invested in their ClearPath applications.

But we're also hearing that shifting organizational demographics, staffing challenges, and resource limitations are pushing many ClearPath shops to find new ways to support these applications going forward.

That's why we've developed a set of services designed with the express purpose of helping you effectively manage and extend your application environment: ClearPath Application Modernization Services and ClearPath Application Outsourcing Services.

From readying existing applications to be accessed via the Web and mobile devices, to bridging the gap between different generations of programming languages, these services give you the resources you need to maximize the lasting value of your ClearPath application environment.

Application Modernization Services

ClearPath Application Modernization Services help you execute projects that maximize existing investments, preserve embedded intellectual assets, and enable ClearPath applications to participate in SOA environments. In this way, the Application Modernization Services allow you to exploit newer technologies while continuing to leverage your existing ClearPath investments.

The ClearPath Application Modernization Services are built on Advisory and Transformation Service components, each of which features several distinct offerings.

Advisory Services:

- **Unisys Modernization Benchmark:** Identifies the business goals and objectives of your modernization initiative.
- **Business Knowledge Discovery:** Documents the intellectual capital captured in your applications.
- **Strategic Planning and Modernization Roadmap:** Develops ROI-driven plans for your modernization project.
- **ClearPath Application Advisory Services:** Help you assess and align ClearPath application initiatives with key business priorities and IT best practices.

Transformation Services:

- **Application Optimization:** Addresses short-term cost and operational efficiency needs.
- **Application Re-Architecting:** Considers the long-term business agility improvements and process enhancements of a modernization project.
- **ClearPath Modernization & Integration:** Leverages web services, mobile enablement, and/or SOA techniques and technologies to modernize and integrate your applications.
- **SOA Design & Implementation:** Migrates existing application functionality into a collection of SOA-based applications.

The Advisory and Transformation Service areas are supported by a Customer Program Management component that efficiently and effectively manages your portfolio of modernization initiatives.

With the help of the ClearPath Application Modernization Services, you'll be able to:

- Reduce costs and accelerate time to market by reusing existing assets >>

- Shorten design, development, and implementation timeframes by leveraging tested, pre-built roadmaps, technology frameworks, and toolsets
- Reduce the potential for vulnerabilities, information leakage, and operational risks by relying on proven ClearPath security features and Unisys expertise

Application Outsourcing Services

ClearPath Application Outsourcing Services deliver operational management of the ClearPath applications you've written in COBOL, ALGOL, Fortran, EAE, AB Suite, and Business Information Server (BIS) – and help you implement new ClearPath based application functionality and integrations.

These services leverage our ability to blend application development capabilities, competencies, experiences, and tools into a suite of targeted, high-quality, cost-efficient services. As such, the Application Outsourcing Services help you address day-to-day operations, support, and maintenance needs, enabling you to minimize the cost of managing your applications.

The ClearPath Application Outsourcing Services portfolio contains the following elements:

- **Application Support and Maintenance:** Helps you resolve any issues with your COBOL, ALGOL, EAE, AB Suite, or BIS applications – from code deployment to end of life.
- **Application Development:** Delivers the additional skills you need to develop and enhance application software.
- **Application Operations:** Provides day-to-day operational functions – including application monitoring, performance testing, patching, access control, and data management – all with defined service-level objectives.
- **Application Hosting:** Runs your application environment out of a data center designed, built, and operated by Unisys.
- **Customer Program Management:** Provides a single point of accountability for the contract and service delivery phases of your outsourcing solution.

With the ClearPath Application Outsourcing Services, you'll be able to:

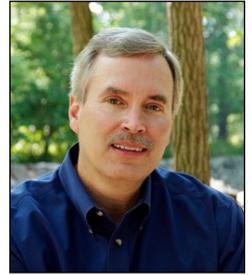
- Increase productivity while optimizing business processes
- Drive savings through reductions to the cost of labor, licensing, and maintenance
- Minimize the risk associated with new application initiatives

Part of the holistic, integrated [ClearPath Services framework](#), the ClearPath Application Modernization and Application Outsourcing Services are complementary elements of a comprehensive portfolio that helps you make the best use of your ClearPath systems and maximize your investments in ClearPath applications – now and into the future.

To learn more about [The ClearPath Application Modernization and Application Outsourcing Services](#), or any other components of the ClearPath Services portfolio, please contact your Unisys account executive.

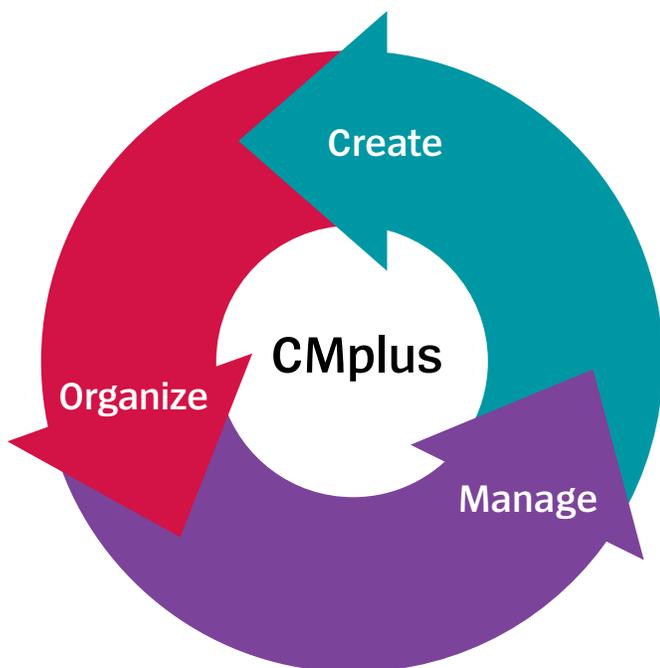
CMplus: Configuration Management and Version Control for OS 2200 3GL Applications

By Michael L. Curles, Product Manager for CMplus, Unisys



What is Configuration Management Program Librarian for Unisys Systems, or CMplus? It is a comprehensive software configuration management (SCM) and version control solution for developers of 3GL business applications for ClearPath OS 2200 systems. Implemented as a services engagement, CMplus helps your organization safely and effectively manage the thousands of OS 2200 based components that make up its 3GL business applications.

CMplus provides a secure environment for IT organizations to build, test, maintain, and deploy business applications in an automated manner. Used internally for years by Unisys engineering and development teams to satisfy the stringent risk-management mandates associated with commercial and government contracts, CMplus has a direct impact on satisfying security, disaster recovery, technical resource retention, audit, and quality assurance requirements.



Key Capabilities at a Glance

- Successfully handles any OS 2200 3GL application – regardless of when it was originally developed
- Leverages both industry best practices and the inherent strengths of the OS 2200 architecture to automate business application database and transaction design usage
- Automatically generates 3GL business applications
- Identifies lost source code before application modernization occurs
- Automatically deploys a generated business application to a target OS 2200 system
- Provides application-level disaster recovery, a capability that is unique in the industry and is in addition to the capabilities provided by OS 2200 itself
- Includes a system replication feature, which gives OS 2200 development teams the ability to easily set up multiple, distinct development and test environments, while providing a powerful multiple development/test capability
- Interfaces with modern desktop development environments and tools, such as the ClearPath OS 2200 IDE *for Eclipse* and OS 2200 Java, to provide SCM and version control for projects using these tools
- Offers an optional, web-based interface solution, CMplus Webstation, which provides a modern “point and click” interface into each CMplus system >>



The patent awarded to CMplus in April of 2012.

CMplus is a very mature and robust solution that reflects thousands of hours of development and enhancement effort. In fact, it has received several Technical Excellence awards over the years, which is an honor only bestowed upon the “best of the best” in Unisys Engineering. In addition, CMplus has a number of patent filings for unique configuration management capabilities, including an April 2012 award from the US Patent Office for object file handling.

In summary, the CMplus product suite offers a host of features that help development teams

better manage their OS 2200 3GL business applications in accordance with industry standards and accepted best practices. It’s easy to get started because CMplus is delivered as part of a services engagement. Unisys technical experts will help you integrate CMplus into your OS 2200 environment and development processes, and the solution is yours to use at the end of the engagement.

Ready to learn more about CMplus? Go to Unisys.com or contact [Michael L. Curles](#), Unisys CMplus Program Manager.



Technology Infrastructure Services Roseville Executes Virtual Tape Migration

By Keith Schreifels, Data Center Analyst; and Curt Murdy, Senior Analyst; Engineering and Supply Chain, Technology Infrastructure Services

By the early 2000s, the Unisys Engineering and Supply Chain data center in Roseville, Minnesota, had reached an impasse in its tape-handling environment.

With volumes increasing – and the associated costs rising – physical tapes were no longer practical for the applications used for testing purposes and product delivery. Managing physical media also required a considerable amount of disruptive, time-consuming human intervention, including manual packing and shipping to an offsite location to support disaster recovery efforts.

Faced with these challenges, the team at Roseville looked for a way to minimize tape volumes and reduce labor costs, while better supporting the facility's disaster recovery requirements.

Enter virtual tape.

By emulating strings of tape drives, connecting to hosts via standard I/O channels, and writing the data to a disk array as tape files, a virtual tape solution presents the drives and volumes to the hosts as physical components. And with the release of disk array replication technologies, all tape files can be automatically replicated to a remote site. This provides several advantages, including:

- Minimal storage consumption when writing data, which reserves extra space for additional volumes
- No need to manually mount and dismount media, or transport it to a disaster recovery site
- Shorter service, mount, file locate, and rewind/dismount times

Eager to bring these benefits to their own data center, the Roseville team implemented a multi-phase project to gradually eliminate physical tape systems and replace them with a robust virtual tape solution. By the fourth quarter of 2012, nearly 100 U40 tape drives, 4 automated tape libraries, and more than 30,000 physical tape volumes had either been removed or were in the process of being removed from the Roseville facility, leading to significant space savings and labor reductions.

Space Savings

The virtual tape solution implemented in the Roseville facility takes up about 10 square feet per unit, so the production and remote disaster recovery units require only 20 square feet of space in total. The solution currently supports 64 virtual tape subsystems and 1,024 virtual drives in production, and 32 virtual tape subsystems consisting of 512 virtual drives in the disaster recovery unit. Each currently has 56,420 tape volumes.

When compared to the footprint of a similar number of physical drives and volumes, the savings are quite impressive (for evidence, see the pictures on the next page). And what's more, virtual tape systems provide substantial room for growth, so the facility's footprint won't be growing any time soon. >>

BEFORE



AFTER



The migration to virtual tape enabled a significant space savings in the Roseville data center.

Labor Savings

Perhaps the most important benefit delivered by the migration to virtual tape is the reduction in the amount of time operations personnel must devote to monitoring and loading physical media. As recently as June of 2009, these individuals were still manually mounting over 5,500 tapes per month. But, as the migration proceeded, this number dropped to less than 800 in late 2012. The team expects further reductions as they work to migrate other areas to virtual tape.

And for situations where physical tape is still required, the team has moved much of that activity to an SL8500 tape library. The combination of a virtual tape system and cartridge tape library will allow all physical mounts to be eliminated – except in those cases where it's required due to testing or connectivity issues.

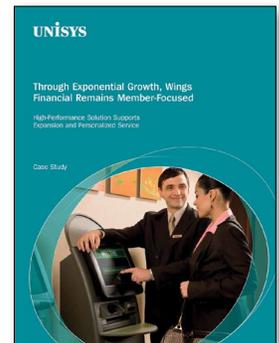
To learn more about how virtual tape can deliver similar benefits to your organization, please contact your Unisys account executive.



New Case Studies Illustrate the Flexibility of ClearPath Systems

Through Exponential Growth, Wings Financial Remains Member-Focused

Founded in 1938, Wings Financial is the first credit union in the United States dedicated exclusively to the air transportation industry. In order to strengthen the focus on its customers, the company wanted to implement a member-centric core banking system that supports aggressive growth and expansion goals, empowers faster, more personalized service, and increases efficiency and productivity of operations.

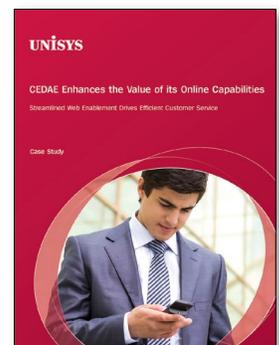


Wings Financial worked with Unisys to replace an existing, inflexible, accounts-based system with a new core banking solution that features a ClearPath Financial Services FS1800 Server and FIS™ MISER® software. By putting the focus on members rather than accounts, Wings Financial has the tools it needs to respond to changing market conditions and create personalized products and services that cater to its customers' unique financial profiles.

[Read the full story.](#)

CEDAE Enhances the Value of its Online Capabilities

Brazil's Companhia Estadual de Águas e Esgotos (CEDAE) is responsible for managing the collection, transport, and treatment of water and sewage throughout Rio de Janeiro and its surrounding communities. And like many municipal organizations, CEDAE is continually searching for ways to improve service delivery to the more than nine million residents within its jurisdiction. To this end, CEDAE needed a quicker, more secure means of making important customer information available on the Web and mobile devices.



The ClearPath ePortal specialty partition helped CEDAE forge a direct line between the Internet and its ClearPath environment and applications – enabling customers to view their account balances and pay bills at an ATM using a smartphone. As a result, CEDAE better positioned itself to address evolving customer needs and capitalize on new business opportunities.

[Read the full story.](#)



Resources and Calendar

The list below contains quick links that will help you stay up to date on all things ClearPath.

- [ClearPath Libra homepage](#)
- [ClearPath Dorado homepage](#)
- [ClearPath OS 2200 homepage](#)
- [ClearPath MCP homepage](#)
- [Agile Business Suite homepage](#)
- [Business Information Server \(BIS\) homepage](#)
- [ClearPath & Innovation Blog](#)
- [ClearPath How-To Videos on YouTube](#)
- [ClearPath Libra/MCP Webinars](#)
- [ClearPath Dorado/OS 2200 Webinars](#)
- [eBook: ClearPath MCP Case Studies – Success through Business Process Automation](#)
- [eBook: Built for Today, Ready for Tomorrow: Unisys ClearPath Systems](#)
- [Guide: ClearPath OS 2200 Course Catalog](#)
- [Guide: ClearPath MCP Course Catalog](#)
- [Guide: ClearPath OS 2200 and MCP Specialty Partitions Course Catalog](#)
- [Video: ClearPath Advisory Services](#)
- [Video: ClearPath Appraisal Service](#)
- [Video: ClearPath TCO Assessment Service](#)
- [Video: ClearPath Consulting Services](#)

WHAT	WHERE	WHEN
Universe Conference (formerly UNITE)	Marriott Oak Brook Hills Resort , Chicago, IL	September 9-12, 2013

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