

# UNISYS

## ClearPath Forward Connection

A Quarterly Newsletter for Unisys ClearPath Forward Clients



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## This Is One You Didn't See Coming

By Brian Herkalo, Director, Global ClearPath Forward Product Management, Unisys



When we introduced the ClearPath® Software Series a short six months ago, we never thought we'd be where we are today.

We knew we had something special with the Software Series. A suite of software-only deliverables represented a massive leap in terms of how we utilize the capabilities within the ClearPath Forward™ environment – as well as how we extend these qualities to the organizations that rely on ClearPath Forward systems day-in, day-out.

And our clients have been quite pleased with this strategy. They reacted in an extremely positive way to both ClearPath MCP Developer Studio and MCP Express, making it clear to us that targeted, software-only versions of the MCP environment built to support development and educational practices, respectively, speak to and solve for specific areas of need among our client base.

Feedback like this drives us. It validates our strategies and compels us to push further, to innovate more, and keep the ClearPath Forward environment in its rightful place on technology's cutting edge.

So with this in mind, we're beyond excited to announce the next phase in the evolution of the Software Series – and, in many ways, the strategy underpinning the ClearPath Forward program as a whole: a software-only, production-ready instance of the full ClearPath MCP operating system designed to run on VMware® or a client-chosen system conforming to a reference specification. >>

ClearPath Forward  
Over 180 Videos Online! 





## ClearPath Software Series

Putting one of the world's premier operating systems onto the industry's most ubiquitous and popular virtualization layer is an enormous change no one thought was possible. Even internally, many long-time Unisys veterans never envisioned a day where a full MCP production workload would be running on VMware.

And yet, here we are. It's a monumental advance that pulls us ever closer to our ultimate goal of making ClearPath Forward a central component of the software-defined data center. The industry is already shifting towards this integrated data environment concept – where the application layer receives more emphasis than the infrastructure on which it runs – and with this new innovation, we've made it possible for the MCP software to fully participate in that environment.

### MCP, Gone Virtual

With this move, we're opening up an entirely new set of doors for our clients.

As we've seen for several years, cost remains king and companies are constantly searching for ways to reduce expenses while increasing simplicity. That's why many turned to virtualization in the first place. But even though they reaped the benefits virtualization delivers, many of our clients' businesses still challenged them to further optimize their overall infrastructure investments.

Now, the ClearPath MCP environment becomes an integral part of the solution.

Merging the MCP and VMware environments brings simplicity to the forefront. There's no longer any need for you to operate a separate system solely for your MCP applications – nor will you have to continue dedicating time, budget, and resources to maintaining this additional hardware.

As we fill out the future roadmap, the first software-only deliverables for production workloads will be targeted for entry-level ClearPath MCP environments. Making the virtualized version of MCP initially deployable on an entry-level reference architecture, as well as an industry-standard VMware deployment, means you might be able to implement the environment using components you already have on hand, making it possible to minimize additional investments.

Either way, you'll be able to take advantage of everything VMware brings to the market, while making it possible for your applications – MCP or otherwise – to run in the same environment and benefit from the improvements in performance and manageability that come from blending these two worlds into one.

### Going Next-Next Level

There is no doubt that the merging of the MCP and VMware worlds is a significant move. But, it's also one that expands on the heritage we've been building since the MCP environment's inception.

The MCP operating system has long been able to run hundreds of critical applications under a single instance. And now that we're extending this concept to an industry-standard virtualization platform, we're enabling both the MCP and VMware environments to become stronger, much more versatile, and optimally suited to help support your current and emerging business needs. >>

That's what makes this change so big. But that said, calling it a "next level" move would only serve to minimize everything we've achieved. It's next level and then some, something that actually moves us several rungs up the ladder from where we were less than a year ago.

But this isn't all we've been up to. We're also happy to announce the availability of another member of the ClearPath Software Series family: [OS 2200 Express](#). The first OS 2200 focused Software Series deliverable, OS 2200 Express gives hobbyists, students, and teachers – as well as members of our clients' teams looking to enhance their skills – an easy, intuitive way to interact with and explore the OS 2200 environment for non-commercial, personal, or educational purposes.

And what's more, it sets the stage for an exciting future that sees us introducing Software Series deliverables purpose built to address the needs, challenges, and business imperatives of our OS 2200 client base.

Combine these two advances and it's evident that the ClearPath Forward environment's metamorphosis is not just ongoing – it's moving in an exciting, innovative new direction. And we can't wait to show you where we're headed next.

## Learning the Ropes with OS 2200 Express



We are happy to announce the release of the newest member of the ClearPath Software Series family: OS 2200 Express!

Designed and built primarily for hobbyists, students, teachers, and other members of the educational community, OS 2200 Express enables anyone currently studying or curious about operating systems and software development to learn about the functionality a working OS 2200 environment has to offer. It can help them test out new techniques, work live as an instructor demonstrates an important concept, or explore the environment on their own during free time between classes.

Plus, OS 2200 Express makes a great addition to any clients' existing personal skills development programs. New hires and seasoned employees alike can use it to familiarize themselves with the OS 2200 environment in a non-commercial, personal, or educational manner.

Available as a complimentary download, the OS 2200 Express package includes a functional ClearPath OS 2200 operating system, a comprehensive set of OS 2200 development tools and compilers, and the OS 2200 runtime software required to facilitate learning. And it's built to run on modern Microsoft® Windows® PCs and laptops.

Please note that each version of OS 2200 Express is licensed to one user for non-production personal and educational use only. **Commercial use is prohibited.**

*[Want to see it for yourself?](#)*  
*[Download OS 2200 Express today!](#)*

# Locum 360: An All-Around PCI DSS Compliance Toolset for ClearPath MCP Systems



Our world is defined by its ever-increasing need for, and reliance on, software. From telling us the location of our next meeting, to helping us find the best tacos, to notifying us when our cars need service, software coordinates, manages, and governs most every aspect of our lives.

But this also means we're far more vulnerable than we once were. After all, when you're living in a software-defined world, there's always an element of risk to contend with – and there's no such thing as being too careful.

To combat these threats, various compliance standards and governance bodies have been established, including the Payment Card Industry Security Standards Council (PCI SSC). The PCI SSC implements standards for security policies, technologies, and ongoing processes designed to protect payment systems from data breaches and theft.

These guidelines are captured in the [PCI Data Security Standards \(DSS\) version 3.1](#). This set of compliance requirements has far-reaching implications for all organizations that store, process, or transmit cardholder data – even if they aren't financial institutions. And, they'll all be updated when the next version of the standard – PCI DSS v3.2 – is released in the first half of 2016.

To help you align your operations with a number of aspects related to compliance and IT governance, including those established in the PCI DSS 3.1, we've partnered with Locum Software Services Limited to offer [Locum 360](#), a comprehensive and integrated security alerting, assessment, auditing, and administration solution for ClearPath MCP systems.

## Helping You Meet PCI DSS Standards

The PCI DSS guidelines center around 12 high-level data security requirements and six specific topics, each of which includes multiple procedural and technical rules that apply to any network component, server, or application included in, or connected to, the cardholder data environment.

With the help of Locum 360, you can meet a number of these technical requirements, including:

- Restricting access to cardholder data based on specific business privileges
- Removing and/or disabling inactive user accounts within 90 days
- Managing the IDs vendors use to access, support, or maintain system components
- Limiting repeated access attempts and setting minimum lockout durations
- Scrutinizing and verifying user identities before they're able to execute critical actions
- Coupling proper user-authentication management with unique IDs
- Tracking and monitoring access to network resources and cardholder data
- Detecting unauthorized changes to critical system files >>

Locum 360 makes this possible by providing four unique modules, each of which is designed to focus on a specific aspect of security:

- **Locum RealTime Monitor:** Whether used as a dashboard or a Windows service, Locum RealTime Monitor gives you immediate alerts about security-related events and allows your administrators to collect and route data from multiple MCP systems to one or more security workstations, as well as external SIEMs.
- **Locum SafeSurvey:** Locum SafeSurvey enables you to assess the security of your MCP environment and compare compliance and performance over time using a series of detailed reports that highlight areas of potential risk.
- **Locum SecureAudit:** The detailed retrospective reports in Locum SecureAudit help your security administrators, compliance officers, and auditors see any activity or condition that might pose a security threat.
- **Locum Safe & Secure:** With Locum Safe & Secure, you can centralize and simplify security administration using a wide range of tools, including extensive inquiry and search facilities, and synchronize these changes across multiple MCP systems.

Combined, the four modules that comprise Locum 360 can help you make great strides towards a more secure MCP operating environment. For instance, you can coordinate security across multiple MCP systems from a single point of control, making it easier for you to:

- Manage privileges
- Retrieve and correlate security information
- Strengthen authentication
- Authorize and delegate system commands
- Catch attempted security breaches

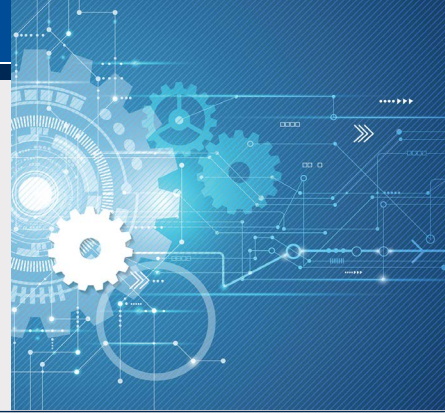
### Before You Begin...

To fully benefit from Locum 360, it's critical that you load all components of the software onto all MCP instances, in all systems, and all software editions, including disaster recovery/business continuity implementations.

Please note that all four Locum 360 modules can be licensed together and activated with a single unique software license key. Alternatively, if you already have one or more modules already active, you can license and activate each module separately using the key unique to that module.

*Please visit our web site to learn more about [Locum 360](#). And for a deeper dive into the world of [PCI compliance](#), please read our [recently updated white paper](#).*

# Important Changes to the ClearPath OS 2200 and MCP Software Release and Support Cycles



We recently implemented some important changes to the software release and support cycles for the ClearPath OS 2200 and MCP operating environments.

Though the specific changes to the OS 2200 and MCP cycles are detailed below, the decision behind these updates is driven by common client feedback. Regardless of the operating environment, clients have told us that the approach we've followed for the last several years – where we'd deliver a major OS 2200 or MCP release annually – requires an overhaul.

While clients appreciate the ability to take advantage of new features and software fixes on a yearly basis, the time between releases is too short. Many of you have found it difficult to absorb and adopt the product changes and enhancements that frequently. Similarly, you conveyed that the current support lifecycle created the need to upgrade and manage migrations too often.

We understand these concerns and recognize that you're juggling multiple business drivers that often dictate your IT priorities. So to help you successfully meet these goals – without forcing you to shoulder added complexity or manage additional planned downtime – we've implemented the following release and support cycle changes.

## OS 2200 Release and Support Changes

Starting with OS 2200 release 17.0 and culminating with release 19.0, we are gradually extending the time between OS 2200 releases from 12 to 24 months. Likewise, we have increased the duration of phase 1 support for OS 2200 release 16.0 from 42 to 48 months. Beginning with OS 2200 17.0, which is planned for the third quarter of 2016, phase 1 support will increase to 60 months.

In addition, products such as Enterprise Output Manager and Operations Sentinel will continue to be delivered and supported in conjunction with each new OS 2200 software release. Migration rules, including the ability to skip releases, will not be affected by these changes. Further details will be available in revised versions of the [ClearPath OS 2200 Software Planning and Migration Overview for Release 16.0](#) and [ClearPath OS 2200 Software Release Announcement for Release 16.0](#).

For further details, please refer to the bulletin posted on the [Unisys support site](#).

## MCP Release and Support Changes

Effective as of the April 2015 release of MCP 17.0, we have extended the time between MCP releases from 12 to 24 months and lengthened the phase 1 support life for MCP software from 42 to 60 months.

Many existing migration rules, such as the ability to skip releases and the code file validity period, will not be affected by these changes. Details will be available in upcoming revisions to the [MCP 17.0 Support and Release Policy Overview](#), [Migration Guide](#), and [Software Release Announcement](#).

Changes for other products, including Agile Business Suite (AB Suite™), Enterprise Output Manager, and Operations Sentinel have been, or will be, announced separately.

For additional information about these and other changes, please refer to the bulletin posted on the [Unisys support site](#).

# Security Conscious? Our Blogs Have You Covered



Have you checked out the [ClearPath Forward & Innovation](#) blog lately?

If you haven't stopped by in a while, then we encourage you to take a moment and check out all the great content we've added to the blog over the last several months.

In particular, you should read the posts titled "[Thinking Security](#)."

An ongoing series written by Mike Kain, a consulting engineer and security architect for the ClearPath MCP environment who has held various technical leadership positions during his 30 years of experience at Unisys, "Thinking Security" looks at the concept of security from a variety of perspectives. By blending practical, real-life discussions with IT-specific topics, these blogs make security – a topic that's certainly complex and often mind-boggling – something understandable, relatable, and, ultimately, simpler.

In addition to the "Thinking Security" series, the ClearPath Forward & Innovation blog also features several entries from [Dr. Glen E. Newton](#), a key contributor to, and driving force behind, many ClearPath and security innovations.

But there's far more on the blog than just the great stories from Mike Kain and Dr. Newton. [Check it out today](#) to see for yourself – you're sure to find something interesting, insightful, thought-provoking, and even entertaining.



## New XPC Means Bigger OS 2200 Clusters



In March of 2016, Unisys delivered the latest version of the ClearPath OS 2200 XPC-L server, called XPC-L4. XPC-L4 is an external lock engine that provides the essential data access synchronization multiple ClearPath Forward Dorado systems need to share a common OS 2200 database.

When coupled with Unisys OS 2200 Extended Transaction Capacity (XTC) software, the solution provides a multi-host clustering environment that supports extensive horizontal growth, as well as non-stop processing for OS 2200 applications.

The XPC-L4 server complex sits as the center of the OS 2200 cluster, providing an exceptionally high scale-out capacity that allows up to six Dorado hosts to access a shared database. Meanwhile, fully redundant XPC-L4 lock engines provide the availability these systems need to continue operating in the event an XPC-L4 server fails.

When it comes to enabling business continuity, the XTC technology supports non-stop operations for co-located resources by enabling the other host Dorado systems in the cluster to continue operating should one experience a hardware or software failure.

In addition, multiple ClearPath Forward Dorado systems can operate against one shared database, or even access the same record. Each host can also operate against its own private database. This configuration helps to improve capacity, growth, and horizontal scalability while also protecting the integrity of data being updated in a multi-host environment.

The solution's high-performance fiber interfaces provide low-latency connections between Dorado hosts and the XPC-L4 server, significantly improving locking times. In addition to increased capacity, any required software updates can be installed on each XPC-L4 redundant lock engine independently, without interrupting your operations.

XPC-L4 is available for the following ClearPath Dorado systems:

- ClearPath Forward Dorado 8380 and Dorado 8390 systems
- ClearPath Forward Dorado 6380 and Dorado 6390 systems
- ClearPath Forward Dorado 4380 and Dorado 4390 systems
- ClearPath Dorado 860, Dorado 870, Dorado 880, and Dorado 890 systems
- ClearPath Dorado 4280 and Dorado 4290 systems

*For more information about XPC-L4, please contact your local Unisys representative.*

# Updated eBook Highlights the Growing Power of the ClearPath Forward Infrastructure

Wondering just how much you can do with the ClearPath Forward infrastructure?

Then look no further than our eBook, “[The Power of Innovation: ClearPath Forward Systems in Action.](#)”

A broad sampling of ClearPath Forward use cases – covering everything from SOA and application development to system management and application integration – the eBook helps you see in practical terms the world of possibilities the infrastructure creates.

And, best of all, those possibilities just keep growing. We recently updated the eBook with a number of new use cases, so you can now see how the ClearPath Forward environment can be used to support such efforts as managing distributed global transactions, facilitating output delivery, providing multiple, unique development environments, simplifying security administration, and much, much more.

*If you're interested in learning more about these and other examples, then [give the eBook a read today!](#)*



# Now Available: Transaction Integration for Windows and MCP Applications

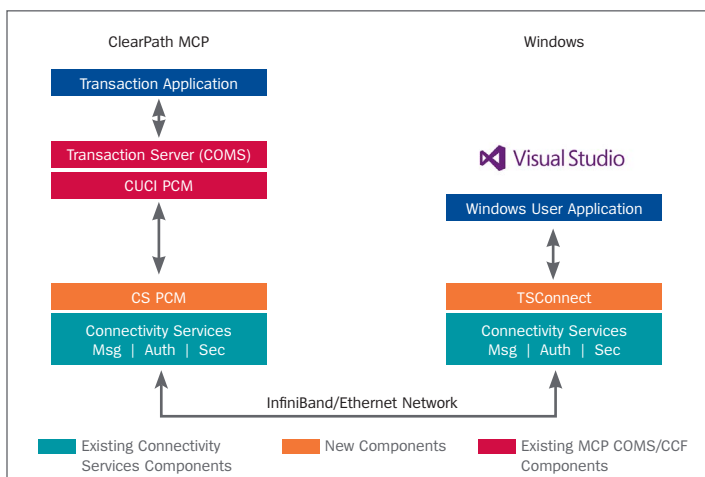


We're happy to announce the availability of Transaction Integration for Windows and MCP Applications (TSConnect). Added to ClearPath Application Integration Services (AIS) release 3.1, TSConnect makes it easier for .NET applications to call into COMS transactions by eliminating the requirement that you build the message – the header and data – in the application before sending to COMS.

TSConnect handles this for you by providing a communication path between a Windows client and the MCP transaction server (COMS) applications. It uses the Unisys Connectivity Services infrastructure to provide messaging, authentication, and to establish both secure and non-secure connections using two DLLs:

- **TSConnect** is a COM DLL for writing C++ Windows client applications
- **TSConnectivity** is a .NET DLL for writing C# Windows client applications

On an MCP system, the Connectivity Service Protocol Converter Module (CS PCM) in the Custom Connect Facility (CCF) handles the client requests. CS PCM uses socket function calls to the MCP Sockets library to receive and send the requested data.



The DLLs outline the properties to be set before a connection is made to the server. These properties include:

- **Usercode and Password:** Authenticates the connection.
- **WindowName:** Describes the window name as configured in Transaction Server.
- **SecurityType:** Indicates the type of security used for the connection.

The member functions include:

- **Connect:** Establishes the connection to a Transaction Server application.
- **Disconnect:** Closes the connection to Transaction Server application.
- **Send and Receive:** Sends and receives data in bytes.
- **SendW and ReceiveW:** Sends and receives data in string or wide characters and translates Windows only characters using the MCP system HOSTCCS value from the connect response.

*Want to learn more? Visit our web site for additional details about ClearPath AIS or contact your Unisys sales representative.*

# Updated White Papers Highlight Changing Trends, Technologies



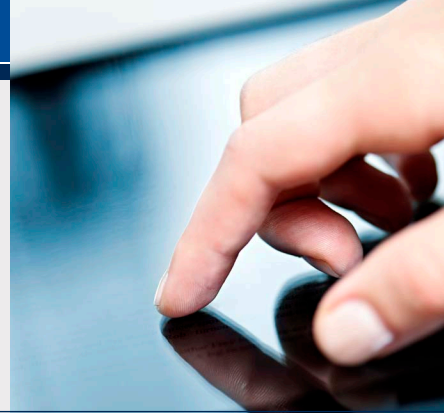
We've been hard at work updating several of our thought-leadership pieces to reflect new industry imperatives, emerging technology trends, and the ongoing work we're doing to enhance the ClearPath Forward environment.

Ready to see what we've been up to? Then give the following freshly updated white papers a read:

- **Agile Development with Agile Business Suite:** Describes how to use Agile Business Suite to support agile software development.
- **AB Suite in the Application Lifecycle:** Shows how you can use AB Suite to take advantage of the tools, processes, and methodologies Microsoft has developed to enable Application Lifecycle Management.
- **ClearPath MCP: Unsurpassed Security:** Examines how the MCP environment was designed to be secure from the beginning and looks at the ways it helps to safeguard clients' business-critical data.
- **ClearPath OS 2200: Unsurpassed Security:** Explains how Dorado systems protect against outside attacks and internal breaches by providing cutting-edge data confidentiality and integrity, system and data availability, and a highly secure architecture.
- **Business Information Server Cluster Failover for Microsoft Windows Platform:** Illustrates several of the ways you can use Windows Server Failover Cluster software to create a highly available BIS runtime environment.
- **ClearPath Dorado Security Supports the Payment Card Industry Data Security Standard (PCI DSS):** Looks at the security features and flexibility available in the Dorado environment that help you meet – and exceed – PCI DSS requirements.
- **ClearPath OS 2200 Security Migrating from Fundamental Security to Security Level 1:** Outlines and explores the steps needed to migrate your Dorado system to security level 1, which gives you enhanced access control, finer-grained privilege allocation, and other advanced security features.
- **ClearPath OS 2200 Security Benefits of Security Level 1:** Shows the additional features that come with the move from fundamental security to security level 1.
- **ClearPath OS 2200 Using Cipher API to Encrypt RDMS Data:** Provides an overview of the Cipher API and its features, outlines and compares the two ways of using Cipher API in RDMS, and offers some recommendations.

**Give them a read today!**

# Resources



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

- [ClearPath Forward homepage](#)
- [Agile Business Suite homepage](#)
- [Business Information Server \(BIS\) homepage](#)
- [ClearPath Forward & Innovation Blog](#)
- [ClearPath Forward How-To Videos on YouTube](#)
- [ClearPath Libra/MCP Webinars](#)
- [ClearPath Dorado/OS 2200 Webinars](#)
- [eBook: Built for Today, Ready for Tomorrow: Unisys ClearPath Systems](#)
- [eBook: Understanding the Economics of ClearPath Systems](#)
- [eBook: How to Shift Your IT Focus from Administration to Innovation](#)
- [eBook: The Power of Innovation: ClearPath Forward Systems in Action \(Updated\)](#)
- [Video Playlist: ClearPath OS 2200 Release 16.0 Technical Update \(24 Videos\)](#)
- [Video: When Every Transaction Matters](#)
- [ClearPath Customer Education Homepage](#)
  - [Guide: ClearPath OS 2200 Course Catalog](#)
  - [Guide: ClearPath MCP Course Catalog](#)
  - [Guide: ClearPath OS 2200 and MCP Specialty Partitions Course Catalog](#)
  - [Guide: Agile Business Suite Course Catalog](#)
- [Newsletter: Developing Agility December 2015](#)
- [Newsletter: ClearPath Forward Connection December 2015](#)
- [White Paper: ClearPath Middleware Strategy and Products for OS 2200 Systems](#)
- [White Paper: ClearPath Middleware Strategy and Products for MCP Systems](#)
- [White Paper: Unisys ClearPath MCP Independent Security Assessment](#)

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