

ClearPath Forward®

Secure, Innovative, Reliable Processing for
the Most Demanding Environments

E-Book

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Process millions of transactions each day. Keep your business-critical apps secure – no matter what. Seamlessly incorporate contemporary tools and interfaces.

With the ClearPath Forward® environment, all of this – and so much more – is possible.

ClearPath Forward is broadly classified into two categories:

- ClearPath Forward Products
- ClearPath Forward Services

ClearPath Forward Products

Systems of Record at the Beating Heart of Your Digital Business

As the system of record at the heart of your business and IT operations, your Unisys ClearPath Forward system will play a central role in supporting your ongoing digital business transformation.

The vast array of ClearPath Forward products work together to enable this transformation – and deliver the unmatched security, scalability, reliability, capacity, availability, and data integrity needed to handle some of the world’s largest workloads with ease.

With ClearPath Forward Libra and Dorado systems, you’ll have a solid hardware foundation that’s ready to support mixed workloads spanning hundreds of critical applications and process exceptionally high transaction volumes – all under a single operating system instance.

The ClearPath® MCP and ClearPath OS 2200 operating environments reside within the systems, providing a complete – and completely integrated – portfolio of software. From multi-layered, built-in security to transaction managers to databases, integration tools, development tools, and everything in between, you’ll be well equipped to support even the most demanding applications.

And with a wide variety of cross-platform software, you’ll have the wealth of resources you need to develop and evolve applications, integrate business processes, unlock the value of your data, and much more.

ClearPath Forward Products:

1. ClearPath Forward Libra Systems
2. ClearPath Forward Dorado Systems
3. ClearPath MCP Software
4. ClearPath OS 2200 Software
5. Cross Platform Software

1. ClearPath Forward Libra Systems

Powerful, Secure, Enterprise-Class Transaction Processing

ClearPath Forward Libra systems offer the widest range of platforms in the industry. From a go-anywhere laptop to premium, high-end models, you’ll have a multitude of ways to put the ClearPath Forward environment’s unmatched security, reliability, capacity, availability, scalability, transaction processing, and availability to work in your organization.

No matter the model you choose, you’ll have a solid, fully integrated system of record on which to create and deploy ClearPath MCP applications and databases.

Plus, with consistent code compatibility between systems, you’ll be able to upgrade to new hardware or implement a new operating system release without rewriting your applications, reducing costs along with the risk of significant operational disruption.

And as we continue to add new and enhanced capabilities to the Libra family, you’ll continually find new ways to take advantage of the systems’ support for:

- Diverse computing workloads
- Flexible buying models
- Popular software standards
- Industry-standard tools, applications, and skillsets
- Automated processes and operations
- Policy-based resource management
- Advanced business process integration



ClearPath Forward Libra Systems:

1. ClearPath Forward Libra 8580 and 8590 Systems
2. ClearPath Forward Libra 6590 Systems
3. ClearPath Forward Libra 4580 and 4590 Systems

[ClearPath MCP Executive Brief: A Premier Operating Environment for Today's Business Demands](#)

1.1. ClearPath Forward Libra 8580 and 8590 Systems

The most powerful Libra to date

The ClearPath Forward Libra 8580 and 8590 systems provide the highest performance levels of ClearPath MCP application processing and I/O throughput. Combined with the highest levels of security, reliability, and available expanded workload support, these systems position our clients for future growth and exciting new business solutions.

The premium high-end ClearPath Forward Libra 8500 systems are the latest generation of enterprise-class systems to implement the MCP operating system on Unisys Intel based platforms. Through the combination of the latest Intel technologies and uniquely designed Unisys firmware, the Libra 8580 and 8590 deliver new levels of MCP performance while maintaining code and data compatibility with prior Libra platform architectures.

[ClearPath Forward Libra 8580/8590 Specifications](#)

1.2. ClearPath Forward Libra 6590 Systems

High-end performance for business-critical environment

The ClearPath Forward Libra 6590 systems provide the high-end performance levels of ClearPath MCP application processing and I/O throughput. Combined with the highest levels of security, reliability, and available expanded workload support, these systems position our clients for future growth and exciting new business solutions.

The high-end ClearPath Forward Libra 6500 systems are the latest generation of enterprise-class systems to implement the MCP operating system on Unisys Intel based platforms. Through the combination of the latest Intel technologies and uniquely designed Unisys firmware, the Libra 6590 deliver new levels of MCP performance while maintaining code and data compatibility with prior Libra platform architectures.

These systems provide a complete ClearPath MCP integrated stack including hardware. Libra 6590 systems are licensed using the Pay-For-Use business model based on metering technology.

[Unisys ClearPath Forward Libra 6590 Specifications](#)

1.3. ClearPath Forward Libra 4580 and 4590 Systems

Mid-range performance with business-critical attributes

The ClearPath Forward Libra 4580 and 4590 systems provide the mid-range performance levels of ClearPath MCP application processing and I/O throughput. Combined with the highest levels of security, reliability, and available expanded workload support, these systems position our clients for future growth and exciting new business solutions.

The mid-range ClearPath Forward Libra 4500 systems are the latest generation of enterprise-class systems to implement the MCP operating system on Unisys Intel based platforms. Through the combination of the latest Intel technologies and uniquely designed Unisys firmware, the Libra 4580 and 4590 deliver new levels of MCP performance while maintaining code and data compatibility with prior Libra platform architectures.

These systems provide a complete ClearPath MCP integrated stack including hardware. Libra 4590 systems are licensed using the Pay-For-Use business model based on metering technology and Libra 4580 business model is the traditional peak performance.

[Unisys ClearPath Forward Libra 4580/4590 Specifications](#)

2. ClearPath Forward Dorado Systems

Secure, Enterprise-Strength Support for High-Volume Transaction Environments

ClearPath Forward Dorado systems provide fully integrated systems of record for some of the world's most demanding core business applications.

From feature-rich entry-level systems to high-end powerhouses, the ClearPath Forward Dorado line offers a number of options for creating and deploying ClearPath OS 2200 applications and databases – and numerous ways to take advantage of the environment's unmatched security, reliability, capacity, availability, scalability, transaction processing, and availability.



Plus, with consistent code compatibility between systems, you'll be able to upgrade to new hardware or implement a new operating system release without rewriting your applications, reducing costs along with the risk of significant operational disruption.

And as we continue to add new and enhanced capabilities to the Dorado family, you'll continually find new ways to take advantage of the systems' support for:

- Diverse workloads
- High-capacity processor and I/O performance
- Flexible buying models
- Popular software standards
- Industry-standard tools, applications, and skillsets
- Automated processes and operations
- Advanced business process integration

ClearPath Forward Dorado Systems:

1. Dorado 4580 and 4590 Systems
2. Dorado 6590 Systems
3. Dorado 8590 Systems
4. eXtended Processing Complex
5. OS 2200 QProcessor

2.1. ClearPath Forward Dorado 4580 and 4590 Systems

Delivers powerful levels of performance with security, availability, and reliability in a flexible, modular design

The Unisys ClearPath Forward Dorado 4580 and 4590 systems are the latest generation of Unisys Intel based Dorado platforms designed to support mid-range ClearPath OS 2200 processing environments. The Dorado 4580/4590 Series systems deliver powerful capabilities including high levels of security, availability, and reliability, while offering the option for extended processing capability to support additional workload environments.

High Availability is now a standard feature of these Dorado mid-range systems. Each of the Dorado 4500 primary system components maintain internal resiliency characteristics for power, cooling, local disks, and memory. Overall Dorado 4580 and 4590 system availability is further enhanced by the inclusion of redundant processors, I/O subsystems, and supporting infrastructure components.

[ClearPath Forward Dorado 4580 and 4590 Product Information Sheet](#)

2.2. ClearPath Forward Dorado 6590 Systems

Refreshed ClearPath Forward Dorado system provides high levels of OS 2200 application and I/O performance

The ClearPath Forward Dorado 6590 systems provide the high levels of performance required by many ClearPath OS 2200 installations, along with the resiliency, availability, and security that traditionally have been key attributes of Dorado systems.

Specially designed Unisys firmware, coupled with the latest Unisys Intel based platforms provides a high-end performance OS 2200 processing environment, yet maintains compatibility with existing code files and data formats. A new high performance I/O subsystem complements the Dorado 6590 performance profile.

[ClearPath Forward Dorado 6590 Product Information Sheet](#)

2.3. ClearPath Forward Dorado 8590 Systems

Latest ClearPath Forward Dorado system sets new levels of OS 2200 application and I/O performance

The ClearPath Forward Dorado 8590 systems provide the combination of premium system performance, security, reliability, and available expanded workload support that positions our clients for future growth and exciting new business solutions.

Through the combination of the latest Intel based technologies and uniquely designed Unisys firmware, the premium high-end performance Dorado 8590 set new levels of single thread, single image, and single system performance. Advances in the main processing capacity is matched by a new high performance I/O subsystem.

[ClearPath Forward Dorado 8590 Product Information Sheet](#)



2.4. ClearPath Forward Dorado eXtended Processing Complex

Protects the integrity of data being updated by up to six systems in a multi-host ClearPath OS 2200 environment

The Unisys eXtended Processing Complex Locking (XPC-L) is a database record locking innovation for multi-host, clustered ClearPath Forward Dorado systems. The XPC-L server is designed to protect the integrity of data being updated by various systems in a multi-host ClearPath OS 2200 environment, thus making a significant contribution to your secure business operations.

Key Specifications Include:

- The Unisys extended Processing Complex Locking or XPC-L is a database record locking innovation for multi-host clustered ClearPath OS 2200 environments. The XPC-L server protects the integrity of data being updated by various system managers across a multi-host ClearPath OS 2200 environment, thus making a significant contribution to your secure business operations.
- Up to six ClearPath Forward Dorado systems can all operate against one, shared database; even securely accessing the same record. In addition, each host can also operate against its own private database. This configuration provides for capacity, growth, and horizontal scalability.
- From a business continuity perspective, Unisys eXtended Transaction Capacity (XTC) software along with the XPC-L platform provides virtually non-stop OS 2200 application support. If one of the host Dorado systems experiences a hardware or software failure, the other hosts in the XTC cluster will continue to operate. This configuration provides very high availability, greatly enhanced disaster recovery methods and superior business continuance characteristics.
- The latest release of the XPC-L is available for use with the ClearPath Forward Dorado 4480/4490, Dorado 6480/6490, and Dorado 8480/8490 systems.

[Maximum Data Integrity for Multi-Host Environments ClearPath OS 2200](#)

2.5. ClearPath OS 2200 Qprocessor

Provides a high performance, secure processing environment

The Unisys ClearPath OS 2200 QProcessor provides a high performance, secure processing environment that has been optimized to support the WebSphere MQ Version 7 for ClearPath OS 2200 message queuing solution. Running under the control of the OS 2200 operating system, the QProcessor allows ClearPath Dorado servers to reliably exchange messages with a wide range of other platforms that support the IBM WebSphere MQ solution.

The WebSphere MQ for ClearPath OS 2200 product is based on IBM WebSphere MQ Version 7.0 release.

Through the OS 2200 QProcessor, the WebSphere MQ for ClearPath OS 2200 provides the full functionality of the IBM product but is optimized to take advantage of integration with the OS 2200 environment such as Open DTP transaction management. OS 2200 QProcessor provides a compatible upgrade path for users of MQSeries for ClearPath OS 2200 version 5.2.

The WebSphere MQ Version 7 for ClearPath OS 2200 product, running with the OS 2200 QProcessor, and the OS 2200 operating environment work together to provide the message queuing run-time environment for queuing applications. The OS 2200 QProcessor is fully integrated into the ClearPath OS 2200 server. This integration enables transaction or batch applications to take advantage of the high levels of performance, reliability, and security of the OS 2200 operating environment. All management and recovery are handled by the OS 2200 operating environment. The OS 2200 QProcessor utilizes dedicated processing resources, including its own memory and disk, but acts as a transparent extension of the OS 2200 environment.

The WebSphere MQ Version 7 for ClearPath OS 2200 has been engineered to run on the OS 2200 QProcessor for all the current Dorado servers. Applications written for previous releases of MQSeries for OS 2200 require no changes specifically for Unisys when moving to WebSphere MQ Version 7 for ClearPath OS 2200.



The components of the OS 2200 WebSphere MQ solution are:

- The OS 2200 QProcessor, which includes the necessary hardware resources
- Industry standard operating system and Unisys exclusive firmware that runs with the OS 2200 QProcessor and provides the necessary integration and security not available in a free-standing server
- Specialized InterConnect (IC) software that provides connectivity between the Dorado system and the OS 2200 QProcessor
- WebSphere MQ Version 7 for ClearPath OS 2200 software product

3. ClearPath MCP Software

A Complete, Premium Operating Environment for Your Core Business Applications

ClearPath MCP is the complete, premier operating environment for ClearPath Forward Libra systems and ClearPath MCP Software Series products.

The MCP operating system sits at the environment's heart, providing the robust scalability, availability, data integrity, and secure, ultra-high-volume transaction processing needed to support today's most demanding applications and digital business processes.

For instance, the applications you deploy in the MCP operating environment are run by Transaction Server. A transaction manager and application server designed especially for – and tightly integrated with – the MCP environment, you can rely on Transaction Manager to absorb exceedingly high transaction volumes with ease. It can also process transactions from a variety of sources, including mobile devices and distributed transactions in heterogeneous environments.

Pair Transaction Manager with the ClearPath Forward ePortal for MCP, and you'll be able to enhance your applications and target them for Web Service, web, and mobile environments quickly and easily.

You'll have a choice of database management systems, too. No matter if you utilize Relational Database Server for ClearPath MCP or the hierarchical Enterprise Database Server for ClearPath MCP, you can take advantage of mature, proven technology that's highly scalable, secure, and reliable.

And, it's open and ready to integrate with applications running in such external operating environments as Java, Microsoft® Windows®, UNIX®, and Linux®.

But it doesn't end there. With the MCP environment, you'll have a complete portfolio of tightly integrated software, including:

- Operating environment
- Transaction processing and management
- Database management, query, and reporting
- Security
- Application development tools
- Industry standard integration tools (middleware)
- Performance monitoring
- System tools and utilities
- Communications and networking
- System and recovery management
- Automation utilities

You're free to deploy the MCP operating environment on ClearPath Forward Libra systems. And with the innovative ClearPath Software Series, you'll have the flexibility to implement the environment on any suitably configured Intel hardware. Or, you can deploy it on VMware or Microsoft® Hyper-V hypervisors, enabling the operating environment to play a central role in virtualization deployments.

And with 100% code and data compatibility, you can move between hardware platforms or upgrade to a new MCP operating system release without ever having to rewrite your applications and databases.

ClearPath MCP Software:

1. ClearPath MCP Software Series
 2. ClearPath MCP Express
 3. Locum 360
- [ClearPath MCP Release 20.0 Software Product Catalog](#)
 - [ClearPath MCP Release 20.0 Software Release Announcement](#)
 - [ClearPath MCP Release 20.0 Migration Guide](#)



3.1. ClearPath MCP Software Series Solutions

Thinking outside the “box” – Deploy your ClearPath Forward MCP solutions on the platform of your choice

The Unisys ClearPath MCP Bronze, Silver, Gold, Platinum, and Titanium offerings are fully featured solutions. They enable you to deploy your MCP-based applications into a public cloud, private cloud, or on the x86 server hardware of your choice. They provide the secure, robust enterprise-class application operating environments that are required for today’s changing datacenters located throughout the world.

Product Highlights

The ClearPath MCP Software Series operating environments can help you to:

- Gain flexibility by using a broad array of tools, services and skills available for an industry standard IT infrastructure
- Reduce costs by utilizing a hypervisor implementation that does not requiring dedicated server hardware to host applications

- Lower business risks by achieving planned objectives for functionality, budget, and time-to-market utilizing corporate set standards
- Embrace your cloud initiatives while leveraging the accompanying costs benefits from running your environment in a public cloud

General Features

The Unisys ClearPath MCP Software Series offerings are available in multiple options to accommodate your specific business initiatives and organizational needs.

- [ClearPath MCP Software Series Executive Brief](#)
- [ClearPath MCP Developer Studio Executive Brief](#)
- [ClearPath MCP Developer Studio Specification Sheet](#)

Feature	MCP Bronze	MCP Silver	MCP Gold	MCP Platinum	MCP Titanium
Workload	Production	Production	Production	Production	Production
Possible Transition Path	Libra 4x0 User-based licensing	Libra 4x0 Capacity-based Licensing	Libra 4x0x Metered and Non-metered licensing	Libra 6x0x Metered and Non-metered licensing	Libra 8x0x Metered and Non-metered licensing
MCP Processors	1	Up to 1 CPM, or CPMs	Up to 1, and 4 CPMs	Up to 1, and 2 - 8 CPMs	1 to 16 CPMs
Relative Single Thread Performance	1.5	0.5	1	1.5	2
Deployment	Reference Architecture, Virtualization. Public Cloud	Reference Architecture, Virtualization. Public Cloud	Reference Architecture, Virtualization. *Public Cloud	Reference Architecture, Virtualization	Reference Architecture, Virtualization
Memory (max.)	4GW	4GW	6GW	12GW	16GW
Use	User-Based Production	Entry Level Capacity Based Production	Mid-Range Capacity or Consumption (CVU) Based Production	High-End Capacity or Consumption (CVU) Based Production	High-End Capacity or Consumption (CVU) Based Production
Spec Sheet	Download PDF	Download PDF	Download PDF	Download PDF	

Feature	Personal Edition DE1000	Standard/Enterprise Edition for Bronze/Silver GE0500/GE1000	Dev Studio Team Edition for Gold GE1500	Dev Studio Platinum Edition** GE2000	Dev Studio Titanium Edition** GE3000
Workload	Development	Development	Development	Development	Development
Clients Transitioning from	LX180	Libra 4x0	Libra 4x0x	Libra 6x0x	Libra 8x0x
Number of developers	1	25-May	Unlimited, Capacity or **Consumption-based	Unlimited, Capacity or Consumption-based	Unlimited, Capacity or Consumption-based
MCP dev/test environments	1	1 or 2	1	1	1
Hardware	x86 Personal Computer or x86 Server	x86 Servers	x86 Servers	x86 Server	Libra Server
Host Environments	Bare metal Win 10, Win 2016 or Win 2019	Bare metal, Win 2016, Win 2019, VMware, Hyper-V Azure	Bare metal, Win 2016, Win 2019, VMware, Hyper-V*Azure	Bare metal, Win 2016, Win 2019, VMware, Hyper-V	Bare metal, Win 2016, Win 2019, VMware, Hyper-V

* Capacity based business model on Azure. ** Not currently supported on Azure.



3.2. ClearPath MCP Express

The ClearPath MCP operating environment delivers exceptional value through a completely integrated and pretested software stack. It offers a complete, premier operating environment to support mission critical applications running on ClearPath MCP servers. Throughout the decades MCP was first to introduce many innovations that are now considered standards today.

ClearPath MCP Express is a free, PC-based ClearPath MCP operating environment. Students, teachers, hobbyists and ClearPath enthusiasts can use it for **non-production evaluation, personal or educational purposes** to explore and practice developing and testing ClearPath MCP-based applications.

Product Highlights

- ClearPath MCP Express provides an environment for developing and testing ClearPath MCP applications for non-production evaluation, personal or educational purposes. This includes the MCP operating system, development tools and compilers, and selected run-time software needed to test applications.
- The software is intended to be run on your own Windows Workstations or Laptops that meet the minimum technical requirements (reference architecture) defined in the product information sheet.
- The software is licensed for one user (an individual license) for non-commercial and non-production purposes only.
- The software license expires on July 31st of each calendar year and must be renewed by re-registering with Unisys and then downloading and installing a new package.

Download Information

Before continuing with the download process:

- Carefully read the system download requirements
- To access educational videos, visit MCP Express Playlist in YouTube
- You must first register to initiate the download process

[ClearPath MCP Express](#)

3.3. Locum 360

A comprehensive and integrated security alerting, assessment, auditing, and administration solution for ClearPath MCP systems

Locum 360 Modules

All four modules can be licensed together and activated with a single unique software license key. Alternatively, each module can be licensed separately and activated with a license key unique to that module.

[Download the Locum 360 brochure](#)

Locum RealTime Monitor

ALERT – Proactive real-time alerting

- [Download Executive Brochure](#)
- [Download White Paper](#)

Locum SafeSurvey

ASSESS – Proactive security assessment and risk identification

- [Download Executive Brochure](#)

Locum SecureAudit

AUDIT – Powerful, time saving, audit reporting

- [Download Executive Brochure](#)

Locum Safe and Secure

ADMINISTRATE – Proactive centralized security

- [Download Executive Brochure](#)

Product	How to Get an Evaluation License
Locum 360	EMAIL
Locum RealTime Monitor	DOWNLOAD (Download an evaluation license key for Locum RealTime Monitor)
Locum SafeSurvey	DOWNLOAD (Download an evaluation license key for Locum SafeSurvey)
Locum SecureAudit	DOWNLOAD (Download an evaluation license key for Locum SecureAudit)
Locum Safe and Secure	EMAIL



4. ClearPath OS 2200 Software

A Complete, Premium Operating Environment for Your Most Demanding Business Applications

ClearPath OS 2200 is the complete, premier operating environment for ClearPath Forward Dorado systems.

The OS 2200 operating system sits at the environment's core, delivering the unmatched security, robust scalability, availability, data integrity, and ultra-high-volume transaction processing capabilities your core business applications and digital business processes demand.

These applications are run by transaction managers and application servers designed especially for – and tightly integrated with – the OS 2200 environment, enabling them to manage exceedingly high transaction volumes with ease. But they're just as adept at processing transactions from a variety of sources, including mobile devices and distributed transactions in heterogeneous environments.

You can pair your applications with the environment's relational or hierarchical databases. No matter which option you choose, you'll take advantage of mature, proven technology that's highly scalable, secure, and reliable – and able to integrate with applications running in external operating environments, including Java, Microsoft® Windows®, UNIX®, and Linux®.

But that's not all. With the OS 2200 environment, you'll have a complete, tightly integrated portfolio of software, including:

- ClearPath OS 2200 Release 19.0 Technical Update
- Get technical details of the new release from over 20 technical videos.
- Operating environment
- Transaction processing and management
- Database management, query, and reporting
- Security
- Application development tools
- Industry standard integration tools (middleware)
- Performance monitoring
- System tools and utilities

- Communications and networking
- System and recovery management
- Automation utilities
- Modern Development languages including Java and Python

The OS 2200 operating environment can be deployed on any ClearPath Forward Dorado system.

And with 100% code and data compatibility, you can move between hardware platforms or upgrade to a new OS 2200 operating system release without ever having to rewrite your applications and databases.

ClearPath OS 2200 Software:

1. ClearPath OS 2200 Release 19
2. ClearPath OS 2200 Platinum
3. ClearPath OS 2200 Gold
4. ClearPath OS 2200 Developer Studio
5. ClearPath OS 2200 Express
6. ClearPath OS 2200 IDE for Eclipse
7. CMplus and CMplus Webstation
8. OS 2200 RAD for Python Environments

[ClearPath OS 2200 Release 19.0 Software Product Catalog](#)

[Clearpath OS 2200 Exec Brief: A Premier Operating Environment for Today's Business Demands](#)

[Executive Brief: Freedom, Power, Flexibility: The ClearPath OS 2200 Software Series](#)

[Brochure: Two Complete Environments: The Unisys ClearPath Forward Integrated Stacks](#)

- [ClearPath OS 2200 Release 19.0 Software Product Catalog](#)
- [ClearPath OS 2200 Release 19.0 Software Release Announcement](#)
- [ClearPath OS 2200 Release 19.0 Software Planning and Migration](#)
- [Python for ClearPath Forward Applications White Paper](#)



4.1. ClearPath OS 2200 Platinum

Provides a higher capacity OS 2200 processing capability on your choice of Intel x86 server hardware or virtualized private cloud deployment

With the Unisys ClearPath OS 2200 Platinum software product you can provide a high capacity OS 2200 processing environment with full production level capabilities. OS 2200 Platinum enables you to deploy your OS 2200-based applications as part of a VMware private cloud, or onto your choice of x86 server hardware.

The ClearPath OS 2200 Platinum solution allows your ClearPath applications to be deployed as part of your standard data center infrastructure design. This approach can reduce costs by utilizing a common hardware vendor or virtualized infrastructure; and provide added flexibility through industry standard tools, services, and skills.

The ClearPath OS 2200 Platinum solution is a fully integrated software stack which includes the full OS 2200 operating system and specialized firmware to maintain compatibility with your current OS 2200 applications, data management structures, and system capabilities.

The OS 2200 Platinum deliverables allow you to choose from Fixed Capacity licenses that support OS 2200 higher capacity workloads with predictable processing requirements; or select the pay-for-use Consumption licensing model to adjust to more variable processing demands from internet facing applications.

[ClearPath OS 2200 Platinum Product Information Sheet](#)

4.2. ClearPath OS 2200 Gold

Mid-range OS 2200 processing deployed to your choice of Intel x86 server hardware or virtualized private cloud

The Unisys ClearPath OS 2200 Gold software solution provides a fully featured, mid-range, production level processing environment. Through ClearPath OS 2200 you can deploy your OS 2200 based applications with mid-range processing requirements into a VMware private cloud or on the x86 server hardware of your choice.

The ClearPath OS 2200 Gold product is an integrated software stack that includes the full OS 2200 operating system, with specialized firmware that maintains compatibility with all your OS 2200 applications, data management designs, and system interfaces.

Based on workload capacity, you may choose from **Fixed Capacity** licenses that align with mid-range OS 2200 workloads with predictable processing requirements; or select the pay-for-use **Consumption** licensing model to manage more variability in processing needs from internet facing applications.

With the ClearPath OS 2200 Gold solution your ClearPath applications may be deployed as part of your standardized data center infrastructure. This deployment can reduce costs by utilizing a common hardware vendor or virtualized infrastructure; and provide added flexibility through tools, services, and skills available with an industry standard IT infrastructure.

[ClearPath OS 2200 Gold Product Information Sheet](#)

4.3. ClearPath OS 2200 Developer Studio

Supports new innovative approaches to accelerating the development of ClearPath OS 2200 applications

The Unisys ClearPath OS 2200 Developer Studio delivers a complete development and test workspace that you can use to create, modernize, and maintain applications for the ClearPath OS 2200 processing environments. Within the OS 2200 Developer Studio you can develop applications for the OS 2200 Gold, OS 2200 Platinum, and ClearPath Forward Dorado production environments.

The OS 2200 Developer Studio is designed to support both development teams and individual developers. OS 2200 Developer Studio may be deployed as part of a VMware private cloud or onto your choice of Intel x86 server hardware.

With OS 2200 Developer Studio you may choose from Fixed Capacity licenses that support a more predictable development workload; or select the pay-for-use Consumption licensing model to manage more dynamic and changing development needs.

The OS 2200 Developer Studio combines the traditional Software Developer's Kit with a selection of OS 2200 run-time software to enable testing of new features for production deployment. With the OS 2200 Developer Studio solution you be able to handle new OS 2200 application demands, as a standard part of your data center infrastructure.

[ClearPath OS 2200 Developer Studio Product Information Sheet](#)



4.4. ClearPath OS 2200 Express

The ClearPath OS 2200 operating environment delivers exceptional value through a completely integrated and pretested software stack. Throughout the decades OS 2200 was first to introduce many innovations that are now considered standards and today delivers unique capabilities with robust scalability, extremely high availability, data integrity and high-volume transaction processing capabilities.

The ClearPath OS 2200 Express is a PC-based software product for Unisys ClearPath Forward enthusiasts who want to engage in developing, testing, and demonstrating ClearPath OS 2200 based applications for personal/educational purposes. OS 2200 Express makes it possible for a PC running the Microsoft® Windows® 7 or higher Operating System to function as a ClearPath OS 2200 system.

This product is intended for non-production personal and educational use only. Commercial use is prohibited.

Product Highlights

- Includes a selection of software products from ClearPath OS 2200 Release that you can use to develop, compile, debug, and test OS 2200 based applications
- Provides an environment that's suitable for demonstrating your OS 2200 based applications
- Allows you to easily access many functions of OS 2200 for education, practice, or hobbyist development debug and testing

[Please register to request a download of ClearPath OS 2200 Express](#)

4.5. ClearPath OS 2200 IDE for Eclipse™

All-in-one package for application development

ClearPath OS 2200 IDE for Eclipse is an Integrated Development Environment (IDE) tool based on the Eclipse IDE open source product. Unisys has prepackaged, extended, and tested Eclipse IDE to provide a complete and easy-to-install IDE for OS 2200 application development.

The All-In-One feature is a prepackaged Eclipse and set of Eclipse plug-ins appropriate for developing enterprise-class applications.

The package includes the following:

- Eclipse JEE IDE
- C/C++ Development Tools (CDT)
- Photran Development Tools (PDT)
- Unisys CA

CA Eclipse Plug-In

The CA Eclipse Plug-in simplifies the development of Java composite applications. It extends Eclipse with an OS 2200 project framework, language editors, and Telnet communication capabilities. The Eclipse Plug-in enables you to create, modify, build, and integrate OS 2200 3GL programs with new or existing Java application programs.

- Projects (Local and Remote OS 2200 projects)
 - OS 2200 project Wizard and Eclipse IDE perspective
 - Create and delete OS 2200 projects
 - Update OS 2200 Remote project
 - Shared Eclipse IDE and OS working directory
 - OS 2200 CIFS directories hold program source on the OS 2200
 - Add, create, and delete program file elements from an OS 2200 project
 - Managed Builds enable you to control builds and deployment
 - Report compilation warnings and errors
 - Displays program statement associated with warnings and errors
 - Automatically connects to the OS 2200 system using a Telnet plug-in
 - Automatic LETS-J to Unicode character conversion for project files
 - Supports builds with output in Brkpt files
 - Supports interactive debugging of UCS programs



- OS 2200 File Explorer (OFE)
 - Browse OS 2200 File System without leaving Eclipse IDE
 - Sort the elements or files based on the last modified timestamp or size
 - Perform search on the elements or files using “OS 2200 Search”
 - Open element or file in read-only mode
- Editors
 - COBOL IDE editor using the Eclipse COBOL IDE plug-in
 - C editor using the Eclipse CDT plug-in
- PLUS editor
 - Common Eclipse editor capabilities (Cut, Copy, Paste, and so on)
 - Syntax color coding
 - Automatic block indentation
 - Automatic tab and line delimiter conversion
 - Source line numbers
 - Preference adjustments
- Java Application Integration
 - TIP/HVTIP Java Connection class generator using a COBOL or View file
 - Define and edit connector views
 - Supports code generation for using the BIS resource adapter and the DMS resource adapter
- Unisys Telnet Plug-In
 - Create Connection wizard
 - Create Session wizard
 - Opening manual sessions
 - Set, update, and delete connection and Host Account profiles
 - Automatic login script generation

- Cancel, Pause, and Kill process output
- Toggle echo state
- Command history scrolling
- Command Copy and Paste
- Copy a session output
- Logging and Diagnostics
 - Built-in diagnostic logging of plug-in processing
 - Automatic packaging and export of log files
- Integrated Eclipse IDE Help

Software Download

The ClearPath OS 2200 IDE for Eclipse 2021 is available via the Unisys Download Center (UDC). Please contact your sales representative for ordering.

4.6. CMplus and CMplus Webstation for OS 2200

Helps organizations to safely and effectively manage OS 2200 based components that make up 3GL business applications

A comprehensive Software Configuration Management (SCM) and Version Control solution for developers of 3GL business applications for ClearPath OS 2200 Series systems. CMplus helps your organization to safely and effectively manage the thousands of OS 2200-based components that make up your 3GL business applications. CMplus provides a secure environment while allowing one to build, test, maintain, and deploy business applications in an automated manner. Used internally for years by Unisys to satisfy mission critical contracts, CMplus, from a risk management perspective, has a direct impact satisfying security, disaster recovery, technical resource retention, auditing requirements, and quality assurance issues.



CMplus delivers:

- Lowest total cost of ownership, easy-to-use, most flexible solution on the market
- Can successfully handle OS 2200 3GL applications regardless of when written
- Designed using industry “best practices” specifically for the OS 2200 architecture as CMplus leverages these strengths in automating business application development
- Automatic generation of any clients 3GL business applications
- Identifies lost source code before application modernization occurs
- Automatic deployment of a generated business application to a target OS 2200 system
- Provides Application Level Disaster Recovery which is unique in the industry
- Provides for CMplus system replication to give client’s a powerful multiple development/test capability
- Interfaces with modern desktop solutions like Eclipse
- An optional Web-based interface solution called “CMplus Webstation” that provides a modern “point and click” interface into each CMplus system deployed
- Provides ClearPath Forward Dorado clients the ability to build and deploy 3GL OS 2200 business applications in a 24x7 Production Environment and also fallback the business application as needed

The Five Essential Functions of CMplus

There are five functions comprise CMplus and these functions give a customer complete control over the application development lifecycle.

- **Program Developer** function provides a robust environment for application development and maintenance.
- **Application Baseline Management** allows the CMplus Administrator to collect all the “objects” that comprise a business application together into one complete system.
- **Source Control** is the foundation that CMplus is built upon to control and manage a customer’s Unisys business source code.

- **CMplus Administrator** uses CMplus as a capability to manage a small, medium or large object environment.
- **Application Transfer** in CMplus supports both the centralized and decentralized Configuration Management Models. This feature allows a customer to configure what Unisys system software capability a business application is using.

The current release of CMplus and CMplus Webstation is 16R1.

4.7. ClearPath OS 2200 RAD for Python Environments

Use the Python programming language to develop applications that use ClearPath OS 2200-based resources

Unisys ClearPath OS 2200 RAD for Python Environments enables you to rapidly develop applications written in the Python programming language that are integrated with the Unisys ClearPath OS 2200 operating environment.

Python is a modern, open source programming language enabling you to work quickly, do rapid prototyping and implement complex algorithms.

Jython is a Python implementation that is tightly integrated with the Java platform. Unisys has developed Java-based resource adapters to access OS 2200 Relational Database Server (RDMS) and DMS databases, as well as TIP transactions from Java applications.

IronPython is an Open-source implementation of the Python programming language that is tightly integrated with the Microsoft® .NET Framework.

ClearPath OS 2200 RAD for Python Environments is a toolbox that includes code samples and documentation. It shows you how to use IronPython, Jython and Unisys middleware to develop applications written in the Python language and integrate those applications with resources in the OS 2200 environment.

Database Access

Jython, can be used within Unisys ClearPath OS 2200 IDE for Eclipse to model OS 2200 file access, OS 2200 RDMS and DMS database interaction, and the execution of TIP/HVTIP transactions from a Jython script.

File Access

The IronPython implementation accesses OS 2200 resources using Application Integration Services (AIS).



Application Integration

Application integration APIs, also provided by ClearPath Application Integration Services, enable applications to call libraries in the ClearPath OS 2200 environment. The APIs support OS 2200 libraries written in the COBOL85, ALGOL, and NEWP languages.

Transaction Integration

ClearPath Application Integration Services provides transaction integration APIs that enable applications to initiate transactions in the ClearPath OS 2200 environment under the control of the TIP Transaction Server.

Getting Started

Log in to the ClearPath OS 2200 RAD for Python Environments Information Center on support.unisys.com to download the code samples and documentation.

https://www.support.unisys.com/OS2200_RADIC_1.0/index.jsp

5. Cross Platform Software

Business-Critical Application Development and Systems Management Tools

Develop, evolve, enhance, and manage enterprise-wide applications. Leverage the power of data analytics. Monitor every aspect of your data center from a single view.

With the wide array of cross-platform software available in the ClearPath Forward environment, you'll have everything you need to complement and extend the capabilities provided by the ClearPath MCP and ClearPath OS 2200 operating systems.

For instance, you can use Agile Business Suite (AB Suite[®]) and Unisys Business Information Server (BIS) to develop business-critical solutions directly within your ClearPath Forward system. And with ClearPath Application Integration Services (AIS) and the ClearPath Visual IDE, you'll make it easy to build apps that take full advantage of the capabilities in Microsoft[®] Visual Studio[®].

Or, you can use Unisys Data Exchange to support business process integration, reporting, big data analytics, and business intelligence activities.

You'll be able to automate and modernize the ways you distribute, manage, and secure your organization's documents with Enterprise Output Manager.

And with the help of Operations Sentinel, you can automate, access, monitor, and manage heterogeneous systems and applications from a single, consolidated pane of glass.

Cross Platform Software:

1. Agile Business Suite
2. Business Information Server
3. ClearPath AIS
4. ClearPath Forward ePortal
5. ClearPath Visual IDE
6. Data Exchange
7. Enterprise Output Manager
8. Operations Sentinel

5.1. Unisys Agile Business Suite (AB Suite)

Define and generate business-critical solutions easily and quickly

Unisys Agile Business Suite (AB Suite) is a unique Model Driven development environment for mission critical solutions. It helps you capitalize on change rather than simply respond to it. It supports design, development, generation, and ongoing maintenance of high-performance, highly available, enterprise-class applications.

AB Suite provides a development environment in which business and technical professionals truly collaborate, directing changes and designing new capabilities at the business level. It encourages people to focus on what an application should do and not worry about how it should be coded or deployed. Agile Business Suite is composed of Developer and Runtime for each of the two supported platforms, ClearPath MCP and Windows.



The AB Suite development environment includes:

- The System Modeler, which is the primary design and development tool.
- A Debugger for executing unit and functional tests.
- A Builder to automatically generate and deploy the application Agile Business Suite Runtime provides the framework in which applications run.
- Automated Test Tool (ATT), verifies the changes in AB Suite generated application using series of test steps. It provides functions to record, play back, and edit test sequences for the AB Suite applications.

AB Suite integrates state-of-the-art development tools from Unisys, Microsoft®, and others.

What's more, it supports a model-based approach, so applications are defined and modified at a higher level of abstraction than traditional 3GL languages, such as C# and Java. And when it comes to deployment, AB Suite offers a rich variety of options, including the Unisys ClearPath MCP environments and Microsoft® Windows® .NET framework both with lots of options for modern User Interfaces, like for the different smart phone OS's, and ASP.NET, and Web Services. Key Features include:

- Model-driven development using object-oriented constructs to create a platform-independent definition of your solution
- Generation of services or complete, high-performance, highly available, enterprise-class applications from a single model definition
- Integration with Microsoft® Visual Studio® so that you can access widely-available industry skills to staff your application development organizations
- Integration with Microsoft® Team Foundation Server for a complete Application Lifecycle Management (ALM) environment
- Support of industry standards like XMI that enable exchange of model information with other tools
- A choice of deployment options, including Unisys ClearPath MCP environments and Microsoft® Windows® - where the generated solution is optimized for the selected platform
- Enable digital business with Micro services and unparalleled integration of AB Suite with external applications, agencies, and client-facing digital technologies

- A rich variety of end-user client interfaces that can be generated - for the Web, for the desktop, for mobile devices - increasing developer productivity and end-user flexibility
- Automated Test Tool that captures and replays transactions, enabling development of repeatable test cases
- [AB Suite Runtime 7.0 for ClearPath MCP OS Product Information](#)
- [AB Suite Runtime 7.0 for Windows® .NET Framework Product Information](#)
- [AB Suite Developer 7.0 Product Information](#)
- [AB Suite Runtime 7.0 for ClearPath MCP Software Release Announcement](#)
- [AB Suite Runtime 7.0 for Windows® Operating System SRA](#)
- [AB Suite Developer 7.0 Software Release Announcement](#)

5.2. Business Information Server

Turning raw data into real business insights

Unisys Business Information Server (BIS) is a highly scalable, multimode, enterprise-level, rapid-application development, and information access tool. It enables businesses to create, organize, and manage their business logic, information, and Web assets in an integrated environment. BIS can connect to most databases and provide data visualization for enhancing your business intelligence.

The BIS suite offers enterprises a powerful development and deployment foundation for quickly turning raw data into actionable intelligence. Its hallmark has always been tailoring solutions to meet the precise needs of organizations regardless of their line-of-business. BIS delivers true value – especially in the hands of end users. It provides:

- Real-time access to information (transforms vast amounts of business data into useful information), reducing the costs associated with traditional reporting
- The unique BIS Power Commands that combine several data functions (for example, searching, sorting, summarizing, and reformatting) into easy-to-use and understand commands for accessing and managing data, which helps executives and business professionals make informed decisions



- The capability to develop systems faster than traditional programming, reducing cost and improving productivity of developers and end users
- BIS scripting and JavaScript scripting for a flexible, open development environment
- The ability to subscribe, through browsers, to standard or ad-hoc reports for real-time information access BIS is available on ClearPath OS 2200, Microsoft® Windows® and Linux®

Key Features include:

- Casual report browsing
- Complex data analysis
- Data mining
- Database querying, graphing, and charting
- “What if” and Trend analysis

The Business Information Server (BIS) software enables you to accomplish interactive decision-support tasks using more than 145 Business Information Server functions. The functions allow you to search, display, analyze and update your business information, as well as to manipulate and manage data reports or results. You’ll find it very easy to access and manipulate the data to suit your purposes, including quickly focusing and refocusing data to find the information you need. You can also “drill down” through successive layers of data to obtain precise information conveniently formatted.

Download a Free Evaluation Copy of Unisys Business Information Server

A 90-day evaluation copy for non-production use is available.

[Click here to download](#)

- [BIS for ClearPath OS 2200 Release 50R1 - Software Release Announcement](#)
- [BIS for Microsoft® Windows® Release 14.1 - Software Release Announcement](#)
- [BIS for Linux®: SUSE™ Linux® Enterprise Server 12 Release 14R1 - SRA](#)
- [BIS for Linux®: Red Hat Enterprise Linux® 7 Version Release 14R1 – SRA](#)
- [Business Information Server Scripting Guidelines Revision 2.0](#)

Brochure: Unisys Business Information Server

Executive Brief: Your Data, Transformed: Unisys Business Information Server

5.3. ClearPath Application Integration Services

Speed up your Digital Business Transformation with ClearPath Application Integration Services. Integrate with microservices and cloud environments. Make development simpler and more accessible. Leverage existing assets to new ends. Goals like these will define – and drive – your digital transformation journey. And that’s where the ClearPath Application Integration Services (AIS) product comes into play.

With ClearPath Application Integration Services (AIS), you can dramatically simplify the process of developing and deploying business-critical, cross-platform applications. By blending proven ClearPath Forward attributes – including security, reliability, and high-volume performance – with the familiarity of the Microsoft® Windows® environment, you’ll allow developers who are accustomed to working in .NET and Microsoft® Visual Studio® to freely build ClearPath Forward applications.

Integrating With External Systems

Digital business processes look seamless and simple from the surface. But delve deeper, and you’ll see that building them correctly means managing complex interactions that span partners, technologies, and environments. With the ability to access external services using Application Integration Services, you will streamline integration with microservices environments. As a result, you will get new capabilities to market faster, so you can deliver on stakeholders’ digital business demands.

Reusing Your Existing Assets

With ClearPath and Application Integration Services, you’ll be able to digitally transform without shouldering massive financial risk. That’s because you’re free to reuse your existing assets as central components in new solutions. For example, Application Integration Services can help you to expose ClearPath applications as Web services that can participate in microservices architectures. This way, you’ll realize a much more positive – and faster – return on your digital transformation investments. And, most importantly, you’ll get new capabilities to market at the moment they’re most impactful.



Make Development Simpler

ClearPath Application Integration Services provides APIs that applications running in one operating environment can use to access resources such as files or applications in another operating environment. For example: a Windows application can access OS 2200 TIP transactions or read MCP files. Another example is to enable ClearPath application to call out external web service in Windows. ClearPath Application Integration Services has been designed to reduce the amount of code developers have to design, write, and test.

Optimized for Specific Operating environments

ClearPath Application Integration Services provides Unisys value-added capabilities that standards-based products such as the Common Internet File Service can't provide. For example you can enable a Windows application to access MCP file attributes.

File Access

ClearPath Application Integration Services enables Windows applications to create, access, and update files resident in the ClearPath MCP and OS 2200 environments.

Transaction Integration

APIs provided by ClearPath Application Integration Services make it possible for Windows applications to use ClearPath based business logic to process transactions in the ClearPath MCP and OS 2200 environments.

Application Integration

You can use the application integration facilities provided by ClearPath Application Integration Services to develop distributed applications with business logic running in both the Microsoft® Windows® and ClearPath MCP and OS 2200 environments.

Call Out Services

Call Out services enable ClearPath MCP and OS 2200 applications to access a feature that's typically provided in .NET, such as SOAP-based web services. The call out services feature makes it possible to use .NET capabilities right in your ClearPath environment – with minimal specialized programming knowledge required. As a result, you'll find it easier to retain core ClearPath Forward attributes as you take advantage of .NET capabilities and more readily available programming skills.

- [ClearPath Application Integration Services Product Info \(OS 2200\)](#)
- [ClearPath Application Integration Services Product Information \(MCP\)](#)
- [ClearPath Application Integration Services Executive Brief](#)

Brochure: Setting the Pace: Accelerating Digital Transformation With The ClearPath Forward Environment

5.4. ClearPath Forward ePortal

Driving your digital transformation with integration, automation, and simplicity

With ClearPath Forward ePortal, you can connect your existing ClearPath MCP and ClearPath OS 2200 applications and data with internal and external business processes, bringing innovative solutions and experiences to new markets, channels, partners, and customers.

When you develop these solutions in ePortal, you'll have access to capabilities that enable you to integrate your ClearPath applications quickly and easily with cloud and microservices environments. You'll be able to make external service calls from your MCP and OS 2200 programs – and expose them as services to external environments – easing interactions with internal systems, external resources, or a combination of the two.

And with ePortal Developer – a Microsoft® Visual Studio® plug-in – you'll bring point-and-click automation to every step of your application development, deployment, and management processes. With no or limited application changes required – as well as no need for new, incremental skills – your team will move faster, and your organization will bring its projects to market sooner.

Because ePortal includes support for Microsoft® environments, as well as a number of industry-popular mobile and web development technologies, you'll make simplicity a focal point of your operations. By giving programmers the freedom to use familiar tools and techniques, you'll encourage all levels of skills and experience to work faster, smarter, and with greater confidence.



Plus, you'll have the flexibility to deploy ePortal as a hardware appliance on your ClearPath Forward Libra system, ClearPath Forward Dorado system, or as a VM on industry-standard hypervisor platforms.

Add it all up, and you'll be well positioned to add positive momentum to your digital transformation.

When you do, you'll be able to:

- Create new, digital business process that leverage the ClearPath Forward environment's proven security, reliability, and performance
- Integrate your assets with internal and external resources, so they're free to participate in new environments and reach new channels
- Transform your existing applications and data in innovative ways – without excessive cost and risk
- Extend your applications to microservices, web, mobile, and web services environments

And, most importantly, you'll deliver the experiences today's digital natives expect – and get them to market faster than your competition.

- [ClearPath Forward ePortal Executive Brief](#)
- [ClearPath Forward ePortal Product Information Sheet](#)
- [ClearPath Forward ePortal Software Release Announcement](#)

5.5. Unisys ClearPath Visual IDE

Flatten the learning curve for new developers

Unisys ClearPath Visual IDE is a software product that extends the capabilities of Microsoft® Visual Studio® to enable you to use it to develop ClearPath applications.

Unisys ClearPath Visual IDE is a plug-in for Visual Studio® that provides an integrated development environment you can use to create projects, edit ClearPath source files, and build solutions using the familiar Visual Studio® interface you already use for C#, C++, ClearPath Forward ePortal, Agile Business Suite, and other languages.

Developers Become Productive Faster

There is a large community of developers who have experience using Microsoft® Visual Studio® to develop enterprise-class applications.

Unisys ClearPath Visual IDE enables these developers to leverage their Visual Studio® experience and reduces the time required for them to become productive ClearPath application developers.

Reduce the Cost of Developing Distributed Applications

Unisys ClearPath Visual IDE, when combined with other Microsoft® Visual Studio® plug-ins, enables a developer to use a single tool – Microsoft® Visual Studio® – to develop distributed applications having components running in different environments such as ClearPath MCP, Agile Business Suite, ClearPath Forward ePortal, Microsoft® Windows®, and others. Using a single tool makes developers more productive and can help to reduce software licensing and support costs.

Develop ClearPath MCP Applications

ClearPath Visual IDE enables you to leverage the capabilities of Microsoft® Visual Studio® to perform these important ClearPath MCP applications development tasks:

- Create MCP Projects
- Create and Edit MCP Source Files
- Create Patches for MCP Source Files
- Source Control
- Build MCP Applications and Libraries
- Run MCP Applications
- Debug MCP Applications using the Test and Debug System (TADS)



Unisys ClearPath Visual IDE supports these ClearPath MCP languages and file formats:

- COBOL74
- COBOL85
- ALGOL
- DMALGOL
- DCALGOL
- NEWP
- WFL
- DASDL
- SEQDATA
- TEXTDATA
- Pascal
- Pascal83
- Binder
- CC
- CPP
- Java
- Fortran
- Fortran77
- XFortran
- COBOL
- LCOBOL
- Modula2
- Basic
- RPG
- ESPOL
- SANS
- OHNE
- SCHEDULEFILE
- CSEQDATA

[Unisys ClearPath Visual IDE Product Information Sheet](#)

5.6. Data Exchange

Enabling mobile access, digital channel development, regulatory compliance and much more

Organizations are overwhelmed by data access demands. Customers, suppliers, and employees are demanding 7x24x365 access from mobile devices. Business units need support for digital channel initiatives. Data from multiple systems must be consolidated to satisfy regulatory requirements.

Unisys Data Exchange is data integration software that is designed to help organizations address these issues. It is available as a software option for ClearPath MCP and ClearPath OS 2200 servers.

Data Exchange propagates selected data from one data store to another data store. While propagating the data, Data Exchange can apply transformations to the data as needed by the business processes and the applications that support them.

These data propagation and transformation capabilities are designed to facilitate timely access to data for decision support and additional business processing while minimizing the impact to the on-line transaction processing environment.

Data Exchange can help you in several ways.

Mobile Access Demand

Data Exchange can help you address demands from customers, suppliers and employees for 7x24x365 access to data that is contained in a variety of databases.

Digital Channel Development

Data Exchange can help you support digital channel development initiatives to reach new customers and to retain/serve existing customers more effectively.

Data Exchange can be used to provide a single view of data managed by different applications.

Regulatory Compliance

Data Exchange can help you address regulatory requirements for data that must be consolidated from several different databases.



Business Process Integration

Data Exchange can help you integrate business processes by providing near real-time integration of operational data between applications.

Data Exchange can also help you if you have an existing integration solution that uses one or more of the following: home grown tools, batch tools (FTP, etc.), or manual procedures.

Timely Decision Support

Data Exchange can also support reporting, business intelligence and big data activities. It is an off-the shelf tool that can help you offload processing from production systems and provide a copy of the production data in near real-time.

Data Exchange can also help you improve your current decision support solution that reports from production system data, uses a home grown ETL tool, or uses batch tools (FTP, etc.).

More Efficient Business Operations

Data Exchange is designed to help an organization operate more efficiently.

- Provide better customer service
- Integrate and automate business processes
- Speed up decision making

It does this by sharing selected data between applications/ data stores in near real-time. It captures updates to the source data store automatically as they occur and can replace batch data transfers that use FTP and similar technologies.

Reduce Software Development and Maintenance Costs

Data Exchange helps organizations reduce software development and maintenance costs.

Organizations can avoid the costs (people and equipment) associated with designing, developing, testing, and supporting home grown tools to provide similar functionality. Data Exchange software is designed, developed, tested, and supported by Unisys. It arrives ready to install and use. Software development skills are not required to use Data Exchange.

The cost of changing existing application source code and database schemas is eliminated or minimized when using Data Exchange because it is designed to work with existing applications and databases.

Minimize Overhead

Data Exchange is designed to minimize the system resources required to support its workload. It accomplishes this by allowing you to specify a subset of the source data store's data that is to be shared with the target data store.

Increases IT Flexibility

Data Exchange increases IT flexibility by enabling integration of heterogeneous data sources running on heterogeneous operating systems.

- [Unisys Data Exchange Executive Brief](#)
- [Unisys Data Exchange Assessment Service](#)
- [Unisys Data Exchange Implementation Service](#)
- [Unisys Data Exchange Installation and Configuration Service](#)
- [Unisys Data Exchange Training Service](#)
- [Unisys Data Exchange Proof of Concept Service](#)
- [Unisys Data Exchange Kafka Integration Proof of Concept Service](#)
- [Unisys Data Exchange Specification](#)

5.7. Enterprise Output Manager

Automatically process, modernize, and route application output from any supported platform to any supported destination

You have various documents such as monthly invoices, employee pay slips, student transcripts, and patient records. In order to streamline business processes, you can automate calculation, formatting, distribution, and archiving of your documents. Creating standard digital templates also enables you to communicate your business identity and strategy to clients, partners, and employees.

A single piece of paper could be the starting step to reducing your carbon footprint, reducing paper consumption, and eliminating paper expenses. 1,000 pieces of paper weighs approximately 40 pounds. Wouldn't you want to have the flexibility to use digital forms of output rather than just print every document?



The Solution:

- Enterprise Output Manager (EOM) is a comprehensive output-management solution designed to:
- Automate document distribution
- Streamline document management
- Provide intuitive, modern, and consistent digital documents
- Improve communication with client, employees, and partners
- Ensure cost effective, reliable, secure delivery of business-critical documents

EOM is built on client-server technology, it runs on a server, workstation, laptop, or any system running 32 or 64-bit Microsoft® Windows® instances, and can handle:

- Output from open protocols
- Email messages
- Web services
- Mobile devices (Android and iOS)
- Local or network directories
- Windows systems
- UNIX systems
- Linux systems
- IBM systems
- Unisys ClearPath Forward Systems and Unisys Enterprise Servers

The primary function of the EOM software is to automatically process and route print and other application output from any supported platform to any supported output destination.

Automated processing is based on the file name, size, or other file characteristics you specify. In addition to printing, EOM lets you take advantage of a variety of delivery mechanisms, such as email, Web, HTTP, FTP, SFTP, CD/DVD, and fax. With each of these delivery methods, EOM can transform your application output into customized modern forms using for example PDF and XML. The new Web interface is easy and intuitive to use.

EOM can be tailored to your specific requirements enabling you to implement enterprise-wide or individual office solutions. EOM is a comprehensive, world-class printer and output management solution providing the following business benefits:

- Reduce operational cost
- Improve client communication
- Provide remote administration
- Automate document workflows via policy-based rules
- Send personalized faxes, emails, and other documentation to clients, employees, and partners automatically
- Automate and simplify paper-intensive processes and manual document handling
- Transform paper documents into streamlined, actionable digital information and integrate into business-critical workflows
- Improve communication, collaboration, and productivity with clients, employees, and partners
- Modernize output data without changing source applications
- Replace preprinted forms with digital templates
- Reduce your carbon footprint and meet your sustainability goals by eliminating paper
- Deliver documents to mobile devices, tablets, web, email, printers and more

- [Enterprise Output Manager: Software Release Announcement Release 14.2](#)

- [Enterprise Output Manager: Licensing Options](#)

- [Enterprise Output Manager: Technical Consulting Services](#)



5.8. Operations Sentinel

Automated and centralized data center operations

Data centers today manage an increasingly complex infrastructure of applications, platforms, servers, server farms, storage, and other equipment that constantly require an increasing number of resources and special skills. In the face of a challenging economic climate, IT budgets are shrinking and forcing IT managers to cut costs throughout the data centers and evaluate their existing IT architecture.

Virtualization and cloud computing are posing new challenges; and organizations are increasingly seeking techniques to automate, optimize, and streamline the management of their current data centers.

Operations Sentinel is a comprehensive data center automation and management solution that simplifies the operations of your enterprise-wide IT infrastructure and lowers your operation costs.

Operations Sentinel business benefits for Unisys and non-Unisys systems include:

- Effective automation, monitoring, and management of multiple, heterogeneous systems and applications
- A single point of operation for the entire IT infrastructure
- Anytime, anywhere remote operations
- Automatic handling of abnormal conditions from a single application error to full disaster recovery
- Lower operations and support costs through automation and end-to-end simplification
- Comprehensive management of mission-critical environments

You can use Operations Sentinel to centrally operate:

- Multiple Unisys ClearPath Forward Dorado and Libra systems
- Multiple Unisys ClearPath MCP and OS 2200 Software Series
- Microsoft® Windows® server
- Linux® systems - CentOS, Enterprise Red Hat Linux – and more

Operations Sentinel can integrate with the existing IT environments running EMC, DSI, SMA OpCon, SightLine, TeamQuest, Net IQ AppManager, CA Unicenter, IBM Tivoli, BMC Remedy, and many more solutions.

Operations Sentinel enable you to monitor the state of all connected systems, recognize and respond to exception conditions, and assume control of any system, either local or remote. Operations Sentinel reduces the human interaction required to run each system, focuses the operator's attention on key events, and enables one operator to effectively control a network of systems.

- [Operations Sentinel: Software Release Announcement 18.0](#)
- [Operations Sentinel Technical Consulting Services](#)
- [Operations Sentinel Licensing Options](#)

ClearPath Forward Services

Advise, Evolve, Implement, Manage

Application-focused. Software-only. Virtualization-ready.

With innovative qualities like these, ClearPath Forward systems are more than prepared to be key players in today's tightly integrated, hybrid data center environments.

And it's these same innovations that can help your organization capitalize on our technology roadmap – while enabling you to take special care of the systems and applications that differentiate your business.

But how? How will you take advantage of everything the ClearPath Forward environment offers today, as well as what we plan to deliver in the future?

The ClearPath Forward Services portfolio is the key.

An integrated, holistic set of offerings, ClearPath Forward Services provide the expertise and support you need to plan and execute innovation initiatives – without taking your eye off the day-to-day.

You can do so by leveraging the three core components of the ClearPath Forward Services portfolio:

1. Application Enrichment Services
2. Product Implementation Services
3. Managed Services and Outsourcing



With the help of this simple yet comprehensive portfolio, you'll maximize the ROI your ClearPath Forward investments deliver, free up resources to support strategic projects, and take steps that can help you unlock the true value of your ClearPath Forward system.

1. Application Enrichment Services

Current Apps, Maximum Value

Your ClearPath Forward applications encompass the critical business processes your company has relied on for years. As a result, they're directly linked to how you define and distinguish your brand in an increasingly crowded market.

That's why keeping them current, contemporary, and poised to capitalize on the latest trends is so important. It's how you'll fend off disruptive newcomers and maintain your competitive standing. And it's how you'll make sure your ClearPath Forward applications continue to deliver value over the long term.

With the help of our Application Enrichment Services, you'll be able to build a clear, actionable strategy that outlines how to evolve your applications in response to new demands.

This way, you'll be able to plan and execute the technology initiatives that help you deliver continual value to your clients – without disrupting your ongoing business processes.

1. ClearPath Forward Advisory Services
2. ClearPath Forward Application Evolution Services

E-Book: How to Shift Your IT Focus from Administration to Innovation

E-Book: The Road to Innovation: ClearPath Forward Services

1.1. ClearPath Forward Advisory Services

The best projects for the biggest business value

Optimizing your ClearPath Forward environment means understanding the wealth of opportunities in front of you and prioritizing the right initiatives at the right time.

With the ClearPath Forward Advisory Services, you can do just that. You'll be able to identify, analyze, and act on the application initiatives that best align with where your business is today – as well as where it's headed tomorrow.

To get there, we'll work with you to measure your IT organization's automation and integration maturity across multiple dimensions. And, we'll help you analyze and report on the distribution of IT costs in such areas as infrastructure, data management, storage, networking, and operations.

With this information in hand, you'll be able to identify, categorize, and prioritize new innovation opportunities. And then, you'll have the support you need to develop high-level business cases and implementation roadmaps that can help you capitalize on the most promising options.

Executive Brief: ClearPath Forward Innovation Workshops

1.2. ClearPath Forward Application Evolution Services

Delivering on the promise of application modernization

Your ClearPath Forward system provides an expansive canvas of capabilities. It integrates mobile, web, and web services technologies. It features application and data integration, automation, development, and database tools. And it brings everything together to help you continuously deliver agile, secure application experiences.

When you leverage the ClearPath Forward Application Evolution Services, you'll see the many ways your organization can benefit from this wealth of capabilities.

With access to unified consulting, management, modernization, development, and transformation support, you'll have the help you need to effectively evolve your applications – without incurring high costs or taking on excessive risks.

To get there, we'll help you define a roadmap that outlines how to increase the ROI of your existing investments and enhance your applications for maximum business relevance. At the same time, you'll learn how best to incorporate new technologies, streamline processes, and adapt to rapidly changing business and IT demands.



2. Product Implementation Services

Keeping Your Clearpath Forward Infrastructure on The Cutting Edge

There's no discounting the crucial importance of your ClearPath Forward system.

It's the hub of your critical business processes. It runs an exceptionally high volume of transactions while delivering unparalleled data integrity. And because of this, it's the system of record for so much of what sets your business apart from everyone else.

As such, it's vital that you keep your ClearPath Forward system up to date, relevant, and aligned with your shifting operational goals and IT initiatives.

When you use our Product Services, you'll be able to build an implementation plan aimed at maintaining current software and hardware levels. You'll understand and account for future capacity needs. And you'll learn how to leverage new technologies that can help your company disrupt established business models.

This way, you'll be able to make sure your ClearPath Forward environment remains well equipped to drive your organization's strategic goals.

1. ClearPath Forward Implementation Services
2. Storage Services
3. Cross Platform Software Services

2.1. ClearPath Forward Implementation Services

Stay current, stay relevant

When your ClearPath Forward environment is aligned with the latest advances, your business will remain primed to stay competitive today – and tomorrow.

With our ClearPath Forward Implementation Services, you'll be able to follow a predictable, cost-efficient approach to adopting new technologies, keeping existing systems current, and preparing your environment to take advantage of the latest innovations.

From strategy, planning, and design, to onsite provisioning and installation, and ongoing training and support, you'll ready your environment to incorporate the most contemporary hardware and software features, as well as the newest releases.

Plus, you'll receive post-implementation reports and reviews, along with expert guidance about areas where you can improve automation and integration, so you can continue to capitalize on all the cutting-edge capabilities the ClearPath Forward environment has to offer.

2.2. Storage Services

Taming explosive data growth

As the hub of so much critical business processing, your ClearPath Forward environment creates, manages, and distributes an astounding amount of data each day. And though the volume of this data only promises to increase, your ability to control, protect, and act on it will play a major role in how well your organization differentiates itself going forward.

With the help of our Storage Services, you'll be able to assess your company's expanding data management requirements and build an actionable strategy that spans ClearPath Forward and other systems.

You'll learn how your business can keep pace with exploding data volumes, while making it easier to configure, install, test, and migrate data between a wide array of storage platforms.

In addition, you'll have access to a dashboard that documents key utilization and performance metrics. And you'll be able to rely on expert support that can help you determine how best to modernize your storage environment and improve your disaster recovery readiness.

2.3. Cross Platform Software Services

The best of what's available, used for all it's worth

The ClearPath Forward environment is much more than just the system itself. It's a thriving ecosystem, full of advanced capabilities, vital integrations, and connections with internal and external resources.

With our Cross Platform Software Services, you'll see how to configure, install, and implement the various complementary solutions that add so much value to the environment.

You'll be able to extend the capabilities provided by complementary Unisys solutions – Agile Business Suite, Business Information Server, Operations Sentinel, ClearPath Application Integration Services, the ClearPath Visual IDE, Data Exchange, and Enterprise Output Manager, to name a few – throughout your organization and across multiple infrastructures.

This way, you'll capitalize on all the value the ClearPath Forward environment has to offer, and use it to deliver maximum benefits throughout your organization.

3. Managed Services and Outsourcing

Keeping Your Focus Where It Belongs – Your Business

You want to be in the business of your business – not the business of IT.

That's why you're doing everything you can to make sure your ClearPath Forward environment is well-equipped to serve as the best possible representation of your brand identity.

With the help of our Managed Services and Outsourcing, you'll have access to the proven expertise and experienced support you need to make this goal a reality. You'll be able to overcome staffing and resource shortfalls, so you can be sure your ClearPath Forward environment always runs at peak performance.

And as a result, you'll have the flexibility required to keep your ClearPath Forward environment in a state of continuous optimization, while freeing up resources to support the innovation initiatives you need to stay relevant and differentiated.

1. ClearPath Forward Staff Augmentation Services
2. ClearPath Forward Managed Services

3.1. ClearPath Forward Staff Augmentation Services

The right skills – today and tomorrow

Your ClearPath Forward system is quite powerful on its own. Pair it with your people – the individuals who know your business inside and out – and it can enable you to achieve some truly great things.

And to help you make sure skills shortfalls never impact your ability to innovate, our ClearPath Forward Staff Augmentation Services give you the flexibility to tap into the extra support you need, whenever you need it.

With the ability to access a deep pool of knowledgeable ClearPath Forward experts as needed, you'll be better equipped to address shifting business goals and the resource requirements that come with them.

This way, you'll create a continuity of ClearPath Forward skills that fills in any gaps you're dealing with today, while helping tomorrow's team members become as knowledgeable as your longest-tenured employees.

3.2. ClearPath Forward Managed Services

Relieving the burden of the day-to-day

Your ClearPath Forward environment is the driving force behind so much of what defines and differentiates your business. But sometimes, keeping it current, connected, and available can take a back seat to the high-profile innovation initiatives business leaders so frequently demand.

When this happens, you can rest assured knowing our ClearPath Forward Managed Services will be there to help you offload many of these day-to-day activities, so you can stay focused on more strategic matters.

Leveraging our worldwide network of delivery centers and global service management platform, ClearPath Forward Managed Services can support parts or all your ClearPath Forward infrastructure, so you can stay focused on what's most important: your business.

And thanks to its integrated, turn-key approach to operations and management, we can also support private and hybrid cloud environments – and even your entire data center – on your behalf.

**Reach out to your ClearPath Forward Client executive or
email us at ClearPathForward@unisys.com**



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