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ClearPath Forward Connection

A Quarterly Newsletter for Unisys ClearPath Forward Clients

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Taking ClearPath Forward Beyond "the Box"

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

Recounting the history of the ClearPath Forward™ program means telling a story about change.

It's a story that sees massive, rapid, unprecedented changes happening in the business and IT worlds. It's a story about how we've anticipated, responded to, and embraced these changes by making changes of our own – reinventing, updating, enhancing, and reimaging the characteristics that define ClearPath Forward systems in order to keep them aligned with the technology trends and business imperatives impacting our client base.

And, as you'll see, it's a story that continues.

Becoming "Everything Centric"

In many ways, this story of change begins in earnest with a strategy we launched in 2006 to standardize future ClearPath Forward systems on an all Intel® chipset.

This hardware-centric transition moved our systems away from their existing, proprietary architectures and toward an industry-standard foundation, giving clients a set of systems that provided increasing levels of performance, along with the characteristics they had come to expect from the ClearPath Forward environment.

We delivered on this promise time and again over several years, ultimately releasing the most powerful ClearPath Forward Libra and Dorado systems we've ever built. **>>**

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In addition to laying the groundwork that would culminate in these milestone releases, this strategy enabled us to be less tied to the hardware than we were in decades past. The boundaries became undefined, affording us the freedom to shape our systems in a manner that allowed them to function as self-contained, software-defined compute environments – and become much better equipped to play central roles in the modern, tightly integrated data center.

Transitioning from a hardware-centric to a software-centric mindset represented a massive change in the direction and definition of the ClearPath Forward program. It's a shift we embodied in the ClearPath® Software Series.

The Software Series is a decidedly software-centric approach to IT. It moves our premium operating environments – as well as their underlying capabilities – above the hardware to which they used to be tied, making it possible for clients to deploy ClearPath MCP and OS 2200 software in more ways, and in more places, than they ever could.

In doing so, they have more time, energy, and resources to focus on what matters most: the applications that define the value their businesses bring to market.

And by supporting this new application-centric shift, we're sharpening the ClearPath Forward program's emphasis on driving business value.

A Focus on Business Value

The application – and, more specifically, the application layer – is the new differentiator. Companies recognize the immense value these assets hold and are building infrastructures with the express purpose of ensuring their business-critical applications remain current, available, and optimized for use on a variety of channels and devices.

Prioritizing applications in this way means the data center will soon look nothing like it once did. Rather than a single, monolithic facility, the "data center" is now a blend of traditional, on-premise systems and public and private cloud infrastructures, all of which are utilized in whichever combination and location best suits the application layer's unique requirements.

It also illustrates another important truth: Companies simply aren't as focused on the data center as they once were. They'd rather be in the business of their businesses, of making sure their applications serve as the best possible representations of their brand identities. And they want to do so while exploiting the characteristics of, and new flexible ownership choices for, the new hybrid data centers of the future.

The Next Wave of Change

Our recent launch is evidence of the ways we've responded to, as well as embraced, this intense focus on business value.

To that end, it marks the start of the ClearPath Forward technology's transition from hardware-centric offerings to software-only solutions deployable on a wide array of platforms.

Starting with the entry-level ClearPath MCP Bronze and Silver offerings, clients have the freedom to deploy an entire, integrated operating environment on the hardware of their choice. The MCP environment can reside on an x86 platform that conforms to specific reference architecture guidelines. Or, it can even be deployed on a VMware® ESXi™ or Microsoft® Hyper-V® hypervisor.

Creating MCP software that's free to live on different hardware, across different environments, illustrates the ClearPath Forward program's new, application-centric direction.

It's a logical extension of the last decade-plus of work. It shows that the strategies we put into place along the way have positioned us to take advantage of where things are today. And, most importantly, it proves that when something is well planned from the start, it fits and continues to fit.

It's a story that continues.

Introducing ClearPath MCP Bronze and ClearPath MCP Silver

Our introduction of the ClearPath Software Series established an exciting new direction for the ClearPath Forward program.

Shifting our focus towards a suite of software-only deliverables effectively redefines the enterprise applications of a ClearPath Forward system. By decoupling the software and hardware, we're making it possible for you to leverage the core ClearPath attributes with greater ease – while making them well positioned to serve as integral components of tomorrow's software-defined data centers.

And now, we're excited to announce the latest additions to the Software Series family: ClearPath MCP Bronze and Silver.

Beyond "the Box"

Like every ClearPath Forward product, ClearPath MCP Bronze and Silver provide the secure, robust, enterprise-class operating environments you need to support today's most business-critical transactions and applications.

But unlike traditional ClearPath Forward products, these are entry-level, software-only offerings designed to run on any industry-standard x86 system that meets specific reference architecture guidelines. In addition, you even have the option to deploy MCP Bronze and Silver on leading virtualization technologies, such as VMware ESXi and Microsoft Hyper-V.

In essence, we're delivering a premium ClearPath MCP software image without the hardware component. As a result, you can deploy an integrated, production-ready instance of the full ClearPath MCP integrated stack – operating system, transaction manager, database, system utilities, and firmware – by licensing the software only. >>

And no matter whether you deploy MCP Bronze or Silver on a physical server or a virtual server managed by a hypervisor, these options give you the freedom to use equipment you may already have on hand, making it possible to avoid additional investments and potentially eliminate the need to maintain a separate system dedicated solely to your MCP applications.

The Choice is Yours

ClearPath MCP Bronze and Silver are built to accommodate and enable a wide array of organizational needs and workload types.

ClearPath MCP Bronze offers concurrent, user-based licensing and can host a general-purpose workload that supports production and application development and testing activities.

ClearPath MCP Silver uses capacity-based licensing that's determined by the maximum number of MCP Central Processing Modules (CPMs) available for activation.

It has licensing options for both general-purpose and Agile Business Suite (AB Suite™) application workloads. And, it also offers three dedicated business continuity/disaster recovery choices:

- Disaster recovery for another MCP Silver instance
- Disaster recovery for a ClearPath Forward Libra system
- "Warm" business continuity workload for Unisys Business Continuity Accelerator

To learn more about ClearPath MCP Bronze and Silver, as well as the other offerings under the ClearPath Software Series umbrella, please visit our web site and read our recent press release. And for configuration guidelines and hardware and software requirements, please download the ClearPath MCP Software Series Compatibility Guide.

What's New in ClearPath Forward ePortal 7.0?
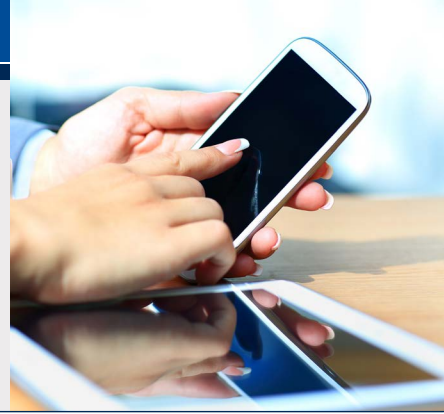
With ClearPath Forward ePortal, you get a point-and-click Service Oriented Architecture (SOA) enabler that rapidly extends your ClearPath Forward applications to new partners, channels, and markets through web, mobile, or Web Services technologies.

And now, we're enhancing these capabilities even further in ClearPath Forward ePortal 7.0, a new release that brings higher levels of resiliency and support for the latest development tools to both ClearPath MCP and OS 2200 environments.

Here's what's new and noteworthy in ePortal 7.0:

- **Enhanced ePortal Manager Resiliency:** ePortal 7.0 makes it possible for Enterprise Generation 4 systems to maintain a secondary Manager partition that can automatically take over should the primary partition fail. Additionally, fully redundant network paths are now supported for Manager partitions. Together, these capabilities enhance the value ePortal brings to business-critical environments by eliminating single points of failure for all management operations.

- **Operations Sentinel Monitoring:** Operations Sentinel can now monitor the overall health of ePortal Manager, and even indicate when it may be necessary to fail over to a replica Manager partition.

- **ePortal Orchestration Enhancements:** New Orchestration features within ePortal give designers added options for improved application development, integration, and support. These features enable Orchestration reuse using custom Processes, allow trace-log messages to be written from within Orchestrations, provide a new Switch activity that eliminates the need for nested if-then-else statements, and let developers create custom, callable processes written in C# from within Orchestrations.

- **Unisys Multi-Device Mobile Apps:** With the help of Unisys Multi-Device Mobile App development, which now supports the latest mobile development frameworks from Apple®, Android™, and Microsoft, you can easily build hybrid, mobile apps that use familiar web development approaches and include contemporary mobile technologies.

- **Windows 10 Universal App Support:** With this feature, Unisys Multi-Device app developers can use new Microsoft Windows® 10 Universal App project templates to create apps that target all Windows 10 devices using a single code base, giving ePortal developers the latest technology for the complete range of Windows 10 desktops, tablets, and smartphones.

- **Support for Visual Studio 2015:** ePortal 7.0 is now integrated with Microsoft Visual Studio® 2015, as well as the latest .NET frameworks from Microsoft.

- **Enhanced SOA Support – Web Services:** Easier deployment of WCF Routing services enables developers to more effectively support complex routing scenarios, such as content-based routing, service aggregation, service versioning, priority routing, protocol bridging, backup endpoints, and more.

Please visit our web site to learn more about these and the other new features included in ClearPath Forward ePortal 7.0, as well as the immense value ePortal can bring to OS 2200 and MCP environments.

Testing and Automation:
The Keys to a Successful Recovery

Automation is the key to any disaster recovery strategy.

Not only does automation make recoveries faster, it also helps to reduce the potential for manual errors and minimizes risk if your recovery staff is unavailable during an emergency situation. Therefore, it's crucial to periodically test any DR scenario in order to confirm that the process works as expected, as well as to see if it has kept pace with any changes you've introduced into your production environment.

Four Ways to Test Your DR Process

Testing any DR scenario is a must, particularly when there are so many components in your data center, including your ClearPath MCP system. Not only do you want to make sure that the DR process successfully recovers your MCP environment, you'll also need to confirm that all production workloads function as they did before.

There are a few strategies you can employ to work towards this goal, each of which has its benefits and drawbacks.

Let's take a look at each in a little more detail.

The first is the "peek" test. You'll start by halting storage replication, moving a point-in-time copy of your production data to a standby system, and running a test workload against that data. If it succeeds, you can re-enable the replication. Though this process won't disrupt your production workloads, it's not the most exhaustive strategy. You're only testing one part of the DR process – the data – not things like network availability or whether or not a production workload will correctly execute. Another thing to be aware of is that you may not be able to fail over automatically while the test is in process.

The second is a variation of the peek test. In this version, you'll create a point-in-time copy of your production data and halt/load the secondary system as a variation of the primary system. Once you do this, you can run a test workload. While this method is more comprehensive, you may still not be able to automatically fail over until it completes.

The third strategy is to halt production on a weekend, execute your failover plan, run some tests, and return production back to the primary set. While you'll benefit from testing the full complement of your failover processes, doing so may have an impact on your production environment. Oftentimes, the secondary system could be an older model or might have less capacity than the production system. These potential differences create an incentive to minimize any impact on production systems, but doing so means the tests you execute may not be as exhaustive as possible.

The last strategy is to eliminate the idea of primary and secondary sites altogether. Instead, you'll periodically move production somewhere equally configured and just as capable of running a production workload. This isn't so much a failover test as it is a shift in the location of a workload. And while there's an impact to production, there is no incentive to minimize the test. >>

No Matter What, Automate

Regardless of which test option you choose, and when you decide to run it, automation is crucial. Each of these tests can be driven by a scheduler, such as SMA Op/Con XPS, or by specialized DR software like Unisys Business Continuity Accelerator.

Imagine a daily or weekly DR test that utilizes the two "peek" strategies described earlier. With the help of these tools, you can run an automation script that sends point-in-time copies to the DR host, restarts the host, executes a few test workloads, puts everything back, and automatically notifies you when the test successfully completes.

This periodic automatic execution can also be paired with a more rigorous failover test, such as the final two strategies discussed above. Regardless of which strategy choose, it's always a good idea to test your process and automate it as much as possible – and make sure to use Unisys knowledge and expertise to confirm you've covered all of your bases.

Please visit our web site for more information about the capabilities and benefits Unisys Business Continuity Accelerator has to offer. And to see how the solution helped one Unisys client strengthen its business continuity measures, please read the Pershing Limited case study.

ePortal Made Easier

ClearPath Forward ePortal is all about ease and simplicity.

By automating every step in the application modernization process – from development to deployment, and everything in between – ClearPath Forward ePortal dramatically reduces the time and effort needed to create enhanced capabilities and roll them out to new partners, channels, and markets.

And now, with the help of the ClearPath Forward ePortal Consultancy Service, we're making this process easier than ever.

The service centers around helping you extend a selected ClearPath application to a mobile, web, or SOA environment by building a proof of concept that implements ePortal on specific screens or user transactions.

In addition to creating a proof of concept project, the service may include the following activities:

- Import a mutually defined number of existing screens/transactions
- Provide **ONE** of the following interfaces for the defined number of existing screens:
  - A standard web browser interface
  - A smartphone interface
  - A tablet interface
  - Generate Web Services components
- Consolidate existing host transactions using the ePortal Orchestration feature, if applicable
- Test the ePortal modernized screens and generated interfaces

- Demonstrate the new interfaces to management and business stakeholders
- Discuss options for follow-on services

When you work with Unisys to increase your team's familiarity with ePortal, you'll be able to:

- Create a rapid proof of concept for your ePortal Projects
- Get more business value from your existing applications
- Produce enterprise-class Web Services applications using minimal staff resources
- Employ a point-and-click single point of deployment for all enhanced applications
- Enable Visual Studio developers to modernize existing applications without requiring them to have detailed knowledge of the ClearPath development environment
- Enable your existing and modernized applications to freely coexist, giving you an immediate "fall back" strategy during initial deployment

Please note that the work performed by Unisys during a ClearPath Forward ePortal Consultancy Service engagement will be agreed upon between the parties and "time boxed" around three staff weeks. Work may be performed on or off-site.

For additional details about this service, please contact your Unisys sales representative.
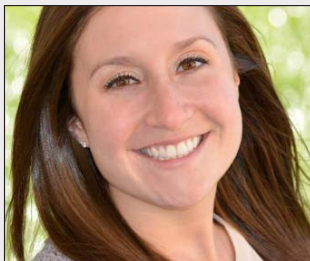
Software Engineer Brittney Burchett Named a "Tech Disruptor"

Please join us in congratulating Brittney Burchett, a software engineer at our Malvern, Pennsylvania, Technology Center, on being named a "2016 Tech Disruptor" by the *Philadelphia Business Journal*.

The award, which recognizes technology professionals who work create and deliver projects that have lasting impact on the Philadelphia business community, was given to Brittney for the positive impact she's made on the software engineering organization, as well as the ClearPath Forward program, in her four years with Unisys.

In that time, she introduced several novel, beneficially disruptive ways of working and formed multiple teams that helped to nurture and guide new products through the innovation process. This included a five-month initiative to develop a friendly user interface and user experience for the Unisys Stealth™ solution.

"Brittney richly deserves this award," says Unisys Chief Engineer Jim Thompson, himself a past *Philadelphia Business Journal* technology honoree. "Brittney's vision, energy, and creativity are major assets as we evolve the way we engineer our software products to meet our clients' continually changing requirements. She is taking the lead in creating an innovative engineering culture that enhances our organization worldwide and yields tangible benefits for the clients we serve."

Great work, Brittney!

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 Forward Libra/MCP Webinars
- ClearPath Forward Dorado/OS 2200 Webinars
- eBook: The Power of Innovation: ClearPath Forward Systems in Action (**Updated**)
- 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

- Video Playlist: ClearPath OS 2200 Release 16.0 Technical Update (**24 Videos**)
- ClearPath Forward Client 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* March 2016
- Newsletter: ClearPath Forward Connection April 2016
- White Paper: ClearPath Middleware Strategy and Products for OS 2200 Systems
- White Paper: ClearPath Middleware Strategy and Products for MCP Systems