

Honeywell's Premium Platform Gen3 for Experion Virtualization Solutions

Product Information Note

Bringing best-in-class computing hardware and advanced virtualization technologies together in an easy to deploy, compact, scalable and reliable pre-packaged solution delivering protection from hardware downtime and an unmatched lifecycle experience.

Powerful reference design

Honeywell's Premium Platform Gen3 for Experion Virtualization Solutions provides a reference virtual design optimized for the process control industry. The design is based on hyperconverged infrastructure hardware integrated with VMware virtualization software, delivering a simple, compact, reliable, flexible and scalable solution with a premium hardware lifecycle experience.



Built to specification for process control

Virtualization technology provides the benefit of hardware independence. However, with a wide variety of server options to choose from, it is difficult to decide on the ideal combination that provides the best overall performance and reliability experience for Experion.

Honeywell eliminates this complexity with the Premium Platform for Experion Virtualization Solutions. It delivers a pre-defined hardware configuration optimized for virtualized process control environments using Honeywell-customized provisioning templates, and Honeywell's deep collaboration between hardware and software vendors has taken the guesswork out of the design. You no longer must worry about trying every possible component combination such as server chassis, processors, memory, local versus shared storage, storage controllers, or networking options across multiple vendors.

The Honeywell Premium Platform delivers excellent lifecycle benefits above and beyond our traditional rack server-based Essentials Platform for Experion Virtualization Solutions. These benefits include greater networking options and flexibility, 30% or more reduction in setup time, and up to 50% more density. Advanced availability features provided increased protections from hardware failures, such as VMware Fault Tolerance capabilities which can deliver zero downtime, zero data loss failover in the event of a hardware outage.

Integrated, Compact and Scalable Solution

Unlike traditional virtualization designs that separate the storage array from the hypervisor, Honeywell's Premium Platform for Experion Virtualization Solutions combines the best of server and shared storage technologies in a design that is optimized for the process control industry. It tightly integrates pre-defined storage and compute into a base building block, and multiple storage blocks are integrated through VMware's vSAN technology to enable an integrated shared storage pool spanning across multiple servers that are joined as a computing cluster. This cluster-based approach enables you to leverage advanced virtualization features while maintaining the modular and easy to maintain characteristics of the solution. Honeywell's approach delivers the benefits of shared storage while ensuring that the core tenants of a Distributed Control System - that risk is distributed - is retained.

Ready-to-go customized solution from Honeywell

With typical hardware platforms, there are multiple network and configuration settings that need to be adjusted along with a multitude of different firmware packages. On the software side, third-party software packages like the VMware hypervisor and Microsoft operating system need to be installed and configured. All of these tasks can be tedious and error prone to perform. To eliminate these concerns, Honeywell delivers the Premium Platform in a package that provides a simplified deployment experience that enables all hardware and hypervisor configuration steps to be quickly implemented and deployed.

Honeywell offers the Microsoft Windows Server Datacenter edition operating system with the Premium Platform server, allowing for unlimited virtual machines to be licensed per Premium Platform server. This also eliminates the need to license individual operating systems.

Honeywell works directly with the hardware manufacturers to define a configuration that provides the optimal balance of both performance and resiliency, eliminating countless hours of configuration guesswork that would otherwise need to be done as part of a project. The Premium Platform is available exclusively from Honeywell, and all contents and deliverables with this solution are for the exclusive use by Premium Platform customers, including:

- Firmware, BIOS, and hypervisor releases installed to the Honeywell baseline
- Standardized Top of Rack switch configuration files
- Detailed deployment documentation to aid with the simplified deployment experience
- Microsoft operating system templates

Honeywell's standardized ordering and deployment processes ensure that each Premium Platform deployment delivers the expected performance, resiliency, quality, and security requirements. It also enables Honeywell to ensure documentation, global support and engineering services are all aligned to this configuration.

Virtualization provides improved hardware independence opportunities and with greater hardware choice. However, that power to choose can come at the expense of standardization. The standardization provided with the Premium Platform creates a far superior and seamless customer experience over any non-standardized hardware approach.



Enhanced Lifecycle experience

In addition to opportunities for reducing facility costs, the Premium Platform provides a superior lifecycle experience through its remote administration and management capabilities. Overall uptime is improved by reducing the impact of preventative maintenance or expansion events. These capabilities include:

- Adding new processing capacity on-line with zero disruption to operations
- Refreshing hardware online without having to touch the operating system or application layer
- Rapid fallback to a known good point using snapshots
- Standardized Top of Rack networking for simplified deployments and management

Improved system availability

The Honeywell Premium Platform vastly increases system availability by reducing operational disruptions due to unplanned or planned hardware downtime. This is achieved through advanced virtualization capabilities including:

- Zero downtime and zero data loss protection in the event of a hardware failure, providing hardware redundancy for workloads without native software redundancy
- Preventive maintenance tasks like hardware maintenance and periodic hypervisor patching can be performed with zero impact to plant operations
- Node level redundancy should a hardware failure occur

Improved performance with design flexibility

With the use of solid-state disk drives, Honeywell's Premium Platform offers best in class disk performance which improves support for a wider array of Experion workloads with less hardware. The high performance is complimented by the flexible network design allowing each server to connect to multiple network segments with reduced complexity.

Simplified hardware choices for easy ordering

Honeywell's Premium Platform delivers a vastly simplified ordering experience by distilling a large number of possible permutations down to simple, ready to deploy bundles. These bundles include the Premium Platform servers, Top of Rack networking switches, and optional hardware warranty extensions.

Lower Facility Costs

Honeywell's Premium Platform for Experion Virtualization Solutions has a much lower footprint than traditional hardware platforms, which can dramatically reduce server room space, weight, cooling and power requirements. The power saved can defer or eliminate costly Uninterrupted Power Supply (UPS) upgrades and reduce power consumption. With each server that is eliminated, there is one less node that requires a periodic maintenance task to be performed against it.

Comprehensive Services and Technical Support

Honeywell offers standard and optional service plans that help in the management of the Premium Platform solution. This includes Honeywell remote technical support and services, patching and upgrade solution, parts repair and replacements, and optional hardware warranty extensions.

Comprehensive user documentation is provided to address all aspects of the system lifecycle, including system planning, installation, troubleshooting, and best practices.

For More Information

To learn more about Honeywell's Premium Platform for Experion® Virtualization solutions, visit <https://hwll.co/virtualization> or contact your Honeywell Account Manager.

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Why buy Honeywell's Premium Platform for Virtualization?

- Reference virtual design that is optimized for the process control industry
- Custom networking design templates, provisioning guidance, and configuration stack that is available exclusively for Premium Platform customers
- Tested for performance with various Experion PKS and Advanced Solutions products
- Modular design with advanced virtualization capabilities for complete protection against hardware downtime
- Full TAC support for all layers of the stack
- Simplified design and ordering experience
- Standardized and hassle-free project execution by Honeywell engineering teams
- Reduced configuration time on site
- Superior support experience over the life of the platform.
- Builds upon the previous generation Premium Platform solution while delivering the best lifecycle experience through:
 - Better hardware scalability with smaller system building blocks and simplified networking
 - Extensive hardware-software integration with automated and simplified deployment, update, and system expansion tools
 - Broader hardware choices

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