

Open VEP - Virtual Engineering Platform

Product Information Note

Honeywell's Virtual Engineering Platform (Open VEP) provides a secure, centrally hosted cloud environment for automation engineering. When offered as a service for hosting off-process lab infrastructure in the public cloud, it will reduce costs, improve efficiencies, and deliver greater overall value to both end users and EPCs.

The Challenge: Support product laboratory engineering activities without incurring high CAPEX and OPEX costs, and demanding infrastructure support requirements

In the process industries, there is a need to rapidly scale laboratory infrastructure and deploy the necessary tools without making big up-front capital investments. But if assets for engineering and testing are not carefully managed, capital and operating expenses can escalate – ratcheting the total cost of ownership.

Honeywell is developing a solution to meet the demands of off-process systems and associated engineering. Our Open Virtual Engineering Platform (Open VEP) will leverage proven cloud technology, as well as the powerful virtualization and simulation capabilities of the Experion® Process Knowledge System (PKS), to help industrial organizations gain agility and reduce capital expenses (CAPEX) and operating expenses (OPEX) for off-process systems. It will also provide benefits from many of Honeywell's LEAP project enablers to drive increased value and efficiency.



FEATURES & BENEFITS

- Reduced system support costs
- Lower CAPEX and OPEX demand
- Flexible monthly hosting fees
- Versatile lab system infrastructure
- System access from anywhere, at any time
- Easier collaboration with engineering team members, suppliers and contractors
- Reduced set-up time and costs
- Lower personnel and support costs
- Optimum use of resources
- Flexibility with assets and data
- Shorter engineering schedules
- Enhanced workflows
- Improved migration testing
- Early and quick access to new control system releases

The Opportunity: Host off-process labs in the cloud to improve engineering efficiencies, reduce costs, and minimize support requirements

Today, more and more industrial organizations are seeking to employ cloud technology to perform engineering and test functions across multiple global locations. The ability to share data without being limited by time or place helps personnel collaborate more closely. It also allows them to concentrate on their work rather than how, when, and where their jobs are executed.

By putting their off-process lab in the cloud, companies gain access to a portal where they can easily create, replicate and change entire projects on demand. Engineers can use various databases, operating systems, browsers and application builds for the configurations they need – all without involving the IT department.

The Solution: Honeywell's Virtual Engineering Platform (Open VEP)

Honeywell's Virtual Engineering Platform was originally designed to provide a secure, centrally hosted cloud environment to execute projects anywhere around the globe. It utilizes virtual server farms located strategically around the world, running simulators on virtual machines (VMs) and leveraging the latest "thin client" technology.

Honeywell is now offering Open VEP as a service for hosting an off-process infrastructure in the public cloud and is making it available for use by our customers and partners. Automation end users and engineering, procurement and construction (EPC) firms will be able to connect to the Open VEP via a secure virtual private network (VPN) tunnel and interact with their counterparts who could be on the other side of the world. This will provide a rapid and agile method of deploying off-process, completely configured, networked and running control systems in a secure and flexible cloud environment.

Leveraging both the virtualization and cloud technologies of Honeywell's best-in-class LEAP methodology, together with the strong simulation capabilities of the Experion Process Knowledge System (PKS), Open VEP in the cloud will provide a versatile and cost-effective solution for obtaining access to off-process systems for a wide variety of purposes. It will also enable industrial firms to significantly increase engineering efficiencies, – impacting their bottom-line performance.

Typical use case examples for the Open VEP solution include:

1. Customer with an existing off process lab system

- Move the lab to the cloud
- Reduce the CAPEX outlay for hardware
- Remove or reduce the need for a physical space in the facility
- Reduce maintenance personnel and setup/re-set costs
- Run migration scenarios or re-purpose the lab in minutes – not days or weeks
- Get access to Honeywell Experion support
- Expand or contract the space to suit current needs – only pay for what's used and maximize value of OPEX

2. Customer cannot justify the outlay for an off-process system on-site system.

- Rent a system in cloud just when it is needed
- Completely avoid CAPEX outlay
- Get a ready-to-go system immediately at the required software release
- An off-process system is now a viable and affordable option
- Get started almost immediately on application development

3. Customer is engineering its own Experion PKS project:

- Get access to a collaborative engineering environment earlier in the project lifecycle
- Expand or contract the system to meet the dynamic needs of the project
- Spin up a copy of the system for factory acceptance tests (FAT) with ease
- Migrate to a later release with the minimum time and outlay

The VEP will allow complete control system modifications to be made in the cloud without the need for a full shutdown. It will also improve migration capabilities by enabling easier and more flexible testing and analysis. The cloud-based approach removes hardware costs, shortens schedules, expedites integration, and reduces rework and the risk of downtime or lost productivity.



Honeywell's planned VEP in the cloud solution will reduce costs and streamline infrastructure support requirements for off-process systems.

Rather than support their own internal lab or off-process system, companies can leverage Open VEP to transform the way in which they operate to achieve a competitive advantage. The ability to detect and react quickly to issues reduces waste and elapsed time, which subsequently lowers costs and improves time to market.

The combination of virtual engineering with full product lab deployment will yield the highest possible benefits in terms of engineering and design efficiency, infrastructure support, setup time and cost, and support/personnel expenses.

Advantages for Customers

Open VEP in a secured public cloud will help end users and EPCs by enabling a number of key operational and business advantages:

- Avoid the high cost of hosting a permanent product lab
- Reduce lab system support requirements and infrastructure costs
- Eliminate hard-to-justify CAPEX investments
- Minimize operating expenses with a flexible and supported system
- Leverage lean project execution technologies to optimize engineering practices

For More Information

To learn more about how Honeywell's Open VEP can improve your performance, visit www.honeywellprocess.com or contact your Honeywell account manager, authorized distributor or system integrator.

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- Increase flexibility with current assets and data
- Easy access to Honeywell Product Support, subject to a support contract
- Gain early access to new releases to test migration scenarios

Why Honeywell?

By applying engineering disciplines to the traditional application of cloud computing, Honeywell's Open VEP results in a new and significantly more cost-effective approach to automation development and testing: cloud engineering. With a secure, centrally hosted cloud environment, engineering work can be done anywhere in the world. This brings the project to the experts rather than having to round up all the experts into one location.

- Centralized engineering hardware, reducing unnecessary capital costs
- Earlier start of development and testing activities
- Reduced travel, deployment time and labor
- Consistent engineering environment, reducing costly rework and avoiding non-value added activities
- Reduced schedule risk and faster time to completion

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