Federation End-User Computing

Holistic solution combines infrastructure, software, and management tools
Federation End-User Computing

HOLISTIC SOLUTION COMBINES INFRASTRUCTURE, SOFTWARE, AND MANAGEMENT TOOLS

ABSTRACT

This white paper explains the technical benefits of the Federation End-User Computing (Fed EUC) solution. Unlike virtual desktop infrastructure (VDI), Fed EUC solution includes everything needed to deploy and manage virtual desktops in a private cloud. Integrated components include infrastructure, virtualization software, management tools, and support. The solution is validated to deliver a consistently high-quality user experience and to simplify deployment, expansion, and support.

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EXECUTIVE SUMMARY

More than 40% of organizations expect to use their private clouds for virtual desktops\(^1\). Popular motivations include moving toward IT as a Service (ITaaS), speeding up application delivery, storing sensitive data in the data center instead of on endpoints, and enabling business mobility.

WHAT IS THE FEDERATION?

EMC II, Pivotal, RSA, VCE, Virtustream and VMware form a unique Federation of strategically aligned businesses. They develop solutions both individually and together for the software-defined enterprise and for the emerging 3rd platform of computing: mobile, cloud, big data and social. Solutions include Federation End-User Computing, Federation Enterprise Hybrid Cloud, and Federation Business Data Lakes.

This white paper, intended for IT professionals in charge of deploying and managing virtual desktops, explains Federation End–User Computing (Fed EUC) solution. An integrated solution, Federation EUC topples the barriers to virtual desktops by reducing complexity, making it easier to scale, simplifying application provisioning, orchestrating desktop management, and providing one-call support.

\(^1\) IDC, “Workload Awareness is Vital for Effective Enterprise Hybrid Cloud Strategies,” October 2014
REDUCE COMPLEXITY: VALIDATED SOLUTION COMBINES HARDWARE AND SOFTWARE

Challenge: A complete virtual desktop solution requires dozens of other components in addition to VMware Horizon. These include infrastructure and security technology as well as tools for orchestration and automation, support desk, application delivery, and more. Integrating hardware and software components from multiple vendors prolongs deployment and test cycles, increases risk, and complicates ongoing management.

Federation EUC Solution: The Federation EUC solution includes required hardware and software—all validated to work together (Figure 1). You don’t need to spend time integrating and testing the components because the Federation has already done the work. And Federation EUC Solution is not just VDI; it also provides the tools you need for support and automated provisioning.

FIGURE 1 Federation EUC Solution Components

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>WHAT’S INCLUDED IN THE FEDERATION EUC SOLUTION</th>
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</thead>
<tbody>
<tr>
<td>Servers and networking</td>
<td>VCE VBlock System or third-party</td>
</tr>
<tr>
<td>Storage for VDI operating system image</td>
<td>EMC XtremIO Flash Array or EMC VNX Hybrid Flash Array</td>
</tr>
<tr>
<td>User and network shares</td>
<td>VNX Hybrid Flash or EMC Isilon scale-out NAS</td>
</tr>
<tr>
<td>Virtualization and cloud infrastructure</td>
<td>VMware vRealize Suite</td>
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<tr>
<td>Virtual desktops</td>
<td>VMware Horizon (with View)</td>
</tr>
<tr>
<td>Security</td>
<td>Hypervisor-based antivirus that’s compatible with VMware vShield Endpoint</td>
</tr>
<tr>
<td>Customer support desk</td>
<td>VMware vRealize Operations Center</td>
</tr>
<tr>
<td>Orchestration and automation</td>
<td>VMware vRealize Operations Center and vRealize Orchestrator</td>
</tr>
<tr>
<td>Application delivery</td>
<td>VMware App Volumes, VMware ThinApp, VMware Horizon View, or third-party application such as Microsoft App-V</td>
</tr>
<tr>
<td>Services</td>
<td>Federation Professional Services for Installation, and other services as requested</td>
</tr>
<tr>
<td>Optional components from the Federation</td>
<td>Security with RSA, EFSS with AirWatch Content Locker from VMware, Mobility management with AirWatch, Content-management with Documentum, Software-defined networking with VMware NSX</td>
</tr>
</tbody>
</table>
The main benefits of the validated Federation EUC Solution include:

- Rapid time-to-value. Using an architected solution can save weeks or months of work on design and implementation.

- A choice of infrastructure options to match your IT strategy. Use VCE VBlock System or third-party infrastructure. Integrate it with Federation Enterprise Hybrid Cloud or deploy it as a standalone solution.

- Single-call support from EMC.

SIMPLIFY SCALABILITY

Challenge: Studies by The Federation show that users are generally satisfied if applications launch in six seconds or less. If applications start taking longer to launch as the deployment grows, adoption is likely to suffer. Therefore, IT needs to know that desktop performance will remain consistent as the deployment expands to thousands or tens of thousands of users.

Federation EUC Solution: Scale linearly with XtremIO. Select a pre-sized option for as few as 500 users. Use modular upgrades to serve up to tens of thousands of users. Provide a consistently high-quality user experience at scale. XtremIO delivers performance and high flash capacity in a small physical footprint.

DEPLOY APPLICATIONS IN SECONDS

Challenge: Different users and departments often need different sets of applications. For example, the accounting team might use a legacy application that requires an older Windows operating system. Therefore, IT teams need a convenient way to assign different application stacks to individual users and groups. They also need the ability to deploy applications to a running virtual desktop. Some users don’t log off for weeks, and failure to patch their applications in a timely manner creates security risks.

Federation EUC Solution: Provision applications at scale in just seconds, with VMware App Volumes. Create an app stack containing one or more applications. Select the user or group, and then just click to provision all applications in the stack. The new icons appear on running virtual desktops in seconds, and the applications look and behave as though they are installed natively. Use the same interface to update and retire applications. IT can even permit users to install their own applications on a linked clone desktop.

QUICKLY TROUBLESHOOT VIRTUAL DESKTOP PERFORMANCE ISSUES

Challenge: A good user experience is crucial for technology adoption. To quickly detect the source of performance issues—ideally before they affect the user experience—helpdesk personnel need to monitor VDI performance from the desktop to the infrastructure. Traditionally, end-to-end monitoring has required separate tools for the infrastructure, network, storage, display protocol, and virtual desktops. Sometimes the only way to identify desktop protocol or performance problems is through a time-consuming process of elimination.

Federation EUC Solution: Quickly identify the source of slow performance—host, network, storage, and desktop session—with VMware vRealize Operations (Figure 2). If a user working from coffee shop calls to complain about slow performance, the helpdesk staffer can identify the issue while the user is still on the phone. The response might be, “You’re the only one experiencing the problem. Looks like it’s the Wi-Fi at the coffee shop.” vRealize Operations also helps IT to be proactive. Infrastructure and connectivity issues appear on the same interface, helping administrators resolve issues before they affect the user experience.

IT teams can also use vRealize Operations to monitor capacity. If the organization plans to acquire another company with 500 desktops, for example, reports make it easy to see whether more servers are needed.
Federation End-User Computing: Holistic Solution Combines Infrastructure, Software, and Management Tools

REDUCE OPEX BY BRINGING SERVER AND DESKTOP TEAMS TOGETHER

Challenge: It’s common to assign two teams to support VDI—one each for servers and desktops. The teams need different skills and tools, leading to high operational expense.

Federation EUC Solution: Integrate the Fed EUC solution with Federation Enterprise Hybrid Cloud. Server and desktop administrators use the same VMware vRealize tools for automation, service desk, and virtual machines. The two teams still need specialized skills, but sharing tools and processes lowers operational expense and enables the teams to back each other up.

AUTOMATE DESKTOP ADMINISTRATION

Challenge: Creating a desktop pool requires multiple steps: specifying where to store the pool, which users to assign, whether to recycle desktops or dedicate them to one user, and whether to allow self-provisioning of desktops. Performing these repetitive steps manually is time-consuming and increases the risk of human error. A long wait for a desktop also lessens user satisfaction.
Federation EUC Solution: The solution includes VMware vRealize Automation Center and vRealize Orchestrator. vRealize Automation Center automates more than a dozen common desktop administration tasks, including self-service desktop entitlement, managing desktop sessions, and recycling desktops. Automation speeds up desktop provisioning and reduces errors. For example, creating a new desktop pool from a template requires just one click. vRealize Automation Center and vRealize Orchestrator can also simplify desktop lifecycle management. This is helpful for companies that onboard temporary employees at regular intervals or frequently provision new desktops for other reasons.

IT can save more time by selecting the option to delegate responsibility for provisioning desktops to the end user or department manager.

Deliver Virtual Desktops to Mobile Devices

Challenge: In a mobile era, many users work on tablets or smartphones. When working on a mobile device, they expect to use native gestures such as taps and swipes. Having to adapt to a different experience when using a virtual desktop can make them less productive.

Federation EUC Solution: Invite users to download VMware Horizon Clients for Windows, Mac, iOS, Linux, and Android. Using Horizon Clients, users interact with their virtual desktop in a way that’s suited for the device they are using: tap, click, or swipe.
CONCLUSION

The Federation EUC Solution overcomes traditional obstacles to deploying virtual desktops at scale:

- Deployment and management become simpler because the solution is integrated and includes single-call support.
- Scaling from 500 to up to tens of thousands of users requires only simple, modular upgrades.
- Meeting SLAs becomes simpler using included tools for monitoring the experience from end to end.
- Administrators save time by using a unified management interface—not separate applications to monitor the performance of the host, storage, virtual machine, and application.
- Organizations that integrate the Federation EUC Solution with Federation Enterprise Hybrid Cloud can manage servers and desktops using the same tools for automation, service desk, and virtual machines.
- Operational overhead decreases because IT can automate the provisioning of desktops and applications and optionally delegate provisioning to end users or department managers.

In summary, the Federation EUC solution lowers the barriers to experiencing the business benefits of virtual desktops: speeding up application delivery, keeping sensitive data in the data center instead of on endpoints, and enabling business mobility.

FOR MORE INFORMATION

To read an executive white paper on Federation End-User Computing, visit http://www.emcfederation.com/solutions/end-user-computing.htm