

# Unleash Windows Server Hyper-V to Maximize Your Consolidation ROI

In today's data-driven world, your virtualized IT infrastructure needs to keep your important applications—and your business—running at full speed at all times. As more applications are consolidated under Windows Server® Hyper-V®, delivering enterprise-class performance becomes more challenging and a potential impediment to your success.

Successful consolidation requires high virtual machine (VM) density and performance; a requirement that legacy storage solutions fail to meet.

 Windows Server

**violin**  
MEMORY

# 5 Reasons

## to Run Your Hyper-V Applications on the Violin WFA

With the Violin Windows Flash Array, data delivery from storage is blazing fast so that your hosts can achieve higher VM density and application performance. The unique optimization of Microsoft® Windows Storage Server 2012 R2 to leverage Violin's patented All Flash Arrays means your consolidation initiatives can now achieve their full potential and maximize your ROI while maintaining enterprise-class service levels.

Accelerate your journey to a fully virtual data center with Microsoft Windows Server Hyper-V and the Violin WFA.

## 1 Eliminate I/O Bottlenecks and Enhance Consolidation Economics

Virtual machines generate lots of random I/O, which can grind traditional storage systems to a crawl. The WFA addresses bottlenecks through a unique all-flash storage solution featuring SMB Direct and Microsoft's kernel level optimization of Windows Storage Server 2012 R2 for the WFA. The result is dramatically faster VM (VHDx) access, which can reduce CPU wait times for storage I/O and decrease CPU load by up to 30%.

Early testing found WFA delivering up to 40% or higher write performance and up to 50% lower latency under Hyper-V compared with an industry standard all flash array. Consequently, you can consolidate more business-critical applications and databases per server CPU core without taking a performance hit. Improve your consolidation economics with the WFA; the benchmark storage for virtualization and private cloud deployments.

## 2 Scale VM Density and Performance

Improved I/O performance combined with Hyper-V virtualization means that you can optimize CPU cycles without incurring the up to 20% overhead of other virtualization solutions. Therefore, you can achieve greater VM density with existing resources while maintaining satisfactory performance. Scale-out File Server (SOFS) enables non-disruptive volume extensibility that lets the size or number of your VMs grow without taking applications offline. You can scale out to four arrays to ensure that VM densities match host server capacity to maximize utilization. In addition, Microsoft has qualified the WFA for the Windows Azure Pack for Windows Storage Server Certificate, so you can easily integrate onsite and offsite storage with Microsoft Azure™ Virtual Machines and other Azure data services.

## 3 Stay Online All the Time

Enterprise applications demand 24x7 service levels. To meet this need, the WFA combines a multi-node cluster and a storage array featuring global hot spares to help you achieve modern 24x7 operational requirements. Windows clustered failover support ensures availability of your VMs while Storage Live Migration streamlines VM migration through direct WFA to WFA communication. The WFA's balance of compute, network, and storage performance reduces bottlenecks and potential service interruptions..

## 4 Manage Your Hyper-V Environments with Familiar Microsoft Tools

Simplify storage administration for Hyper-V applications by leveraging your existing Windows management tool kit of System Center and PowerShell instead of a collection of disparate server, virtualization, network, and storage management tools. Existing Windows administrative staff can manage the WFA storage resources with familiar and straight forward tools. This can simplify operations and reduce operational overhead by eliminating the need for additional skill sets and training, and improve operational efficiency. The WFA has undergone rigorous Microsoft Windows Server 2012 certification testing and is fully supported by both Microsoft and Violin.

## 5 Improve your Windows Server Hyper-V Operations with Enterprise Data Services Software

You do not need to choose between performance and features. Beyond its many performance-enhancing capabilities, the WFA reduces costs through thin provisioning for increased storage utilization, deduplication to reduce storage demand especially in virtualized environments, data compression, and space efficient snapshots. The WFA delivers operational flexibility through Storage Live Migration, which enables movement of executing virtual machines without down time. Further, WFA data protection includes DFS replication and transport-level encryption, all within the resiliency of a Windows Server Failover cluster.

With WFA, you get continuous availability, reduced risk to operations, and dramatically enhanced density and performance for your application consolidation initiatives. Maximize your Hyper-V virtualization ROI with greater resource flexibility on a simpler architecture so you can run your Windows Server Hyper-V applications in a flash.