



# **Qsan Document - White Paper**

**Unified Storage Virtualization Solution**

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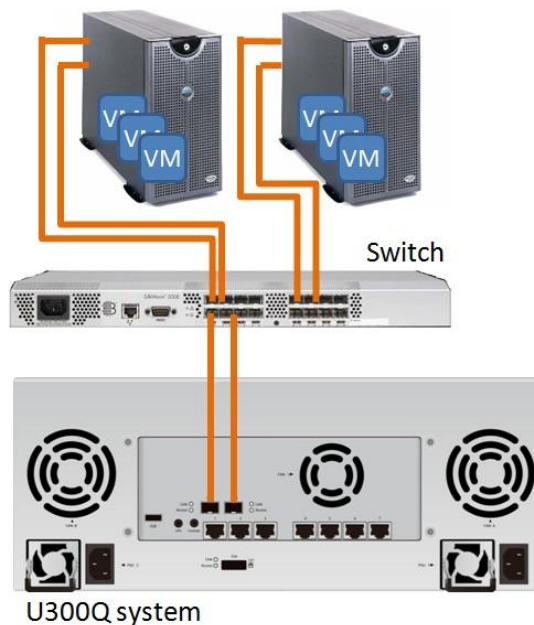
## Introduction

In this document we are pleased to introduce the solution of virtualization with TrioNAS LX U300 series products. The U300 series have passed the VMware Ready certification and we are going to guide you through the environment and the scenario we had passed with. As a result you will be able to realize how you may try to put the U300 series into your virtualization cases.

## Environment

<b>Host</b>	Intel Xeon® CPU E5620, 2.40GHz, 32GB RAM (x2)
<b>Virtual Machines</b>	Windows 2003 (x4) Windows 2008 (x4) RHEL 4 (x2) RHEL 5 (x2) RHEL 6 (x2) SUSE 10 (x2)
<b>Storage</b>	U300-P10-C316 (E3, 32GB)(8G FC and 10GbE iSCSI models are available with optional daughter card.)
<b>Controller Firmware</b>	V1.4.0
<b>HDD</b>	Seagate ST500NM0011 (x16)
<b>Pool</b>	RAID 5 with 8 HDDs (x2)

## Diagram



## Test Result

In the environment above, all VMs were located separately into two pools (RAID 5), 8 VMs per each. The certification has been smoothly finished with succeed, and U300 series products have passed the VAAI certification via iSCSI protocol (the FC protocol is not available for VAAI at the moment).

The iSCSI and NFS service provided by U300 series have been certified with VMware Ready. The testing pattern is identical on 10GbE and 8Gb (FC) while certifying NFS service. Users and customers may refer to the links to the related websites below for more details.

## Summary

The certification is the baseline to enter the virtualization solution. As well we have gotten the U300 series to be certified with the Citrix Ready and the WHQL 2012R2 certified, so that customers will have much more selections to be compatible with for their solution.

## Certification



- U300-P10  
<http://www.windowsservercatalog.com/item.aspx?itemId=b7b23a2b-b6ea-8889-1cde-3e419459eac1&bCatID=1282>
- U300-P20 (U300-P10 with optional 10G iSCSI daughter card)  
<http://www.windowsservercatalog.com/item.aspx?itemId=601eda78-938f-c0f3-3135-43a94be2dbf2&bCatID=1282>
- U300-F20 (U300-P10 with optional 8G FC daughter card)  
<http://www.windowsservercatalog.com/item.aspx?itemId=de3deba7-8688-3ef6-8d5c-71d542c25509&bCatID=1282>



- VMware Ready for iSCSI with VAAI-Block  
[http://partnerweb.vmware.com/comp\\_guide2/detail.php?deviceCategory=san&productid=37740&deviceCategory=san&details=1&partner=360&keyword=U300&isSVA=0&page=1&display\\_interval=10&sortColumn=Partner&sortOrder=Asc](http://partnerweb.vmware.com/comp_guide2/detail.php?deviceCategory=san&productid=37740&deviceCategory=san&details=1&partner=360&keyword=U300&isSVA=0&page=1&display_interval=10&sortColumn=Partner&sortOrder=Asc)
- VMware Ready for NAS

[http://partnerweb.vmware.com/comp\\_guide2/detail.php?deviceCategory=san&productid=37499&deviceCategory=san&details=1&partner=360&keyword=U300&isSVA=0&page=1&display\\_interval=10&sortColumn=Partner&sortOrder=Asc](http://partnerweb.vmware.com/comp_guide2/detail.php?deviceCategory=san&productid=37499&deviceCategory=san&details=1&partner=360&keyword=U300&isSVA=0&page=1&display_interval=10&sortColumn=Partner&sortOrder=Asc)

- VMware Ready for FC

[http://partnerweb.vmware.com/comp\\_guide2/detail.php?deviceCategory=san&productid=38014&deviceCategory=san&details=1&partner=360&keyword=U300&isSVA=0&page=1&display\\_interval=10&sortColumn=Partner&sortOrder=Asc](http://partnerweb.vmware.com/comp_guide2/detail.php?deviceCategory=san&productid=38014&deviceCategory=san&details=1&partner=360&keyword=U300&isSVA=0&page=1&display_interval=10&sortColumn=Partner&sortOrder=Asc)



- U300-P10

<http://www.citrix.com/ready/en/qsan-technology-inc/u300-p10>

- U300-P20 (U300-P10 with optional iSCSI daughter card)

<http://www.citrix.com/ready/en/qsan-technology-inc/u300-p20>

- U300-F20 (U300-P10 with optional 8G FC daughter card)

<http://www.citrix.com/ready/en/qsan-technology-inc/u300-f20>

## Applies To

- TrioNAS LX U300: FW 1.4.0