



Connecting XenServer to Physical Switches

1. Enable PortFast on the ports you are plugging in XenServer hosts.
 Note:
 - Port must be an 802.1q trunk port if you are using VLANs.
 - PortFast should only be enabled on ports connected to single host.
 - Ports used for storage should have PortFast enabled
Note: It is important that you enable PortFast with caution, and only on ports that do not connect to multi-homed devices such as hubs or switches.
2. Disable Port Security on XenServer connected ports.
3. Disable the Spanning Tree Protocol on the ports you're plugging in to XenServer hosts. If you are bonding or teaming NICs, you should disable the Spanning Tree Protocol to avoid failover delay issues (in a virtual environment).
4. If using a Cisco switch, disable the PortFast Bridge Protocol Data Unit (BPDU) guard feature on the ports you are plugging in XenServer hosts.
5. Change port speed settings to Full Duplex and Static if using 10/100 switch.

Notes

- For most environments, Citrix recommends segregating VM traffic from management traffic as the best practice. Also it is recommended to separate the storage traffic from the VM and management traffic.
- In smaller environments, you may want to use the management network also for all VM and Storage traffic. However, Citrix recommends evaluating the performance of this config regularly.
- Having many connections to VLANs (for example 100s) configured on a host creates an addition load on the Control Domain, which frequently results in reduced network performance
- Having numerous VLANs can also impact your host, pool and VMs performance.
- Citrix recommends bonding the primary management interface if the XenServer High Availability feature is enabled as well as configuring multipathing or NOC bonding for the heartbeat SR.
- Always create bonds before creating virtual interfaces in VMs
- Do not attempt to bond NICs while the HA feature is enabled. Creating bonds can interrupt the in-process HA heartbeat and cause hosts to self-fence (shut down). Consequently, the host probably will not boot correctly and will need the **host-emergency-ha-disable** command to recover.
- Note that Active-Active bond does NOT mean that a VM gets double the bandwidth (se page 57 in "Designing XenServer 6.0 Network Configurations" for more info)

XenServer Supported Configuration

- Up to 16 physical network interfaces (or up to 8 pairs of bonded network interfaces) per XenServer host
- Max 2 physical network interfaces per bond.
- Up to 7 virtual interfaces per VM
- Active-Active and Active-Passive bonding modes are supported. DMP and RDAC MPP multipath handlers are also supported.
- Types of networks: External, Cross-server private, Single-server private and VLANs
- There is no Citrix-imposed preset limit on number of VLANs

References

<http://support.citrix.com/article/CTX129994> Provisioning Services 6.0 Installation and Configuration Guide
<http://support.citrix.com/article/CTX130420> XenServer 6.0 Administrator's Guide
<http://support.citrix.com/article/CTX130423> XenServer 6.0 vSwitch Controller User Guide
<http://support.citrix.com/article/CTX130429> XenServer Workload Balancing 6.0 User Guide
<http://support.citrix.com/article/CTX101810> Communication ports used by Citrix Technologies
<http://support.citrix.com/article/CTX130437> XenServer 6.0 Web Self Service Administrator's Guide
<http://support.citrix.com/article/CTX130924> Designing XenServer 6.0 Network Configurations

And by tracing network traffic. ☺

Thanks!

The information in this document is gathered from the websites listed under references. In addition I have also received help from a number of people. It should be noted that any errors in this document is due to typing errors, or that I simply hasn't understood what I have been told. No shadow at all should fall on the people that have helped me. Any errors are entirely my fault.

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