

READ THIS FIRST!

Please review this document carefully. For detailed instructions, browse to the underlined web addresses below. You can download this as a PDF from www.panologic.com/getting-started/pano-express-ha and click on the links.

Installation Checklist

While Pano Express HA comes preinstalled and preconfigured there is still some advance preparation needed before deploying it on your LAN – just follow the steps below to get your Pano Express HA up and running quickly.

Note: if you need to shut-down the server please follow the instructions in **Step 8. System Shutdown** (www.panologic.com/pano-express-ha-shutdown) to ensure that the system datastores are not damaged during shutdown.

Step 1. [Inventory Components](http://www.panologic.com/pano-express-ha-inventory) to ensure that you've received all of the Pano Express hardware and software components – see the table on the next page and online at: www.panologic.com/pano-express-ha-inventory

Step 2. [Perform a Site Assessment](http://www.panologic.com/pano-express-ha-site-assessment) to ensure that you are ready to deploy Pano Express on your network: www.panologic.com/pano-express-ha-site-assessment

Step 3. [Conduct a User Survey](http://www.panologic.com/pano-express-ha-user-survey) to collect the information needed to prepare Desktop Virtual Machines (DVMs): www.panologic.com/pano-express-ha-user-survey

Step 4. [Install and Connect Servers](http://www.panologic.com/pano-express-ha-install-connect) to install the servers and connect them to each other and to your LAN: www.panologic.com/pano-express-ha-install-connect

Step 5. [Configure Servers](http://www.panologic.com/pano-express-ha-configure) to run through the setup process and prepare the default DVM template for your users: www.panologic.com/pano-express-ha-configure

Step 6. [Deploy Panos](http://www.panologic.com/pano-express-ha-deploy-panos) to distribute Pano Devices on your production LAN, connect peripherals and test connectivity: www.panologic.com/pano-express-ha-deploy-panos

Step 7. [Provision DVMs](http://www.panologic.com/pano-express-ha-provision-dvms) , creating collections, assigning users/clients, building templates, and provisioning: www.panologic.com/pano-express-ha-provision-dvms

Plus [Customize and Administer](http://www.panologic.com/pano-express-ha-customize-administer) to customize the default installation and perform periodic administration: www.panologic.com/pano-express-ha-customize-administer

For More Information

- www.panologic.com/pano-express-ha for the Product Page
- www.panologic.com/datasheet/pano-express-ha for the Data Sheet
- www.panologic.com/redbook/pano-express-ha for the Redbook
- www.panologic.com/pano-express-ha-requirements for detailed requirements

Components for Pano Express HA

You may receive components for your Pano Express HA in two or more shipments or boxes. Because of this we strongly suggest taking an inventory as a first step.

Please check the list below or online at www.panologic.com/pano-express-ha-inventory

- 30 to 60 Pano System boxes containing a Pano Zero Client
- 2 rack-mountable Fujitsu PRIMERGY RX200 S6 servers with preinstalled software and system virtual machines
- Software License Activation Code Certificate either in the server box or sent to you via email for VMware vSphere 4 Essentials

Allocations for Desktop Virtual Machines

When allocating resources for desktop virtual machines (DVMs) remember that the system virtual machines on each Pano Express HA server consume the following:

- **vCenter Server VM:** a Windows Server 2008 R2 VM using 2 GB of RAM, 2 vCPUs, and 20 GB of disk storage.
- **DataCore SANsymphony-V VM:** a Windows Server 2008 R2 VM using 8 GB of RAM, 2 vCPUs, and 40 GB of disk storage.
- **Pano Manager Appliance VM:** using 1 GB of RAM, 1 vCPU, and 14 GB of disk storage.

There is a total of 1,960 GB of available storage, 144 GB of physical RAM, and 24 physical CPU cores across the two Pano Express HA servers. You will need to calculate the available remaining disk, RAM and vCPU resources each time you allocate a DVM to make sure you do not over-allocate resources.

DVMs must be stored on the four shared datastores (DS01, DS02, DS03, and DS04). Each of these datastores has a capacity of 370 GB and should be allocated no more than 15 active DVMs per datastore for availability load-balancing. The other local datastores are used by the system VMs and should not be touched.

For information on Pano Express HA and Pano System server, storage and network sizing please check the following resources:

- Pano System online help and documentation at help.panologic.com
- Infrastructure sizing details in the *Pano System Infrastructure Sizing Redbook* at www.panologic.com/redbook/infrastructure
- Detailed configuration and parts information in the *Pano Express HA Redbook* at www.panologic.com/redbook/pano-express/ha

Accounts / Passwords

The following default accounts/passwords are used on the Pano Express HA server:

System	Username	Password	Other
ESXi	root	PanoVDI123	Service console IP: DHCP
vCenter Server	Administrator	PanoVDI123	Server name: vCenter IP address: DHCP
DataCore	Administrator	PanoVDI123	
Pano Manager MUI	admin	<none>	OVF deployed but setup not yet run
Pano Manager VMs	root	<none>	The default setup script will prompt for both root and admin passwords to be setup.
Windows Server VMs	Administrator	PanoVDI123	Windows Server requires that the password not be blank
Pano Software Update Downloads	customer45	discovery	Go to: download.panologic.com

Licensing

Activating Licenses: the Pano Express HA servers have software from VMware, DataCore, and Microsoft preinstalled but not yet activated or enabled. As part of the setup process you'll download, install and activate licenses for the following software:

- VMware vSphere 4 Essentials
- DataCore SANsymphony-V
- Microsoft Windows Server 2008 R2 Standard

You can find instructions on these activation processes in **Step 5 – Configure Pano Express HA Server** (www.panologic.com/pano-express-setup-configure) in the Installation Checklist. The VMware software requires an Activation Code Certificate provided either in the server box or sent via email; the other license keys are already preinstalled on the server.

Microsoft VDA Licenses: You will also need to purchase Microsoft VDA licenses for each Pano endpoint – these licenses are not included in Pano Express HA. Please contact your Microsoft representative, visit the [Microsoft Virtualization web page](#) or download the [Microsoft VDA licensing brochure](#) for VDA pricing, renewals, license terms and information on technical support provided by Microsoft Software Assurance.

Technical Support

Pano Express HA includes a one year **Pano Logic Premium Standard Support** Subscription providing 11x5 phone/email/web support from Pano Logic, along with the first year of updates for the Pano System software. Our Customer Support staff is available via phone from 6 am to 5 pm (Pacific Time), Monday through Friday, excluding holidays.

For Help with Pano Express HA:

Pano Logic provides front-line support for all of the Pano Express HA components. If you have a question or encounter a problem, please use the following resources:

- Check the Pano System online help and documentation at help.panologic.com/4.5
Please note that you need to use the help/documentation for Pano System 4.5 rather than the current 5.0 release as Pano Express HA has not yet been updated to Pano System 5.0.
- Review the Installation Checklist instructions using the links on the first page of this Getting Started Guide or by going to the online installation checklist at: www.panologic.com/pano-express-ha-checklist
- Contact Pano Logic Customer Support by going to the Customer Center at customer.panologic.com. You will need to setup a customer account during your initial visit to the Customer Center.

Help with Windows:

for help with the Windows XP or 7 desktop operating systems used in your Desktop Virtual Machines, please check to see if it is provided by your Software Assurance contract with Microsoft. Help can also be found online at the Microsoft Support site support.microsoft.com, and from the Windows XP (support.microsoft.com/ph/1173) and Windows 7 (support.microsoft.com/ph/14019) Solution Centers.

For more information on support and warranties, please see the see the Support and Maintenance page at www.panologic.com/pano-express-support-maintenance

This document for informational purposes only - specifications subject to change.
© Copyright 2010 Pano Logic, Inc. [DP-GSPEHA-121611]