

## 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-smb](http://www.panologic.com/getting-started/pano-express-smb) and click on the links.

### Installation Checklist

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

**Step 1. Prepare for Installation** by performing a Site Assessment to ensure that you are ready to deploy the Pano Express on your network and collect information needed for the setup process. Also, conduct a User Survey to collect the information needed to prepare your desktop virtual machines (DVMs) with the correct settings and applications: [www.panologic.com/pano-express-preparation](http://www.panologic.com/pano-express-preparation)

**Step 2. Inventory Components** to ensure that you have all of the necessary hardware and software components: [www.panologic.com/pano-express-inventory](http://www.panologic.com/pano-express-inventory)

**Step 3. Setup and Configure Server** to install the Pano Express server, run through the setup process, and prepare the default Collections for your users: [www.panologic.com/pano-express-setup-configure](http://www.panologic.com/pano-express-setup-configure)

**Step 4. Deploy Panos** to distribute the Pano Zero Clients on your production LAN, and test connectivity: [www.panologic.com/pano-express-deploy-pano](http://www.panologic.com/pano-express-deploy-pano)

**Step 5. Provision DVMs** including creating collections, assigning users/clients, building templates, and provisioning DVMs: [www.panologic.com/pano-express-provision-dvms](http://www.panologic.com/pano-express-provision-dvms)

**Step 6. Connect Directory Service** (optional) to provide user authentication and enable user-based features by manually connecting Pano Controller to a directory service like Microsoft Active Directory: [www.panologic.com/pano-express-connect-directory-service](http://www.panologic.com/pano-express-connect-directory-service)

**Step 7. Customize and Administer** to extend the default installation, perform periodic administrative tasks, optimize performance, and troubleshoot problems: [www.panologic.com/pano-express-customize-administer](http://www.panologic.com/pano-express-customize-administer)

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## Components for Pano Express

You may receive components for your Pano Express 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-inventory](http://www.panologic.com/pano-express-inventory):

- 30 Pano System boxes containing a Pano Zero Client
- 1 HP G7 DL360 rackmount server with preinstalled Pano System, VMware and Microsoft Windows Server software
- Licenses for VMware and Microsoft (see licensing details on next page):
  - VMware vSphere 5 Essentials license.
  - Windows Server 2008 R2 Standard product key sent by email from Microsoft.

## Allocations for Desktop Virtual Machines

The system virtual machines (VMs) on the Pano Express server use the following resources:

- vCenter Server in a Windows Server 2008 R2 VM using 2 GB of RAM, 2 vCPUs, and 33 GB of disk space.
- Pano Controller as a self-contained appliance VM using 1 GB of RAM, 1 vCPU, and 15 GB of disk space.

After the disk allocations for these two system VMs there is roughly 1,853 GB of available disk space in the server's datastore. There is also 72 GB of RAM and 12 physical CPU cores (not directly equivalent to vCPUs) in the Pano Express server. You will need to calculate the available remaining disk space, vRAM and vCPU resources each time you allocate resources or provision desktop VMs to make sure you do not over-allocate resources. Be sure to leave a margin of 5-10% of uncommitted resources to avoid VMware alerts and warnings. We also recommend leaving at least 10% spare storage capacity to ensure adequate performance.

For information on server, storage and network sizing please check the following resources:

- Pano System 5.0 online help and documentation at [help.panologic.com/5.0](http://help.panologic.com/5.0)
- Infrastructure sizing details in the **Pano System Infrastructure Sizing Redbook** at [www.panologic.com/redbook/infrastructure](http://www.panologic.com/redbook/infrastructure)
- Detailed configuration and parts information in the **Pano Express for SMB/Education Redbook** at [www.panologic.com/redbook/pano-express](http://www.panologic.com/redbook/pano-express)
- Detailed network, peripheral, and power requirements on the **Pano Express for SMB/Education Requirements** at [www.panologic.com/pano-express-requirements](http://www.panologic.com/pano-express-requirements)
- Product information and technical specifications on the **Pano Express Data Sheets**:
  - **for SMB** [www.panologic.com/datasheet/pano-express/smb](http://www.panologic.com/datasheet/pano-express/smb)
  - **for Education** [www.panologic.com/datasheet/pano-express/education](http://www.panologic.com/datasheet/pano-express/education)

## Accounts / Passwords

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

System	Username	Password	Notes
VMware ESXi	root	<none>	Datastore name: datastore1 Service console IP: DHCP
VMware vCenter	Administrator	password	Server name: vCenter IP address: DHCP
Pano Controller MUI	admin	<none>	The OVF has been deployed but setup has not yet been run
Pano Controller VM	root	password	Linux virtual machine
Windows Server VM	Administrator	password	Windows Server requires that the password not be blank
Pano System 5.0 Update Downloads	customer50	redwood	Go to: <a href="http://download.panologic.com">download.panologic.com</a>

## Licensing

**VMware Licensing:** The Pano Express server has the VMware vSphere software preinstalled, this was done using a temporary key. You will need to download your vSphere 5 Essentials keys before you can integrate them in to the Pano Express. You can find instructions on this process in **Step 3 Setup and Configure Server** ([www.panologic.com/pano-express-setup-configure](http://www.panologic.com/pano-express-setup-configure)). The VMware license keys need to be used to activate ESXi and vCenter before using Pano Express.

**Microsoft Windows Server License:** The designated license contact for your company will have received product key(s) for Windows Server 2008. This operating system is used to host vCenter Server, not to run virtual desktops. Once you receive the license keys follow the steps in **Step 3 Setup and Configure Server** ([www.panologic.com/pano-express-setup-configure](http://www.panologic.com/pano-express-setup-configure)) of the Install checklist to activate Windows Server. The Windows Server license key needs to be used to activate the VM within 60 days.

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

## Technical Support

**Overview:** If you run into issues and need help at any point, see the Support and Maintenance page at [www.panologic.com/pano-express-support-maintenance](http://www.panologic.com/pano-express-support-maintenance)

**Help with Pano System:** for help with the Pano System software (Pano Controller and Pano Direct) please check the following resources:

- Pano System 5.0 online help and documentation at [help.panologic.com/5.0](http://help.panologic.com/5.0)
- To reach Pano Logic Customer Support please go to the Customer Center at [customer.panologic.com](http://customer.panologic.com). You will need to create a free customer account to enter the Customer Center and review the support knowledgebase or open a case.
- If you need direct online, email or phone support you will need to either purchase a Premium Support & Maintenance Subscription (\$49 per seat annually) or Per Incident Support (\$249 per support case).

**Help with VMware:** for help with VMware vSphere Essentials components (vSphere ESX/ESXi and vCenter Server), contact a VMware Technical Support Engineer via [www.vmware.com/support](http://www.vmware.com/support). You may need to purchase Per Incident support from the online VMware store.

**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](http://support.microsoft.com), and from the Windows XP ([support.microsoft.com/ph/1173](http://support.microsoft.com/ph/1173)) and Windows 7 ([support.microsoft.com/ph/14019](http://support.microsoft.com/ph/14019)) Solution Centers.

**Help with Server Hardware:** for help with the Pano Express server hardware or to request warranty service please contact HP Customer Service at **800-633-3600, Option 1**. Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

The Pano Express server is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. Server warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge.