



**pano**  
LOGIC

Purpose-built for

# Virtualization



*"What appeals to me with the Pano System is the simplicity of the solution. I basically provisioned my virtual desktops and was able to start using our new Panos literally within a couple of hours."*

Jeff Cunningham, Director of Information Systems for the AREC department at the University of Maryland

## MOVE COMPLEXITY OFF THE DESKTOP

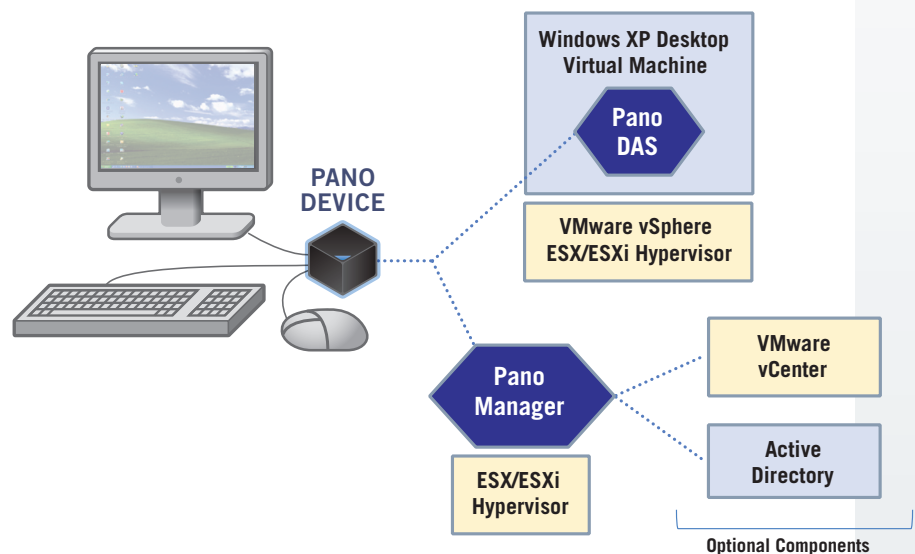
Pano Logic delivers the benefits of virtual desktops to Windows users, freeing IT staff from the escalating complexity and overhead of traditional distributed PC computing. Moving all software and processing off the desktop and centralizing it in the data center, the Pano System cuts hours from the time needed to deploy or troubleshoot desktops, while optimizing hardware utilization and tightening data security. It includes everything you need in one package, all designed and optimized specifically for virtual desktops, letting you get up and running quickly and painlessly.

## 70% REDUCTION IN TCO

- Saves as much as \$1,500 per desktop annually
- Installs and deploys in just hours, provisions new users in minutes
- Ends security breaches and data losses from infected or stolen endpoints
- Requires only Windows XP and uses native drivers for peripherals
- Boosts IT productivity, frees staff to pursue strategic initiatives
- Reduces user downtime, rapidly recovers from malware and OS corruptions
- Leverages hardware investments and upgrades across all users
- Cuts electricity and cooling costs to as little as 3% of PCs

## TOMORROW'S DESKTOP TODAY

Leveraging innovations originally developed for server virtualization, the Pano System delivers a wide range of benefits to IT staff, boosting their productivity while ensuring that users have access to a secure, robust computing environment from any location. Rather than repurposing client hardware originally designed for last generation architectures like terminal services, we invented a completely new architecture purpose-built for virtual desktops—the zero client. And we've built our solution on VMware's industry-standard virtualization infrastructure, proven in thousands of mission-critical deployments, to deliver the performance and reliability you need.



## COMPLETE SOLUTION

The Pano System includes everything you need to deploy virtual desktops—the unique Pano Device zero client hardware, Pano Manager to centrally manage and provision virtual desktops, the Pano Direct Service to connect desktop virtual machines to Pano Devices, and comprehensive technical support. With Pano Logic, you only need one product to get up and running quickly on top of your VMware Virtual Infrastructure.

## PANO DEVICE

The Pano Device is a true zero client—it has no CPU or memory, no client operating system or firmware, no local drivers or other software, no local storage or moving parts. It simply and securely connects the attached keyboard, mouse, display, audio and USB peripherals over a local area network to the Pano desktop virtual machine running on an ESX/ESXi server in the data center. Weighing just over 1 pound and just 3.5 inches square, the Pano Device was engineered from the chip up to be a no compromises virtual desktop client.

## PANO MANAGER

Pano Manager provides a comprehensive web-based management console used to connect, provision, monitor and control Pano Devices and desktop virtual machines. It can optionally integrate with VMware vCenter Server to provide extended desktop virtual machine provisioning and management capabilities. And it simplifies user authentication by connecting to your existing directory services such as Microsoft Active Directory.

## PANO DAS

Pano Direct Service (or Pano DAS) provides the backbone of communications between Pano Devices and desktop virtual machines. Installed as a lightweight Windows service it provides a direct connection, optimized for multimedia, from desktop virtual machine to Pano Device. Pano DAS requires just native Windows XP using the same drivers installed for PCs—making deployment and support of any new peripherals simple.

## PANO REMOTE

Pano Remote, delivered on a secure and convenient USB key, optionally provides Pano Device users with remote access to their virtual desktops from any Windows PC. Using the bundled Pano Gateway plug-in, it leverages Microsoft Windows Server 2008 Remote Desktop Services to ensure secure communications over wide area networks like the Internet without requiring costly VPN software or hardware.



## PANO DEVICE TECHNICAL SPECIFICATIONS

I/O Peripherals: Three USB 2.0 ports

Video Display: VGA-type video output (DB-15)

Networking: 10/100 Base-T Fast Ethernet twisted pair (RJ-45)

Audio Output: Internal speaker; 1/8-inch mini jack

Audio Input: 1/8-inch mini microphone jack [future use]

Physical Characteristics: Height: 2.00" / 51.0mm, Width: 3.50" / 88.8mm, Depth: 3.50" / 88.8mm

Power: Worldwide auto-sensing 100-240 VAC, 50/60 Hz

Average power usage with keyboard, mouse and display connected: 5.0 watts

Temperature Range: 50° to 104° F (10° to 40° C)

Humidity: 20% to 80% non-condensing

Weight: 1.1 lbs / 500 grams (Pano Device)

Regulatory Compliance: RF Interference: FCC Class B, CE

---

## REQUIRED VIRTUAL INFRASTRUCTURE: (one of the following)

- VMware ESX or ESXi Server 3.5 and VMware vCenter 2.5 or later
- Single VMware ESXi Server and VMware Infrastructure Client (VMware VIC)
- VMware vSphere 4 — ESX or ESXi 4.0 and vCenter 4.0

OPTIONAL CONNECTION BROKERS: VMware View Manager 3.0 or 3.1

DIRECTORY SERVICES: Microsoft Active Directory, Novell eDirectory, OpenLDAP

DVM OPERATING SYSTEM: Microsoft Windows XP Professional, SP2 or SP3

PANO REMOTE HOST OPERATING SYSTEMS: Microsoft Windows XP or Vista with RDP 6.1 or later

PANO GATEWAY (FOR PANO REMOTE) HOST: Microsoft Windows Server 2008 Remote Desktop Services

---

For more information visit [www.panologic.com](http://www.panologic.com) or call 650-454-8940

Toll free (US): 877-677-PANO (877-677-7266)

Pano Logic, Inc.  
1350 Willow Road, Suite 202  
Menlo Park, CA 94025



This document was issued in August 2009 and is specific to the features and capabilities of Pano System 2.7.

© Copyright 2009 Pano Logic, Inc.

Pano, Pano Logic, and Pano Button, are registered trademarks of Pano Logic, Inc. Pano Device, Pano Gateway, Pano Manager, Pano Remote, Pano System, Pano Direct Protocol, and Pano Direct Technology are trademarks of Pano Logic, Inc.