



Microsoft Connected Health Platform: Optimized Desktops and Devices in Health



Improving healthcare and related services through increased productivity, enhanced security, and simplified application management.

Microsoft Connected Health Platform (CHP)

The Microsoft® Connected Health Platform (CHP) is the implementation of the Connected Health Framework (CHF) Architecture and Design Blueprint on the Microsoft platform. The CHF is a free resource offered by Microsoft, and it provides a collection of vendor-agnostic best practices and guidelines for building service- and standards-based interoperable patient- and citizen-centric e-Health solutions. These solutions are highly flexible, security-enhanced, and scalable; they support the full continuum of care to meet the needs of patients, citizens, health professionals, and organizations.

Built on the extensible and agile principles of the CHF, the Microsoft CHP provides tools; solution accelerators; and prescriptive architecture, design, and deployment guidance. Microsoft CHP offerings include Optimized Desktops and Devices, Optimized Server and Datacenter, Security and Compliance, and Health Integration and Interoperability.

Your Top Needs and Priorities

In a wide range of situations—from nurses, doctors, and other healthcare providers working both onsite and offsite, to public health and social services (PHSS) workers who need access to essential care data and client information—information and communication technology (ICT) solutions should provide the flexibility and security to provide the best care possible. No matter what the situation, healthcare providers and PHSS workers have told us they have several key priorities:

- Access to information and functionality
- Consistent, efficient, and secure access, whether in the office or health facility, or off-site
- Compliance with security and privacy policies
- Reduced cost of care delivery
- Improved collaboration among care professionals

And, your ICT departments have top priorities that must be addressed for enhanced productivity throughout the care facility or PHSS organization. ICT departments need to:

- Monitor client devices to aid real-time decision-making
- Address compatibility challenges when upgrading operating systems or applications
- Meet the needs of users with a range of client devices, including desktops, laptops, Smartphones, and more
- Achieve improved security for remote access by care professionals, as well as patients and citizens
- Readily comply with industry regulations and privacy policies
- Ensure regular security checks, patch management, and software upgrades

Optimized Desktops and Devices is a Microsoft Connected Health Platform offering that helps health organizations attain the right balance in their client infrastructure by:

- Empowering health professionals, health partners, and citizens/patients with the mobility and flexibility they need to be productive.
- Providing information and communication technology (ICT) professionals with the level of control, manageability, and security features they require.



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“Not only is Forefront Client Security a better security solution, but it will save us £50,000 each year in licensing costs—that’s huge.”

— Phil Townes,
Systems Engineer,
Leicestershire HIS,
National Health Service,
UK



The Solution: Optimized Desktops and Devices

As part of the Microsoft CHP, the Optimized Desktops and Devices offering helps address major challenges among healthcare providers and PHSS organizations, and the ICT departments that serve them. This offering provides technologies, tools, solution accelerators, prescriptive architecture, and guidance for desktops and devices—empowering users by increasing productivity, enhancing security and control, and simplifying application and resource management.

At the core of this offering is the Windows® 7 Enterprise operating system, which has been designed with a focus on quality, compatibility, and performance. Combined with Microsoft® Desktop Optimization Pack (MDOP), and tools and technologies from the Microsoft® System Center family of system management products and the Microsoft Forefront® line-of-business security products, the complete offering provides improved on-site and off-site access, simplified application management, and effective support for users—all while lowering ICT costs. It also helps your organization manage ICT and information security risks by enabling compliance with internal policies and industry regulations and safeguarding sensitive health and organizational data.

With the Optimized Desktops and Devices offering, Microsoft can help you achieve an ICT environment that provides improved access, increased quality, and reduced cost of care by maintaining uptime, deploying updates on schedule, mitigating security and privacy risks, tracking licenses and regulatory mandates, and enhancing mobility.

Simply put, the Optimized Desktops and Devices offering for Health provides your organization with three key benefits:

- 1. Empowers users and increases productivity.** Provides healthcare providers, caseworkers, administrators, patients, and citizens with efficient and security-enhanced access to information, applications, and people from virtually anywhere. Enables mobile health professionals to be more productive and provide citizen/patient-centric care where and when it is needed.
- 2. Enhances security and control.** Centralized management of desktops, devices, and applications leads to fewer security and privacy risks. Improved control and auditing of data and application access helps ensure consistent compliance with industry regulations and organizational policies.
- 3. Simplifies application and resource management.** A single view across environments, the client infrastructure, and the applications and services that are deployed on it allow ICT departments to more proactively and efficiently deploy, secure, and manage desktops and devices. Products and common and familiar tools to configure, monitor, and report simplify the management of complex systems and help ensure they are up-to-date and available to users.

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Key Products and Technologies

 Windows 7
Enterprise

 Microsoft
Desktop Optimization Pack
for Software Assurance

 Microsoft
Office

 Windows Phone

 expresSO

 Windows Server 2008 R2

 Microsoft
Forefront

 Windows Embedded

 Way2Care

 Vergence

 Microsoft
System Center

 Business Productivity Online Suite (BPOS)

 Windows
Internet Explorer 8

 Windows Intune

Windows 7 Enterprise

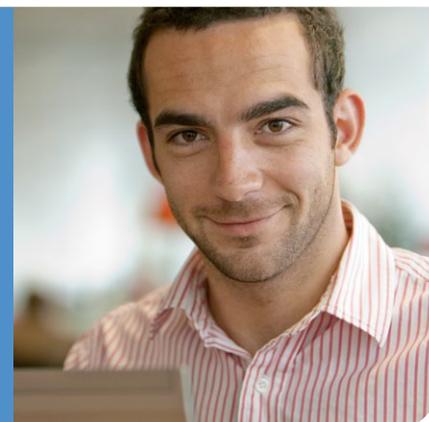
The core element of the Optimized Desktops and Devices offering is Windows 7 Enterprise, which helps make users more productive, enhances security and control, and streamlines PC management—benefits that align directly with the key benefits of the Optimized Desktops and Devices offering. Windows 7 Enterprise enables providers and caregivers to complete their jobs more securely from virtually anywhere—in a doctor's office, clinic, or hospital, and from different locations within or away from a facility—which helps improve productivity.

Several features and technologies offered exclusively in Windows 7 Enterprise provide important benefits for users within the health ecosystem:

- **Windows AppLocker™:** Enhances security and control by specifying which software is allowed to run on your desktops and devices through centrally managed but flexible User or Group Policies.
- **Windows BitLocker® and Windows BitLocker To Go™:** Help protect data on desktops, laptops, and removable storage drives and devices.
- **Windows BranchCache™:** Decreases the time spent waiting to download files across the network.
- **DirectAccess:** Gives mobile users more seamless and secure access to corporate networks without a need for a virtual private network (VPN).
- **Enterprise Search Scope:** Finds information on network locations, including Microsoft SharePoint® sites, through a simple user interface.
- **Multi Lingual User Interface:** Creates a single operating system image for deployment to users worldwide.
- **Virtual Desktop Infrastructure (VDI):** Provides access to a personal desktop from any authorized device for improved flexibility and productivity—an important advantage when sharing devices. Centralizes management of client workloads and allows reuse of virtual machine images to boot a physical PC for improved service continuity.

"[We] have always been focused on making sure staff have the opportunity to use and experience the best and most efficient IT systems. Those systems have to support a hugely diverse workforce from office-based administrative staff to operational mobile clinicians... It's therefore a natural progression to build on the success of [the Windows Vista®] rollout and offer our staff even more features—security, speed, productivity, etc.—by upgrading them to Windows 7."

— Ian Arbuthnot, Chief Information Officer
South East Coast Ambulance Service, Surrey, UK





Microsoft Desktop Optimization Pack (MDOP)

The six innovative technologies that are part of MDOP offer high value to healthcare providers and PHSS organizations. MDOP helps to reduce the total cost of ownership (TCO) of running Windows 7 through acceleration of the management and deployment of applications and the enhancement of ICT responsiveness and user uptime. Health organizations tend to run the same operating system and application versions for many years; however, Microsoft Application Virtualization (App-V) and Microsoft Enterprise Desktop Virtualization (MED-V) make application and resource management easier. With the latest operating system, new or upgraded applications, and significantly reduced compatibility issues, your organization will benefit from advances in security productivity, manageability, and more. Microsoft Diagnostics and Recovery Toolset (DaRT), Microsoft Asset Inventory Service (AIS), and Microsoft System Center Desktop Error Monitoring (DEM) help increase productivity and compliance, while Microsoft Advanced Group Policy Management (AGPM) supports the need to enhance security and control, which is especially important for compliance in the health ecosystem.

Microsoft System Center

The Microsoft® System Center family of system management products helps ICT professionals manage physical and virtual ICT environments across desktops, devices, and data centers.

Microsoft Forefront

Microsoft Forefront® delivers end-to-end security and access to information through an integrated line of protection, access, and identity management products.

Sentillion Products

- **Vergence:** Provides a single, security-enhanced and efficient point of access for all types of caregivers and applications throughout the healthcare enterprise. Vergence unifies single sign-on, role-based application access, context management, strong authentication and centralized auditing capabilities into an integrated clinical workstation solution.
- **expreSSO:** Improves productivity by making single sign-on virtually transparent within existing clinical workflows.
- **Way2Care:** Provides advanced authentication capability that leverages standard passive proximity cards. Caregivers can roam throughout a defined work area and sign on to different workstations simply by tapping their passive proximity badge against a workstation reader.

Windows Server 2008 R2

Windows Server® 2008 R2 adds new features, such as VDI, to enable health organizations to increase the reliability, flexibility and efficiency of their infrastructures.

Windows Intune

Windows Intune™ is a cloud service that simplifies how health organizations manage and secure PCs using Windows® cloud services and Windows 7. The results, computers and users in health organizations can operate at peak performance, from virtually anywhere.

Microsoft Office 2010

Microsoft® Office 2010 adds more power and flexibility into the tools care professionals rely on to work efficiently and deliver quality care and services.

Business Productivity Online Suite (BPOS)

Business Productivity Online Suite is a set of messaging and collaboration solutions hosted by Microsoft that consists of Microsoft® Exchange Online, Microsoft SharePoint® Online, Microsoft® Office Live Meeting, and Microsoft® Office Communications Online.

Windows Embedded

Windows® Embedded is a high-performance and highly reliable platform used by innovative original equipment manufacturers (OEMs) to deliver devices that stand out through rich user experiences and seamless connections to the world of Windows®.



Resources

For additional information about the products and technologies that are part of the Optimized Desktops and Devices offering, please visit the following websites:

- Windows 7: www.microsoft.com/windows
- MDOP: www.microsoft.com/windows/enterprise/technologies/mdop.aspx
- Microsoft System Center: www.microsoft.com/systemcenter
- Microsoft Forefront: www.microsoft.com/forefront
- Windows® Phone: www.microsoft.com/windowsmobile
- Sentillion: www.sentillion.com
- Windows Intune: www.microsoft.com/online/windows-intune.aspx
- Microsoft Office: <http://office.microsoft.com>
- Business Productivity Online Suite (BPOS): www.microsoft.com/online
- Windows Embedded: www.microsoft.com/windowseembedded
- Windows 7 Deployment Programs:
www.microsoft.com/windows/enterprise/products/windows-7/deployment.aspx

For additional CHP guidance, tools, solution accelerators, and offerings, please visit the Health ICT Resource Center at www.microsoft.com/HealthICT and the following websites:

- Microsoft Health Common User Interface: www.mscai.net
- Clinical Documentation Solution Accelerator for the Microsoft Office System:
www.mscai.net/CDSA.htm
- Desktop Automated Build and Deployment:
www.microsoft.com/industry/healthcare/technology/hpo/desktop/desktop.aspx
- Group Policy for Healthcare Desktop Management:
www.microsoft.com/industry/healthcare/technology/hpo/desktop/grouppolicy.aspx
- Microsoft Deployment Toolkit Solutions Pack:
www.microsoft.com/industry/healthcare/technology/hpo/desktop/mdt.aspx
- Microsoft Application Virtualization Deployment Guide:
www.microsoft.com/industry/healthcare/technology/hpo/desktop/softgrid.aspx

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Selected Customer Evidence

- Partners Healthcare – Healthcare System Expects an 80 Percent Decrease in Desktop Image Management Efforts: www.microsoft.com/casestudies/Case_Study_Detail.aspx?CaseStudyID=4000007573
- Baptist Health – Healthcare Provider Simplifies Application Packaging and Delivery with Virtualization: www.microsoft.com/casestudies/Case_Study_Detail.aspx?casestudyid=4000003706
- South East Coast Ambulance Service – Windows 7 makes data more secure at South East Coast Ambulance Service: www.microsoft.com/uk/nhs/content/articles/windows-7-makes-data-more-secure-at-south-east-coast-ambulance.aspx
- Care New England – Health System Saves Hours of Labor, Increases User Productivity with Virtualization: www.microsoft.com/casestudies/Case_Study_Detail.aspx?casestudyid=4000003988
- Barts and the London NHS Trust – Healthcare Organization Simplifies IT Management Through Operating System Upgrade: www.microsoft.com/casestudies/Case_Study_Detail.aspx?CaseStudyID=4000007705
- Hillcrest Baptist Medical Center – Regional Medical Group Virtualizes Electronic Health Records with Windows Embedded: www.microsoft.com/casestudies/Case_Study_Detail.aspx?CaseStudyID=4000007956

Additional case studies on the use of Windows 7 and other products that are part of the Optimized Desktops and Devices offering can be accessed at www.microsoft.com/casestudies.

Please contact your Microsoft representative or visit www.microsoft.com/health for more information about Microsoft in Health and our partners and customers.