

Windows Embedded Server

Embedded Operation System

Windows Embedded Server

Features

- Windows Server for Embedded Systems offers a dynamic infrastructure that can scale and secure workloads, and increase hardware ROI and reduce total cost of ownership
- The platform features diverse storage choices that can help achieve high-performance, availability and resource efficiency through virtualization and optimization
- Windows Server for Embedded Systems also automates a broad set of management tasks, and simplifies deployment of workloads, helping move an organization toward full, lights-out automation and easy remote management
- Deliver centralized access and audit policies, leverage built-in security capabilities, and help lock down your appliances

Introduction

Windows® Embedded Server is binary identical to Windows Server, with built-in security, reliability, and availability features intended for use in an embedded solution consisting of purpose-built hardware and application software. Windows® Embedded Server allows OEMs to more easily design, build, and deploy dedicated solutions.

Feature Details

Server Availability

Network adapter teaming enables multiple network adapters to be placed into a team interface for bandwidth aggregation and traffic failover.

Data Security and Integrity

- Claims-based file access allows the flexibility to restrict access to files based on various claims.
- Centralized access and audit policies enable targeted auditing of certain data sets.
- Improvements include auto-encryption and file classification.
- Dynamic Host Protocol (DHCP) guard protection helps prevent your server appliance security from being compromised.

Management Efficiency

- Improved automation with Windows PowerShell helps reduce errors and improves availability of server appliances.
- Remote server administration allows enterprises deploying server appliances to remotely manage server appliances across roles from a single UI.
- Helps automate routine tasks.

Data Deduplication

- Throttles CPU and memory consumption to maintain a low impact on server appliance workloads; can be configured to run at specific times, and is highly scalable.
- Uses checksum, consistency and identity validation, in addition to maintaining redundancy for metadata and data most frequently accessed.

Storage Reliance

- Create storage reliance and availability with Storage Spaces and Storage Pools. Enables you to virtualize storage by grouping industry-standard disks into Storage Pools and then creating Storage Spaces from the available capacity in the Storage Pools. With Windows Server for Embedded Systems, you have the ability to virtualize your storage solution. Storage Spaces gives you the ability to consolidate all your SAS and SATA connected disks—whether they are SSDs or traditional HDDs—and consolidate them as Storage Pools.
- Windows Server for Embedded Systems includes a redesigned data persistence layer that is based on a new version of the VHD format called VHDX (VHD 2.0). VHDX has a much larger storage capacity than the older VHD format. iSCSI Target Server also provides data corruption protection during power failures and optimizes structural alignments of dynamic and differencing disks to prevent performance degradation on new, large-sector physical disks.

Virtual Machine Performance

Use Non-Uniform Memory Access (NUMA) in Hyper-V to speed up the performance of virtual machines.

Data Availability

Resilient File System (ReFS) helps maximize data availability and online operation, despite errors that would historically cause data loss or downtime.

Business Intelligence

PowerView, a new feature in the Business Intelligence and Enterprise editions of Microsoft SQL Server for Embedded Systems Reporting Services, provides a method for users who are not business analysts to explore data stored in PowerPivot for SharePoint.

Windows Client Interoperability

Client machines connecting to server appliances from locations with low-bandwidth connections can quickly adapt to different network conditions through improvements in Remote Desktop Protocol.

Windows Embedded Server

Cloud Ready

Developer tools provide a rich Microsoft Visual Studio–based developer experience and compose both application code and declarative models (workflow, rules, etc.). Visual Studio and Team Foundation Server (TFS) provide a rich development experience, and offer to .NET developers a complete environment to build cloud and on-premises applications. Technologies such as Service Bus, Azure Connect, and the Access Control service enable hybrid applications that work on-premises and in the cloud.

Integrate your server appliances with applications running in Windows Azure by using Windows Azure Service Bus, which provides secure messaging and relay capabilities that enable the building of distributed and loosely coupled hybrid applications in the cloud. It enables you to connect and integrate your server appliances more securely with applications running on Windows Azure

Specifications and Versions

Windows Server 2012 R2 for Embedded Systems

Windows Server 2012 R2 for Embedded Systems is designed for building specialized, low-maintenance server appliances in situations, where staff needs to focus on their jobs, and not their IT. The proven, robust, highly reliable operating system is binary identical to Windows Server 2012 R2 and provides high-performance, hybrid cloud-service capabilities, and innovative storage options for building robust, industry-class server appliances.

Windows Server 2012 for Embedded Systems

Windows Server 2012 for embedded systems provides OEMs with a proven, robust operating system platform for embedded applications in server appliances in a wide variety of industries where long term product availability is essential.

Windows Server 2008 R2 for Embedded Systems

Windows Embedded Server is binary identical to Windows Server. Windows Server 2008 for embedded systems offers a proven, robust, highly available and reliable operating system for OEMs for embedded applications in server appliances in a wide variety of industries where long term product availability is essential, particularly in Intelligent Systems architectures.

Windows Server 2008 for Embedded Systems

IT professionals today face constant pressure from rapidly changing technology, increasing costs, security concerns and expanding business needs. Windows Embedded Server 2008 alleviates these pressures by automating daily management tasks, tightening security, improving efficiency and increasing availability within server appliances.

Features	Server 2003	Server 2008 / 2008 R2	Server 2012	Server 2012 R2
Identity and Access				
Active Directory Services	●	●	●	●
Dynamic Access Control	–	–	●	●
AD virtualization support	–	–	●	●
Virtualization				
Shared-nothing live migration	–	–	●	●
Hyper-V Replica	–	–	●	●
Hyper-V clustering	–	●	●	●
Virtual Desktop Infrastructure	–	●	●	●
Storage				
Storage Spaces with tiering	–	–	–	●
Shared VHDX	–	–	–	●
Live storage migration	–	–	●	●
Storage QoS	–	–	–	●
Cluster share volume	–	●	●	●
Web and App Plat				
Multi-tenant high density websites	–	●	●	●
NUMA aware scalability	–	–	●	●
Dynamic IP restrictions	–	–	●	●
Networking				
Hyper-V Network Virtualization	–	–	●	●
NIC teaming	–	–	●	●
IP address management	–	–	●	●
Management and Automation				
Server Core	–	●	●	●
Multiserver management	–	–	●	●
Windows PowerShell	●	●	●	●
Windows PowerShell Workflow and Web Access	–	–	●	●

Licensing Model

Windows Server 2012 For Embedded Systems and Windows Server 2012 R2 For Embedded Systems

Feature	Standard	Datacenter
Processor supported	1-4	1-4
Virtualization technology	2 to 4 virtual license instances	unlimited virtual license instances

Windows Server 2008 For Embedded Systems and Windows Server 2008 R2 For Embedded Systems

Feature	Standard	Enterprise
Processor supported	1-4	1-8
Virtualization technology	2 to 4 virtual license instances	unlimited virtual license instances

Ordering Information

Windows Server 2012 R2 for Embedded Systems

Standard Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS12R2U	6FA-00235	Win Svr Emb Std 2012 R2 x64 EMB MultiLang ESD OEI 2 CPU Std	2023/1/10	2027/6/30
968TS12R25	6FA-00241	Win Svr Emb Std 2012 R2 x64 EMB MultiLang ESD OEI 2 CPU 5 Clt Std	2023/1/10	2027/6/30
968TS12R20	6FA-00244	Win Svr Emb Std 2012 R2 x64 EMB MultiLang ESD OEI 2 CPU 10 Clt Std	2023/1/10	2027/6/30
968TS12R4U	6FA-00238	Win Svr Emb Std 2012 R2 x64 EMB MultiLang ESD OEI 4 CPU Std	2023/1/10	2027/6/30
968TS12R45	6FA-00247	Win Svr Emb Std 2012 R2 x64 EMB MultiLang ESD OEI 4 CPU 5 Clt Std	2023/1/10	2027/6/30
968TS12R40	6FA-00250	Win Svr Emb Std 2012 R2 x64 EMB MultiLang ESD OEI 4 CPU 10 Clt Std	2023/1/10	2027/6/30

DataCenter Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS12RD2	9ZU-00028	Win Svr Emb Dtcntr 2012 R2 x64 EMB MultiLang ESD OEI 2 CPU	2023/1/10	2027/6/30
968TS12RD4	9ZU-00031	Win Svr Emb Dtcntr 2012 R2 x64 EMB MultiLang ESD OEI 4 CPU	2023/1/10	2027/6/30

Windows Server 2012 for Embedded Systems

Standard Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS12S2U	6FA-00068	Win Svr Emb Std 2012 x64 EMB ESD OEI 2 CPU Std	2023/1/10	2027/6/30
968TS12S25	6FA-00070	Win Svr Emb Std 2012 x64 EMB ESD OEI 2 CPU 5 Clt Std	2023/1/10	2027/6/30
968TS12S20	6FA-00072	Win Svr Emb Std 2012 x64 EMB ESD OEI 2 CPU 10 Clt Std	2023/1/10	2027/6/30
968TS12S4U	6FA-00086	Win Svr Emb Std 2012 x64 EMB ESD OEI 4 CPU Std	2023/1/10	2027/6/30
968TS12S45	6FA-00088	Win Svr Emb Std 2012 x64 EMB ESD OEI 4 CPU 5 Clt Std	2023/1/10	2027/6/30
968TS12S40	6FA-00090	Win Svr Emb Std 2012 x64 EMB ESD OEI 4 CPU 10 Clt Std	2023/1/10	2027/6/30

DataCenter Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TSD122C	9ZU-00003	Win Svr Emb Dtcntr 2012 64Bit EMB ESD OEI 2 CPU	2023/1/10	2027/6/30
968TSD124C	9ZU-00004	Win Svr Emb Dtcntr 2012 64Bit EMB ESD OEI 4 CPU	2023/1/10	2027/6/30

Windows Server 2008 R2 for Embedded Systems

Standard Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS28F30	6FA-00030	Win Svr Emb Std 2008 R2 64Bit EMB ESD OEI DVD 1-4CPU 5 Clt	2020/1/14	2023/2/6

Enterprise Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS28G31	6GA-00031	Win Svr Emb Ent 2008 R2 64Bit EMB ESD OEI DVD 1-8CPU 25 Clt	2020/1/14	2023/2/6

Windows Embedded Server

Windows Server 2008 for Embedded Systems

Standard Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS28F08	6FA-00008	Win Svr Emb Std 2008 EMB ESD OEI DVD 1-4CPU 5 CIt	2020/1/14	2023/2/6
968TSV2845	6HA-00008	Win Svr Emb Std w/oHyperV 2008 EMB ESD OEI DVD 1-4CPU 5 CIt	2020/1/14	2023/2/6

Enterprise Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS28G08	6GA-00008	Win Svr Emb Ent 2008 EMB ESD OEI DVD 1-8CPU 25 CIt	2020/1/14	2023/2/6
968TSV2885	6JA-00008	Win Svr Emb Ent w/oHyperV 2008 EMB ESD OEI DVD 1-8CPU 25 CIt	2020/1/14	2023/2/6

Windows Server 2003 R2 for Embedded Systems

Standard Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS3R264	T25-00020	Windows Svr 2003 Embed 2003 R2 64Bit EMB ESD OEI CD 1-4CPU 5 CIt	2015/7/14	2018/5/28
968TSV23R2	T25-00021	Windows Svr 2003 Embed 2003 R2 Win32 EMB ESD OEI CD 1-4CPU 5 CIt	2015/7/14	2018/5/28
968TSVR23C	T25-00046	Windows Svr 2003 Embed 2003 R2 Win32 EMB ChnTrad ESD OEI 1-4CPU 5 CIt	2015/7/14	2018/5/28

Enterprise Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS23ENT	P72-02062	Windows Svr Ent 2003 R2 Win32 EMB ESD OEI CD 1-8CPU 25 CIt	2015/7/14	2018/5/28
N/A	P72-02061	Windows Svr Ent 2003 R2 64Bit EMB ESD OEI CD 1-8CPU 25 CIt	2015/7/14	2018/5/28

Windows Server 2003 for Embedded Systems

Standard Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS23TC5	T25-00047	Windows Svr 2003 Embed 2003 Win32 EMB ChnTrad ESD OEI 1-4CPU 5 CIt	2015/7/14	2018/5/28

Enterprise Version

Advantech PN	MS PN	Item Name	End of Support	End of License
968TS23EC5	P72-01107	Windows Svr Ent 2003 Win32 EMB ESD OEI 1-8CPU 25 CIt	2015/7/14	2018/5/28