



Windows Server 2012 R2 for Embedded Systems

Windows Server 2012 R2 for Embedded Systems provides original equipment manufacturers (OEMs) with improved performance through cloud-ready capabilities and innovative storage options for building robust, low-maintenance, industry-class server appliances. The proven, robust, highly reliable operating system delivers hundreds of new features and enhancements spanning virtualization, networking, storage, user experience, cloud computing, automation, and more

One Trusted Platform

Help your customers increase productivity with robust, highly available, reliable, and hardened server appliances with built-in security capabilities and automation.

Robust Operating System

Empower your server appliances with improved throughput, availability, and failover capabilities.

Data Security

Deliver centralized access and audit policies, and built-in security capabilities; and help lock down your appliances.

Productivity and Management Efficiency

Windows Server 2012 R2 for Embedded Systems simplifies management while maintaining security, control, and compliance.

Fits with Your Needs

Take advantage of a server appliance operating system that helps increase hardware return on investment, reduced total cost of ownership, optimize data storage efficiency with scale, and achieve performance advantages.

Virtualization

Build server appliances that help increase hardware return on investment and optimize business infrastructure.

Storage Efficiency

The platform features diverse storage choices that can help achieve high performance, availability, and resource efficiency through virtualization and optimization.

High Performance

Help deliver a scalable, high-performance server appliance that can be adapted to perform at the optimum level based on your customer needs.

Extends Intelligence for Increased Business Opportunity

Build server appliances that run Microsoft SQL Server 2012 for Embedded Systems databases for enhanced business intelligence, interoperate with client computers, and connect to the cloud.

Better Together with Microsoft SQL Server

Deliver server appliances with a smaller footprint and greater uptime that run SQL Server 2012 for Embedded Systems databases.

Business Intelligence

The platform also provides an easy path to integrate the data generated by devices at the network edge with powerful analytics and business intelligence tools like SQL Server 2012 for Embedded Systems on the back end or Windows Azure in the cloud.

Connect to the Cloud

Apply your expertise in server appliances to the cloud by taking advantage of common development tools and security-enhanced messaging and relay capabilities.



Windows Embedded products are covered by an industry-leading 10-year support program **plus a product availability of 15 years.**

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Features at a Glance

One Trusted Platform

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.
- Help automate routine tasks.

Fits with Your Needs

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 2012 R2 for Embedded Systems, you have the ability to virtualize your storage solution. Storage spaces give 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 2012 R2 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.

Extends Intelligence

Business Intelligence

- PowerView,* a new feature in the Business Intelligence and Enterprise editions of Microsoft SQL Server 2012 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.

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.

Learn more and download the trial version today!
Visit www.windowsembedded.com/server.