

A man with dark hair and glasses, wearing a yellow polo shirt, is shown in profile, looking intently at a server rack in a data center. The server rack is filled with various components, including network ports and indicator lights. The background is a blue wall with a square logo. The Microsoft logo is in the top left corner.

Microsoft

Enable the Web and Application Platform with Windows Server 2012 Release Candidate

Windows Server 2012 Release Candidate (RC) provides an open application and web platform that gives IT professionals the flexibility to build and deploy applications and websites on-premises and in the cloud.

Windows Server 2012 Release Candidate. The information contained in this document relates to a pre-release product which may be substantially modified before it is commercially released. Microsoft makes no warranties, express or implied, with respect to the information presented here.



An open application and web platform for the data center and the cloud

Windows Server 2012 Release Candidate (RC) provides excellent flexibility for building and hosting applications and websites across on-premises private, hosted and Windows Azure public clouds, to give enterprises and hosting providers an open server platform that can provide the elasticity, scalability, and compatibility for creating and managing private clouds and running vital applications. By delivering frameworks, services, and tools, it can help hosting providers and large enterprises increase density, simplify management, and achieve higher scalability in a shared web-hosting environment.

Many organizations today are using—or are planning for—a combination of on-premises and off-premises IT resources and tools, resulting in hybrid environments. With Windows Server 2012 RC, organizations can protect their existing investment in on-premises applications as they begin to migrate to cloud environments, providing the means to manage their applications and websites in a unified way regardless of location.

Flexible

Windows Server 2012 RC enables symmetrical or hybrid applications across private and public cloud environments. Different levels of connectivity allow for hybrid scenarios that enable the integration of applications across Windows Server 2012 RC and Windows Azure.

- **Windows Azure Service Bus** provides secure messaging and relay capabilities that enable building distributed and loosely-coupled hybrid applications across both private and public clouds. It enables you to securely connect and integrate enterprise systems running in your private cloud with applications running on Windows Azure.
- **Windows Azure Connect** provides an easier way to set up network-level connectivity between Windows Azure services and on-premises resources such as database servers and domain controllers, allowing each access to the other as if they were on the same network. With Windows Azure Connect, you can use a simple user interface to configure IPsec-protected connections between computers or virtual machines (VMs) in your organization's network, and roles running in Windows Azure.
- **Virtual machine portability** across premises and the cloud offers options through Microsoft System Center 2012 or the services portal to provision, manage, and move virtual machines across Windows Server 2012 RC and Windows Azure.

- **Common development tools**, such as Microsoft Visual Studio and Microsoft Team Foundation Server, provide a rich development experience and offer to .NET developers a complete environment to build cloud-optimized applications. Programming symmetry across premises and the cloud provide the ability to use the same development tool sets between Windows Server 2012 RC and Windows Azure.

Open

Windows Server 2012 RC offers developers an open platform with **support for open source software and multiple languages**. Developers can use their favorite languages and choose freely from supported programming languages such as .NET, PHP, Node.js, and Python.

Windows Server 2012 RC provides **enhanced support for PHP and MySQL** through extensions to Microsoft Internet Information Services.

Other new and enhanced features in Windows Server 2012 RC include:

- **ASP.NET 3.5 and ASP.NET 4.5 Support:** Internet Information Services on Windows Server 2012 RC allows ASP.NET applications to run using either .NET Framework 3.5 or .NET Framework 4.5, so that you can natively run applications that work under either version.

Internet Information Services on Windows Server 2012 RC hosts versions of the .NET Framework in different application pools, thereby allowing multiple ASP.NET applications with different .NET Framework versions to run simultaneously on Windows Server 2012 RC. Both UI-based and command-line driven setups can be used to turn on both versions of the .NET Framework.

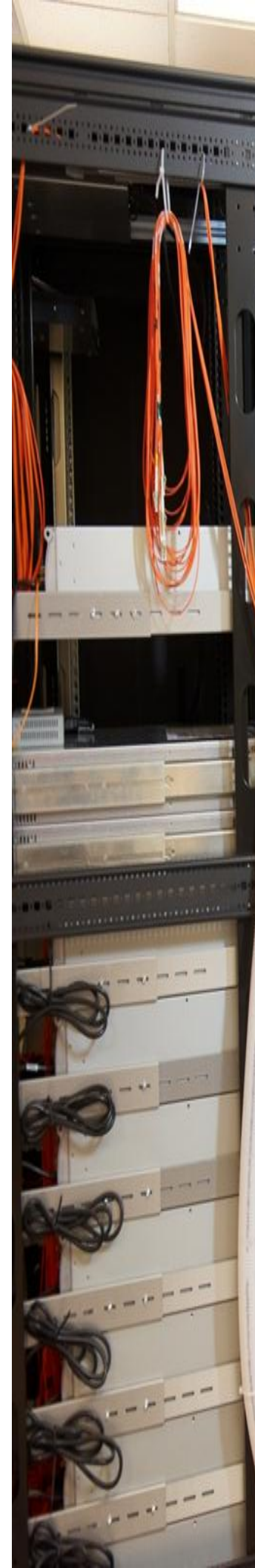
- **ASP.NET 4.5 and 3.5 Applications Management:** Internet Information Services supports running both ASP.NET 3.5 and ASP.NET 4.5 applications. Similarly, the management infrastructure for Internet Information Services on Windows Server 2012 RC also supports managing both ASP.NET 3.5 and ASP.NET 4.5 applications. With this new feature, server administrators and developers can fully manage both ASP.NET 3.5 and ASP.NET 4.5 applications, reducing the workload and improving the administrator's efficiency.
- **Support for WebSocket Protocol:** The WebSocket Protocol is supported in Internet Information Services ASP.NET 4.5 and Windows Communication Foundation, using either native or managed programming APIs for writing server-side WebSocket Protocol applications. This feature opens an entirely new way to write web applications. It also has the ability to push messages from the server to the client and to run other protocols over WebSocket Protocol.

Scalable and elastic

Windows Server 2012 RC provides frameworks, services, and tools to increase scalability and elasticity for multitenant-enabled applications. It improves website density and efficiency, while enabling service providers to better build, provision, and manage a hosting environment.

New and enhanced features in Windows Server 2012 RC for scalable and elastic applications include:

- **In-memory distributed caching:** Allows Windows Server 2012 RC to distribute its work across multiple machines, and to give a logical view of a single cache that can grow in size and in transactional capacity.
- **Publish and subscribe messaging ,** integration, and workflow technologies enable developers to build loosely coupled applications that are easy to elastically scale, both on and across Windows Server 2012 RC and Windows Azure.
- **Internet Information Services CPU throttling:** Internet Information Services CPU throttling in Windows Server 2012 RC is used to set the maximum allowable CPU consumption for each application pool. Resource management is greatly enhanced by providing a sandbox for web applications. The sandbox limits resource consumption per site and meters resource consumption per site.
- **NUMA-aware scalability:** NUMA-aware scalability divides the workload into multiple processes and then takes advantage of Non-Uniform Memory Access (NUMA) nodes to minimize the need for the CPU to synchronize memory across the servers.
- **Server Name Indicator (SNI).** SNI allows multiple secure sites to share the same IP address and port, differentiated by host name. SNI also enables SSL to scale to thousands of SSL certificates and uses the local certificate store. This new feature helps support increased density of secure sites, which in turn allows for greater site scalability.
- **Centralized SSL certificate support:** Centralized SSL certificate support in Windows Server 2012 RC helps administrators to significantly lower the total cost of operation—an extra bonus for those who manage many SSL sites, such as hosting providers with shared environments and enterprises with large deployments. SSL certificates can be stored centrally on a file share in Windows Server 2012 RC, simplifying overall SSL certificate management. Centralized SSL certificate support is designed to scale to support thousands of SSL certificates.
- **Application initialization:** Allows website administrators to configure Internet Information Services to proactively perform initialization tasks for one or more web applications.





- **FTP log-on attempt restriction:** Internet Information Services in Windows Server 2012 RC includes FTP network security, a feature that helps to protect servers from forced incursions by malicious users. FTP network security gives all the security of a custom authentication provider, but without the need for the administrator to set up and manage individual custom accounts.
- **Dynamic IP restrictions:** Dynamic IP restrictions in Internet Information Services under Windows Server 2012 RC allows you to more easily set up filters to selectively deny access to IP addresses that might pose a threat to your servers. You can set up filters to automatically deny access based on criteria such as the number of attempts to connect, the number of attempts to connect during a specified time period, or IP addresses that are hidden by passing through a proxy server.

Windows Server 2012 RC is a proven application and web platform, with thousands of applications already built and deployed, and a diverse community of knowledgeable and skilled developers. Windows Server 2012 RC offers the flexibility to build across premises on an open, scalable, and elastic web and application platform.

[Learn more](#)

Whether implementing a private cloud is around the corner or over the horizon for you, Windows Server 2012 RC offers the best platform to prepare for and implement IT optimized for the cloud. To learn more about Windows Server 2012 RC, visit www.microsoft.com/windowsserver2012.