



Exchange 2016 on Windows 2016

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Introduction



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Agenda

- ▶ **Overview**
- ▶ **Windows 2016 Issue**
- ▶ **Requirement**
- ▶ **Active Directory**
- ▶ **Upgrade Options**
- ▶ **Product Lifecycle**
- ▶ **Summary**

Overview

The background of the slide is a blurred, high-angle photograph of a modern office space. On the right side, there is a large window with a white frame, looking out onto a bright, overcast sky. In the foreground, a portion of a desk with a light-colored wooden surface is visible, along with some office equipment. The overall atmosphere is clean, bright, and professional.

Exchange 2016 on Windows 2016 - Issue

- Exchange 2016 worked well on windows 2016
- Only issue came in the DAG environment. W3WP.exe (IIS) process is crashing unexpectedly
<http://msexchangeguru.com/2016/11/04/e2016-on-w2016-no-deal-yet>

- **Exchange Team Said**

We wanted to raise your attention to an issue that some customers have reported running Exchange Server 2016 on Windows Server 2016. Crashes of the IIS (W3WP.exe) process have been reported causing instability of Exchange Server on Windows Server 2016. The Exchange team has worked with the Windows team to isolate the source of the problem. An update for Windows Server 2016 will be made available to resolve this issue. Microsoft recommends that customers delay deploying Exchange Server on Windows Server 2016 until this update is made available. For the latest guidance on known issues, please consult the Windows Server release notes on [TechNet](#).

When there are updates on this, we will update this blog post.

- **Windows Team Said**
Microsoft Exchange

If you attempt to run Microsoft Exchange 2016 CU3 on Windows Server 2016, you will experience errors in the IIS host process W3WP.exe. There is no workaround at this time. You should postpone deployment of Exchange 2016 CU3 on Windows Server 2016 until a supported fix is available.

Exchange 2016 on Windows 2016 - Fix

- Windows team released a big update - KB3206632 with Exchange 2016 CU4
- We also released an update <http://msexchangeguru.com/2017/01/08/e2016-on-w2016-supported/>
- Exchange 2016 Setup is locked to verify the OS with KB3206632
- Exchange 2016 CU3 on windows 2016 is not supported.
- Supported Exchange 2016 on Windows 2016 would be the following:
 - Windows 2016 STD – No cores
 - KB 3206632
 - .net framework 4.6.2
 - Exchange 2016 CU4

Cumulative Update 4 Revisit

- .Net Framework 4.6.2 is supported with CU4
- .Net Framework Upgrade Path
 - Currently 4.6.1 → Install Either CU4 or Install .Net 4.6.2 First.
 - Currently 4.5.2 → Install CU4 → Install .Net 4.6.2
 - March 2017CU will required .Net 4.6.2
- Windows 2016 IIS Fix with DAG - KB 3206632
 - What if I don't install this update?
 - Exchange setup will not work on windows 2016

Active Directory Prerequisite

Confusion: “Domain Controllers running Windows Server 2016 are supported provided Forest Functional Level is Windows Server 2008R2 or Later.”

- **Forest Functional Level (FFL) should be windows 2008 or above.**
- **If Domain Controller is Windows 2016 then FFL must be windows 2008 R2 or above.**
- **Exchange 2016 CU7 will enforce FFL to be windows 2008 R2 or higher.**
- **DFL should be windows 2008 or above but it will follow FFL upgrade.**
- **All domain controllers should be windows 2008 or above**
- **All Active Directory Site should have at least one Windows 2008 Domain Controller with Global Catalog.**
64 bit Domain controller are recommended.
- **Windows 2003 Domain Controller should be removed**

Windows 2016 Resources Requirement

Memory:

- 512 MB (2 GB for Server with Desktop Experience installation option)
- ECC (Error Correcting Code) type or similar technology

Storage

- 32 GB or higher

Processor:

- 1.4 GHz 64-bit processor
- Compatible with x64 instruction set
- Supports NX and DEP
- Supports CMPXCHG16b, LAHF/SAHF, and PrefetchW
- Supports Second Level Address Translation (EPT or NPT)

E2016 Operating System & Resources

Operation System

- Windows 2012 Standard or above
- For IP Less DAG, windows 2012 Standard R2 or above.
- IPv6 should be enabled with IPv4.

Paging File: Physical RAM +10 MB. Maximum size of 32778MB

Memory:

- Mailbox Role: Min 8GB and Max 96GB
- Edge Transport Role: Minimum 4GB and Max 96 GB

Processor:

- x64 architecture-based computer with Intel processor.
- AMD processor that supports the AMD64 platform is supported
- Intel Itanium IA64 processors are not supported

Deployment Prerequisite

- **Role and Feature**

Install-WindowsFeature NET-Framework-45-Features, RPC-over-HTTP-proxy, RSAT-Clustering, RSAT-Clustering-CmdInterface, RSAT-Clustering-Mgmt, RSAT-Clustering-PowerShell, Web-Mgmt-Console, WAS-Process-Model, Web-Asp-Net45, Web-Basic-Auth, Web-Client-Auth, Web-Digest-Auth, Web-Dir-Browsing, Web-Dyn-Compression, Web-Http-Errors, Web-Http-Logging, Web-Http-Redirect, Web-Http-Tracing, Web-ISAPI-Ext, Web-ISAPI-Filter, Web-Lgcy-Mgmt-Console, Web-Metabase, Web-Mgmt-Console, Web-Mgmt-Service, Web-Net-Ext45, Web-Request-Monitor, Web-Server, Web-Stat-Compression, Web-Static-Content, Web-Windows-Auth, Web-WMI, Windows-Identity-Foundation, RSAT-ADDS

- **Microsoft KB 3206632**

- **Microsoft Unified Communications Managed API 4.0 core Runtime 64bit**

Upgrade to Windows 2016

Customer Expectation



-Simply Run the OS setup, do in place upgrade and done
or

-Upgrade the OS, install Exchange, join the same DAG & reseed DB

Facts

- In place upgrade of OS is not supported.
- A Cluster with 2 different OS is not supported
- Building New servers and DAG is the only option.

Windows 2016 Upgrade Options

If you are running this edition:	You can upgrade to these editions:
Windows Server 2012 Standard	Windows Server 2016 Standard or Datacenter
Windows Server 2012 Datacenter	Windows Server 2016 Datacenter
Windows Server 2012 R2 Standard	Windows Server 2016 Standard or Datacenter
Windows Server 2012 R2 Datacenter	Windows Server 2016 Datacenter
Windows Server 2012 R2 Essentials	Windows Server 2016 Essentials
Windows Storage Server 2012 Standard	Windows Storage Server 2016 Standard
Windows Storage Server 2012 Workgroup	Windows Storage Server 2016 Workgroup
Windows Storage Server 2012 R2 Standard	Windows Storage Server 2016 Standard
Windows Storage Server 2012 R2 Workgroup	Windows Storage Server 2016 Workgroup

Upgrade Path for Virtual Server

-In a 4 node DAG - On Node 4

-Build new DAG with 4 Nodes

- **Install .net 4.6.1 + hotfix**
- **Install Exchange 2016 CU4 on this server**
- **Create New DAG, Configure Databases, CAS and transport.**

-Moving the Data - Move mailboxes.

Cleanup windows 2012 R2 Exchange 2016 DAG

Upgrade Path for Hardware Server

-In a 4 node DAG - On Node 4

- Remove Databases
- Remove Node from DAG
- Uninstall Exchange from the Server
- In place upgrade Windows Server 2016
- Install .net 4.6.1 + hotfix
- Install Exchange 2016 CU4 on this server
- Create New DAG, Configure Databases, CAS and transport.

-On Node 3 – Do the same as Node 4 and add Database Copy

-Moving the Data - Move mailboxes.

-Once all mailboxes are moved then upgrade Node 2 & Node 1 same as Node 4.

-Add DB copies.

Product Lifecycle

Products Released	Lifecycle Start Date	Mainstream End Date	Extended End Date
Windows Server 2012 R2 and non-R2	11/25/2013	10/9/2018	10/10/2023
Exchange Server 2016	10/1/2015	10/13/2020	10/14/2025
Windows Server 2016	10/15/2016	1/11/2022	1/11/2027

How to decide on Operating System

- **Depends on Licensing**
- **Hyper-V matters**
- **Active Directory Dependency**
- **Long Term Goal**
- **Current Exchange version**
- **Security and Compliance Approvals**

Survey

I am running a survey to know if you or your customer facing search delays in windows file search or outlook email search.

By this survey, I would like to know if there is a need of software which can help with search.

It will be great if you can fill this survey.

<https://1drv.ms/xs/s!Am0tiNF9rz6BjmeLJQ1FGd08ekrs>

Connect For More

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Microsoft Exchange Server 2013
Microsoft Exchange Server 2016

Gracias	ευχαριστώ	Danke	Grazie	Hvala	Obrigado	Kiitos	Merci	mulțumesc
go raibh maith agat	Teşekkürler	धन्यवाद	Salamat Po	Cám ɔn	σας ευχαριστώ	Terima Kasih	Dank u Wel	Tack
நன்றி	Köszönöm	ありがとう ございます	ආචාර්ය	Mulțumesc	<h1>thank you</h1>			
תודה	多謝晒	дякую	Ďakujem	спасибо				
благодаря	Tak	감사합니다	Děkuji	Dziękuję				