

# Microsoft Security Release

November 9, 2021



# Agenda



Security Updates



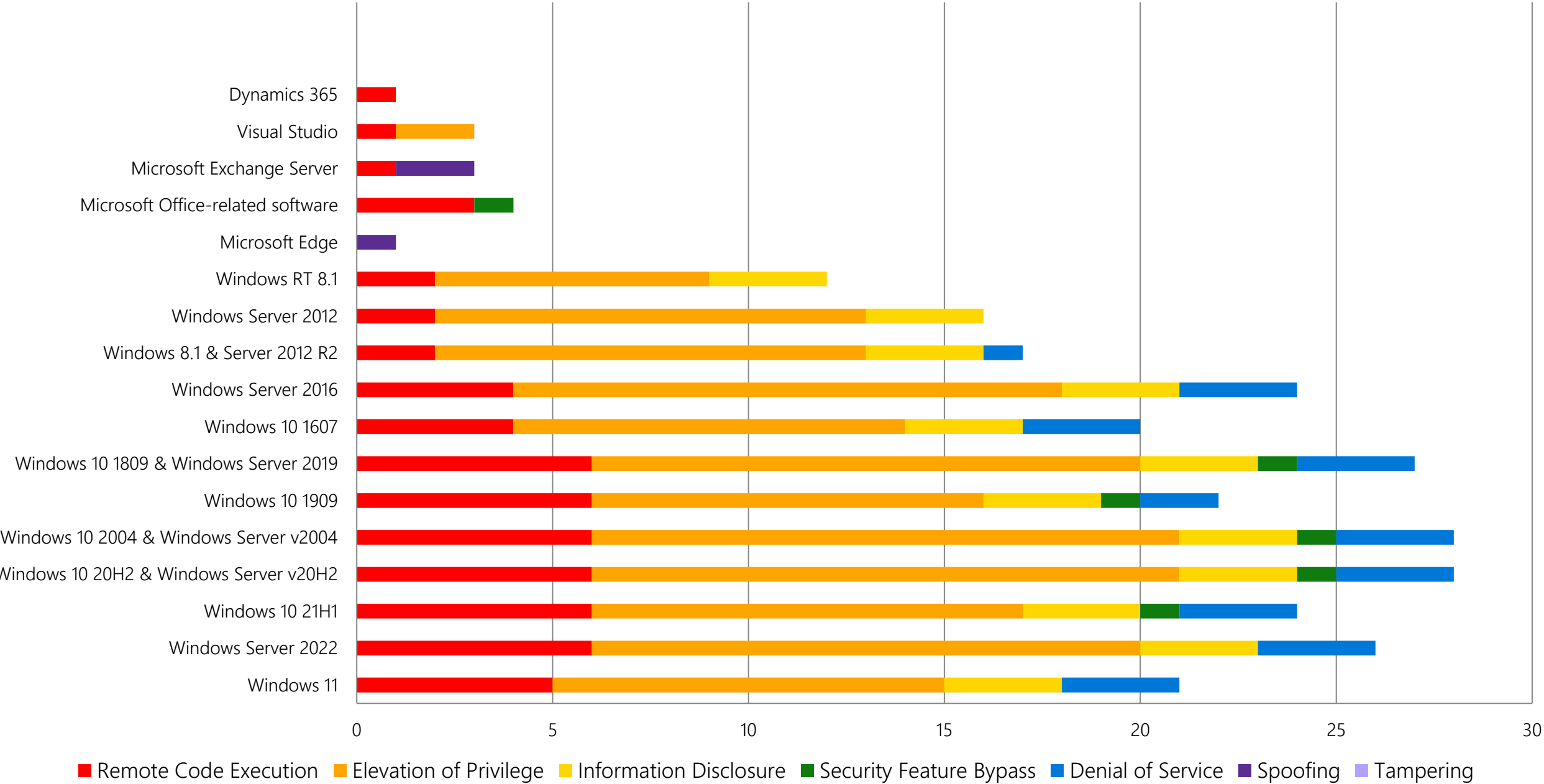
Product Support Lifecycle



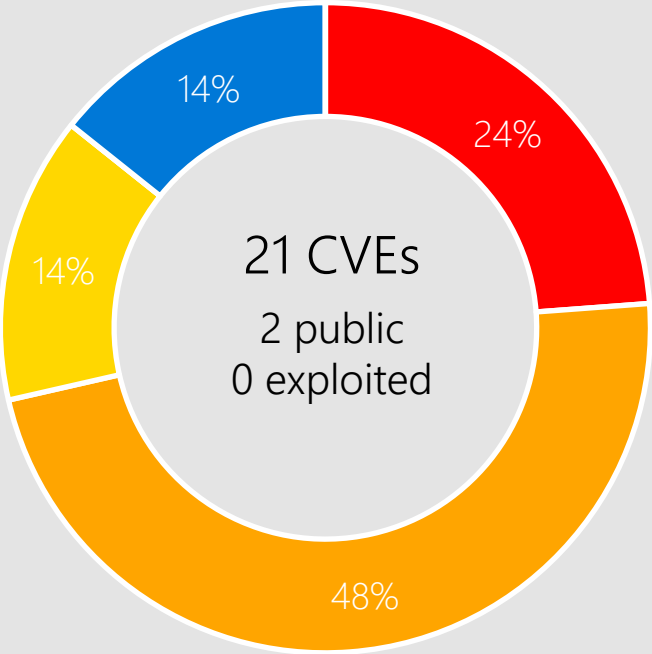
Other resources related to the release

# Monthly Security Release Overview - November 2021

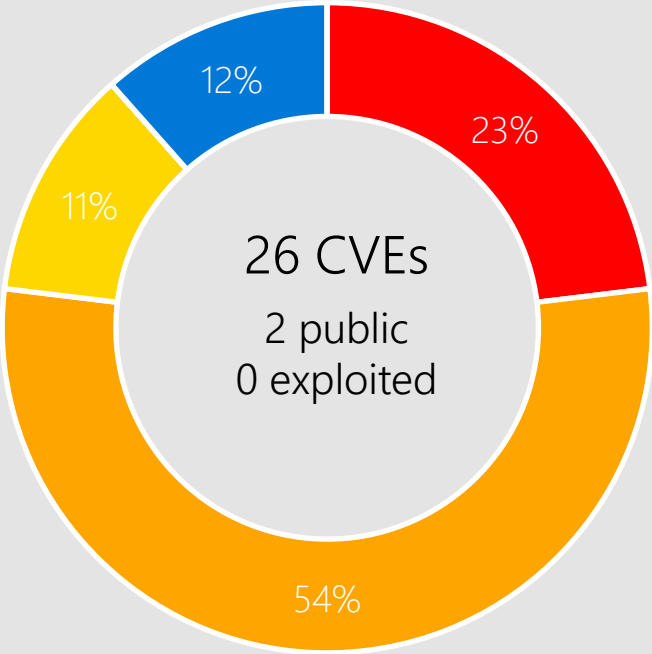
Vulnerabilities fixed by component and by impact



# Windows 11, Server 2022



Windows 11



Windows Server 2022

■ Remote Code Execution ■ Elevation of Privilege ■ Information Disclosure ■ Security Feature Bypass ■ Denial of Service ■ Spoofing ■ Tampering



## Affected Components:

Active Directory Domain Services  
Chakra Scripting Engine  
COM

Credential Security Support Provider  
Protocol (CredSSP)  
Desktop Bridge  
Diagnostics Hub  
Standard Collector

Fast FAT File System Driver  
Feedback Hub  
Hyper-V

Hyper-V Discrete Device Assignment (DDA)  
Installer  
Kernel

Media Foundation  
NTFS  
Remote Desktop Client

Remote Desktop Protocol (RDP)  
Remote Desktop Protocol Client  
Virtual Machine Bus (VMBus)

# CVE-2021-26443 Virtual Machine Bus (VMBus)



## Impact, Severity, Disclosure

Remote Code Execution | Critical | Privately disclosed | No known exploits in the wild



## CVSS Score Metrics

Base CVSS Score: 9 | Attack Vector: Adjacent | Attack Complexity: Low | Privileges Required: Low | User Interaction: None



## Mitigations

Microsoft has not identified any mitigating factors for this vulnerability.



## Workarounds

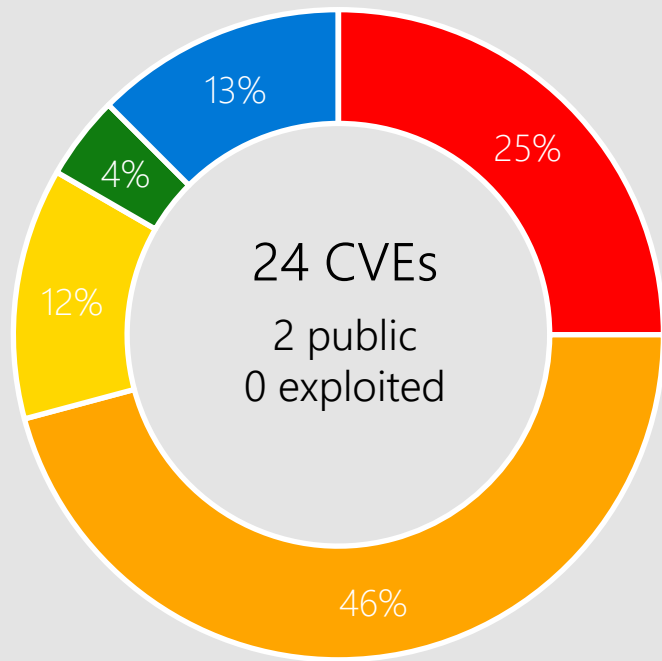
Microsoft has not identified any workarounds for this vulnerability.

## Affected Software

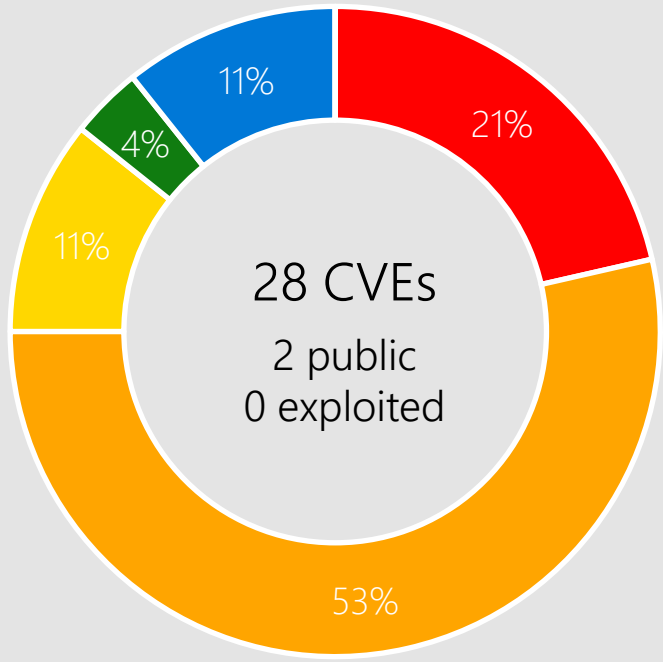


Windows 11  
Server 2022  
Server, version 20H2  
Windows 10  
Server, version 2004  
Server 2019

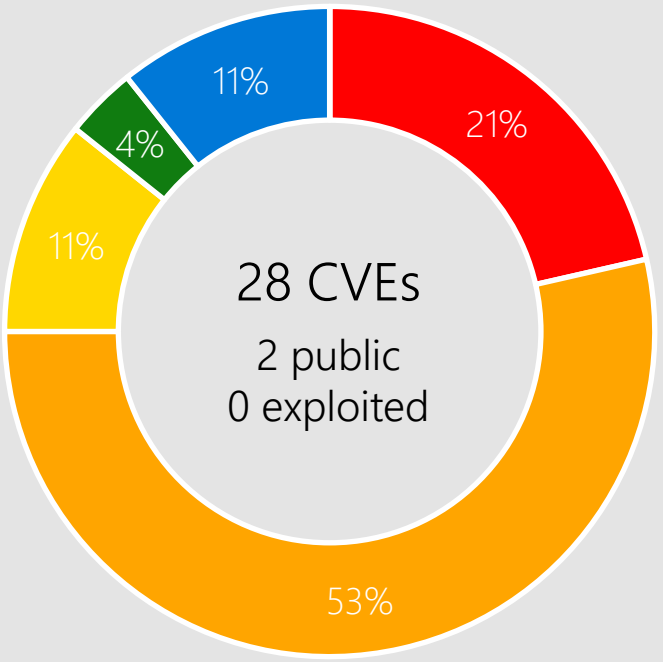
# Windows 10



Windows 10 21H1



Windows 10 20H2 & Windows Server v20H2



Windows 10 2004 & Windows Server v2004

■ Remote Code Execution ■ Elevation of Privilege ■ Information Disclosure ■ Security Feature Bypass ■ Denial of Service ■ Spoofing ■ Tampering



## Affected Components:

Active Directory Domain Services  
Chakra Scripting Engine  
COM

Credential Security Support Provider  
Protocol (CredSSP)  
Desktop Bridge  
Diagnostics Hub  
Standard Collector

Fast FAT File System Driver  
Feedback Hub  
Hello

Hyper-V  
Hyper-V Discrete Device Assignment (DDA)  
Installer

Kernel  
Media Foundation  
NTFS

Remote Desktop Client  
Remote Desktop Protocol (RDP)  
Remote Desktop Protocol Client

# CVE-2021-38666 Remote Desktop Client



## Impact, Severity, Disclosure

Remote Code Execution | Critical | Privately disclosed | No known exploits in the wild



## CVSS Score Metrics

Base CVSS Score: 8.8 | Attack Vector: Network | Attack Complexity: Low | Privileges Required: None | User Interaction: Required



## Mitigations

Microsoft has not identified any mitigating factors for this vulnerability.



## Workarounds

Microsoft has not identified any workarounds for this vulnerability.

## Affected Software



Windows 11  
Server 2022  
Server, version 20H2  
Server, version 2004  
Server 2019  
Windows 10  
Server 2016  
Server 2012 R2  
Server 2012  
Windows 8.1

# CVE-2021-41378 NTFS



## Impact, Severity, Disclosure

Remote Code Execution | Important | Privately disclosed | No known exploits in the wild



## CVSS Score Metrics

Base CVSS Score: 7.8 | Attack Vector: Local | Attack Complexity: Low | Privileges Required: Low | User Interaction: None



## Mitigations

Microsoft has not identified any mitigating factors for this vulnerability.



## Workarounds

Microsoft has not identified any workarounds for this vulnerability.

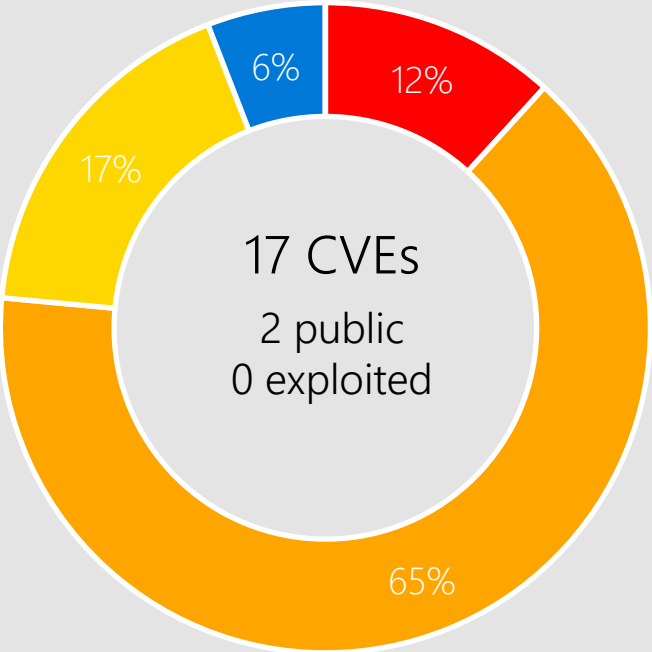
# Affected Software



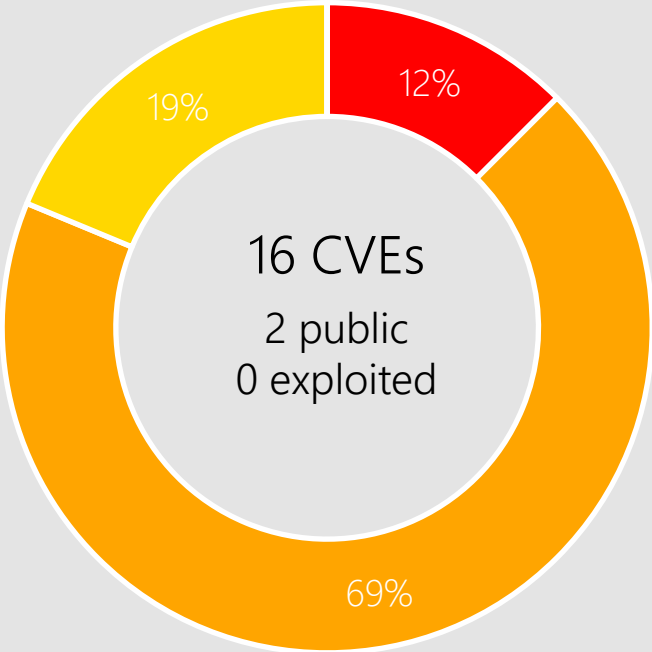
Windows 11  
Server 2022  
Server, version 20H2  
Windows 10  
Server, version 2004  
Server 2019



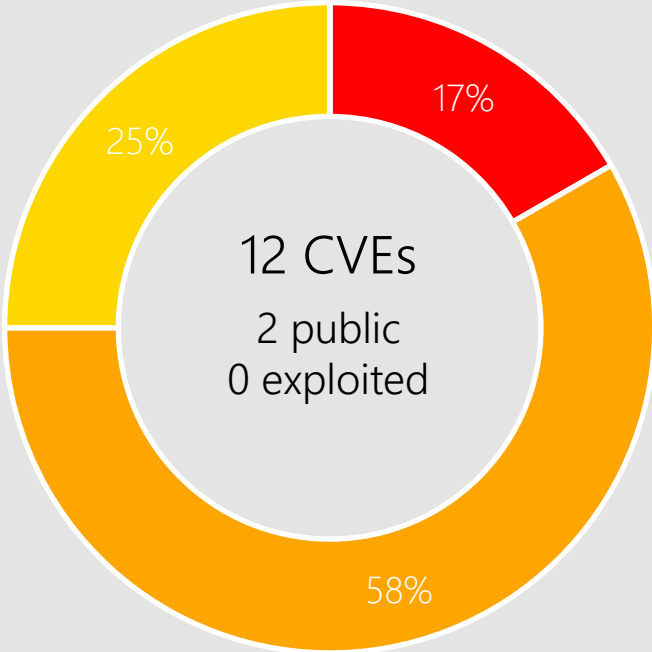
# Windows 8.1, Server 2012 R2, and Server 2012



Windows 8.1 & Server 2012 R2



Windows Server 2012



Windows RT 8.1

■ Remote Code Execution ■ Elevation of Privilege ■ Information Disclosure ■ Security Feature Bypass ■ Denial of Service ■ Spoofing ■ Tampering



## Affected Components:

- Active Directory Domain Services  
COM  
Credential Security Support Provider Protocol (CredSSP)
- Fast FAT File System Driver  
Hyper-V Installer
- Kernel  
NTFS  
Remote Desktop Client

# CVE-2021-42275 COM for Windows



## Impact, Severity, Disclosure

Remote Code Execution | Important | Privately disclosed | No known exploits in the wild



## CVSS Score Metrics

Base CVSS Score: 8.8 | Attack Vector: Network | Attack Complexity: Low | Privileges Required: Low | User Interaction: None



## Mitigations

Microsoft has not identified any mitigating factors for this vulnerability.



## Workarounds

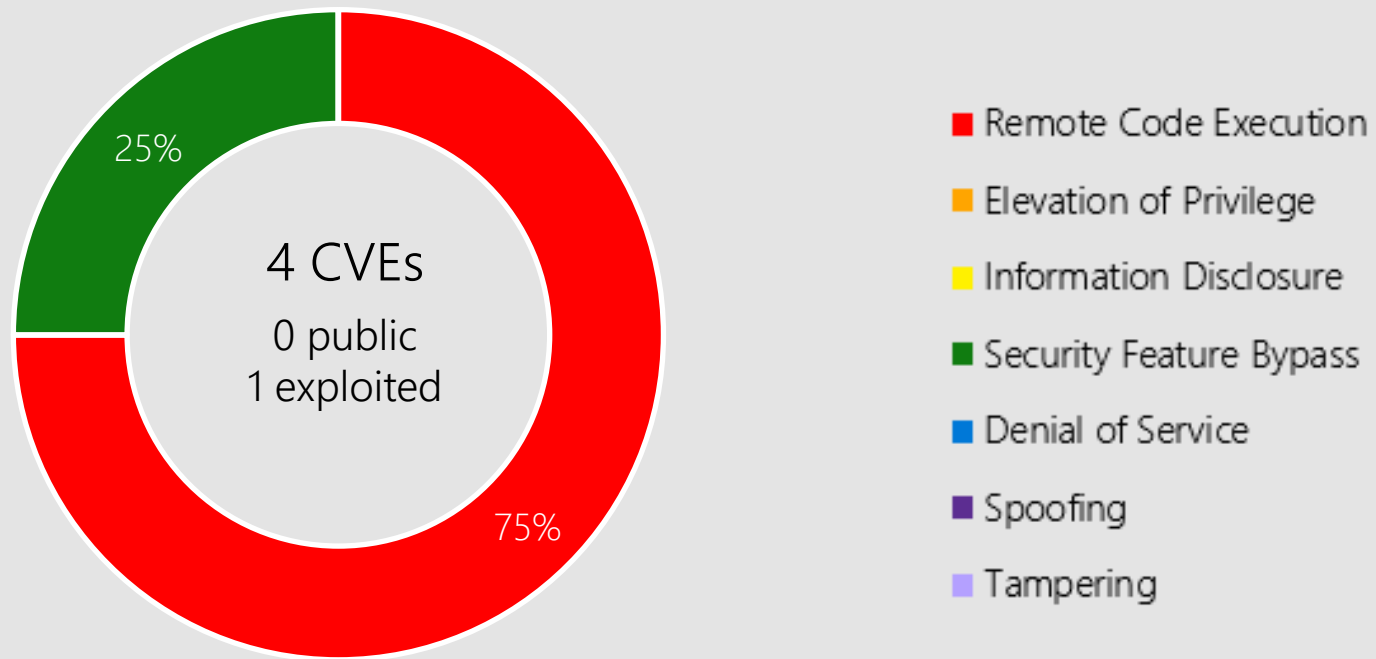
Microsoft has not identified any workarounds for this vulnerability.

## Affected Software



Server 2022  
Server, version 20H2  
Server, version 2004  
Server 2019  
Windows 10  
Server 2016  
Server 2012 R2  
Server 2012  
Windows 8.1

# Microsoft Office



Microsoft Office-related software

## Products:

Office 2013/2016/2019  
Excel 2013/2016  
SharePoint Enterprise Server 2013  
365 Apps Enterprise  
Office 2019 for Mac  
Office LTSC for Mac 2021  
Office LTSC 2021  
Office Online Server  
Office Web Apps Server 2013

# CVE-2021-42292 Excel



## Impact, Severity, Disclosure

Security Feature Bypass | Important | Privately disclosed | Exploitation Detected



## CVSS Score Metrics

Base CVSS Score: 7.8 | Attack Vector: Local | Attack Complexity: Low | Privileges Required: None | User Interaction: Required



## Mitigations

Microsoft has not identified any mitigating factors for this vulnerability.



## Workarounds

Microsoft has not identified any workarounds for this vulnerability.

# Affected Software



Office 2016  
Excel 2016  
Office 2013  
Excel 2013  
Office LTSC 2021  
Office 2019 for Mac  
Office 2019  
Office LTSC for Mac 2021  
365 Apps Enterprise

# CVE-2021-42296 Word



## Impact, Severity, Disclosure

Remote Code Execution | Important | Privately disclosed | No known exploits in the wild



## CVSSScoreMetrics

Base CVSS Score: 7.8 | Attack Vector: Local | Attack Complexity: Low | Privileges Required: None | User Interaction: Required



## Mitigations

Microsoft has not identified any mitigating factors for this vulnerability.



## Workarounds

Microsoft has not identified any workarounds for this vulnerability.



# Affected Software

Office LTSC 2021  
365 Apps Enterprise

# Other Products

## Exchange Server

CVE-2021-42321 | Important | Remote Code Execution | Public: No | Exploited: Yes

CVSS Base Score 8.8

Attack Vector: Network

Attack Complexity: Low

Privileges Required: Low

User Interaction: None

Products: Exchange Server 2016 Cumulative Update 22, Exchange Server 2019 Cumulative Update 11, Exchange Server 2016 Cumulative Update 21, Exchange Server 2019 Cumulative Update 10.

# Other Products

## Exchange Server

CVE-2021-41349 | Important | Spoofing | Public: No | Exploited: No

CVSS Base Score 6.5

Attack Vector: Network

Attack Complexity: Low

Privileges Required: None

User Interaction: Required

Products: Exchange Server 2016 Cumulative Update 22, Exchange Server 2019 Cumulative Update 11, Exchange Server 2019 Cumulative Update 10, Exchange Server 2013 Cumulative Update 23, Exchange Server 2016 Cumulative Update 21.

CVE-2021-42305 | Important | Spoofing | Public: No | Exploited: No

CVSS Base Score 6.5

Attack Vector: Network

Attack Complexity: Low

Privileges Required: None

User Interaction: Required

Products: Exchange Server 2016 Cumulative Update 22, Exchange Server 2019 Cumulative Update 11, Exchange Server 2019 Cumulative Update 10, Exchange Server 2013 Cumulative Update 23, Exchange Server 2016 Cumulative Update 21.

# Other Products

## Dynamics 365

CVE-2021-42316 | Critical | Remote Code Execution | Public: No | Exploited: No

CVSS Base Score 8.7

Attack Vector: Network

Attack Complexity: Low

Privileges Required: Low

User Interaction: Required

Products: Dynamics 365 (on-premises) version 9.0, Dynamics 365 (on-premises) version 9.1.



# Other Products

## Power BI Report Server

CVE-2021-41372 | Important | Spoofing | Public: No | Exploited: No

CVSS Base Score 7.6

Attack Vector: Network

Attack Complexity: Low

Privileges Required: Low

User Interaction: Required

Products: Power BI Report Server.

# Other Products

## Visual Studio

CVE-2021-3711 | Critical | Remote Code Execution | Public: No | Exploited: No

CVSS Base Score unavailable as the vulnerability in Open SSL Software was not scored by the owning entity

Products: Visual Studio 2019 version 16.9 (includes 16.0 - 16.8), Visual Studio 2019 version 16.11(includes 16.0 - 16.10), Visual Studio 2017 version 15.9 (includes 15.0 - 15.8), Visual Studio 2019 version 16.7 (includes 16.0 – 16.6).

CVE-2021-42277 | Important | Elevation of Privilege | Public: No | Exploited: No

CVSS Base Score 5.5

Attack Vector: Local

Attack Complexity: Low

Privileges Required: Low

User Interaction: None

Products: Windows 11, Server 2022, Server, version 20H2, Server, version 2004, Server 2019, Windows 10, Server 2016, Visual Studio 2019 version 16.11 (includes 16.0 - 16.10), Visual Studio 2015 Update 3, Visual Studio 2019 version 16.9 (includes 16.0 - 16.8), Visual Studio 2017 version 15.9 (includes 15.0 - 15.8), Visual Studio 2019 version 16.7 (includes 16.0 – 16.6).

# Other Products

## Visual Studio

CVE-2021-42319 | Important | Elevation of Privilege | Public: No | Exploited: No

CVSS Base Score 4.7

Attack Vector: Local

Attack Complexity: High

Privileges Required: Low

User Interaction: None

Products: Visual Studio 2019 version 16.9 (includes 16.0 - 16.8), Visual Studio 2019 version 16.11 (includes 16.0 - 16.10), Visual Studio 2017 version 15.9 (includes 15.0 - 15.8), Visual Studio 2019 version 16.7 (includes 16.0 – 16.6).

CVE-2021-42322 | Important | Elevation of Privilege | Public: No | Exploited: No

CVSS Base Score 7.8

Attack Vector: Local

Attack Complexity: Low

Privileges Required: Low

User Interaction: None

Products: Visual Studio Code.

# Other Products

## Microsoft Malware Protection Engine

CVE-2021-42298 | Critical | Remote Code Execution | Public: No | Exploited: No

CVSS Base Score 7.8

Attack Vector: Local

Attack Complexity: Low

Privileges Required: None

User Interaction: Required

Products: Malware Protection Engine.

# Other Products

## Azure and Mobile

CVE-2021-26444/42301/42302/42303/42304/42323 Azure RTOS

CVE-2021-41374/41375/41376/42300 Azure Sphere

CVE-2021-43208/43209 3D Viewer

CVE-2021-41373 FSLogix

# Product Lifecycle Update

No fixed lifecycle products reaching  
end of support in November

Windows 10 Semi-Annual Channel  
end of service

Windows 10 2004 - December

Server version 2004 - December



[Helping customers shift to a modern desktop](https://aka.ms/lifecycle)



Questions?

# Appendix



# Summary : Active Directory hardenings in Nov. 2021

Active Directory hardening included in Windows updates released on November 9, 2021

Please make sure to review those documents and take necessary actions.

NOTE: some changes will be enforced in the future updates.

- [KB5008102—Active Directory Security Accounts Manager hardening changes \(CVE-2021-42278\)](#)
- [KB5008382—Verification of uniqueness for user principal name, service principal name, and the service principal name alias \(CVE-2021-42282\)](#)
- [KB5008380—Authentication updates \(CVE-2021-42287\)](#)
- [KB5008383—Active Directory permissions updates \(CVE-2021-42291\)](#)

CVE	Public	Exploited	Product
CVE-2021-36957	No	No	Desktop Bridge
CVE-2021-38631	Yes	No	RDP
CVE-2021-41366	No	No	CredSSP
CVE-2021-41367	No	No	NTFS
CVE-2021-41371	Yes	No	RDP
CVE-2021-41377	No	No	Fast FAT File System Driver
CVE-2021-41378	No	No	NTFS
CVE-2021-41379	No	No	Installer
CVE-2021-26443	No	No	Virtual Machine Bus (VMBus)
CVE-2021-42274	No	No	Hyper-V Discrete Device Assignment (DDA)
CVE-2021-42275	No	No	COM for
CVE-2021-42276	No	No	Media Foundation
CVE-2021-42278	No	No	Active Directory Domain Services
CVE-2021-42279	No	No	Chakra Scripting Engine

CVE	Public	Exploited	Product
CVE-2021-42280	No	No	Feedback Hub
CVE-2021-38665	No	No	RDP Client
CVE-2021-38666	No	No	Remote Desktop Client
CVE-2021-41356	No	No	Windows
CVE-2021-41370	No	No	NTFS
CVE-2021-42277	No	No	Diagnostics Hub Standard Collector
CVE-2021-42282	No	No	AD Domain Services
CVE-2021-42283	No	No	NTFS
CVE-2021-42284	No	No	Hyper-V
CVE-2021-42285	No	No	Kernel
CVE-2021-42286	No	No	Core Shell SI Host Extension Framework for Composable Shell
CVE-2021-42287	No	No	Active Directory Domain Services
CVE-2021-42288	No	No	Windows Hello
CVE-2021-42291	No	No	AD Domain Services

CVE	Public	Exploited	Product
CVE-2021-42298	No	No	Defender
CVE-2021-41351	No	No	Edge (Chrome based) on IE Mode
CVE-2021-41368	No	No	Access
CVE-2021-40442	No	No	Excel
CVE-2021-42292	No	Yes	Excel
CVE-2021-42296	No	No	Word
CVE-2021-41349	No	No	Exchange Server
CVE-2021-3711	No	No	OpenSSL: CVE-2021-3711 SM2 Decryption Buffer Overflow
CVE-2021-41372	No	No	Power BI Report Server
CVE-2021-42300	No	No	Azure Sphere
CVE-2021-42301	No	No	Azure RTOS
CVE-2021-42302	No	No	Azure RTOS
CVE-2021-42303	No	No	Azure RTOS
CVE-2021-42304	No	No	Azure RTOS

CVE	Public	Exploited	Product
CVE-2021-42316	No	No	Dynamics 365 (on-premises)
CVE-2021-42319	No	No	Visual Studio
CVE-2021-42322	No	No	Visual Studio Code
CVE-2021-43208	Yes	No	3D Viewer
CVE-2021-43209	Yes	No	3D Viewer
CVE-2021-41373	No	No	FSLogix
CVE-2021-41374	No	No	Azure Sphere
CVE-2021-41375	No	No	Azure Sphere
CVE-2021-41376	No	No	Azure Sphere
CVE-2021-42305	No	No	Exchange Server
CVE-2021-42321	No	Yes	Exchange Server
CVE-2021-42323	No	No	Azure RTOS
CVE-2021-26444	No	No	Azure RTOS