

## Security Patches for Mindray Products Running on Windows OS (October, 2022)

**CONTENT**

To Whom It May Concern,

Below content is only for your information.

**Introduction:**

We have reviewed the applicability to Mindray products of the Microsoft Windows security patches released in October, 2022. The following CVEs have been evaluated:

**CVE Identifiers**

- CVE-2022-41081 Windows Point-to-Point Tunneling Protocol Remote Code Execution Vulnerability
- CVE-2022-41033 Windows COM+ Event System Service Elevation of Privilege Vulnerability
- CVE-2022-38051 Windows Graphics Component Elevation of Privilege Vulnerability
- CVE-2022-38050 Win32k Elevation of Privilege Vulnerability
- CVE-2022-38047 Windows Point-to-Point Tunneling Protocol Remote Code Execution Vulnerability
- CVE-2022-38046 Web Account Manager Information Disclosure Vulnerability
- CVE-2022-38045 Server Service Remote Protocol Elevation of Privilege Vulnerability
- CVE-2022-38044 Windows CD-ROM File System Driver Remote Code Execution Vulnerability
- CVE-2022-38043 Windows Security Support Provider Interface Information Disclosure Vulnerability
- CVE-2022-38042 Active Directory Domain Services Elevation of Privilege Vulnerability
- CVE-2022-38041 Windows Secure Channel Denial of Service Vulnerability
- CVE-2022-38040 Microsoft ODBC Driver Remote Code Execution Vulnerability
- CVE-2022-38039 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-38038 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-38037 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-38034 Windows Workstation Service Elevation of Privilege Vulnerability
- CVE-2022-38033 Windows Server Remotely Accessible Registry Keys Information Disclosure Vulnerability
- CVE-2022-38032 Windows Portable Device Enumerator Service Security Feature Bypass Vulnerability
- CVE-2022-38031 Microsoft WDAC OLE DB provider for SQL Server Remote Code Execution Vulnerability
- CVE-2022-38030 Windows USB Serial Driver Information Disclosure Vulnerability
- CVE-2022-38029 Windows ALPC Elevation of Privilege Vulnerability
- CVE-2022-38028 Windows Print Spooler Elevation of Privilege Vulnerability
- CVE-2022-38027 Windows Storage Elevation of Privilege Vulnerability
- CVE-2022-38026 Windows DHCP Client Information Disclosure Vulnerability
- CVE-2022-38022 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-38021 Connected User Experiences and Telemetry Elevation of Privilege Vulnerability

- CVE-2022-38017 StorSimple 8000 Series Elevation of Privilege Vulnerability
- CVE-2022-38016 Windows Local Security Authority (LSA) Elevation of Privilege Vulnerability
- CVE-2022-38003 Windows Resilient File System Elevation of Privilege
- CVE-2022-37999 Windows Group Policy Preference Client Elevation of Privilege Vulnerability
- CVE-2022-37997 Windows Graphics Component Elevation of Privilege Vulnerability
- CVE-2022-37996 Windows Kernel Memory Information Disclosure Vulnerability
- CVE-2022-37995 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-37994 Windows Group Policy Preference Client Elevation of Privilege Vulnerability
- CVE-2022-37993 Windows Group Policy Preference Client Elevation of Privilege Vulnerability
- CVE-2022-37991 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-37990 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-37989 Windows Client Server Run-time Subsystem (CSRSS) Elevation of Privilege Vulnerability
- CVE-2022-37988 Windows Kernel Elevation of Privilege Vulnerability
- CVE-2022-37987 Windows Client Server Run-time Subsystem (CSRSS) Elevation of Privilege Vulnerability
- CVE-2022-37986 Windows Win32k Elevation of Privilege Vulnerability
- CVE-2022-37985 Windows Graphics Component Information Disclosure Vulnerability
- CVE-2022-37984 Windows WLAN Service Elevation of Privilege Vulnerability
- CVE-2022-37983 Microsoft DWM Core Library Elevation of Privilege Vulnerability
- CVE-2022-37982 Microsoft WDAC OLE DB provider for SQL Server Remote Code Execution Vulnerability
- CVE-2022-37981 Windows Event Logging Service Denial of Service Vulnerability
- CVE-2022-37980 Windows DHCP Client Elevation of Privilege Vulnerability
- CVE-2022-37979 Windows Hyper-V Elevation of Privilege Vulnerability
- CVE-2022-37978 Windows Active Directory Certificate Services Security Feature Bypass
- CVE-2022-37977 Local Security Authority Subsystem Service (LSASS) Denial of Service Vulnerability
- CVE-2022-37976 Active Directory Certificate Services Elevation of Privilege Vulnerability
- CVE-2022-37975 Windows Group Policy Elevation of Privilege Vulnerability
- CVE-2022-37970 Windows DWM Core Library Elevation of Privilege Vulnerability
- CVE-2022-37968 Azure Arc-enabled Kubernetes cluster Connect Elevation of Privilege Vulnerability
- CVE-2022-37965 Windows Point-to-Point Tunneling Protocol Denial of Service Vulnerability
- CVE-2022-34689 Windows CryptoAPI Spoofing Vulnerability
- CVE-2022-33645 Windows TCP/IP Driver Denial of Service Vulnerability
- CVE-2022-33635 Windows GDI+ Remote Code Execution Vulnerability
- CVE-2022-33634 Windows Point-to-Point Tunneling Protocol Remote Code Execution Vulnerability
- CVE-2022-30198 Windows Point-to-Point Tunneling Protocol Remote Code Execution Vulnerability
- CVE-2022-24504 Windows Point-to-Point Tunneling Protocol Remote Code Execution Vulnerability
- CVE-2022-22035 Windows Point-to-Point Tunneling Protocol Remote Code Execution

## Vulnerability

For more details, please refer to the Microsoft website:

<https://portal.msrc.microsoft.com/en-us/security-guidance>.

**Impacted Mindray Products:**

The following table lists the impacted device and those hotfixes determined to be applicable to each device:

Product	OS	Hotfix	Download website	Pre-installed patch
BeneVision CMS	Windows 10 Professional SP1 64bit 1809	KB5018419	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
	Windows Server 2019	KB5018419	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
	Windows 10 1607 for 32-bit	KB5018411	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018411-x86_0cee5074ff7bd991f149e4434889e54924538a19.msu</a>	KB4498947 KB4132216
	Windows 10 1607 for x64-based	KB5018411	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
	Windows Server 2012 R2	KB5018476	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows8.1-kb5018476-x64_226ca7f326c66fda70c7635cf0205477d09b7401.msu</a>	
	Windows Server 2016	KB5018411	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
BeneVision CMS Viewer	Windows 10 Professional SP1 64bit 1809	KB5018419	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
	Windows 10 1607 for 32-bit	KB5018411	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018411-x86_0cee5074ff7bd991f149e4434889e54924538a19.msu</a>	KB4498947 KB4132216
	Windows 10 1607 for x64-based	KB5018411	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
	Windows Server 2012 R2	KB5018474	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows8.1-kb5018474-x64_04d5097ac019afc70c130f027942a7f0ee9bf890.msu</a>	
Hypervisor X CMS	Windows 10 Professional SP1 64bit 1809	KB5017315	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5017315-x64_611c310985bee4d193a714e702a47b5422918914.msu</a>	KB5005112 KB5003243 KB4587735
	Windows Server 2019	KB5018419	<a href="https://www.microsoft.com/download/details/download.aspx?downloadid=95422918914">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6de</a>	KB5005112 KB5003243

			<a href="#">a624490a60b2d.msu</a>	KB4587735
	Windows 10 1607 for 32-bit	KB5018411	<a href="#">windows10.0-kb5018411-x86_0cee5074ff7bd991f149e4434889e54924538a19.msu</a>	KB4498947 KB4132216
	Windows 10 1607 for x64-based	KB5018411	<a href="#">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
eGateway	Windows 10 Professional SP1 64bit 1809	KB5018419	<a href="#">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
	Windows Server 2019	KB5018419	<a href="#">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
	Windows 10 1607 for x64-based	KB5018411	<a href="#">windows10.0-kb5018411-x86_0cee5074ff7bd991f149e4434889e54924538a19.msu</a>	KB4498947 KB4132216
	Windows Server 2012 R2	KB5018476	<a href="#">windows8.1-kb5018476-x64_226ca7f326c66fda70c7635cf0205477d09b7401.msu</a>	
	Windows Server 2016	KB5018411	<a href="#">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
MLDAP Server	Windows 10 1607 for x64-based	KB5018411	<a href="#">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
	Windows Server 2012 R2	KB5018474	<a href="#">windows8.1-kb5018474-x64_04d5097ac019afc70c130f027942a7f0ee9bf890.msu</a>	
	Windows Server 2016	KB5018411	<a href="#">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
	Windows Server 2019	KB5018419	<a href="#">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
Mobile Server	Windows Server 2016	KB5018411	<a href="#">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216
	Windows Server 2012 R2	KB5018474	<a href="#">windows8.1-kb5018474-x64_04d5097ac019afc70c130f027942a7f0ee9bf890.msu</a>	
	Windows Server 2019	KB5018419	<a href="#">windows10.0-kb5018419-x64_08f6e9eb4e8cb9f7af2b152e6dea624490a60b2d.msu</a>	KB5005112 KB5003243 KB4587735
iView	Windows 10 1607 for x64-based	KB5018411	<a href="#">windows10.0-kb5018411-x64_0ce64987a6675227941fadd950019e447d60ba03.msu</a>	KB4498947 KB4132216

**Conclusion and Recommendation:**

We have validated that the Mindray products of the latest version can perform to specification with the applicable patches applied to the OS. It is recommended that the applicable patches defined in the table above should be installed on the affected Mindray products.

If you need information on how to obtain the approved patches or have any question, please feel free to contact Mindray regional service engineer or Mindray Service Department (email: [service@mindray.com](mailto:service@mindray.com)).

Thank you for your kind attention and cooperation.

Sincerely yours,

Mindray Service Department  
Shenzhen Mindray Bio-Medical Electronics Co., Ltd.

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