

Medtech Evolution

System Requirements Specification

(April 2020)



These Instructions contain important information for all Medtech Evolution users and IT Support Personnel. We suggest that these notes are filed safely for future reference

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Medtech Evolution Deployment Options

Refer to the matrix below to select the bitness of Medtech Evolution and Interbase for better performance.

Deployment Type	Server	Client	Evolution	Interbase
Client/Server	32-bit	Mixed(32-bit/64-bit)	32-bit	64-bit
Client/Server	64-bit	Mixed (32-bit/64-bit)	32-bit	64-bit
Client/Server	64-bit	64-bit	64-bit	64-bit
Remote Desktop Server (RDS)/Citrix	64-bit	Mixed (32-bit/64-bit)	64-bit	64-bit

Client/Server System Requirements

A list of the minimum and recommended system requirements for an ideal Medtech Evolution Client/Server environment is shown. The following requirements assume both the Server and the Workstations will not be running any other applications or services other than Medtech Evolution and Embarcadero Interbase.

Depending on the volume of transactions and the amount of digital images (such as scanned documents and digital camera photos) that need to be processed – as well as factors such as what other third-party applications or services are running on the computers (such as antivirus and backup software) – the system requirements might vary.

If in doubt, please consult with your QUALIFIED IT technician/service provider, or contact one of the Medtech Channel Partners prior to purchasing any new computing equipment.

Concurrent Users	System Requirements	Evolution 32bit Recommended	Evolution 64bit	
			Minimum	Recommended
1–5 Users	CPU	Dual-core Pentium 1.8Ghz CPU or Equivalent	Intel Dual Core/Intel Desktop grade 2 core or Equivalent	Intel Core Dual-Core CPU /Intel Server Quad core or Equivalent.
	Memory	2GB DDR2 RAM	2GB DDR2 RAM.	4GB DDR3 RAM or higher.
	Storage	80GB SATA2 7200rpm HDD	150GB SATA2 7200rpm HDD or Equivalent - (15% free space).	300GB SATA3 10000rpm HDD or Equivalent (15% free space).
	Operating System	Windows Server 2012 Standard	Windows Server 2012	Windows Server 2016
	System Type	32-bit	64-bit	64-bit
6–10 Users	CPU	Dual-core Pentium 2.2Ghz CPU or Equivalent	Intel Core Dual-Core CPU or Equivalent.	Intel Core Quad-Core CPU or Equivalent.
	Memory	2GB DDR2 RAM	4GB DDR2 RAM.	4GB DDR3 RAM or higher.
	Storage	2x73GB SCSI320 or 2x 80GB SATA 7200rpm HDD on RAID1.	2 x 150GB SCSI320 or SATA2 7200rpm HDD on RAID1 (15% free space).	2 x 300GB SAS2 or SATA3 10 000rpm HDD on RAID1 (15% free space).
	Operating System	Windows Server 2012 Standard	Windows Server 2012	Windows Server 2016.
	System Type	32-bit	64-bit	64-bit
11–25 Users	CPU	Dual-core Xeon2.4Ghz CPU or Equivalent	Intel Xeon Dual-Core CPU or Equivalent.	Intel Xeon Quad-Core CPU or Equivalent.
	Memory	4GB DDR2 RAM	10GB DDR2 ECC RAM.	15GB DDR3 ECC RAM or higher.
	Storage	3x73GB SCSI320 or SAS 10000rpm HDD on RAID5	2 x 300GB SCSI320 or SAS 10 000rpm HDD on RAID1 (15% free space).	3 x 300GB SAS2 or SATA3 10 000rpm HDD on RAID5 (15% free space).
	Operating System	Windows Server 2012 Standard	Windows Server 2012.	Windows Server 2016
	System Type	32-bit	NA	64-bit
26–35 Users	CPU	Quad-core Xeon 2.0Ghz CPU or Equivalent	Intel Xeon Quad-Core CPU or Equivalent.	Intel Xeon Hexa-Core CPU or Equivalent.

	RAM	4GB DDR3 ECC RAM	10GB DDR2 ECC RAM.	15GB DDR3 ECC RAM or higher.
	Storage	3x146GB SCSI320 or SAS 15000rpm HDD on RAID5.	3 x 300GB SCSI320 or SAS 10000rpm HDD on RAID5 (15% free space).	3 x 300GB SAS2 or SATA3 15000rpm HDD on RAID5 (15% free space).
	Operating System	Windows Server 2012 Standard	Windows Server 2012 Standard Server.	Windows 2016 Standard Server.
	System Type	32-bit	NA	64-bit
36–50 Users	CPU	Quad-core Xeon 2.0Ghz CPU or Equivalent	Intel Xeon Quad-Core CPU or Equivalent.	Intel Xeon Hexa-Core CPU or Equivalent.
	RAM	4GB DDR3 ECC RAM	20GB DDR2 ECC RAM.	25GB DDR3 ECC RAM or higher.
	Storage	3x146GB SCSI320 or SAS 15000rpm HDD on RAID5.	3 x 300GB SCSI320 or SAS 10000rpm HDD on RAID5 (15% free space).	3 x 300GB SAS2 or SATA3 15000rpm HDD on RAID5 (15% free space).
	Operating System	Windows Server 2012 Standard	Windows Server 2012 Standard Server.	Windows 2016 Standard Server.
	System Type	32-bit	NA	64-bit

Note: For practices with more than 50 concurrent users, please contact Medtech Support for assistance in determining the best deployment option.

Configuration	Deploy 2 x physical hard disk drives or RAID disk sets to separate the following functions: 1. Windows OS, Services, Applications, Virtual Memory with ratio of 1:1.5, and System and Interbase Temp Files. 2. Database Files – i.e. MT32 and BLOB.	Deploy 3 x physical hard disk drives or RAID disk sets to separate the following functions: 1. Windows OS, Services, Applications, and Virtual Memory with ratio of 1:1.5. 2. System and Interbase Temp Files. 3. Database Files – i.e. MT32 and BLOB.
Disk Drive	DVD or BD Optical Drive (for Medtech Evolution and Medicare and NEHTA certificates installation and updates).	DVD or BD Optical Drive. (for Medtech Evolution and Medicare and NEHTA certificates installation and updates).
Backup Drive	External Hard Drive/DR Storage	External Hard Drive/ DR Storage
Network	Fast Ethernet NIC (running TCP/IP protocol only).	Gigabit Ethernet NIC (running TCP/IP protocol only).
Modem	Internal Hardware or External Dial-up Modem (if running Medtech Fax Service).	Internal Hardware or External Dial-up Modem (if running Medtech Fax Service).
Internet	Broadband Internet Connection with Antivirus & Firewall Protection (if running Medicare Australia Online or HI Service, NEHTA MHR, SA Workcover eWMC, IF APCC (via Canning Tool or PENCAT), ManageMyHealth™ Portal or SMS, eRX, MediSecure, NPS RADAR, Argus, eClinic, HealthLink, Medical-Objects, or ReferralNet).	Broadband Internet Connection with Antivirus & Firewall Protection (if running Medicare Australia Online or HI Service, NEHTA MHR, SA Workcover eWMC, IF APCC (via Canning Tool or PENCAT), ManageMyHealth™ Portal or SMS, eRX, MediSecure, NPS RADAR, Argus, eClinic, HealthLink, Medical-Objects, or ReferralNet).

Additional Server Requirements:

System Requirements		Minimum	Recommended
Workstation Requirements	CPU	Intel Pentium Dual-Core CPU or Equivalent.	Intel Core Dual-Core CPU or Equivalent.
	Memory	2GB DDR2 RAM.	4GB DDR3 RAM or higher
	Hard Drive	150GB SATA2 7200rpm HDD (15% free space).	300GB SATA3 7200rpm/SSD HDD (15% free space).
	Network	Ethernet NIC (running TCP/IP protocol only).	Fast Ethernet NIC (running TCP/IP protocol only).
	Operating System	Windows 10	Windows 10
	Modem	Internal Hardware Modem or External Serial Modem (if running Medtech Fax Service).	Internal Hardware Modem or External Serial Modem (if running Medtech Fax Service).
	Internet	Broadband Internet Connection with Antivirus & Firewall Protection (if running Medicare Australia Online or HI Service, NEHTA MHR, SA Workcover eWMC, IF APCC (via Canning Tool or PENCAT), ManageMyHealth™ Portal or SMS, eRX, MediSecure, NPS RADAR, Argus, eClinic, HealthLink, Medical-Objects, or ReferralNet).	Broadband Internet Connection with Antivirus & Firewall Protection (if running Medicare Australia Online or HI Service, NEHTA MHR, SA Workcover eWMC, IF APCC (via Canning Tool or PENCAT), ManageMyHealth™ Portal or SMS, eRX, MediSecure, NPS RADAR, Argus, eClinic, HealthLink, Medical-Objects, or ReferralNet).
	System Type	32-bit	64-bit

Peer-to-Peer System Requirements

NOTE:

Medtech does NOT recommend Peer-to-Peer networks under any circumstances or environment. Client/Server architecture is always the preferred deployment solution (please refer to the "Client/Server System Requirements" section above).

For small networks (up to 5 users including the server) running a Peer-to-Peer configuration, where the server is also used as a workstation, you will require a minimum specification as follows:

System Requirements	Type	32bit Evolution Minimum	64bit Evolution Minimum
Peer-to-Peer Server Requirements with up to 5 Users	CPU	Pentium 2 2.4Ghz CPU or Equivalent	Intel Core Dual-Core CPU or Equivalent.
	Memory	2GB DDR RAM	4GB DDR2 RAM or higher.
	Hard Drive	73GB SCSI 160 or 80GB SATA1 7200rpm HDD	2 x 300GB SCSI320 or SATA2 7200rpm HDD on RAID1 (15% free space).
	Operating System	Windows 10	Windows 10
	Additional Requirements	Refer to "Additional Server Requirements" as stated in the "Client/Server System Requirements" section above.	

Network Requirements

Network Requirements	Type	Recommended
Network Bandwidth Requirements	Server Segment	1 Gbps Gigabit Ethernet.
	Client Segment	100Mbps Fast Ethernet.
	Backbone	1 Gbps Gigabit Ethernet.
	WAN	Secured Virtual Private Network via public network or Dedicated private network.
	Internet	Broadband Internet, with proper security measures such as Antivirus & Firewall Protection.
Network Device Requirements	Network Interface Card	For small networks: - Unmanaged. For medium to large networks: - SNMP compatible.
	Layer 1 Device or Hub-less configuration (NOT recommended)	NOT recommended: - Layer 1 Hub. - Cross-over cabling.
	Layer 2 Device	For small networks: - Unmanaged Layer 2 Switch. For medium to large networks: - Managed Layer 2 Switch with SNMP support.
	Layer 3 Device	As required to isolate Medtech Evolution segment from other LAN/WAN segments.
	Wireless Device	NOT recommended.
Network Cabling Requirements	Cable Type	Unshielded Twisted Pair (UTP) Category 5e or Category 6A certified.
	Connector Type	Registered Jack RJ45.
	Certification	All cabling segments tested and certified for TIA/EIA-568-C standard.

Network Requirements	Type	Recommended
Firewall / Proxy Requirements	Interbase	Allow TCP Port 3050 on internal LAN/WAN.
	Medtech Evolution	Allow UDP Port 300 on internal LAN/WAN.
	Medicare Australia Online	Allow HTTP on Internet for the following domains: - medicareaustralia.gov.au - humanservices.gov.au
	Medtech CDA Bridge	Allow HTTP Port 60002 on internal LAN/WAN for Medtech Evolution Server that hosts CDA Bridge.
	NEHTA HI Service	Allow HTTPS on Internet for the following domains: - medicareaustralia.gov.au - humanservices.gov.au
	NEHTA MHR	Allow HTTPS on Internet for the following domain: - services.ehealth.gov.au
	eRX	Allow TCP Port 3440 on internal LAN/WAN. Allow HTTP on Internet for the following domain: - service.ern.com.au
	MediSecure	Allow TCP Port 2056 on Internet for the following domain: - medisecure.com.au
	MediSecure-DrShop	Allow TCP Port 100001 on Internet for the following domain: -medisecure.com.au
	NPS RADAR	Allow HTTPS on Internet for: - activities.nps.org.au
	ManageMyHealth™ Portal	Allow HTTPS on Internet for: - managemyhealth.com.au
	ManageMyHealth™ SMS	Allow HTTPS on Internet for: - sms.managemyhealth.co.nz
	Pencat	Contact PEN Support
	Medtech Master	Allow HTTPS on Internet for www.medtechmaster.com
	Medtech Notification Centre	Allow HTTPS on Internet for - ncnz.medtechglobal.com
	Aduro Forms	<ul style="list-style-type: none"> Messaging Gateway Default = servername:5088 i.e. ServerName: Port for HealthLink Quantum – please contact HealthLink for further information.
	Bodymaps	Allow HTTPS on Internet for - nzbodymaps.medtechglobal.com
	Safescript	Allow HTTPS on Internet for - api.prescriptionmonitoring.gov.au/api/precheck

Printing Requirements

Printer Requirements	Type	Recommended
Printer Requirements	Driver Compatibility	Windows Driver Model (WDM) compatible.
	Driver Language	Recommended: <ul style="list-style-type: none"> - Printer Command Language 5/6 (PCL 5/6) - PostScript (PS3). NOT Recommended: <ul style="list-style-type: none"> - Other manufacturer proprietary languages.
	Paper Size	MUST be capable of handling both A4 and A5.
	Manual Feed (optional)	For printing pre-formatted forms and letterheads if required.
	Multiple-Trays (optional)	For handling different paper types and paper sizes without manually changing/feeding papers if required.
	Label Printing (optional)	For printing laboratory, medication and mail merge labels if required.
Recommended Printer Models	Recommended (general)	Any commercial-grade standalone laser printers.
	Recommended (label)	Any Dymo Label printers.
	NOT Recommended	Any consumer-grade printers and all-in-one multifunction devices.
	Kyocera Incompatibility	Mini PCL5e drivers should be used instead of KX Extended or KPDML drivers.

Printer Deployment Considerations

- If the practice prints on both A4 and A5 papers, then two separate instances of the printers will need to be installed and configured for each paper size.
- When configuring multiple-tray printers in Windows, aside from installing one instance of the printer for each paper size, you will also need to INACTIVATE or DISABLE or make NOT AVAILABLE the unused tray(s). Auto-tray-select features will also need to be DISABLED.
- Network Printers with their own IP Addresses will need to be installed as LOCAL printers on the workstations to work efficiently with Medtech Evolution.
- Remote printers will also need to be installed as LOCAL printers on the Terminal Services Server for these printers to work properly in Terminal Services Client sessions.
- Even though no users will be logging onto the Medtech Evolution Server, a dummy printer MUST be installed on the Server for Medtech Evolution to function properly.
- All printer names, driver names, and port names MUST conform to the Medtech Evolution naming convention. Avoid using spaces and symbols such as \ / : * ? " < > | in the names.
- For all client machine including Citrix/RDS & Print Servers running on Windows 8/8.1/10 and Windows Server 2016 operating systems, Medtech recommends to set the 'Driver Isolation' as Isolated for each print driver.
- Any consumer-grade printers and all-in-one multifunction devices are not recommended.
- Previously known printing issue with Redirected printers in Medtech32 has been addressed in Medtech Evolution.

Scanning and Digital Imaging Requirements

Scanner Requirements	Type	Recommended
Scanner/Digital Camera Requirements	Driver Compatibility	MUST be TWAIN/WIA compatible.
	Image Input Format Compatibility (Medtech Evolution)	Scanning Module Support: <ul style="list-style-type: none"> - BMP - GIF - JPEG - TIFF - TWAIN 2.3/WIA 1.0 - PDF Medtech Draw Support: <ul style="list-style-type: none"> - BMP - GIF - JPEG - TIFF - TWAIN 2.3/WIA 1.0
	Image Storage Format Compatibility	Scanning Module Support: <ul style="list-style-type: none"> - JPEG (conversion only) - TIFF - PDF Medtech Draw Support: <ul style="list-style-type: none"> - TIFF
	Image Output Format Compatibility	Scanning Module Support: <ul style="list-style-type: none"> - TIFF - PDF
	Paper Size	Capable of handling A4.
	Automatic Document Feeder (optional)	For scanning multiple documents if required.
Recommended Scanner Models	Recommended	- Any TWAIN 2.3 or above/WIA 1.0 Complaint Scanners
	NOT Recommended	Any consumer-grade scanners and all-in-one multifunction devices are not recommended
Recommended Digital Camera Models	Recommended	Any TWAIN 2.3/WIA 1.0 compatible cameras.
	NOT Recommended	Any non-TWAIN /WIA compatible cameras.

Scanner and Digital Camera Deployment Considerations

- Medtech Evolution can only interface with TWAIN/WIA compliant scanners and digital cameras. Aside from the recommended scanner and digital camera models listed above, Medtech CANNOT guarantee other brands or models can be fully integrated with Medtech Evolution.

NOTE:

If in doubt, please consult with your QUALIFIED IT technician/service provider, or contact one of the Medtech Channel Partners to perform proper testing prior to deploying any scanners or digital cameras.

- It has been reported many all-in-one multifunction devices, in particular those of consumer-grade quality (i.e. low-end models), could cause compatibility issues or could limit scanning functionalities when scanning within Medtech Evolution.
- Network scanners should be installed as LOCAL scanners; i.e. TWAIN/WIA driver is locally detectable for the Medtech Evolution Scanning Module to work.
- Scanning via Citrix and Terminal Services sessions is not supported, except for Citrix XenApp 5.0 (or above).
- When scanning multipage documents via the scanner's ADF (automatic document feeder), you can add a blank piece of paper between each document. The blank page will be detected as a separator and Medtech Evolution will automatically create a new Inbox record.

NOTE: The blank page should ALWAYS be of the maximum paper size that your scanner supports in order for this feature to work properly.

- Duplex scanning is not supported unless all pages to be scanned within the same document have information printed on both sides, as any blank front or back page will be detected as a document separator.

Scanning Resolution and Size Considerations

Medtech Evolution has been enhanced to allow a selection of 3 different colour modes when scanning directly into Medtech Evolution. When using one of these modes, the default image resolution will be automatically adjusted in order to ensure the scans will be of a reasonably small size to prevent the database from overgrowing.

NOTE:

Although Medtech Evolution allows manually adjusting the colour depth and resolution when scanning with the scanner's graphical user interface (either by scanning directly into Medtech Evolution or saving the image first with the scanning software then importing into Medtech Evolution), it is certainly NOT recommended to increase the resolution in ANY colour mode/depth to anything higher than detailed in the table below, as doing so will DRAMATICALLY increase the size of the database.

Unless it is really necessary to save images in full colour, such as when a colour image is required for medical diagnosis purpose, it is NOT recommended to use Full Colour mode on a routine basis in order to prevent the database from overgrowing. Black and White mode should be adequate for most documents without images, while GreyScale mode should be good enough for most with images.

If large images (more than 20MB) cannot be avoided, it is HIGHLY RECOMMENDED to save these images externally (i.e. do not scan or load them into the Medtech Evolution Scanning Module) and create a link to the external image files via the Attachments Manager Module.

As Medtech Evolution now supports PDF Scanning from version 10.3.0 onwards, it is highly recommend to SCAN to PDF, to benefit on both Compression size to save disk space and rendering efficiency.

IMPORTANT: The main purpose of the Medtech Evolution BLOB database (BLOB.IB) is to store images for the Scanning Module and Medtech Draw.

The following table shows the default colour depth and resolution when scanning directly into Medtech Evolution without the scanner's graphical interface enabled:

For Scan format : TIFF

Colour Mode	Colour Depth	Resolution	Compression
Black And White	1-bit	200 dpi	CCITT T.6
GreyScale	4-bit	200 dpi	LZW
Full Colour	24-bit	200 dpi	JPEG

For Scan format : PDF

Colour Mode	Colour Depth	Resolution	Compression
Black And White	1-bit	200 dpi	CCITT T.6
GreyScale	4-bit	200 dpi	LZW
Full Colour	24-bit	200 dpi	NA

Medical Device Requirements

Medical Device Requirements	Type	Recommended
Medical Device Requirements	Image Format Compatibility (Medtech Evolution)	ECG Support: - JPEG Spirometer Support: - TIFF
Medical Device Compatibility	Compatible ECG Device	- Norav Medical PC ECG 1200 Version 5.3.54.0 and above
	Compatible Spirometer Device	- ndd Medical Technologies EasyOne Spirometer

Medical Device Deployment Considerations

- Aside from the recommended medical device models listed above, Medtech CANNOT guarantee other brands or models can be fully integrated with Medtech Evolution.

NOTE: If in doubt, please consult your medical device supplier to perform proper testing prior to deploying any ECG or spirometer devices.

- To use the Medtech Evolution Medical Device Interface, the practice MUST have Norav Medical PC ECG 1200 Software and/or Medical Technologies EasyWare Software installed. Medtech CANNOT guarantee other softwares can be fully integrated with Medtech Evolution.

- An Image Printing Software that can emulate an Image Printer to allow graphs and files to be generated in JPEG and/or TIFF file format (as stated in the above table) MUST also be installed.

- Medtech has sourced a FREEWARE application called PDFCreator 2.3.0, which has been tested with the Medtech Evolution Medical Device Interface. Practices are welcome to install this FREEWARE Image Printer or purchase other compatible commercial software at their own costs.

NOTE: 1) The PDFCreator 2.3.0 installer is found in the "Extras/Image Printer" folder on any Medtech Evolution full installation discs.

2) The practice may optionally buy the PLUS version which is Advertisement free.

WARNING: Medtech does provide assistance in setting up PDFCreator. However, it must be noted that this is a 3rd party application and a FREEWARE, and will be installed AS IS. Medtech **WILL NOT** be held responsible for any issues revolving around the installation and/or the use of this software.

32-/64-Bit Operating Systems Support

Depending on the version of Medtech Evolution and Interbase installed, the following versions of Microsoft Windows are currently supported by Medtech.

WARNING: Although it might be possible to run Interbase on other non-supported Windows versions that are not listed below, both Medtech and Embarcadero **WILL NOT** be able to provide support if a practice encounters problems while running any versions of Interbase on any non-supported Windows versions.

WARNING: Although it might be possible to run Medtech Evolution on other non-supported Interbase versions that are not listed below, both Medtech and Embarcadero **WILL NOT** be able to provide support if a practice encounters problems while running any versions of Medtech Evolution with any non-supported Interbase versions.

Supported 32-/64-Bit Operating Systems (Interbase Version 2017, Medtech Evolution Version 10.3.0 or above)

Supported 32-/64-Bit Server Operating Systems	Windows 2012 Foundation Server (64-bit)
	Windows 2012 Essentials Server (64-bit)
	Windows 2012 Standard Server (64-bit)
	Windows 2012 R2 Foundation Server (64-bit)
	Windows 2012 R2 Essentials Server (64-bit)*
	Windows 2012 R2 Standard Server (64-bit)
	Windows 2016 Foundation Server (64-bit)
	Windows 2016 Standard Server (64-bit)
	Windows 2016 Essentials Server (64-bit)
	Windows 2019 Foundation Server (64-bit)
	Windows 2019 Standard Server (64-bit)
	Windows 2019 Essentials Server (64-bit)

*(Not Recommended – please refer to the "Server Deployment Considerations" section below.)

Supported 32/64-Bit Workstation Operating Systems	Windows 8/8.1 Enterprise Edition (32*/64-bit)
	Windows 10 Pro(64-bit)
	Windows 10 Enterprise(64-bit)
	Windows 10 Education(64-bit)

*Highly recommended to use 64bit operating system for better utilize 64bit Evolution.

Supported 32-/64-Bit Operating Systems (Standalone Medtech Evolution Server Version 10.3.0 or above)

In scenarios where Medtech Evolution Server is hosted on a separate computer than the Interbase Server, the following versions of Microsoft Windows are currently supported by Medtech for hosting the standalone Medtech Evolution Server Version 10.3.0 or above:

Supported 32-/64-Bit Server Operating Systems	Windows 2012 Foundation Server (64-bit)
	Windows 2012 Standard Server (64-bit)
	Windows 2012 Essentials Server (64-bit)
	Windows 2012 R2 Foundation Server (64-bit)
	Windows 2012 R2 Standard Server (64-bit)
	Windows 2012 R2 Essentials Server (64-bit)
	Windows 2016 Foundation Server (64-bit)
	Windows 2016 Standard Server (64-bit)
	Windows 2016 Essentials Server (64-bit)
	Windows 2019 Foundation Server (64-bit)
	Windows 2019 Standard Server (64-bit)
	Windows 2019 Essentials Server (64-bit)

*Not Recommended – please refer to the "Server Deployment Considerations" section below.

Non Supported 32-/64-Bit Operating Systems

NOTE: Medtech Evolution **DOES NOT** support the following versions of Microsoft Windows. Although it might be possible to run Medtech Evolution on these operating systems, Medtech **WILL NOT** be able to provide support if a practice encounters problem while running on these Windows versions.

Non Supported 32-/64-Bit Server Operating Systems	Windows NT Server All Editions
	Windows 2000 Server All Editions
	Windows 2003 Server All Editions
	Windows 2008 Datacenter Server
	Windows 2008 HPC Server(32/64bit)
	Windows 2008 Server for Itanium-Based Systems(32/64bit)
	Windows 2008 Storage Server(32/64bit)
	Windows 2008 Web Server(32/64bit)
	Windows 2008 R2 Datacenter Server
	Windows 2008 R2 HPC Server
	Windows 2008 R2 Server for Itanium-Based Systems
	Windows 2008 R2 Storage Server
	Windows 2008 R2 Web Server
	Windows MultiPoint Server 2010

	Windows MultiPoint Standard Server 2011
	Windows MultiPoint Premium Server 2011
	Windows Home Server
	Windows Home Server 2011
	Any non-Windows OS

Non Supported 32-/64-Bit Workstation Operating Systems	Windows 95 or earlier
	Windows 98
	Windows Millennium Edition
	Windows NT 3.51 Workstation or earlier
	Windows NT 4.0 Workstation
	Windows 2000 Professional
	Windows XP All Editions
	Windows Fundamentals for Legacy PCs
	Windows Vista Starter Edition
	Windows Vista Home Basic Edition
	Windows Vista Home Premium Edition
	Windows 7 Starter Edition
	Windows 7 Home Basic Edition
	Windows 7 Home Premium Edition
	Windows 8 Core
	Windows 8 RT
	Windows 8.1 Basic Edition
	Windows 10 Home (32-bit/64-bit)
	Windows 10 Mobile (32-bit/ARM)
	Windows 10 Mobile Enterprise (32-bit/ARM)
Windows 10 IoT Core (32-bit/ARM)	
Windows 10 IoT Enterprise (32-bit/ARM)	
Windows 10 IoT Mobile Enterprise (32-bit/ARM)	
Any non-Windows OS	

Macintosh Operating Systems Support

Microsoft Remote Desktop Services (formerly Terminal Services) and/or Citrix XenApp (formerly Presentation Server) together with Virtual Private Networking (VPN) is a proven solution in providing remote access to your Macintosh clients and in deploying Medtech Evolution on multi-sites practices.

Medtech **DOES NOT** recommend deploying Medtech Evolution directly on any Macintosh computers that runs any Windows operating systems – regardless of whether Windows is running in emulation mode on a Motorola-based MAC, or in emulation or native mode on an Intel-based MAC.

WARNING: Although it might be possible to run Medtech Evolution directly on Macintosh computers, Medtech **WILL NOT** be able to provide support if a practice encounters problem while running on any MAC machines.

NOTE:

If this cannot be avoided, please consult with your QUALIFIED IT technician/service provider, or contact one of the Medtech Channel Partners to perform proper compatibility testing PRIOR to deployment.

Virtualization Operating Systems Support

Medtech Evolution 10.3.0 and above can be deployed on Virtualized Operating Systems.

Server Deployment Considerations

- Due to performance issues, it is NOT recommended to install Interbase and Medtech Evolution on ANY server (Small/Essential Business Server or otherwise) that is used by other resource-hungry functions, such as Domain Controller, Domain Name System (DNS), Windows Internet Naming Service (WINS), Dynamic Host Configuration Protocol (DHCP), Exchange, Internet Information Services (IIS), Internet Security and Acceleration (ISA), SharePoint Services, etc. Instead, a DEDICATED server should be allocated to serve Interbase and Medtech Evolution requests ONLY.

NOTE: If this cannot be avoided, please consult with your QUALIFIED IT technician/service provider, or contact one of the Medtech Channel Partners to perform proper load testing PRIOR to deployment.

- Due to performance and compatibility issues, it is NOT recommended to install ANY OTHER Database Management System (DBMS) on the Interbase Server, such as SQL Server (including Desktop Engine and Express Editions), Firebird, Informix, Oracle, Sysbase, etc.

NOTE: If this cannot be avoided, please consult with your QUALIFIED IT technician/service provider, or contact one of the Medtech Channel Partners to perform proper load and compatibility testing PRIOR to deployment.

- Due to performance and compatibility issues, it is recommended by Embarcadero NOT to install Interbase Server on ANY Citrix or Terminal Server. Instead, a DEDICATED Citrix or Terminal Server should be set up as an Interbase and Medtech Evolution Client to serve Citrix or Terminal Client sessions.

NOTE: If this cannot be avoided, please consult with your QUALIFIED IT technician/service provider, or contact one of the Medtech Channel Partners to perform proper load and compatibility testing PRIOR to deployment.

- Where a dedicated server cannot be allocated SOLELY for Interbase (and Medtech Evolution as recommended above), it is recommended to OPTIMISE the performance of Interbase (among other applications and services) by:

1. Setting Windows Performance Options to be adjusted for best performance of "Background Services" and "System Cache".
2. Setting "SERVER_PRIORITY_CLASS" in the Interbase Configuration File (i.e. ibconfig) to "2" (High Priority) – if running on Interbase XE3 or higher.
3. Setting "CPU_AFFINITY" in the Interbase Configuration File (i.e. ibconfig) to dedicate one or more physical processors (if the server has multiple

physical processors) for Interbase operations – if running on Interbase XE3 or higher.

- Due to performance and data integrity issues, it is NOT recommended to enable ANY system restore applications or services on the Interbase databases (i.e .IB files), such as Windows XP/Vista/7 System Restore, Distributed File System (DFS), Volume Shadow Copy Service (VSS), Symantec LiveState Recovery, Acronis True Image, etc. Instead, Interbase Backup should be used to perform online backups of the databases.
- Due to performance issues, it is NOT recommended to allow users to use the Interbase and Medtech Evolution Server as a workstation; i.e. DO NOT leave the local console in a logged in state.
- Medtech Evolution Scheduler is NOT compatible with Citrix or Terminal Server environment. Instead, Windows Scheduled Tasks should be configured to run Medtech Evolution utilities such as Message Transfer, Scanning Import, CDABridge and NPS Radar.
- Where Windows 2008 Server is installed, ensure "Windows Firewall" has been DISABLED or exceptions have been created to allow Interbase and Medtech Evolution traffic to pass through (please refer to the "Firewall / Proxy Requirements" section above for connection requirements).
- Where Windows 2008 is installed, ensure "Network Discovery" has been DISABLED as a policy.
- Where Windows 10 is installed, ensure "Simple File Sharing" has been DISABLED as a policy.
- Where Windows 10 is installed, ensure "Password Protected Sharing" has been ENABLED as a policy.
- Medtech Evolution relies heavily on an accurate timestamp to function properly. It is CRITICAL to ensure Regional and Language Options are set to English (Australia) on ALL computers, and time synchronisation is set to run automatically on ALL computers across the whole internal LAN/WAN.
- On the Evolution Servers ensure "High Performance" option is configured under Control Panel -> Power Options. This helps for better performance and high response time.

Client Deployment Considerations

- If the workstations fall below the minimum hardware requirements (please refer to the "Workstation Requirements" section above), it is recommended to use Citrix or Terminal Services to deploy Medtech Evolution.

- Microsoft Remote Desktop Services (formerly Terminal Services) and/or Citrix XenApp (formerly Presentation Server) together with Virtual Private Networking (VPN) is a proven solution in providing remote access to your Medtech Evolution clients and in deploying Medtech Evolution on multi-sites practices.
- Running any applications (such as Medtech Evolution) under Microsoft Terminal Services could result in slower program response as compared to the recommended Client/Server setup. The response time is dependent on the Terminal Server's hardware specifications.
- In Citrix, "Client Clip Board Mapping" should be DISABLED as a policy for all client sessions that require access to Medtech Evolution, in order to ensure Medtech Evolution Outbox Wizard will function properly.
- In Terminal Services, if the connection is a "Fat Client", "Clipboard mapping" should be DISABLED as a policy for all client sessions that require access to Medtech Evolution, in order to ensure Medtech Evolution Outbox Wizard will function properly.
- In Terminal Services, if the connection is a "Thin Client" (e.g. a terminal with Windows CE or similar Thin Client operating system) AND is using a Remote Desktop Connection, "Clipboard mapping" should be ENABLED as a policy for all client sessions that require access to Medtech Evolution, in order to ensure Medtech Evolution Outbox Wizard will function properly.
- Where Windows 10 is installed, ensure "Windows Firewall" has been DISABLED or exceptions have been created to allow Interbase and Medtech Evolution traffic to pass through (please refer to the "Firewall / Proxy Requirements" section above for connection requirements).
- Where Windows 10 is installed, ensure "Network Discovery" has been DISABLED as a policy.
- Where Windows 10 is installed, ensure "Fast User Switching" has been DISABLED as a policy.
- Where Windows 10 is installed, ensure "Simple File Sharing" has been DISABLED as a policy.

- Where Windows 10 is installed, ensure "Password Protected Sharing" has been ENABLED as a policy.
- Medtech Evolution is now DPI aware and supports higher DPI for better user experience. Windows Display Properties MUST be set to a minimum resolution of 1024 x 768 pixels; whereas the font size MUST be set to "100% or 125%", i.e. 96 or 120 DPI.
- Medtech Evolution relies heavily on accurate timestamp to function properly. It is CRITICAL to ensure Regional and Language Options are set to English (Australia) on ALL computers, and time synchronization is set to run automatically on ALL computers across the whole internal LAN/WAN.

Interbase Deployment Considerations

Interbase Version 2017

- Interbase 2017 is the highest Interbase version that had passed software testing with Medtech Evolution. It is **HIGHLY** recommended that ALL sites should **UPGRADE to Interbase 2017 AS SOON AS POSSIBLE**.
- By default, Interbase 2017 supports up to a maximum of 8 physical processor, i.e. 8 x single-core CPUs, or 4 x dual-core CPUs, or 2 x quad-core CPUs (additional processor licenses can be purchased separately).
- Interbase 2017 ONLY supports **Medtech Evolution Version 10.3.0 or above**. If you are on an older version of Medtech32 and would like to take advantage of the new enhancements in Interbase 2017, you MUST also upgrade to the latest version of Medtech Evolution at the same time.

NOTE: Optional annual maintenance plan can be purchased, which allows free upgrade to future Interbase releases without further payment.

<< Please contact **Medtech Sales** for further information on 03 9690 8666. >>

Non-Supported Interbase Version

Embarcadero ended the support for Interbase XE and its below versions. It is highly recommended to upgrade to Interbase 2017, reach Medtech Support for more information.

Interbase Database File Size Limit

- If any Interbase database is over the size limit listed in the table below, it **MUST BE** split into multiple files (each file MUST NOT exceed the size limit) in order to avoid database corruptions.
- Briefcasing **IS NOT** supported on any Interbase versions where the database has been split across multiple files. Briefcasing **ONLY** works with single-file databases.

Interbase Version	File System	Size Limit
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Interbase 2017 Database File Size Limit	FAT16	4GB
	FAT32	4GB
	NTFS	16TB

Electronic Claiming Deployment Considerations

Medicare Australia Online – Medtech Evolution Version 10.3.0 or above

- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.
- All Medtech Evolution Clients that require access to Bulk Bill and Repat Batching, ACIR Registrations, Patient Claims, and Online Patient Verification MUST also have Medicare Australia Online Client installed locally on the client computer.
- **Java 1.6.0.37** MUST be installed in "**static configuration**" mode on any Medicare Australia Online Server or Client. Both older and newer versions of Java CAN co-exist on the same computer.
- By installing Java in "**static configuration**" mode, it will lock down **Java 1.6.0.37** for the dedicated use of Medicare Australia Online functionalities, and will prevent any Java automatic updates from overwriting this Java version in the future in order to ensure ALL Medicare Australia Online functionalities will remain functional.

South Australia WorkCover eWMC – Medtech Evolution Version 10.3.0 or above

- All Medtech Evolution Clients that require access to generate, encrypt, and transmit (via email) WorkCoverSA eWMC Claims MUST also have WorkCoverSA eWMC Client installed locally on the client computer.
- **Java 1.6.0.37** MUST be installed in "**patch-in-place configuration**" mode on any Server or Client that needs to transmit WorkCoverSA eWMC. Any newer versions of Java installed in "**patch-in-place configuration**" mode CANNOT co-exist on the same computer.
NOTE: WorkCoverSA eWMC Installation MUST be completed on any Server or Client that needs to transmit WorkCoverSA eWMC PRIOR TO running Medicare Australia Online Client Installation to avoid Java version conflicts.
- Due to compatibility issues, the "Check for Updates Automatically" option MUST be disabled in the Java Control Panel, as Medtech cannot guarantee that any future versions of Java will be compatible.
- MAPI compatible e-mail client MUST be installed and configured on any Server or Client that needs to transmit WorkCoverSA eWMC.

NEHTA eHealth Deployment Considerations

MedtechGlobalHIService (CDA Bridge)

- In order to use the new NEHTA eHealth features, such as querying for patients' Individual Healthcare Identifier (IHI) via Healthcare Identifiers (HI) Service, transmitting and receiving Clinical Document Architecture (CDA) documents via Secured Messaging Delivery (SMD), and uploading and downloading patients' clinical records via My Health Record (MHR), your practice MUST first apply for Healthcare Provider Identifier – Organisation (HPI-O) for each location, Healthcare Provider Identifier – Individual (HPI-I) for each provider, and the corresponding National Authentication Service for Health (NASH) PKI Certificates for each location and provider with Medicare Australia.
- MedtechGlobalHIService (CDA Bridge) MUST be installed on the same computer where Medtech Evolution Server is installed.
- Microsoft .NET Framework Version 4.0 (or above) MUST be installed PRIOR TO installing Medtech CDA Bridge.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.

Third-party Deployment Considerations

ManageMyHealth™ SMS Integration

- In order to use the new ManageMyHealth™ SMS features, your practice MUST first apply for a SMS Account with Medtech.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.
- Microsoft .NET Framework Version 3.5 (or above) MUST be installed PRIOR TO installing Medtech.

[Please contact **Medtech Sales** for further information on 03 9690 8666.]

Health Engine Integration

- ManageMyHealth act as a hub to integrate with Health Engine.
- In order to use the Health Engine, subscribe to ManageMyHealth by registering the dedicated account to the practice.
- Microsoft .NET Framework Version 3.5 (or above) MUST be installed PRIOR TO installing Medtech to connect with ManageMyHealth.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.

eRX Integration

- Ensure site specific PKI Keys / Medicare Certificates are procured from Medicare.
- Obtain PIC password, usually ships in a letter from Medicare with PKI keys.
- Registered with eRx at www.erx.com.au to obtain eRX entity ID for each doctor.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.

Medisecure Integration

- SiteID and Dr.Shop should be procured from Medisecure by respective Practice.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.

Note: As recommended by NETHA, it is now allowed to use only one of the electronic prescription exchange software to submit to National Prescription Dispense Repository (NPDR).

KIOSK Deployment Considerations

Medtech Evolution release supports KIOSK deployment by default. Below are the minimum hardware requirements

Minimum Network Requirement	
Database Server at Local Network(LAN)	100 Mbps (between Database Server)
Database Server at Remote location(WAN)	256 Kbps (between Database Server)
Lock Down Software	Inteset Secure Lockdown
Data Connection	Secure connection with SSL over WAN
Database Access Type	Only through Wired Cable, not with Wi-Fi

Medtech Evolution uses Inteset Secure Lockdown to lock the Windows to make explicit use for Evolution KIOSK for seamless user experience.

Third-Party Software Integration Considerations

Adobe Acrobat Reader Integration

- Medtech Evolution now has an internal PDF viewer, the practice can now view PDF files (eg. Scan record as PDF, Patient Information sheet) regardless of the Adobe PDF version installed on the client PC or version of operating system installed on the PC.
- The version of Acrobat Reader supported is dependent on the Medtech Evolution version installed, as shown in the following table:

Supported Acrobat Versions (Medtech Evolution Version 10.3.0 or above)	Acrobat Reader 11.x
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NOTE: If for any reasons Acrobat has to be installed manually. Please install from the Medtech Evolution supported version supplied in the DVD.

WARNING: Although it might be possible to integrate Medtech Evolution with other Acrobat Reader versions, Medtech **WILL NOT** be able to provide support if a practice encounters problem while running on any Acrobat Reader versions not listed above.

Microsoft Excel and Word Integration

- Each computer that requires the ability to create and view Outbox Word Documents **MUST** have Word installed.
- Each computer that requires the ability to export data from Medtech Evolution Query Builder for analysis **SHOULD** have Excel installed.
- Each computer that requires the ability to export data from Medtech Evolution Accounting Reports (available in Medtech Evolution Version 6.1 or above) for analysis **SHOULD** have Excel installed.
- Known issue with Medtech32 Office Clipboard has been resolved in Evolution. Users can turn-on this feature if needed to use with Medtech Evolution Outbox Wizard functionality.
- The version of Excel and Word supported is dependent on the Medtech Evolution version installed, as shown in the following table:

Supported Office Versions (Medtech Evolution Version 10.3.0 or above)	Office 2007
	Office 2010
	Office 2013
	Office 2016

NOTE: It is **HIGHLY** recommended that ALL sites still running unsupported Office versions to **UPGRADE** to one of the **SUPPORTED** Office versions listed above.

WARNING: Although it might be possible to integrate Medtech Evolution with other Excel and Word versions, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on any Office versions not listed above.

Word Documents Image Resolution and Size Considerations

With Microsoft Word installed and integrating with Medtech Evolution, users can insert advanced components into any Outbox Documents and Templates, such as clipart, photos, forms, tables, etc. Most users are not aware of the fact that by inserting images, especially when simply copying and pasting from other sources without any image editing and/or optimization, the size of each Outbox Document could become exceptionally large.

The most common scenario is where huge images are being used as letterhead logos in Outbox Templates. Obviously enough, the same over-sized logos will be saved into EVERY SINGLE Outbox Documents created based on the original Templates – which will **DRAMATICALLY** increase the size of the database.

Proper image optimisation **SHOULD** be performed before inserting into any Outbox Documents and Templates, such as by reducing the size, resolution, and colour depth of the image. A good example would be, why use a full colour logo, when the practice only ever prints in black and white?

NOTE:

If large images (more than 20MB) cannot be avoided in certain documents, it is **HIGHLY RECOMMENDED** to save these documents externally (i.e. do create them in the Medtech Evolution Outbox Module), and create a link to the external document files via the Attachments Manager (available in Medtech Evolution Version 6.2.x Build 2031 or above).

IMPORTANT: The major contributor to the growth (in terms of database size) of the Medtech Evolution main database (MT32.IB) is the storage of Word Documents in the Outbox Module.

Nuance Dragon NaturallySpeaking Integration

- Dragon NaturallySpeaking Medical 16.0.328 is the highest Dragon Medical version that had passed software testing with Medtech Evolution.
- Dragon NaturallySpeaking Medical is a proven solution in dictating Consultation Notes and Outbox Documents into Medtech Evolution.
- It allows users to easily jump between commonly used functions by voice.
- It provides voice playback within Medtech Evolution, allowing easy correction of dictated text.
- Users can also setup predefined text blocks into easily recalled voice Macros, allowing inserting commonly used phrases, sentences and paragraphs for diagnosis and consultation purposes.

[Please contact **Medtech Sales** for further information on 03 9690 8666.]

Third-Party Secured Messaging Software Integration

- Any third-party secured messaging software such as Argus, eClinic, HealthLink, and Medical-Objects **SHOULD** be installed on the same computer that will run (or automatically scheduled to run) Medtech Evolution Message Transfer Utility.
- In Citrix and Terminal Services, Windows Scheduled Tasks **SHOULD** be configured to run Medtech Evolution Message Transfer Utility in lieu of Medtech Evolution Scheduler.
- Older versions of Argus with Firebird database management system installed will cause compatibility issues with Interbase and thus Medtech Evolution. If this cannot be avoided, Firebird should be installed on a separate computer where Medtech Evolution and Interbase **ARE NOT** and **WILL NOT** be installed. It is **HIGHLY RECOMMENDED** to upgrade to the latest version of Argus **AS SOON AS POSSIBLE**.
- eClinic SMSC Software **MUST** be installed and running on any Server or Client that needs to generate and send Gribbles Pathology Request Form via eClinic eRequest. Supported eClinic version – 3.5.12.

Third-Party E-Mail Software Integration

- MAPI compatible e-mail client **MUST** be installed and configured on any Server or Client that needs to e-mail documents or files from Medtech Evolution Outbox and/or Attachments Manager Modules.

Third-Party Fax Software Integration

- FaxTech is no longer supported with Medtech Evolution. Install Medtech Fax Service which is built on Microsoft Fax Services and also integrated with Medtech Evolution Address Book.

NOTE: Please refer to the document "Medtech Fax Service" in the "Instructions" folder on any Medtech Evolution full installation discs for details on Medtech Fax Service Requirements.

If you require further information, please do not hesitate to contact the Medtech Helpdesk on 1800 148 165 → Option 1, or email support@medtechglobal.com.