

SYSTEM REQUIREMENTS FOR CENTAUR APPLICATIONS IN THE CLOUD

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(Valid for 90 Days from Last Revision)

Base Specification for Hosted Terminal Server

The following document outlines the basic System Requirements for your Dental4Windows, Practice Studio and Mediasuite hosted in our Cloud environment. For more information about your exact setup please contact Centaur Support to discuss.

CLIENT

COMPONENT	MINIMUM/RECOMMENDED REQUIREMENTS		
CPU	Dual Core 2.0GHz +	RAM	4 GB
RAM	4 GB	HDD	80 GB HDD / 120 GB SSD
Network Card	100/1000 Onboard	Graphics Adaptor	Capable of 1024 x 768 or higher resolution
Operating System*	Windows 10 (32/64-Bit) Windows 7/8/8.1 (32/64-Bit) *	Web Browser	Internet Explorer 11 (while other browsers will work only IE11 has full compatibility with Microsoft Terminal Services)

* For more information supported on Operating Systems please refer to Section 4 below.

OPERATING SYSTEMS AND DEVICE DRIVERS

Please note that each imaging device has its own Hardware Driver which needs to be certified by the hardware manufacturer to work with each Operating System. Unless such certification is obtained your Device may not work.

64-BIT

Please be aware that not all dental imaging acquisition devices currently have 64-Bit drivers. This means hardware devices that do not have 64-bit drivers cannot be used with 64-Bit Operating Systems. Please check carefully with each devices vendor/seller and also your IT Technician prior to changing to a 64-Bit Operating System.

MODULE REQUIREMENTS

MODULE	REQUIREMENTS
SMS	- Internet Connection.
Payment Gateways	- Payment Gateway Terminals can connect via different methods based on the Terminal itself. Ensure you have the appropriate port on your computer(s) where the Terminal(s) will be connected. Contact the Terminal vendor for more information.
Email	- Internet Connection.
Xray Links	- Only Centaur Media Suite integrates with Dental4Windows in the Cloud. - Other imaging software will need to run locally on the local PC without being linked to Centaur Application

BEST PRACTICES GUIDE FOR CENTAUR APPLICATIONS IN THE CLOUD

Best Practices for Hosted Terminal Server

*Dental4Windows, Practice Studio and Mediasuite will be referred to as Centaur Applications in the following document.

1. PRACTICE REQUIREMENTS

ITEM	STRONGLY RECOMMENDED	MINIMUM REQUIREMENTS
Internet Speeds / Remote Access	NBN (FTTP > FTTC > HFC > FTTB/N) or other Fibre-based Internet Connection with: - 120 Kbps (Download/Upload) per concurrent user (D4W only) - 8Mbps (Download/Upload) if linked to Mediasuite or scanning very large files	ADSL2+ Broadband-based Internet Connection with: - 120 Kbps (Download/Upload) per concurrent user (D4W only) - 2 Mbps (Download/Upload) if linked to Mediasuite or scanning very large files
	<i>Keep in mind other Internet usage such as media streaming can use significant amounts of bandwidth. NOTE: Poor speeds/bandwidth may result in reduction of application performance.</i>	
Printer	Modern printer with support from manufacturer NOTE: Some printing problems can be resolved by installing the latest printer drivers. Ensure that your technician installs the latest drivers for your printer, now and in the future.	
Network	Gigabit Switch with 1 port per computer (additional ports may be needed for other Network Devices (ie. Network Printer, Internet Modem/Router and future expandability).	

2. HARDWARE & NETWORKING NOTES

2.1. Motherboard/CPU

- While *Centaur Applications* should work on non-Intel processors, they are not tested or certified.
- Ensure that your computer is certified for your operating system (refer to Section 4 for details).
- We recommend the use of Desktop and Server grade CPU's. While Netbook/Mobile grade CPU's (ie: Intel's Atom CPU) will run *Centaur Applications* you may notice slow performance using Netbook/Mobile grade CPU's.

2.2. Display Adaptor

- Centaur Applications* require a 1024*768 or higher resolution.
- Display Scaling above 125% is not recommended.

2.3. Hard Drive

- The hard drive is the most commonly overlooked specification but is a very important component of a computer (particularly the speed of the hard drive).
- Note that the specified free space is only for *Centaur Application* Utility Files and any files you may need to copy from the Cloud environment, such as exported report files (CSV, XLSX, PDF), scanned documents, etc. If you intend to install any other software, you should contact the respective software vendor for their requirements.

2.4. RAM

- Dynamic allocation of RAM is not supported when using *Centaur Applications*.

2.5. Hardware Firewall

- Offices that are connected to the Internet via broadband access should have a hardware firewall to protect their computers from attack.
- Internet sharing software (or any other software) that causes interference with the TCP/IP protocol that affects *Centaur Applications* will have limited support.

2.6. Anti-Virus/Firewall Software

- Anti-Virus software should be installed on all computers. If you are a network user, then you should look at an antivirus software solution that will “push” the virus updates out to all computers on the network via the computer that has the internet connection. Your IT Technician can recommend an appropriate system for your business.

2.7. Networking

- Centaur Software supports its products running over both wired and/or wireless networks. If there is an issue with your network affecting the use of our products you may be required to seek the services of an IT Technician to assist in resolving the issue.
- Centaur Software strongly recommends that wired networks are used rather than wireless networks due to the inherent issues that may affect a wireless network. Common issues that occur when wireless networks are used include application dropouts, poor performance issues, network interference, etc. If a customer decides to use a wireless network then it is recommended they talk to their IT Technician to setup a secure, stable and fast network. In order to troubleshoot issues with running our products over a wireless connection we may require the user to recreate the issue after making a physical (LAN) connection. If the issue cannot be created with a physical connection we cannot guarantee a fix.
- The performance of *Centaur Applications* may vary based on any number of conditions outside of our control such as: Wireless Interference of other devices, other Wi-Fi broadcasts, building infrastructure, Wi-Fi Hardware, etc. For ways to improve the performance of your Wireless Network we recommend you obtain the services of an IT Technician.
- All practices should have CAT5E 100MB Twisted cabling or higher. A professional electrician should install and certify that the cabling meets the appropriate standards.
- We recommend the use of Business Grade routers.
- Network users should consider the use of a network prints (ie. A printer that is not physically connected to a computer).

2.8. RDC/Virtualisation

- *Centaur Applications* in the Cloud do work with computers with Windows OS virtualisation on Mac OS X using virtualisation applications such as Parallels or Boot Camp.
- SAP does not explicitly test or certify products running on any virtualised environment such as VMWare, Xen and MS Virtual Server. However, SAP supports SQL Anywhere products running on these environments as long as the OS running in the virtual machine is certified by SAP.
<http://dcx.sap.com/index.html#1201/en/saintro/aboutasa-s-5186144.html>
<http://scn.sap.com/community/sql-anywhere/blog/2014/12/02/licensing-sap-sql-anywhere-in-virtual-environments>

2.9. Claiming & Payment Solution Terminals

- If you are using any of the Claiming & Payment Solution Terminals linked with *Centaur Applications*, we strongly recommend you contact the vendor to ensure you receive the correct connection cable as well as their System Requirements.

2.10. Tablets/Netbooks

- The base specifications listed on Page 1 are enough to run *Centaur Applications*.
- Mobile grade CPU’s are not supported or recommended.

We strongly advise the use of a stylus if you plan on using screens smaller than 13” and want to use the 2D/3D Charting and Perio modules.

3. CENTAUR APPLICATION CONFIGURATION

3.1. Pre-Printed Letterheads & Logo Files

- The maximum height for a pre-printed letterhead or a logo file is 5cm from top of the page (RE: Invoices, Receipts and Treatment Plans). If your printer enforces a margin/padding this will reduce the maximum height of the logo by that amount (e.g. a margin of 5mm means the Letterhead/Logo can be no more than 4.5cm in height). This is a fixed size and cannot be changed.
- Accepted Letterhead/Logo File Types: BMP, GIF, JPG.

3.2. Pre-Printed Footers

- If your pre-printed stationary has a footer and you want to use a Return Payment Slip on your Invoice, the Return Payment Slip will take up 4.7cm of final page of the Invoice, overriding anything on the stationary. This is a fixed size and cannot be changed.

4. OPERATING SYSTEMS & OTHER SOFTWARE

4.1. Operating Systems

- Centaur follows Microsoft's Lifecycle Policy to determine which Operating Systems to continue to develop for and test on. Once an Operating System is no longer covered by Microsoft's Mainstream Support, Centaur will no longer be able to guarantee a resolution where the Operating System is the root cause of the issue.
- The following Microsoft Operating Systems are supported:

Operating System	Centaur Application Version/Build Requirements	Microsoft Mainstream Support End Date
Windows 10 (32/64-Bit)		Based on the Windows 10 version
Windows Server 2019 (64-Bit)	Version i5 Build 4477 and above	09/01/2024
Windows Server 2016 (64-Bit)	Version i4 Build 4146 and above	11/01/2022

<https://support.microsoft.com/en-au/lifecycle/search>

- The latest Windows updates must be installed on all supported Operating Systems now and in the future.

4.1.1. Older Operating Systems

- Customers running these older and discontinued Operating Systems will still receive *Centaur Application Support*, however we are unable to guarantee a resolution where the operating System is the root cause of the issue.

This includes:

- Windows XP*/Vista/7/8/8.1
- Windows Server 2003/2008/SBS 2011/2012 (R1, R2, Essentials and Foundation editions)

* NOTE: Windows XP is incompatible with Version i5 and above.

4.1.2. Other Operating Systems

- Examples: Non-Microsoft Operating Systems or Emulated versions of supported Microsoft Operating Systems (e.g. Running Windows 10 within Parallels Desktop under Mac OS X).
- Centaur will continue to provide Support to our customers however we are unable to guarantee a resolution where the *Centaur Applications* are running on any Operating System other than those listed in 4.1 and where that Operating System/Environment is the root cause of the issue.

4.1.3. Operating System settings

- Centaur strongly recommends rebooting all your computers at least weekly if not more often.

4.2. Microsoft Word

- The *Centaur Applications* in the Cloud cannot link with Microsoft Word.

5. COMPUTER SYSTEMS

5.1. Computer Systems

- When purchasing computer systems, the variance in pricing and components can be overwhelming. Be assured that you do get what you pay for. Some lower priced systems may be lacking in the following areas:

Proprietary	Only the manufacturer or specified service centre can make repairs or expand the system. This can be more expensive in the longer term.
Expandability	Some systems don't have adequate expansion slots/and or other connection ports for any extra components you may require in the future.
All-in-One	Some "all-in-one" motherboards will not allow you to disable the onboard components. With these motherboards if one onboard component fails you may need to replace the entire motherboard to fix the problem.

Practices should be aware that good computer consultants tend to offer high-end systems. They work on the principle that reliable systems will produce fewer problems, promoting repeat business.

5.2. Computer System Training

- Practices should consider some sort of training in the Windows Operating System and the management of related peripherals (e.g. Printers).
- Over time your original investment should pay off in the fact that having staff that can solve minor problems will help avoid having to pay on-site technicians. Trained computer users also solve issues faster so it will ensure that your staff will have more time to spend on tasks that are relevant to the practice generating income.

5.3. Hardware & Windows Support

- All practices at some stage will need the services of an on-site computer technician. Larger users should consider the following services that some computer consultants can provide:
 - Maintenance Programs – ensure that your computing environment is maintained before problems arise.
 - Block Support – some companies offer the choice of purchasing "block hours" of support (normally cheaper than ad-hoc on-site rates).

5.4. Equipment Replacement

- All practices should be aware of the "reliable business life" of computer systems. Due to the following factors you can expect between 2.5 – 3 years reliable use of a computer system:
 - (a) Component failure
 - (b) Inability to meet future software & Operating System requirements
- Network users should consider a structured equipment replacement plan so that costs of computing equipment can be absorbed into the business effectively and maximum tax advantages are achieved.

5.5. Warranties

- All practices should understand the implications of any warranties offered and judge them on how they impact the business:

Response Times	Are the response times adequate for your business?
Support Types	Is the warranty on-site or phone support?
System Restoration	<ul style="list-style-type: none"> - Is the warranty only for the replacement of the hardware component? - Will the Windows Operating System be reinstalled if the replaced component requires it?

	- Will your system be reinstalled to its current state (i.e. all business software reinstalled, networked, printers reinstalled, and other configuration restored)?
Loaner Systems	Are "loaner systems" on offer if the problem is critical?

Considering the above services, you can clearly see that **some** lower-end system providers will not be able to provide these types of guarantees.

For more information, email support@centaursoftware.com.au or call (61 2) 9213 5000 | 1300 855 312 (within Australia).

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