**File Server & Data Base Backup Documentation**

# Overview:

*Vatech America Inc. recommends a certified IT professional setup and maintains backups. Vatech America will only release key information on what is needed to backup but Vatech America is unable to recommend ANY solution, system, or means in which to backup other than generic information.*

*It is also recommend before making any changes; backups of any kind of local duplicate copy is made by referencing this information and creating a local copy before moving the data.*

This document will discuss generically the necessary steps and generic procedures for backing up the File server and Database for EasyDentv4 with key points in the location of what needs to be backed up for proper data retention.

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# Section 1.

**Necessity of Backups**

It is important to create good, working backups of both the File Server and the Database server to maintain data in the event of data loss from the main server location; as well to maintain HIPAA compliance for data retention as well as ethical obligations to your patients.

<span style="color:red">Per HIPAA; It is the sole responsibility of the Physician/Practice/Owner for proper retention and protection of any and all patient data and information. They are solely responsible for the delegation of such to certified IT professionals.</span>

# Section 2

**Consideration and Planning**

It is recommended that you speak with your IT consultant in regarding the best backup solution for your practice.

IT consultants can best serve you to help determine what's right for you, what works with your budget, setup & configuration, now and in the future.

Vatech America Inc Recommends and insists that a properly trained & certified IT professional not only assists with the planning; implementation but as well present for any movement or action with the data.

# Section 3

**Files That Need to Be Backed Up**

**A**. Understanding the File Server & Database

A-1 File Server

The File server is a program used to save and access the stored images that runs in active memory once the OS is logged into Windows. The default installation location is *C:\Easydent4\File Server\ and it's application is FileServer.exe*

<span style="color:red">*Note: This path for the File Server application will always be the same*</span>

*2D machines  by default are stored C:\Easydent4\File Server\  & C:\Easydent4\Repository\*

*3D Machines  by default are stored D:\Easydent4\*

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A-2 Database

The Database is a database file that is controlled, modified and accessed by Microsoft SQL Server; currently running MSSQLSERVER engine- controlled by SQL Desktop 2000.

The default installation path for all machines is C:\Easydent4\DB\  The containing TSFD files are the two database files but we recommend backing up the entire root directory "DB" folder.

**B**. Understanding what to backup

B-1  2D Units: (NON CT UNITS) Backup the Following Folders

*C:\Easydent4\File Server\*

*C:\Easydent4\Repository\*

*C:\Easydent4\DB*

B-2 3D Units: (CT Units) Backup the Following Folders

*Note: It is very important you do not overwrite the C: and D: folders in your backup location!*

*C:\Easydent4\DB\*

*C:\Easydent4\File Server\*

*D:\Easydent4\*

B-3 Complete Directory Backup

To simplify the process, you may backup the following directories in their entirety in place of Section 3 B-1 through B-2.  This will work with both 2D and 3D machines. But remember sometimes the roots might not exist you will need to check the file path by checking the fileserver.ini and repository.ini in the C:\Easydent4\File Server\ folder

*Note: It is very important you do not overwrite the C: and D: folders in your backup location!*

*C:\Easydent4\*

*D:\Easydent4\*

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# Section 4

**Steps for a Successful Backup**

**A.** Services and Applications

**I. _Stopping The File Server and SQL Service_**

**A-1** Exit the File Server

Manual Process: *In the system tray, you will see the File Server icon(*  *)  right click and click "Exit"*

**A-2 _Stopping the SQL Service_**

Manual Process: *In the system tray, you will see the SQL Server icon (*  *) - right click and click "Stop"*

Once you have the File Server and SQL server stopped, you may proceed with your backup.


**II. _Restarting File Server and SQL Server_**

**A-3** You will need to restart the File Server before you are able to use EasyDent4

Manual Process:  *Click Start--> Programs-->Easydent4-->Select from the list "*  *File Server4"*

**A-4** You will need to start the SQL Server before you are able to use EasyDent4

Manual Process: *In the system tray, you will see the  SQL Server icon(*  *) - right click and click "Start"*


B. Manual Backups

You will need to follow Section 4, A-1 and A-2 to exit the file server and stop the SQL Server. Once complete, copy the  files detailed in Section 3 that pertain to your unit (2D or 3D).

*Note: It is very important you do not overwrite the C: and D: folders in your backup location! For best results,  in the back up location create a separate 'C:' and 'D:' backup folder.*

**C.** Automated Backups

You will need to shut down the File Server and SQL Server (detailed in Section 4, A-1 & A-2) before starting the backup.

Define the file paths in your automated backup as detailed in Section 3.


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Once the backup is finished you will need to restart the File Server and SQL Server as (detailed in Section 4, A-3 & A-4) before you can resume use of Easydent4.

-Or-

You can restart the PC.

**Note: If doing after hours /nightly/weekend backups we recommend the Capture pc be shut down at the end of the backup each night. If the SQL/FIleServer is located off the Capture PC and on a central server; the Capture pc should be shut down by the clinical staff at the end of the day. Server should be regulated by IT protocol for clinic. We have no opinion on the central server.**


# Section 5.

**Backup Solutions**

It is highly recommended that you speak with your IT consultant before setting up any backup solution to ensure proper setup and operation.

**It is also recommended that your IT consultant contacts Vatech Technical Support before starting this process if they have any questions or concerns this document does not address!**

A. Server Side Solutions

A server side solution is a setup in which the File Server and Database reside on a dedicated server in which existing backups will backup any software installed by default server buildout.
 To host the data on Server; You will need to do the following to configure your server to operate in this manner:

*1. Install the complete version of Easydent4 on the server (includes DB and File Server).This is typically either a downloaded installer or on the installation CD provided with the Vatech machine or device.*

*2. Stop the File Server and SQL Server on the X-Ray unit's capture computer as outlined in Section 4*

*3. From the 'C:\Easydent4' folder on the capture computer, copy  the DB, File Server and Repository folders to the dedicated server's newly created 'C:\Easydent4' folder and overwrite the existing files.*

*4. For 3D Units, you will also need to copy the 'D:\Easydent4' folder on the capture computer and apply it to the same location on the dedicated server.  For 2D only devices or even some 3D that reside on C: File Server would be C:\Easydent4\File Server\ and C:\EasyDent4\Imagebackup\*

*Note: Many times, when a clinic sets up a server side solution for a 3D unit, the location of the File Server folder (D:\Easydent4) needs to be changed.  Below will explain how to change this location.*

*        - On the server, browse to 'C:\Easydent4\File Server\'*

*- Modify the 2 .ini files in Notepad. You will need to change the file path to the new location you would like to use for this directory.*

*5. Restart the File Server and SQL Server as outlined in Section 4, A-3 & A-4*

*6. On the capture computer, browse to the 'C:\Easydent4\' folder and open 'Net.ini'.*

*9. Change the DB Server, File Server and DNS IP Address to the IP of the Server.  Click 'Save'.  Also, save a copy to a network share that is accessible by all client computers.*

*Note: The EzSync will remain the 127.0.0.1 loop back. Do not modify it.*

*10. Copy the new 'Net.ini' file modified in Section 9 to all workstations, replacing the existing 'Net.ini' , located in the 'C:\Easydent4' folder.to point the workstations to the server.*


**B.** NAS Storage Devices

NAS Storage Devices are network storage devices that contain 1 or more hard drives .  They can be plugged directly into the network and setup as server share or setup as local external hard drives, typically connecting through USB or eSata.

There are many options available, including Raid configurations (striped and/or mirrored).

Mirrored devices are by far the most effective backup solution in this case. Mirrored drives are identical drives meaning anything on one drive is also on the other. If one drive fails, you have a duplicate drive.

Stripped devices are 2 hard drives that store half of the data on one drive and the other half on another. This will speed up the backup process, but if one drive fails, you can lose the entire backup.   The only time you would want to use this setup is if you had a striped and mirrored backup, for a total of 4 drives in the NAS Storage Device.

Note: Vatech America has no objections or recommendations about backing up to NAS but we do not recommend the real time storage to such devices*.

**C.** External Hard Drives and NAS Servers

You can use the external hard drives and NAS servers as a backup solution or the main location for the File Server. It is recommended that you use such devices as a backup location and not the main storage location, having the default locations on the capture PC and then a backup to the External Drive/NAS Storage Device.

**D.** Off Site Backups

It is recommended that if you choose to use off site backups that you have a local backup in place first so you will be backing up the backup. It is NOT recommended to backup off site directly from the original files

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# Section 6.

**Batch Files and Command Lines**

Using a command line or batch file will simplify the backup process by automatically shutting down and restarting the executables and services needed to complete your backup. A batch or command line file is a text file containing commands saved as a *.bat or *.cmd extension.

**Vatech America Inc. is not able to recommend or provide any Command line coding or examples; it is recommended certified IT person create any such command line codes, batch files ect.**