

# ABELMed Platform Setup Conventions

## 1 Introduction

### 1.1 Purpose of this document

The purpose of this document is to provide prospective ABELMed licensees and their hardware vendors with the information that they will require to prepare for the installation and operation of ABELMed. It will start with a brief overview of typical platforms, and then provide specific information that will be required to configure an ABELMed ready platform.

The sections on configuration are moderately technical and intended primarily for the use of the hardware vendor or IT professional that will be configuring the system. They are not detailed instructions, it is expected that a competent IT professional will be familiar with these ubiquitous platforms, and understand the conventions.

If your hardware vendor needs clarification on any of the points, please have them call or email ABEL. We are happy to cooperate and work with your hardware vendor to ensure that they get all the information required to get your system setup for ABELMed.

### 1.2 General Platform Overview

ABELMed runs on the Microsoft Windows operating systems, and uses the Microsoft SQL Server database. ABEL can bundle RUNTIME licenses for MS SQL Server with your ABELMed licenses. ABELMed is designed to scale from small peer to peer networks with just a couple workstations, to larger networks in busy clinics with dedicated servers serving administrative and clinical workstations in examination rooms.

The smaller networks, say with less than 5 workstations, can be served by a workgroup consisting entirely of computers running the Microsoft Windows XP Professional operating system. The Workgroup Edition of SQL server would suffice in such an environment.

On networks with 5 or more workstations, a file server with the Microsoft Windows Sever 2003 operating system (or Windows Small Business Server 2003) is recommended. The Windows Server 2003 operating system supports larger networks and advanced features such as Active Directory security domains, disk mirroring, terminal services, and many other features and tools. Some practices with less than 5 workstations opt for a dedicated server with the server version of the operating system in order use active directory, or disk mirroring, or other such features.

Note: SQL Server 200x **Standard Edition** will not work on a small server running Windows XP. Workgroup Edition is appropriate in such environments.

### 1.3 How to proceed

ABEL recommends that when looking into purchasing your hardware, operating system, and other software for ABELMed that you get at least three quotes. Please make sure that you provide the ABELMed hardware "Platform Requirements" tables, and these setup conventions, so that the hardware vendor can include setup to these conventions in the price that you are quoted. Current platform requirements and setup conventions are always available on the ABEL website <http://www.ABELMed.com>. Some customers opt to purchase their own hardware from vendors that do not provide setup and installation services. In such cases you are likely to require the services of an experienced technical person who can understand these setup conventions and configure the system(s) in conformance with the conventions.

If you are dealing with a hardware vendor that you have not worked with in the past, ABEL recommends checking references. In many areas ABEL can provide the names of hardware vendors who have prepared ABELMed systems in the past.

**The IT person setting up the systems should read this full document before setting up the systems. The conventions are not necessarily in the order that they will be performed; rather they are grouped by subject. Servers, Database, Clients, etc..**

# ABELMed Platform Setup Conventions

## 2 Server Setup Conventions

### 2.1 Operating system

#### 2.1.1 Windows Server 2003

##### 2.1.1.1 Setup

Please conform to the following conventions when setting up a Microsoft Windows 2003 Server.

- We recommend that an Active directory domain be set up.
- We recommend an NTFS file system.
- Setup TCP/IP as the network protocol. Configure a DHCP server to assign the IP addresses. ABEL recommends a router with a firewall on all high-speed Internet connections.
- Name the computer with the customer's ABEL client ID number. For example if the ABEL customer ID number is CØ9999-OMG, name the server CØ9999. You can get the customer ID number by calling ABEL's sales department and asking for it.
- An Active directory domain is normally set up if using Windows Server 2003. With AD, user accounts only have to be set up on the server, not on each workstation.
- Create an account for each user.
- Create an **ABELMed Users** security group
- Ensure that each account has a password. The users should change their password the first time they log in.
- Disable the guest account.
- Put a password on the administrator account. Make sure that the appropriate person at the office or clinic has this password. Normally the dentist, office manager, or IT person.
- Navigate to C:\ABELMed and right click and select Properties>Security tab>select Users>uncheck Full Control
- **If the customer will not have Internet access**, then install and configure Routing and Remote Access Server (RRAS) so that ABEL will have a means of accessing the machine, should the customer need support. Install pcAnywhere if the customer has purchased it to facilitate support. If a customer does not have pcAnywhere, enable Remote Desktop access to facilitate remote support by ABEL.
- **If the customer will not have an Internet Connection** and is using RRAS to allow support connectivity, then create an account for ABEL to use when they have to log in to provide support for the product. Please contact ABEL directly to provide the username and password, do not email this type of information. Make sure that the ABEL user has dial-in permissions and is part of the ABELMed users group. ABEL's normal Internet based support methods do not require that ABEL have an account.
- If ABELMed will ever be run on the server set the display resolution to at least 1024x768.
- Install the most recent operating system service pack, and all critical patches and hotfixes from Microsoft.
- Turn off any CPU power savers. Display power savers should be fine, but refrain from using third party screensavers. Turn off Hibernation.
- Install the latest drivers for all printer(s).

# ABELMed Platform Setup Conventions

- Install and configure any required tape backup drivers and programs. ABEL recommends the backup program that comes with Windows 2003. Shortcuts should be setup on the desktop for all users, or appropriate users, to:
  - The backup program, to facilitate ASR (Automatic System Recovery) backups,
  - Perform a Full System backup with System State,
  - Data only backups. This will have to be setup after ABELMed is installed. ABEL recommends that the ABELMed folder and its sub-folders be backed up.

Note: A regular user will not have appropriate privileges to perform full system backups; any users that perform backups will have to be added to the Backup Operator's group.

- A backup schedule can also be set. Most customers will have enough space available on tape to perform a full backup with system state on a daily basis. This is recommended for small offices without an on-site IT person to ensure that all data from all applications is backed up. More sophisticated backup rotations can be set up if and when space becomes an issue.
- If the customer has a high speed always on Internet connection it is recommended that Automatic Updates be turned on.
- Setup the default group policy for the domain to:

Note: Setting these policies is mandatory in order to meet CCHIT and OntarioMD certification standards however the exact numbers can be decided by each practice. Our recommended values are below. The audit policies are mandatory.

- Maximum password age enabled for 90 days
- Password must meet complexity requirements
- Account lockout duration set to 15 minutes
- Account lockout threshold enabled for 3 attempts
- Reset account lockout counter set to 15 minutes
- Audit account logon events enabled for success/failure
- Audit account management enabled for success/failure
- Audit logon events enabled for success/failure
- Audit object policy enabled for success/failure
- Audit policy change enabled for success/failure
- Screen saver password protected enabled for 3 minutes
- Network security: Do not store LAN Manager hash value on next password change to enabled
- Turn off unnecessary Services such as Messenger, IIS (If it will not be needed) and FTP. If using these services do not allow anonymous access.
- Install and configure a reputable Antivirus Product. Set it up to automatically get updates regularly. It should be configured for Real-time scanning and for at least 1 full disk scan per week. Most products do not require that require that the ABELMed folder be added to exceptions.

## 2.1.1.2 Testing

- If there is no Internet connection, test RRAS by calling in via the modem using Dialup Networking.
- Test Remote Desktop Sharing or pcAnywhere.

# ABELMed Platform Setup Conventions

- Test Windows printing from all workstations, to all printers to which they will need to print.

## 2.1.2 Windows XP Professional File Server

### 2.1.2.1 Setup

Please conform to the following conventions when setting up a Windows XP Professional File server

- We recommend an NTFS file system.
- Setup TCP/IP as the network protocol. We normally configure TCP/IP to obtain an IP automatically. ABEL recommends a router with a firewall on all high-speed Internet connections. The router if available usually does DHCP. If there is not a router, XP will use Automatic Private IP Addressing (APIPA).
- Name the computer with the customer's ABEL client ID number. For example if the ABEL customer ID number is CØ9999-OMG, name the server CØ9999. You can get the customer ID number by calling ABEL's sales department and asking for it.
- TURN OFF simple file sharing. Open My computer > Tools > Folder Options > Go to the view Tab > Uncheck simple file sharing.
- While you are here also uncheck "Hide extensions for known file types".
- Create an account for ABELMed users. An account can be set up for each user, but you should be aware that this account would have to be set up on all client machines from which the user will be running ABELMed. This will require a little more ongoing maintenance to administer the accounts when you have staff changes. It is up to individual customers to decide what is best for their practice. Certified Solutions require accounts for each user.
  - Create an ABELMed Users security group
  - The ABELMed users should not be part of the administrator group.
  - Ensure that each account has a password. The users should change their password the first time they log in.
- Disable the guest account.
- Put a password on the administrator account. Make sure that the appropriate person at the office or clinic has this password. Normally the dentist, office manager, or IT person.
- Navigate to C:\ABELMed and right click and select Properties>Security tab>select Users>uncheck Full Control
- **If the customer will not have Internet access**, then install and configure Routing and Remote Access Server (RRAS) so that ABEL will have a means of accessing the machine, should the customer need support. Install pcAnywhere if the customer has purchased it to facilitate support. If a customer does not have pcAnywhere, enable Remote Desktop access to facilitate remote support by ABEL.

Steps to configure RRAS

- Setup modem
- Network connections>Create a new connection>Wizard starts>Next>Setup an Advanced connection>Next>Accept Incoming connections>Next>Select modem>Next> Select do not allow virtual private connections>Next>Select the ABEL support user > Next >Check TCP/IP>Next>Finish
- **If the customer will not have an Internet Connection** and is using RRAS to allow support connectivity, then create an account for ABEL to use when they have to log in to provide support for the product. Please contact ABEL directly to provide the username and password, do not email this type of information. Make sure that the ABEL user has dial-in permissions and is part of the ABELMed users group. ABEL's normal Internet based support methods do not require that ABEL have an account.

# ABELMed Platform Setup Conventions

- Set the display resolution to at least 1024x768.
- Install the most recent operating system service pack, and all critical patches and hotfixes from Microsoft.
- Turn off any CPU power savers. Display power savers should be fine, but refrain from using third party screensavers. Turn off Hibernation.
- Install the latest drivers for all printer(s).
- Install and configure any required tape backup drivers and programs. ABEL recommends the backup program that comes with Windows XP Professional. Shortcuts should be setup on the desktop for appropriate users, to:
  - The backup program, to facilitate ASR (Automatic System Recovery) backups,
  - Perform a Full System backup with System State,
  - Data only backups. This will have to be setup after ABELMed is installed. ABEL recommends that the ABELMed folder and its sub-folders be backed up.

Note: A regular user will not have appropriate privileges to perform full system backups; any users that perform backups will have to be added to the Backup Operator's group.

- A backup schedule can also be set. Most customers will have enough space available on tape to perform a full backup with system state on a daily basis. This is recommended for small offices without an on-site IT person to ensure that all data from all applications is backed up. More sophisticated backup rotations can be set up if and when space becomes an issue.
- If the customer has a high speed always on Internet connection it is strongly recommended that Automatic Updates be turned on.
- Turn off unnecessary Services such as Messenger, IIS (if it will not be needed) and FTP. If using these services do not allow anonymous access.
- Install and configure a reputable Antivirus Product. Set it up to automatically get updates regularly. It should be configured for Real-time scanning and for at least 1 full disk scan per week. Some products require that ABELMed be added to exceptions.
- Setup the group policy to:

Note: Setting these policies is mandatory in order to meet CCHIT and OntarioMD certification standards however the exact numbers can be decided by each practice. Our recommended values are below. The audit policies are mandatory. In an XP based peer-peer / workgroup environment this policy must be established on each machine.

- Maximum password age enabled for 90 days
- Password must meet complexity requirements
- Account lockout duration set to 15 minutes
- Account lockout threshold enabled for 3 attempts
- Reset account lockout counter set to 15 minutes
- Audit account logon events enabled for success/failure
- Audit account management enabled for success/failure
- Audit logon events enabled for success/failure
- Audit object policy enabled for success/failure
- Audit policy change enabled for success/failure

# ABELMed Platform Setup Conventions

- Screen saver password protected enabled for 3 minutes
- Network security: Do not store LAN Manager hash value on next password change to enabled

## 2.1.2.2 Testing

- If there is no Internet connection, test RRAS by calling in via the modem using Dialup Networking.
- Test Remote Assistance, Remote Desktop Sharing, or pcAnywhere.
- Test Windows printing.

## 2.2 Database

### 2.2.1 Microsoft SQL Server 2005

Install MS SQL Server 2005 and prerequisites before installing ABELMed. Remember to install all Service packs and hotfixes for Microsoft SQL Server 2005. ABELMed uses Windows authentication.

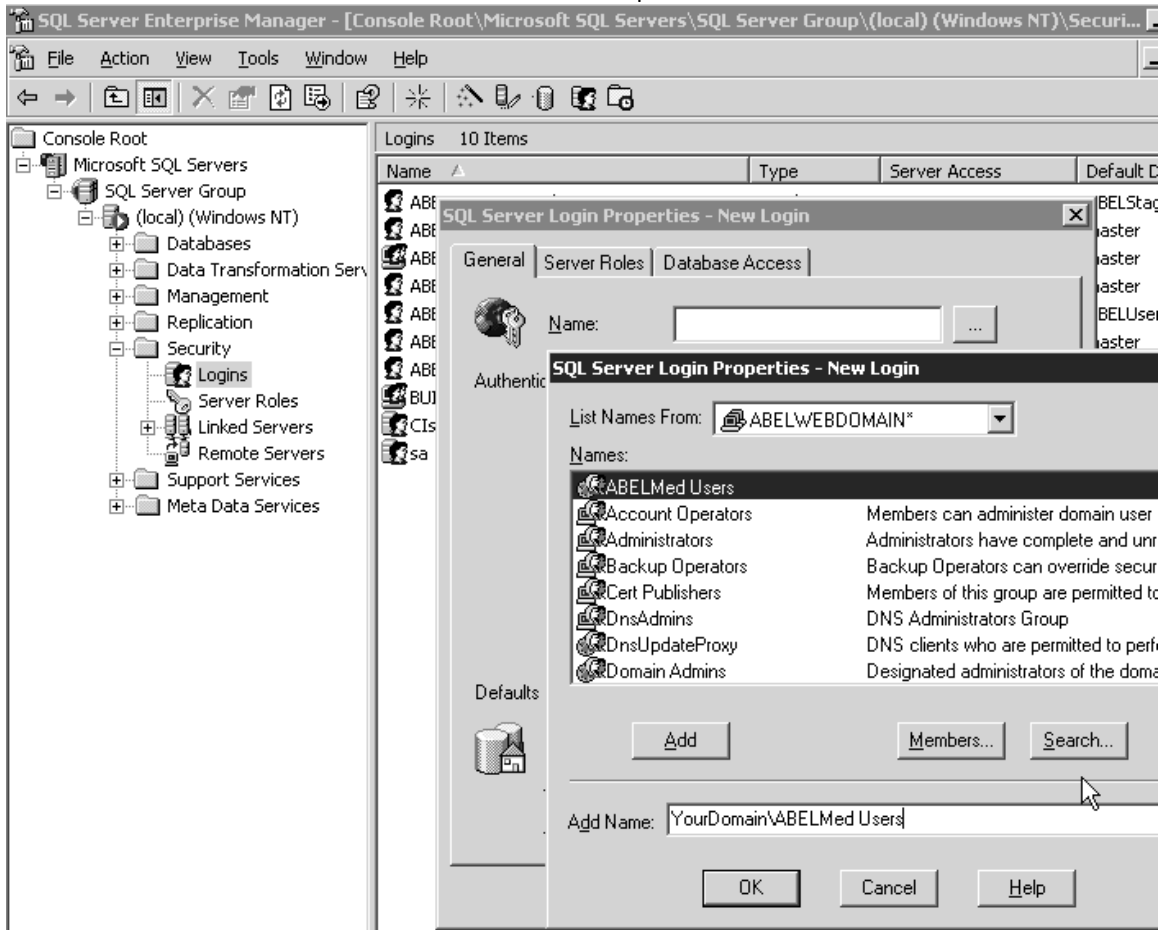
The ABELMed installation will create the required databases. It also creates a shortcut, under Start>Programs>ABELMed Administration. This shortcut will run a script to automate the creation of typical maintenance schedules and backup jobs.

After the SQL and ABELMed installations appropriate permissions have to be set on the databases using SQL Management Studio (SQL 2005) or Enterprise Manager (SQL 2000). Rather than adjusting permissions per individual user it is recommended that permissions to the database be granted by User groups. This usually only has to be done once per group, not for each user. The steps are as follows:

1. On the server, Start Enterprise Manager
2. Expand Microsoft SQL Servers>SQL Server Group>(local) (Windows NT)>Security>Logins
3. Right Click on Logins and select New Login

# ABELMed Platform Setup Conventions

4. For the Name Browse and select the ABELMed Users Group > Add> OK



5. On the Database Access Tab Select each of the ABELMed Databases and give ABELMed Users read/write access to all by selecting each database in turn and checking public db\_datareader and db\_datawriter.
- ABEL
  - FirstData
  - Lab
  - ClinicalForms
  - Clinical
  - AbelSecurity
  - MedicalReporting

## 3 Client Machine Setup

### 3.1 Windows XP Professional client machine

#### 3.1.1 Setup

Please conform to the following conventions when setting up Windows XP Professional client machines:

# ABELMed Platform Setup Conventions

- We recommend an NTFS file system.
- Setup TCP/IP as the network protocol. We normally configure TCP/IP to obtain an IP automatically. ABEL recommends a router with a firewall on all high speed internet connections. The router usually does DHCP if there is a high speed Internet connection. If there is not a router, XP will use Automatic Private IP Addressing (APIPA).
- Name the computer with the customer's ABEL client ID number followed by a hyphen and a numeric extension. For example if the ABEL customer ID number is CØ9999-OMG, name the first client machine CØ9999-1, the second client machine CØ9999-2, and so on...
- TURN OFF simple file sharing. Open My computer > Tools >Folder Options >Go to the view Tab>Uncheck simple file sharing. While you are here also uncheck "Hide extensions for known file types".
- Create account(s) for ABELMed users. The Account names and passwords must exactly match the account(s) created on the server.
  - The users should not be part of the administrator group, they should be part of the Users group.
  - You can create a group for ABELMed users but on most systems, all regular users will be ABELMed users so the regular users group can be used instead.
  - Ensure that each account has a password. The users should change their password the first time they log in. (this will have to be done for each user on all machines).
- Disable the guest account.
- Put a password on the administrator account. Make sure that the appropriate person at the office or clinic has this password. Normally the dentist, office manager, or IT person.
- Set the display resolution to at least 1024x768.
- Install the most recent operating system service pack, and all critical patches and hotfixes from Microsoft.
- Turn off any CPU power savers. Display power savers should be fine, but refrain from using third party screensavers.
- Install the latest drivers for all printer(s).
- If the customer has a high speed always on Internet connection, it is recommended that Automatic Updates be turned on.
- Turn off unnecessary Services such as Messenger, IIS (If it will not be needed) and FTP. If using these services do not allow anonymous access. Note that some practices use ABEL's case presentation software & will need IIS.
- Install and configure a reputable AntiVirus Product. Set it up to automatically get updates regularly. It should be configured for Real-time scanning and for at least 1 full disk scan per week.. Some products require that ABELMed be added to exceptions.

## 3.1.2 Testing

- Test Windows printing from all workstations.
- Make sure that the client machine can connect to the server and access shares created on the server. If you create test shares, please remember to remove them when you are through.