Vermont Oxford Network - eNICQ 6 Documentation

Guide to Installing eNICQ 6 on an Existing SQL Server®

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eNICQ 6 Installation Guide

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eNICQ 6 Installation Guide

Introduction

Welcome to the eNICQ 6 Infant Data Entry System. The software was developed to assist your hospital enter, store, and submit the data for Vermont Oxford Network's reporting. It will allow users to manage data entry, submissions, and corrections, plus users will be better able to check data for completeness and accuracy.

eNICQ 6 Features

User Features

- Immediate feedback on errors and warnings as data items are entered
- The ability to browse, correct, and complete data entry without printing
- Context-sensitive help, including data item definitions and ranges embedded within the data entry form
- The ability to sort, filter, and group records on the Patient Log
- Administrative settings automatically configured when you enter your center information during eNICQ 6 setup
- The capability to enter and submit data for multiple Vermont Oxford Network centers in the same database
- Allowance for multiple concurrent users in a network environment
- Continuous data submission regardless of record status
- Continuous updates of rules and data entry items
- Integrated security model
- Consolidated form with a single status code
- Highly interactive data fields fields will only display if they are required
- Streamlined process to get a Still Hospitalized status
- Current Disposition has been consolidated
- Streamlined navigation

Technical Features

- Built on the Microsoft® .NET Framework
- SQL Server® database, either using SQL Server® Express or your own SQL Server® installation (recommended)
- Use of Windows® installer technology in all installations and upgrades
- Functionality supporting ongoing data interface from your electronic medical record system
- Secure data submission to the Vermont Oxford Network through streaming XML over HTTPS

eNICQ 6 Client Software, installed locally

- Supported Operating Systems: Windows® 10*, Windows®11* if you are not using Active Directory logins
- Microsoft® .NET Framework version 4.6.2 or higher
- At least 400 MB of free disk space
- At least 1 GB of RAM
- Installer and client require Internet connection open to vtoxford.org and all subdomains on port 443. This connection must accommodate a RESTful API web service (.svc)
- User must have both" Read" and "Read & Execute" permissions to the C:\ProgramData folder

*Depending on configuration, Windows® may require installation of .NET Framework version 4.6.2

Microsoft® SQL Server® Express 2019, installed locally

- Supported Operating Systems: Windows® 10, Windows® 11 if you are not using Active Directory logins, Windows Server 2008 R2, Windows Server 2008 Service Pack 2, Windows Server 2016, and Windows Server 2019
- 32-bit systems
 - Computer with Intel or compatible 1GHz or faster processor (2 GHz or faster is recommended.)
- 64-bit systems
 - 1.4 GHz or faster processor
- Minimum of 512 MB of RAM (2 GB or more is recommended.)
- 2.2 GB of available hard disk space

-or-

Microsoft® SQL Server® 2014* or higher, existing Standard or Enterprise Edition

- Supported SQL Server® Versions: 2014 or higher.
- Maximum anticipated database size of 1 GB

eNICQ 6 Installation Planning

The eNICQ 6 Infant Data Entry System consists of a Windows client and a SQL Server database. This design offers many benefits. For example, the database can be installed on a central computer or server for security and backup. Another benefit is once the eNICQ 6 database is made available over the network, the client software can be installed on as many computer workstations as you need.

Discuss an installation plan with your hospital's IT or IS department to determine where the database will be installed, how many workstations will have the client software installed, and how database backups will be accomplished. We recommend that your center installs the eNICQ 6 database on an existing instance of SQL Server® if possible.

If no SQL Server instance is available, a copy of SQL Server® Express 2019 is packaged in the eNICQ 6 installer. This guide is intended for hospitals where there is an existing SQL Server on which to install the database, and your IT department can assist with the installation. If you do not have an existing SQL Server on which to install the database or you do not have adequate IT support, please see the <u>eNICQ 6 Local Installation Guide</u>.

For detailed descriptions of each installation option, please read the next section of this guide. More information on database installation and security can be found in the <u>eNICQ 6 System</u> <u>Administrator's Guide</u>.

eNICQ 6 Installation Options Overview

This overview describes the available installation options and the technical skill and permissions required for each scenario. Vermont Oxford Network recommends using an existing Standard or Enterprise Edition SQL Server installation to host the database for the additional security, stability, and extensibility that option offers.

If you do not have the resources or IT staff to support a server hosted database, the installer contains a free version of SQL Server Express 2019 which can be installed locally on a workstation computer with the client application.

SQL Server® Standard or Enterprise Edition installed on server (Recommended)

The eNICQ 6 client application can be installed on one or more workstations. The eNICQ 6 database is hosted by your existing SQL Server® Standard or Enterprise Edition.

Advantages:

- No risk of data loss if the local machine is damaged, upgraded, replaced
- Backups can be managed at the server level by a Database Administrator
- Security of PHI data can be managed at the server level
- Can have multiple client machines for data entry

Disadvantages:

• Requires professional IT support to implement

SQL Server® Express Edition installed locally

The eNICQ 6 client application and SQL Server® Express database are installed on a single workstation.

Advantages:

• Easy to install, can often be implemented with minimal IT support

Disadvantages:

- Risk of data loss if the local machine is damaged, upgraded, replaced
- Establishing a reliable backup protocol will require additional IT support
- Security of PHI data depends on securing access to the machine itself
- Can only have one client machine for data entry

eNICQ 6 Logins

There are two options for logging to eNICQ 6, the standard logins, which requires an email address and password to be entered each time a user logs in, and Active Directory logins, which will automatically log the user into the program using their Windows credentials.

The standard or VON logins are the same login for the Member Portal on the VON website. A VON Services Administrator for each center will need to go to the <u>Manage Users</u> page in the Member Portal to give people either <u>administrator or user permissions</u> to eNICQ.

Active Directory logins will require your System Administrator to create an AD group for users, and one for administrators prior to the installation of eNICQ 6. You can use whatever naming conventions for these groups that work best for your center. When Active Directory is selected during the installation, a screen will ask for the names of the AD groups. They will then get added to the eNICQ 6 database with the appropriate client permissions. Your Database Administrator will still need to give the SQL permissions to the AD groups after the database installation.

With multi-center installations users and administrators do not necessarily have access to each center added to the eNICQ 6 database. Users and administrators will need to be given access on a center-by-center basis in the Member Portal. When using Active Directory logins, you will be prompted to add <u>new AD groups each time a new center is added</u>. If you use the same AD groups for each center all users will have access to the Protected Health Information (PHI) of every hospital whose data is hosted on the database.

Download Installer

The eNICQ 6 installer is available for download on the Vermont Oxford Network website: <u>https://public.vtoxford.org/enicq/</u>. It contains both the client installer and database installer in one package.

eNICQ 6 License Key

The eNICQ 6 license key can be found by a user with an account to the Member Portal on our website. The full instructions on locating the license key can be found <u>in our knowledge base</u>.

Diagram: SQL Server® Standard or Enterprise Edition installed on server (Recommended)



High Level Data Flow, eNICQ to VON, server-hosted database

Figure 1 – eNICQ 6 Network Diagram

eNICQ 6 Web Services

eNICQ 6 is designed to allow for data fields and definitions to be updated through our web services. It uses RESTful API web services. You may need to update your firewall settings to allow eNICQ 6 to connect with them.

The specific URLs eNICQ 6 needs to connect with are subject to change with any major revision. The root location <u>https://services.vtoxford.org</u> is NOT subject to change. We recommend "safe-listing" the root URL recursively to allow access to any new or renamed services in the future.

If you are having issues connecting with our web services VON offers a Web Services Tester from our Help Center which you can download from the <u>VON knowledge base</u>. There is a complete list of the URLs the eNICQ 6 installer and the client need to connect with on the tester's instructions page.

Protected Health Information and HIPAA

Confidential patient data items are stored in your local eNICQ 6 database. Patient identifiers are protected health information as specified in the US Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the regulations implementing HIPAA. eNICQ 6 has been designed to ensure that patient identifiers cannot be sent to Vermont Oxford Network ("VON") unless the submitting member has the appropriate agreement(s) in place with VON. Hospitals in the US must implement measures to protect protected health information from unauthorized access, as specified in the HIPAA Privacy and Security regulations. Users of eNICQ software should be sure to comply with local hospital policies and good information security practices to protect data in the eNICQ database. Hospitals outside of the US should work with their legal and information security departments to determine the appropriate safeguards required in their jurisdiction(s).

To avoid access to the eNICQ 6 tables by unauthorized personnel, system administrators should review the security options available in the <u>eNICQ 6 System Administrator's Guide</u>, and ensure that the application is implemented to be accessible only to hospital staff members who have permission to access the data.

If you are unsure about the sufficiency of your information security safeguards or have any difficulty implementing the instructions in the guide, please consult your IT department or a qualified information security professional for assistance, in order to avoid and prevent HIPAA violations and potential breaches of information security.

eNICQ 6 Installation Support

If you have any questions or require any assistance with the installation of the software, you can contact VON Support by emailing us at support@vtoxford.org or calling (802) 865-4814 ex.240. Our business hours are 9:00 am to 5:00 pm Eastern Standard Time, Monday through Friday.

We also have a robust knowledge base which contains articles on almost every issue that has been reported to VON Support. You can access the KB at <u>https://vtoxford.zendesk.com/hc/en-us/categories/200178697-eNICQ-6-Support</u>.

NOTES:

- This chapter describes eNICQ 6 database installation on a central server and should be performed only by IT staff with the necessary skills and permissions. The procedures in this chapter accomplish the following:
 - o Database creation on the server, including all database objects
 - Registration of the database through a GUID with the Vermont Oxford Network
 - Establishment and saving of database connectivity information on the client
 - Creation of end-user accounts for database access on SQL Server®
- eNICQ 6 is designed to work with a SINGLE instance of the eNICQ database. If you require a second instance for a test environment, please see the eNICQ 6 Test Installation Guide.
- The installer should be run from a workstation that is networked with the server where the database will be installed by someone with SA permissions to the server.
- To begin the installation, double-click on eNICQInstaller.exe. A warning message may ask if you want to allow the program to make changes to the computer. Click Yes and the installer self-extraction process will begin.
- When the extraction process is complete, a Welcome screen will appear. When installing a new eNICQ 6 database you will not have an existing connection file. Confirm that No is selected and click Next.

eNICQ Application Installer	-		×
VAN		Version	n 6.2.0
Vermont Oxford NET WORK	Install eNICQ 6		
Welcome to the eNICQ 6 Instal This installer will walk you thre	ler ough the steps needed to install and configure eNICQ 6.		
Do you have an	existing connection file you would like to use? (Optional)		
	What's a connection file?		
🔿 Yes			
Browse			
No			
© No			
Help	Cancel < Back	Ne	хт>

Figure 2 – If this is a new installation you will not have a connection file

3. Select Normal Install, enter your License Key, and click Next. If you do not know your License Key click the "I don't have a license key" link for instructions on where to find it.

eNICQ Application Installer		_		\times
		١	/ersion 6	2.0
VON Vermont Oxford NET WORK	Install eNICQ 6			
Center License Key Enter the License Key for y Members Area under Data	our center. If you do not have your license key, it can be foun Management, or by contacting your Account Manager.	d on the	e VON	
Normal	Install			
	Please enter your license key:			
	I don't have a license key			
○ Test Ins	tall			
	VLBW			
	Expanded			
Help	Cancel < Ba	ск	Next	>
	Figure 3 – Enter the License Key			

 Select "On SQL Server® Standard or Enterprise Edition, installed on server (recommended)" (see p.3 of this guide for the advantages and disadvantages of each type of installation) and click Next.



Figure 4 – Select if you are installing the database on an existing server or locally on a workstation

5. Enter the Server Name where you would like to install the database. The Database name will default to "eNICQ6db", but it can be changed to fit your naming conventions. If the server is on a different domain, enter the server's fully qualified domain name. Enter the SQL Server® port number if required (such as when connecting remotely). For dynamic ports, enter "0". Select Windows or SQL Authentication. If you select SQL, you will need to enter administrator credentials on the server. Click Next.

eNICQ Application Installer			_		\times
VON Vermont Oxford NET WORK	Inst	all eNICQ 6		Version (5.2.0
Please enter the database inform Vermont Oxford Network recom This model integrates well with u	ation for tl mends usin using AD au	he server you want to store eNICQ dat. g Windows® Authentication to establish thentication to manage application login	a on. 1 databas 1.	e connec	tivity.
Server Name:		and the second sec			
Database:		eNICQ6db			
Port:		0			
Authentication N	Mode:	 Windows[®] Authentication (Recommondation) SQL Authentication 	nended)		
U	ser Name:				
	Password:				
Help		Cancel	< Васк	Next	r>

Figure 5 – Enter server information where the database is to be installed

6. You will be prompted to select which login type you would like to use. See page 4 for more information on the types of logins. Click Next. If you select "Use my VON Login" skip to step 9.



Figure 6 – Select which login type

7. When you choose use Active Directory logins a screen to enter the Active Directory group names will appear. The AD groups should have been created prior to running the installer. Enter the group names into the appropriate fields, and click Next.

eNICQ Application Installer			_		\times
VON				Version 6	i.2.0
Vermont Oxford Insta	l eNICQ	6			
Active Directory Groups					
Please enter the names of the Active Directory	Groups you would	like to use to	o administer el	VICQ user	'S.
Standard Users	:				
Admin Users	:				
	_				
Help		CANCEL	< Васк	Next	r >

- Figure 7 Enter Active Directory group names
- 8. It may take a minute or two for the database to be created. During this time the installer may appear inactive. Do not interrupt or cancel the installation. After the database has been created, you will be asked how you would like to install the client. If there is a client on the workstation you are running the installer from select "Install on this machine" and click Next.



Figure 8 – Database installed. Select how to install the client application

9. After successfully installing the eNICQ 6 client a "Congratulations!" page will appear. You can select to simply exit the installer, run eNICQ 6, or to view the help files.



Figure 9 – Installation is complete but database permissions still need to be given

Final Notes on Installing the Database:

- If you are using Active Directory logins the users will need to log out of and then back into Windows before any updates to their permissions will apply.
- Upon successful installation of the eNICQ 6 database the Connection.enicq file will be created and saved to C:\ProgramData\VON. ProgramData is a hidden folder by default so you may need to unhide it to locate this file. It is strongly recommended that you save a copy of this to a secure location to help with installing client applications on other workstations.

NOTES:

- The eNICQ 6 application performs database transactions using the following isolation levels: RepeatableRead, ReadUncommitted, Snapshot, ReadCommitted. The SQL Server® database must allow usage of each of these isolation levels.
- To perform the following steps, you will need to have SQL Server® Management Studio (SSMS) installed and connected with the instance of SQL Server® where the eNICQ 6 Database resides. If you do not already have a copy you can download the installer for SQL Server® Management Studio Express from Microsoft's website, https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver15.
- The following instructions should be carried out in SQL Server® Management Studio by a database administrator or IT professional with equivalent skills and permissions. These instructions focus on using Windows Authentication to manage database access. Additional options and tips are available in our documentation on troubleshooting database connectivity in eNICQ 6.
- 1. Open SQL Server® Management Studio.
- 2. Locate the Security folder at the server level in the object explorer.

Note that there is also a Security folder at the database level under the eNICQ6db database, *but that is not the correct Security folder to perform these actions*.

- 3. Expand the **Security** folder. Under the **Security** folder you will see the **Logins** folder.
- 4. Right-click on the Logins folder and choose New Login...



Figure 10 – Right click on the Logins folder located in the server Security folder, and select New Login

If the users have already been given permissions to another database on this server they will show in Logins already. Right click on them and select **Properties** and skip to step 19.

5. At the bottom of the Login – New dialogue, set the Default database to eNICQ6db unless you named it something other than the default name. In that case select the actual name of the database.

View connection properties		Select eNICQ6db for the Default database	
Progress Ready	Default database:	eNICQ6db -	Remove
		ОК	Cancel

Figure 11 – Select eNICQ6db as the default database

- 6. Select the Windows authentication radio button.
- 7. Click the Search button

📑 Login - New				- • •
Select a page	🔄 Script 👻 🛐 Help	S	elect Windows authentication	
Server Roles Ser Mapping Securables Status	Login name: Windows authen SQL Server auther	tication entication	Click Search	Search
	Password:	d. [

Figure 12 - - at the top of the same screen select Windows authentication, and click Search

8. Click the Object Types button on the Select User or Group dialog.

Select User or Group	? 🗙
Select this object type: User or Built-in security principal	Object Types
From this location:	
ENCOTEST 08	Locations
Enter the object name to select (<u>examples</u>):	Check Names
Advanced OK	Cancel

Figure 13 – click the Object Types button

9. Uncheck Built-in security principals and Other objects.

10. Check **Groups** and/or **Users**, whichever you are using. For multiple users, managing through group membership is recommended.

Object Types	×
Select the types of objects you want to find.	
Object types:	
Built-in security principals	Select either Groups if you are giving permissions using Active Directory
	groups, or Users if you are granting permissions on a user by user basis.
	OK Cancel

Figure 14 – unselect "Built-in security principals" and "Other objects" then select either Groups or Users

- **11.** Click **OK** to continue.
- 12. On the Select User, Service Account or Group dialog Click Locations...

Select User, Service Account, or Group	? ×
Select this object type:	
User or Group	Object Types
From this location:	
burlington.vtoxford.org	Locations
Enter the object name to select (examples):	
I	Check Names
J	
Advanced	OK Cancel

Figure 15 – Click "Locations..."

13. Select the location for the Windows account or group and click ok.

Locations		? <mark>×</mark>
Select the location you wa	ant to search.	
Location:		
AUNITAD		
Entire Directory		
	confirmed and the	≡ .
	And a second	
	Provide State of Stat	
	- British Bernardik	
	CALIFORNIA DE LA DECEMBRA DE LA DECE	· · ·
	ОК	Cancel

Figure 16 – After selecting the locations to find the user or group click OK

14. Enter the user or group in the space provided and click Check Names.

Select User, Service	Account, or Group	? <mark>×</mark>
Select this object ty	ре:	
User or Group	Enter the user or group	Object Types
From this location:	name you are searching for.	
Entire Directory	,	Locations
Enter the cent na	me to select (<u>examples</u>):	
enicquser	Click Check Names	Check Names
Advanced		IK Cancel

Figure 17 – Enter name of group or user and click Check Names. "enicquser" is only an example and will not be located on your network unless you create this user.

15. If you have been unable to identify the correct user or group, click Advanced... on the Select User, Service Account or Group dialog for more search options. Otherwise, continue to step 19.

Select User, Service Account, or Group		? X
Select this object type:		
User or Group		Object Types
From this location:		
burlington.vtoxford.org		Locations
Enter the object name to select (examples):		
1		Check Names
Advanced	ОК	Cancel

Figure 18 – Click the Advanced... button if the user or group is not found in previous step

16. Use the advanced features to find your user or group.

Select User, Servi	ce Account, or (Group			8	×		
Select this object	type:							
User or Group			Enter Search		Object Types	bject Types		
From this location:			Parameters					
Entire Directory			1		Locations			
Common Queries								
Name:	Starts with 💌	enic			Colum	ns		
Description:	Starts with 🔻				Find N	Vow		
Disabled a	ccounts		Click F	ind Now	Sto	p		
Non expirir	ng password							
Days since las	t logon:	-			<i>\</i>			
Search results:					OK Can	cel		
Name (RDN)	E-Mail Address	s Descr	ription	In Folder				
& eNICQ Upgra				ENICQTEST.	LO			
🦓 eNICQ Users				ENICQTEST.	LO			
Lenicqeanin LenicqDomai.				ENICQTEST.	LO			
& eNicqReadOn	ly .			ENICQTEST.	LO			
💐 eNicqUser 👘				ENICQTEST.	LO			
	Select the correct user or o				r or group			

Figure 19 – Use the Common Queries fields to find the user or group, then select them at the bottom.

- **17.** Please contact your System Administration team for assistance if you have difficulty with any of the following:
 - Locating the correct user or group.
 - Creating a user or group.
 - Adding or removing users to or from a group
- **18.** On the **Login New** screen, or the **Login Properties** screen if you are editing an existing user, click the **User Mapping** page.
- **19.** Check the **eNICQ6db** database in the upper panel if you kept the default name. If changed the name to something other than the default look for that in the upper panel and select it.
- 20. Check the roles EnicqDBUser and public in the lower panel.

📑 Login - New				• •			
Select a page	🖾 Script 👻 🎼 Help						
Server Roles							
User Mapping	Users mapped to this login:						
The Securables	Map Database	User	Default Schema	<u> </u>			
Jaus							
		100 7 1		E			
	eNICQ6db						
				_			
		and a second					
Connection		MI		-			
Connection	Guest account enabled	l for: eNICQ6db	Select these				
Server: enicqtest-db	Database role membership	three boxes					
	db_accessadmin						
ENICGIEST ENICODOMAINAMIN	db_backupoperator						
View connection properties	db_datareader						
	db_ddladmin						
	db_denydatareader						
Progress	db_denydatawriter						
All Boody	db_securityadm						
neauy	EnicqDBUser						
11							
			ОКСС	Cancel			

Figure 20 – Select User Mapping on the left. Make sure only the eNICQ 6 database is selected then select EnicqDBUser at the bottom (public should be selected by default already).

- **21.** Click **OK** to complete Login creation.
- **22.** Test the end-user's database authentication capability from the client machine by having the end user launch the application once it has been installed.
- 23. Set up SQL backups and secure your data according to your organization's policies.

END OF SERVER SIDE ACTIONS

NOTES:

- Users will need to have both the "**Read**" and the "**Read & Execute**" permissions to the **C:\ProgramData folder**.
- **ProgramData** is a hidden folder, by default. To find it you may need to go to the View tab the C:\ and select "Hidden items" for it to be visible.
- You only need local administrator permissions on the workstation *if* you run the **MSI** rather than eNICQ 6 Installer. Also, you do *not* need a copy of the eNICQ 6 license key.
- Users are still going to need to have permissions to the database. Please review the previous section, SQL Server® Management Studio Server Side Actions for the instructions on providing the correct permissions.

Installation of the client application on a workstation when you have an existing database is a relatively simple process. The eNICQ 6 MSI does not require permissions to the database, nor does it require the eNICQ 6 License Key. You will need a copy the the Connection.enicq file and local administrator permissions on the workstation where you will be installing it.

- 1. Get a copy of the **Connection.enicq** file which would have been created during the installation of the database. The file will be found in **C:\ProgramData\VON**.
- On the workstation where you are installing the client application open C:\ProgramData and there create a new folder called VON. Save a copy of the Connection.enicq file in the VON Folder. If you cannot find an existing connection file you will need to create a new one with the eNICQ 6 Connection File Editor.
- 3. Download the eNICQ 6 MSI from the <u>eNICQ 6 Home Page</u> on our website. When you click to download it, a new tab may open in your web browser saying "Redirecting". Please ignore that tab. The MSI will download to the Downloads folder unless you've selected to save it elsewhere.
- 4. Double click on the **enicq.msi** file to start the installation. There is no installation wizard when running the MSI, and it only takes a couple of seconds to run. You will briefly see a progress bar but that will disappear quickly. Once the progress bar disappears the installation is over.
- 5. Open the Windows Start menu and you will see a Vermont Oxford Network folder. When you expand that you will see an eNICQ 6 shortcut. Neither the MSI nor the installer will create a desktop shortcut so if the user would like a desktop shortcut you will have to manually create one.

The eNICQ application is capable of hosting data for multiple centers. There are several ways this can be accomplished:

- **1.** Hosting multiple centers in a single instance of the database (recommended)
- 2. Hosting multiple centers in separate instances of the database on a common server and multiple copies of the eNICQ application on SEPARATE client machines
- 3. Hosting multiple centers in separate instances of the database on separate servers and clients

To determine the model that is best suited for your needs, we suggest you consider the following questions:

- Do any of the end users need to have access to more than one center?
- Do any of the end users need have access to more than one center from a single machine?
- Are there any legal or policy impediments to hosting data for multiple centers in a common database?
- Who will be hosting and maintaining the database? Who owns the hardware and employs the staff that will have access to it? Are all necessary legal agreements or releases in place?
- Do your staff members have permission to view data belonging to different centers or are their permissions limited to a single center?
- Who among your staff would be permitted to view data for all centers and manage center data permissions for other staff members?
- Do the centers currently have an eNICQ database in operation? What versions are any existing databases? Where are these databases located?

If you are uncertain of the answers to any of the above questions, work with your team to reach a better understanding of your situation and what you would like to accomplish.

Option 1: Hosting multiple centers in the SAME database (Recommended)

Vermont Oxford Network's recommendation is that whenever possible, data in a multi-center installation be hosted in a single instance of the eNICQ database. This model allows user permissions and security to be centrally managed and provides the most reliable maintenance and annual update options. This model requires co-mingling of data from separate centers in the same database. Access to each center is controlled either by your IT department who will add or remove users from the Active Directory groups or by your VON Services Administrator who can grant access from the Member's Portal on our website.

Installation

No additional steps are required to install eNICQ under this model. Vermont Oxford Network recommends using a Standard or Enterprise Edition of SQL Server® rather than a local installation using SQL Server® Express and using AD integration for single sign on as described at the beginning of this guide.

Migrating Center Data

New centers can be added to the database easily. The instructions for this process can be found in the "Moving the eNICQ 6 Database" guide, available at https://vtoxford.zendesk.com/hc/en-us/articles/360018893413-eNICQ-6-Moving-the-Database-Guide. Use the instructions in the second section titled "Option 2: Moving the Database by XML." This procedure involves outputting a text file of the infant records, de-registering the database with our support team, adding the center to the new database, archiving the old database and importing the new data into the combined database. Audit logs from the old database **cannot** be imported to the new database, but they can be output to text file and archived.

If there is no existing data for the new center, add the center by opening the <u>Advanced Menu Options</u> (the gear icon in the top right)...Center Management...Add New Center button. You'll first be asked for the License Key for the center being added. If you are using Active Directory logins it will then ask you for the AD group names. eNICQ 6 allows you to use different AD groups for each center even when they are installed on the same database, controlling which centers' data user will have access to.

Managing User Access

It is possible to activate or deactivate access to each center for each User level account. If you are using VON logins your staff controls access rights for your users through the Member's Portal on the VON website. If you are using Active Directory then your IT department would control who has access by adding or removing users from the Active Directory groups. It is up to your centers to determine the access appropriate to each user. The VON Services Administrators for each center will be the ones to manage the accounts for eNICQ 6 users.

Applying Annual Updates

There are no special requirements for applying updates with this.

Removing a Center

If it is necessary to later remove a center from the co-hosted model, this can be done by deleting the center. We recommend first outputting the data to a text file for future recovery. See the document "Moving the eNICQ Database" for instructions. After securing an archive copy of the data, remove the center by clicking Advanced Menu Options (the gear icon in the top right)...Center Management...Deactivate. This operation requires an Administrator level account in eNICQ. Once this is done you will need to contact VON Support and we will deactivate the registration of the database for that center so they can be added to your other database.

Option 2: Hosting multiple centers in separate databases on the same server and installing multiple eNICQ applications on SEPARATE client machines

It is possible to set up multiple copies of the database on a single server and connect to them through separate instances of the eNICQ client application. In this model, each client application on each computer will point to only one instance of the eNICQ database that hosts data for a single center. Control of user access under this model is de-centralized and potentially confusing but can be done successfully with appropriate documentation practices.

Installation

This model requires additional steps during installation to bypass safeguards in the installer intended to prevent accidental creation of multiple databases and multiple copies of the client application.

- To create multiple instances of the database, name (or rename if already existing) your database with the convention "eNICQ6db_" + [center number]. This will allow you to host multiple instances of the database on the same server and to clearly identify those databases by center number.
- When installing the client applications on each machine, it is critical to point the client
 application to the correct database. You will need to manage the different <u>connection files</u> for
 each database carefully as they will all be named "Connection.enicq". Changing the name of the
 file will cause the eNICQ 6 client to not be able to connect with whichever database it is
 supposed to connect with.

Please note that with each eNICQ client pointing to a different database, your encrypted connection files will also be unique and cannot be used interchangeably. Any on-screen tips or tech support advice on reusing or transplanting enicq.connection files should be ignored.

Migrating Center Data

Introducing new center data to this model can be done with the document "Moving the eNICQ Database." Use the instructions in the first section titled "Option 1: Moving the Database Using Backup and Restore." After completing the procedure, rename your database with the convention "eNICQ6db_" + [center number].

Managing User Access

This model does not offer centralized management of user access. Each client/database combination must be managed separately for both database access (at the server level) and application access (either with Active Directory groups or by managing the permissions from the Member's Area of our website depending upon the login type selected during installation).

Please note that the primary means of controlling access to each center with this model begins with whether a copy of the client keyed to the center's database is installed on a user's computer in the first place. Secondarily, access can be controlled at both the database and application levels. Because these steps will need to be repeated for each separate instance of client and database, access control can potentially become confusing and burdensome under this model. Confusion can be mitigated by maintaining accurate documentation of the model.

Applying Annual Updates

There are no special requirements for applying updates with this model.

Removing a Center

Because each center is hosted in a separate database instance in this model, a center can be removed first by logging into the client and clicking **Advanced Menu Options (the gear icon in the top right)...Center Management...Deactivate** and then by detaching the database from the server and deactivating the eNICQ instance that pointed to it. Next, uninstall (using Add/Remove Programs) any instance of the application that pointed to the database.

Documentation

It is essential that you document the aspects of your implementation that are unique. This includes your naming of database instances, the client machines that point to those database instances, as well as the names of the end users and the permissions they are to be granted in each instance. The eNICQ application is subject to mandatory annual updates and it will be difficult to perform these updates without a complete understanding of your implementation.

Limitations of Support

If you have implemented this model, please notify Vermont Oxford Network's technical support staff of your alternate implementation on all support inquiries so that our assistance can be tailored to your unique situation. Our technical support staff will not be able to adequately serve you without this information.

Option 3: Hosting multiple centers in separate databases on SEPARATE servers and installing multiple eNICQ applications on SEPARATE client machines

If you intend to host multiple centers on separate servers and access them through separate clients, there is no integration to manage. These are essentially separate installations even if they exist in the same physical facility. No special instructions are needed. Vermont Oxford Network always recommends that your implementation be documented so that IT staff performing maintenance or upgrades can easily determine which servers, databases, and clients are relevant to different centers and end users.

END OF DOCUMENT