

RESOURCE AND PATIENT MANAGEMENT SYSTEM

Electronic Clinical Quality Measures Engine

(ECQM)

Installation Guide and Release Notes

Version 7.0 January 2025

Office of Information Technology Division of Information Technology

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Revision History

Version	Date	Author	Section	Page	Summary of Change
1.0	December 2020	GDIT	All	All	Updates for Version 3.0 release.
2.0	January 2021	GDIT	2.2.1, 2.2.1.1, and 2.4	2,3, and 5	Removed references to Windows Server 2008 and IIS 7, 7.5 and 8.0.
					Corrected the "EQCM" spelling error to "ECQM.
					Removed Section 2.2.1.1 as it was no longer needed.
					Removed the reference to Windows server 2008.
4.0	November 2021	GDIT	1.0, 2.8	1, 12	Updates for Version 4.0 release.
4.0 Patch1	January 2022	GDIT	1.0	Multiple	Updates for Version 4.0 Patch 1 release.
5.0	September 2022	GDIT	All	Multiple	Updates for Version 5.0 release.
6.0	December 2023	GDIT	All	Multiple	Updates for Version 6.0 release.
6.0 Patch 1	August 2024	GDIT	All	Multiple	Updates for Version 6.0 Patch 1 release.
7.0	December 2024	GDIT	All	Multiple	Updates for Version 7.0 release.

Preface

This manual describes the installation of the Electronic Clinical Quality Measures (eCQM) Engine (Namespace ECQM) and additional support software needed.

ECQM is a browser-enabled graphical user interface (GUI) for the Indian Health Service (IHS) deployed either locally on-site application servers or centrally on an Albuquerque Data Center application server for calculating eCQM measures submitted by IHS sites. It provides functionality to import Quality Reporting Document Architecture Category I (QRDA I) files and generates QRDA Category III (QRDA III) files to submit for CMS reporting.

1.0 Release Notes

This is the eighth release of the centrally deployed eCQM Engine tool as defined by the following features:

Table 1-1: Feature IDs and titles

Feature ID	Title
99260	ECQM: Measure Analysis Report Enhancements for 2024
99257	ECQM: Measures Updates for 2024
99258	ECQM: Measure Compute Detail Report Updates for 2024
99255	ECQM: CQL Updates for 2024
99259	ECQM: QPP Submission for 2024
99254	ECQM: QRDA CAT-III Implementation Guide Updates for 2024
99419	ECQM: Diagnostic/Error Report Maintenance for 2024
99420	ECQM: ECQM Upload/performance enhancements for 2024
99355	eCQM: Address Accessibility and Usability Findings

2.0 Installation Notes

Prefix:	ECQM
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Current Version: 7.0

Table 2-1: Distributed files and descriptions

File	Description
ecqm0700.install.zip	eCQM Application bundle
ecqm0700_RavenDB.zip	eCQM RavenDB zipped bundle
ecqm.reference.2024 09-10.ravendbdump	RavenDB bundle
ecqm070i.pdf	eCQM v7.0 Installation Guide and Release Notes
ecqm070t.pdf	eCQM v7.0 Technical Manual
ecqm070u.pdf	eCQM v7.0 User Manual

2.1 Required Resources

This section lists the computer resources required for each deployment strategy.

2.1.1 Application Server Resources

The eCQM Engine software has two components: the eCQM Web Application and an eCQM database. For local site installations, these two components should be installed on one machine (single tier), which is described in this installation guide. For the centralized service deployment in the Albuquerque Data Center, two separate machines (multi-tier) are needed, for installation by the CSMT and eCQM Project Teams.

There are two potential configurations for the eCQM setup as follows:

- **BQRE/ECQM Local Install**—*Do not install* on the same server as BPRM. The ECQM Application (IIS) and Database (RavenDB) and BQRE can be installed on the same machine.
- **BQRE local/ECQM central option**–BQRE can be installed on the BPRM application server.

The following resources are required for both a single-tier and multi-tier application server:

- Microsoft® Windows® 2012 R2 Server x64 bit (or later)
- Microsoft IIS® 8.5 or 10
- Windows PowerShell 5.1 or higher
- .NET Framework 4.8 or higher (required for PowerShell 5.1)

- .NET Core 8.0
- Microsoft Visual C++ 2015-2019 x86
- Four processor cores running at 2.0 GHz or faster
- 8–12 GB RAM running at 1333 MHz (Multi-tier)
- 60–100 GB free disk space (disk drives should be 10K RPM or faster)

Note: Do not install on the same server as BPRM.

However, the ECQM Application (IIS) and Database (RavenDB) and BQRE Export Tool can be installed on *one* machine.

2.1.2 Browser Standard

The following browsers are recommended for any workstations accessing the eCQM application:

- Google Chrome® Version 68 or higher
- Mozilla Firefox
- Microsoft Edge

2.2 Before You Begin: Installation Issues

Internet connectivity on the application server is necessary to download the required installation items.

2.3 Prerequisites

Windows PowerShell 5.1 or Later

The RavenDB setup requires Windows PowerShell 5.1 or later.

Useful links on how to get PowerShell 5.1 can be found here:

- <u>https://docs.microsoft.com/en-us/powershell/scripting/install/installing-windows-powershell?view=powershell-5.1</u>
- <u>https://docs.microsoft.com/en-us/powershell/?view=powershell-5.1</u>

2.4 Microsoft .NET Framework Verification

As mentioned in Section 2.1.1, Microsoft .NET Framework 4.8 or higher is required on the ECQM application server. To determine if it is already installed:

1. From the Windows Start menu, select Control Panel.

2. Click **Programs and Features**. A listing similar to that shown in Figure 2-1 displays.

microso - Programs and Feature	25							_	- 🗆	×
😋 🕞 🗢 🧟 🔹 Control Panel 🔹 Pr	rograms 👻 Programs and Features			- 6	microso					×
Control Panel Home	Uninstall or change a program									
View installed updates	To uninstall a program, select it from the list an	id th	en click Uninstall, Change, or	r Repair						
😵 Turn Windows features on or off										
Install a program from the network	Organize 🔻 Uninstall								0	
	Name 🔺	-	Publisher	-	Install	▼ Size	v Ve	rsion	-	
	IIS 10.0 Express		Microsoft Corporation		3/19/2018	39.2	MB 10	.0.1741		
	Indian Health Service CRS		Microsoft		10/23/2017	28.4	MB 17	.1.0001		
	Hicrocoft .NET Core SBK - 2 1 101 (x64)		Microsoft Corporation		3/19/2018	463	MB 2.1	1.101		
	Microsoft .NET Framework 4.7.2		Microsoft Corporation		7/17/2018	38.8	MB 4.7	7.03062		
	Microsort Azare Authoning Tools - v2.9.5.3		Microsoft Corporation		3/19/2018	12.2	MB 2.9	9.8699.20		
	Microsoft Azure Compute Emulator - v2.9.5.3		Microsoft Corporation		3/19/2018		2.9	9.8699.20		



3. Review the **listing**, looking for any **Microsoft .NET Framework 4.***x* entries. If none are found, install the .NET Framework 4.8 (or higher) by following the instructions in Section 2.5. If Microsoft .NET Framework 4.8 (or higher) is listed, skip to Section 2.6.

Note: There can be more than one version of the .NET Framework on the server at the same time.

2.5 Microsoft .NET Framework 4.8 (or later) Installation

To install the .NET Framework:

1. Download .Net Framework 4.8 from the Microsoft download center at:

https://go.microsoft.com/fwlink/?linkid=2088631

2. Double-click the **downloaded file** to run the **.Net Framework 4.8 setup**. The **License Terms** dialog (Figure 2-2) displays:

교체 Microsoft .NET Framework	-	• ×
.NET Framework 4.8 Setup Please wait while the .NET Framework is being installed.		.NET
File security verification:		
All files were verified successfully.		
Installation progress:		Ċ
		Cancel

Figure 2-2: .NET Framework License Terms dialog

- 3. Select "I have read and accept the license terms" checkbox to accept the license agreement.
- 4. Click **Install**. Respond to any prompts presented as the installation proceeds. When completed, the **Installation Is Complete** dialog (Figure 2-3) displays.



Figure 2-3: .NET Framework Installation Is Complete dialog

- 5. Click **Finish** to complete the installation. If necessary, restart the server.
- 6. As a final step, run the **Windows Updates utility** to check for and install any .NET Framework updates that may be available.

Note: It is very important to check for and install any .NET Framework updates. These updates can be critical to the stability and security of ECQM operation.

2.6 Internet Information Services 8.5 (or Later) Installation

To install the Microsoft IIS:

- 1. From the Windows Start menu, select Administrative Tools.
- 2. Select Server Manager to display the Server Manager dialog.



Figure 2-4: Open Server Manager applet

3. Click **Roles** in the left pane. The **Roles** pane (Figure 2-5) displays.

Server Manager			
Eile Action Yiew Help			
🗢 🔿 🛅 🔝			
🚡 Server Manager	Roles		
Roles Features Diagnostics Microfiguration	View the health of the roles in	stalled on your server and add or remove roles and features.	
Windows Firewall with Adva Services	Roles Summary	Roles Summary Help	
WMI Control	Roles: 1 of 17 installed Web Server (IIS)		Add Roles
	🔿 Web Server (IIS)		Web Server (IIS) Help
	Provides a reliable, manageable, and sc	alable Web application infrastructure.	
	Role Status		Go to Web Server (IIS)
	Messages: None	- Abottan	
	System Services: 4 Running, 1	Stopped	
	Best Practices Analyzer: To sta tile on this role's homepage and	ist 24 nours rt a Best Practices Analyzer scan, go to the Best Practices Analyzer I click Scan this Role	
	Role Services: 24 installed		Add Role Services
	Role Service	Status	Kemove Kole Services
	Web Server	Installed	
	Common HTTP Features	Installed	

Figure 2-5: Add Roles dialog

4. If a Web server has already been set up, click Select Roles, and skip to Step 7.

- 5. If a Web server has not been set up, click **Add Roles** on the right pane. Review the **Before You Begin** dialog and click **Next**.
- 6. The Select Server Roles dialog (Figure 2-6) displays.

Add Roles Wizard		×
Select Server R	oles	
Before You Begin Server Roles Confirmation Progress Results	Select one or more roles to install on this server. Roles:	Description: Active Directory Certificate Services (AD_CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.
	< Previous	Next > Install Cancel

Figure 2-6: Select Server Roles dialog

7. Select Web Server (IIS). The Add Roles Wizard (Figure 2-7) displays.

C:	Add features required for Web Ser You cannot install Web Server (IIS) unless the requir	rver (IIS)? ed features are also installed.	
	Features:	Description	
	Windows Process Activation Service	indows Process Activation Service Windows Process Activation Service	
	Process Model	generalizes the IIS process model, removing the dependency on HTTP. All the features	
	Configuration APIs		
		Add Required Features Cancel	

Figure 2-7: Add Roles Wizard

8. Click Add Required Features. The Web Server (IIS) dialog (Figure 2-8) displays.



Figure 2-8: Add Roles Wizard Web Server (IIS) dialog

9. Click Next. The Select Role Services dialog (Figure 2-9) displays.

Add Roles Wizard		×
Select Role Servi	ces	
Before You Begin Server Roles Web Server (IIS) Role Services Confirmation Progress Results	Select the role services to install for Web Server (IIS): Releasance of the services of the s	 Description: Windows authentication is a low cost authentication solution for internal web sites. This authentication scheme allows administrators in a Windows domain to take advantage of the domain infrastructure for authentication if users who must be authenticated access your Web site from behind firewalls and proxy servers. ext > Instell Cancel

Figure 2-9: Add Roles Wizard Select Role Services dialog

10. Clear any checked boxes and enable the following role services:

• Common HTTP Features:

- Static Content
- Default Document
- Directory Browsing
- HTTP Errors
- HTTP Redirection
- Application Development:
 - ASP.NET
 - .NET Extensibility
 - ISAPI Extensions
 - ISAPI Filters
- Health and Diagnostics (optional):
 - HTTP Logging
 - Request Monitor
- Security:
 - Request Filtering
- Performance:
 - Static Content Compression
 - Dynamic Content Compression
- Management Tools:
 - IIS Management Console
 - IIS 6 Metabase Compatibility

11. Click Next to display the Confirm Installation Selections dialog (Figure 2-10).



Figure 2-10: Add Roles Wizard Confirm Installation Selections dialog

12. Click Install. The Installation Results dialog (Figure 2-11) displays.



Figure 2-11: Add Roles Wizard Installation Results dialog

13. Click Close to complete the installation and end the process.

Note: Review the additional steps for disabling the IIS Manager Logging feature in Appendix A .

2.7 .Net Core 8.0.8 Hosting Bundle

The ECQM application requires .Net Core 8.0.8 hosting bundle. To install:

- 1. Download the **.Net Core Runtime** installer from <u>https://dotnet.microsoft.com/en-us/download/dotnet/thank-you/runtime-aspnetcore-8.0.8-windows-hosting-bundle-installer</u>
- 2. Run the installer (preferably in administrator mode).
- 3. Click Install.



Figure 2-12: Microsoft .NET Core 8.0.8–Windows Server Hosting Setup

4. Click **Close** after installation is successfully completed.



Figure 2-13: Successful installation

- 5. After successful installation, restart the **WWW** and **WPA** services as described in the following steps.
- 6. To open the Command Prompt CMD in Administrator mode, right-click the **Command Prompt** and select **Run as administrator**.

0:5_	Command Prom	pt
	Desirop app	Run as administrator
Apps		Run as different user

Figure 2-14: Run as administrator

- 7. Run the following commands in CMD:
 - **net stop was** /y-This will *stop* the WWW and Windows Process Activation service.
 - **net start w3svc**-This will *start* the WWW service.

Administrator: Command Prompt Microsoft Windows [Uersion 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved. C:\Windows\system32>net stop was /y The following services are dependent on the Windows Process Activation Service service. Stopping the Windows Process Activation Service service will also stop these services. World Wide Web Publishing Service The World Wide Web Publishing Service service is stopping. The World Wide Web Publishing Service service is stopping. The Windows Process Activation Service service was stopped successfully. C:\Windows\system32>net start w3suc The World Wide Web Publishing Service service is starting. The World Wide Web Publishing Service service was started successfully. C:\Windows\system32>_

Figure 2-15: Administrator Command prompt screen

3.0 Installation Overview

The ECQM v7.0 installation requires three files:

- 1. ecqm0700.install.zip-Application bundle
- 2. ecqm0700_RavenDB.zip-Database bundle for eCQM application
- 3. ecqm.reference.2024 09-10.ravendbdump–RavenDB bundle

Save these files where accessible to the application server.

4.0 Installation Instructions: First-Time Install

ECQM contains components that run on the application server. The application operates in a Web-based environment; there is no separate installation necessary on user workstations.

Note: If site already have a previous version of ECQM installed please skip this and go to the Step 5.0.

4.1 Acquire the SSL Certificate

ECQM utilizes the Secure Sockets Layer (SSL) protocol to ensure secure communications between its components. If your site is not on a secure domain, you must acquire an SSL certificate. If your site is on a secure domain, an SSL certificate may not be required but is still highly recommended.

Note: Since the SSL certificate acquisition may take up to 24 hours, it is recommended that you acquire the SSL certificate before beginning the ECQM installation.

The process for acquiring this certificate for sites on the IHS domain is different than that used by sites that are not on the IHS domain.

4.1.1 SSL Certificate Acquisition–IHS Domain

If your site is on the IHS domain, to acquire your SSL certificate:

- 1. Click Start | Administrative Tools | Internet Information Services (IIS) Manager.
- 2. Click the server name. The IIS Manager dialog (Figure 4-1) displays.

3. In the center panel, double-click **Server Certificates** in the **Security** section (near the bottom of the panel).



Figure 4-1: Internet Information Services (IIS) Manager

4. In the Actions panel (on the right), click Create Certificate Request (Figure 4-2).



Figure 4-2: Internet Information Services (IIS) manager–Server Certificates

- 5. The **Request Certificate Wizard** displays.
- 6. In the **Distinguished Name Properties** dialog, enter the information as follows:
 - **Common Name**. The name through which the certificate will be accessed (usually the fully qualified domain name of the machine).
 - **Organization**. The legally registered name of your organization or company.
 - **Organizational unit**. The name of your department within the organization (e.g., IHS).
 - **City/locality**. The city in which your organization is located.
 - **State/province**. The state in which your organization is located.
 - **Country/region**. The two-character Country code.

Request Certificate		? ×
Distinguished	Name Properties	
Specify the required informati as official names and they car	on for the certificate. State/province and City/locality must be specified not contain abbreviations.	
Co <u>m</u> mon name:	l ihs.gov	
Organization:	HHS	
Organizational <u>u</u> nit:	IHS	
City/locality	Albuquerque	
State/province:	NM	
Country/ <u>r</u> egion:	US	
	Previous <u>N</u> ext Einish Cano	:el

Figure 4-3: Request Certificate Wizard–Distinguished Name Properties

7. Click **Next**. The **Cryptographic Service Provider Properties** dialog (Figure 4-4) displays.

Request Certificate	?×
Cryptographic Service Provider Properties	
Select a cryptographic service provider and a bit length. The bit length of the encryption key determines the certificate's encryption strength. The greater the bit length, the stronger the security. However, a greater bit length may decrease performance.	
Cryptographic service provider:	
Microsoft RSA SChannel Cryptographic Provider	
Bit length:	
2048	
	1
Ødigicert' Previous Next Enish Ca	Incel

Figure 4-4: Request Certificate Wizard–Cryptographic Service Provider Properties

- 8. Leave both settings at their defaults:
 - Cryptographic service provider: Microsoft RSA SChannel Cryptographic Provider.
 - Bit length: 2048.
- 9. Click Next. The File Name dialog (Figure 4-5) displays.

Request Ce	rtificate			? ×
	File Name			
Specify th authority	e file name for the certificate reques for signing.	st. This information ca	an be sent to a certific	ation
Specify a	file name for the certificate request:			
C:\inetpu	b\ECQM\scr.txt			
		Duraufaura	New Train	
		Previous	Next Finis	

Figure 4-5: Request Certificate–File Name dialog

10. Type a path and file name for the certificate request file.

Note:	Make note of the chosen file name and the save location.
	You will need to open this file as a text file and copy the
	entire body of it (including the Begin Certificate Request
	and End Certificate Request tags) into the online order
	process when prompted.

- 11. Click **Finish** to save the SSL certificate request file.
- 12. Contact the IHS IT Service Desk to request the SSL Certificate in CER format for the ECQM Application. A certificate will be issued and e-mailed to the originator of the request. Once the certificate is received, proceed with the ECQM installation as described in Section 5.0 through Section 6.0.

4.1.2 SSL Certificate Acquisition–Non-IHS Domain

If the site is not on the IHS domain, the steps for acquiring an SSL certificate will vary, depending on the certificate provider. Several vendors (e.g., GoDaddy, Thawte, and Verisign) provide SSL certificates, and the process for acquiring the certificate is different for each.

Follow the steps provided by the SSL certificate vendor to acquire an SSL certificate and proceed to the ECQM installation instructions.

5.0 ECQM Application Server Installation and Configuration

5.1 Set up RavenDB

ECQM application requires RavenDB to store data.

5.1.1 Prerequisites

- Windows PowerShell 5.1 or later is required by the RavenDB setup. This step is discussed in detail in Section 2.3.
- Visual C++ 2015 x64 is required to complete the setup for the CqmReference database in Section 5.1.8.

5.1.2 Upgrade Existing RavenDB

If an earlier version of ECQM is installed and RavenDB already exists, follow these steps:

- 1. Go to Windows Services and stop the RavenDB Windows service.
- 2. Navigate to the **RavenDB** folder.
- 3. Ensure you do **not delete** your actual data, which is contained in folders like **RavenData**.
- 4. Navigate to the Server folder.
- 5. Delete everything from the **Server** folder except the following files:
 - settings.json
 - settings.default.json
 - license.json
- 6. Do not overwrite or delete configuration files like settings.json.
- 7. Do not delete your certificate files (ending with .pfx or .pem).
- 8. If you have a license.json file:
 - Open the file and copy its content.
 - Visit <u>RavenDB License Upgrade</u> and paste the content in the Upgrade License box.
 - Click Upgrade License.

- Once the license is upgraded, copy the new content and replace it in your license.json file.
- 9. Extract the ecqm0700_RavenDB.zip file.
 - Go to the extracted **server** folder and copy all its content to your **Server** folder.
 - Ensure you do not overwrite any settings, license, or certificate files.

10. Restart the RavenDB service from Windows Services.

5.1.3 Existing RavenDB Backup

If the site has an earlier version on ECQM locally installed, it is recommended to take backups of the following databases:

- 1. ecqm.identity (contains user settings)
- 2. *ecqm.config* (contains site and teams' settings)

Please ignore these steps if the site prefers to register site, teams, and users from scratch.

Use the followings steps to take backups of each database:

- 1. Open the **RavenDB portal** in Chrome using the URL <u>http://127.0.0.1:27019</u>.
 - a. Some sites may have a custom port (i.e., 27018) for the RavenDB.
- 2. Select **Databases** from the left menu.
- 3. Select database ecqm.config.
- 4. Click the **Tasks** icon on the left panel.
- 5. Click on the Tasks icon on the left menu.



Figure 5-1: Creating backups of the database

- 6. Click Export Database.
- 7. User must click on 'Export Database' button at the bottom and then the Windows File directory (dialog) is shown.



Figure 5-2: Exporting the database

8. Repeat the same steps for **ecqm.identity** database.

5.1.4 Create and Load Directory

- 1. Create a directory named **RavenDB**, preferably **C:\RavenDB**\, to unzip the downloaded RavenDB zip package.
- 2. Unzip the downloaded ecqm0700_RavenDB.zip into the folder created in previous step.

		\times
~	Extract Compressed (Zipped) Folders	
	Select a Destination and Extract Files	
	Files will be extracted to this folder:	
1	C:\RavenDB Browse	
	☑ Show extracted files when complete	
	Extract Cance	I

Figure 5-3: Creating a directory to unzip file

-> · ↑ 📙	> This	s PC > OSDisk (C:) > RavenDB		✓ ひ Search Ra	venDB	
- Oviek and a		Name	Date modified	Туре	Size	
Deckton		RavenData	12/10/2018 3:30 PM	File folder		
Desktop		Server	12/10/2018 3:30 PM	File folder		
Downloads	R	acknowledgements	11/19/2018 2:22 PM	Text Document	3 KB	
Documents	*	LICENSE	11/19/2018 2:22 PM	File	15 KB	
Pictures	A	readme	11/19/2018 2:22 PM	Text Document	2 KB	
Work	#	📄 run	11/19/2018 2:30 PM	Windows PowerS	12 KB	
bit9prog	*	📄 runtime	11/19/2018 2:30 PM	Text Document	1 KB	
Tickets	*	isetup-as-service	11/19/2018 2:30 PM	Windows PowerS	14 KB	
447935						
builds						
docs						
install stuff						
OneDrive						
This PC						
Network						

Figure 5-4: File location

3. Make sure the LOCAL SERVICE account has full access on RavenDB folder (Figure 5-5).

퉬 Program Files	📔 RavenDB Properties 🛛 🗙 🗙	1
鷆 Program Files (x86)	General Sharing Security Province Versions Customize	
📙 RavenDB	deneral sharing cooking revious versions customize	
퉬 Users	Object name: C:\RavenDB	Е
indows 📃	Group or user names:	L
🐨 setup 🛛 📔 Pe	rmissions for RavenDB 🛛 🔺	L
Sec	urity	L
OE	ject name: C:\RavenDB	
		L
	CODE A TOP, OWNER	L
		L
8	SYSTEM	
	Add Bemove	
		L
Pe	rmissions for LOCAL SERVICE Allow Deny	L
	Full control 🛛 🚺 🗖 📥 📔 🗖	L
	Modify	L
	Read & execute	L
	List folder contents	L
Le	arn about access control and permissions	
	OK Cancel Apply	

Figure 5-5: Permission settings

5.1.5 Set up RavenDB as a Service

This process requires Windows PowerShell 5.1 or later. Refer to Section 2.3 for guidance.

1. Once PowerShell 5.1 or later has been installed, open **PowerShell** in administrator mode.

Programs (3)			
🜌 Windows PowerShell	_		
🛃 Windows PowerShell (:	T Open	•	
🛃 Windows PowerShell M	Open file location		
Control Panel (7)	- 🌍 Run as administrator		
Power Options	Edit with Notepad++		

Figure 5-6: Administrator Mode

- 2. Use the command **\$P\$VersionTable** to confirm the PowerShell version is 5.1.x.
- 3. Using the **cd C:\RavenDB**\ command, set the directory where the RavenDB zip package is unzipped.

Administrator: Windows PowerShell				
PSVersion	5.1.16299.785			
PSEdition	Desktop			
PSCompatibleVersions	{1.0, 2.0, 3.0, 4.0}			
BuildVersion	10.0.16299.785			
CLRVersion	4.0.30319.42000			
WSManStackVersion	3.0			
PSRemotingProtocolVersion	2.3			
SerializationVersion	1.1.0.1			
PS C:\WINDOWS\system32> cd C	:\RavenDB\			

Figure 5-7: Setting the directory

- 4. Set PowerShell execution policy to Unrestricted. Run the command Set-ExecutionPolicy unrestricted.
- 5. Type A at the next prompt.

PS C:\RavenDB> set-ExecutionPolicy unrestricted
Execution Policy Change The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose
you to the security risks described in the about_Execution_Policies help topic at http://do.microsoft.com/fwlink/?LinkID=135120. Do you want to change the execution policy?
[Y] Yeş [A] Yeş to Allî [N] No [L] No to All [S] Suspend [?] Help (default is "N"): A 🔫 💶

Figure 5-8: Set PowerShell execution policy to Unrestricted

6. Run the command .\setup-as-service.ps1.



Figure 5-9: .\setup-as-service.ps1 command

- 7. Note the URL for RavenDB: <u>http://127.0.0.1:27019</u>.
- 8. Set PowerShell execution policy to **Restricted**. Run the command **Set-ExecutionPolicy Restricted**.
- 9. Type A at the next prompt.



Figure 5-10: Set PowerShell execution policy to Restricted

5.1.6 Verify RavenDB Version

This process is to make sure that RavenDB is installed for the required version.

- 1. Open RavenDB portal in Chrome using the URL <u>http://127.0.0.1:27019.</u>
- 2. Verify the **RavenDB** version on right bottom corner of browser; version should be **6.2.xxx**.



Figure 5-11: RavenDB Version

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5.1.7 Register RavenDB License (If Expired)

Warning: In the RavenDB studio, on the right bottom corner, the user should be able to see the registration status. If the license is expired, use the following steps.



Figure 5-12: Register license dialog-expired license notice

- 1. Go to the **RavenDB Web site** using the URL <u>https://ravendb.net/license/request/community.</u>
- 2. Fill in the **form** using the organization Email address and submit the information.

RavenDB will provide the license key via the provided Email address.

- 3. Activate using License Key:
 - a. Open **RavenDB portal** in Chrome using the URL <u>http://127.0.0.1:27019.</u>
 - b. Go to the License Information tab in the RavenDB studio.
 - c. Click the **Register License** button.
 - d. Paste your License Key inside the textbox.

- e. Click Submit.
- f. In the **RavenDB Studio**, on the bottom-right corner, you should be able to see the registration status.

5.1.8 Set up ecqm.reference.2024 Database

- 1. Open RavenDB portal in Chrome using the URL <u>http://127.0.0.1:27019</u>.
- 2. Delete the **Database** named **ecqm.reference.2024** if exists.
- 3. Select **Databases** from the left menu and click **New Database**.
- 4. Type database name ecqm.reference.2024 and click the Create button.



Figure 5-13: Naming and creating the database

Strange Strange		• *	DATABASE NAME	REPUGATION * SHATOING Data Directory	DATA DIRECTORY	
R Detaines real Primesed	Replication & Sharding locin production of an interved data additive, and architectured database receivery and Other is shorting?	rendstiller. Antiller.	🗷 Use sen	er directory Enter database directory		
 Available roder Replication Factor T 				 → PATH C:\bttlprog\dev\ecqn5M00_ltaver08\Vlaver0eta\Detabases\ecqn.reference.2024 > FREE SPACE → TOTAL SPACE 222.011 GBytes 470.095 GBytes 		
	Data search bin separatest	ander mensently the last of the state of the At Galacia County (State of the	+ Back			

Figure 5-14: Replication & Sharding and Data Directory windows

5. Once the database is created, it will display the **ecqm.reference.2024** database information.

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6. Select the **ecqm.reference.2024** database. Click the **Tasks** button on the left pane and then select **Import Data** button.

	RavenDB	E ecqm.reference.2024 🗸 🤗					• •
• (Tasks <	New document					9, Guery 🗮 Display -
•	Congoing Tasts Froor Data Congoing Tasts Congo Tasta Congo Tasta Congo Tasta		Change Vector	Last Modified	Collection	P	

Figure 5-15: Import Data dialog

7. Click the **Browse** button on the **Import Data** screen and select the **ecqm.reference.2024 09-10.ravendbdump** file found in the **ecqm0700** unzipped folder.



Figure 5-16: Import Database dialog.

- 8. Click the Import Database button as show in Figure 5-16.
- 9. The below 'Database Import' dialog is displayed during the Import process > User must click on 'Close' button upon completion.

Database import December 3, 2024 2:09 PM					Time elapsed: 00:00:01 🗙		
		STATUS	READ	SKIPPED	ERRORS		
	Database Record	 Processed 					
	Documents	✓ Processed	35,188	0			
	Attachments	 Processed 	-				
	Counters	 Processed 	0	0			
	TimeSeries	 Processed 	0	0			
	Tombstones	Skipped					
	Revisions	✓ Processed	0	0			
	Attachments	 Processed 	0				
	Conflicts	Y Processed	0				
	Indexes	✓ Processed					
	Identities	✓ Processed	0				
	Compare Exchange	✓ Processed	o				
	Compare Exchange Tombstones	🗢 Skipped					
	Subscriptions	✓ Processed	0				
	Time Series Deleted Ranges	🗢 Skipped					
					Show details		
					× Close		

Figure 5-17: Database Import dialog

- 10. Navigate to 'Database' menu option on the left
- 11. Verify the database size and documents as shown in Figure 5-18.

LINE					🕅 Node A	
INO	%	🗖 216.87 MB	9 35,188	₹2	O Up for 29 minutes	尋 Never backed up

Figure 5-18: Database information display

5.1.9 Restore Identity and Config Database

If the site has followed the steps in Section 5.1.2, and taken backups for the **ecqm.identity** and **ecqm.config** databases, repeat the steps from Section 5.1.8 for creating the **ecqm.identity** and **ecqm.config** databases using the backup locations used in Section 5.1.2.

5.2 Set up the ECQM Web Site

- 1. Create an ECQM folder in the C:\inetpub\ directory.
- 2. Unzip distributed ecqm0700.install.zip application bundle into the C:\inetpub\ECQM folder created above.

	rer = Local Disk (Cr) = ipetpub = ECOM =		Search ECOM		
	Br + Local Disk (C:) + Inequal + Local +		Search ECQM	1000-000	
rganize 🔻 Include in lik	orary 🔻 Share with 👻 New folder				
🚖 Favorites	Name *	Date modified	Туре	Size	
🧮 Desktop	📕 af	8/16/2018 4:37 PM	File folder		
Downloads	🌲 ar	8/16/2018 4:37 PM	File folder		
🕍 Recent Places	\mu bg	8/16/2018 4:37 PM	File folder		
libraries	📕 bn-BD	8/16/2018 4:37 PM	File folder		
Documents	📕 cs	8/16/2018 4:37 PM	File folder		
Music	🔒 da	8/16/2018 4:37 PM	File folder		
E Pictures	📕 de	8/16/2018 4:37 PM	File folder		
🛃 Videos	🔒 el	8/16/2018 4:37 PM	File folder		
	📕 es	8/16/2018 4:37 PM	File folder		
Computer	ExportedFiles	8/16/2018 4:37 PM	File folder		
Deta (D:)	📕 🔒 fa	8/16/2018 4:37 PM	File folder		
La baca (biy	\mu fi-FI	8/16/2018 4:37 PM	File folder		
🙀 Network	📕 fr	8/16/2018 4:37 PM	File folder		
	🔰 fr-BE	8/16/2018 4:37 PM	File folder		
	🎉 he	8/16/2018 4:37 PM	File folder		
	🐌 br	8/16/2018 4:37 PM	File folder		
	📕 hu	8/16/2018 4:37 PM	File folder		
	id id	8/16/2018 4:37 PM	File folder		
	🔐 it	8/16/2018 4:37 PM	File folder		
	🏨 ja	8/16/2018 4:37 PM	File folder		
	\mu Iv	8/16/2018 4:37 PM	File folder		
	🔒 nb	8/16/2018 4:37 PM	File folder		
	📕 nb-NO	8/16/2018 4:37 PM	File folder		
	📕 nl	8/16/2018 4:37 PM	File folder		
	🔒 pl	8/16/2018 4:37 PM	File folder		
	🔰 pt	8/16/2018 4:37 PM	File folder		
	🔐 refs	8/16/2018 4:37 PM	File folder		
	\mu ro	8/16/2018 4:37 PM	File folder		
	遇 ru	8/16/2018 4:37 PM	File folder		
	🔒 sk	8/16/2018 4:37 PM	File folder		

Figure 5-19: ECQM application bundle

5.2.1 ECQM Configuration Parameters

- 1. Locate the **appsettings.json** file in the **C:\Inetpub\ECQM** folder.
- 2. Open the **appsettings.json** file in a text editor (e.g., Notepad).

- 3. This file must be edited with caution. Do not add any extra characters, spaces, or enter lines in this file. Also, ensure that all edited values are in double quotes as displayed below.
 - Note: If there are access issues in saving this file after completing the modifications, make a copy of this file and save it to the **Desktop** or **Documents** folder, complete the changes in that file and then copy/paste that file to the **C:\Inetpub\ECQM** folder to overwrite the original file. Alternatively, write permissions could be added to the **C:\Inetpub\ECQM** folder for the current user making the modifications.
- 4. Configure the **default Super Admin user** by filling the **Username**, **FirstName**, **LastName**, and **Email** fields as shown in Figure 5-20.

🔡 apps	settings	.json 🔚 appsettings.json 🔗 🛛
10	-	1
11	-	},
12	Ē	"DefaultSuperAdmin": {
13		"Domain": "dl",
14		"Username": "first.last",
15		"FirstName": "first",
16		"LastName": "last",
17		"Email": "emailAddress"
18	-	},
19	Ę	"PurgeSettings": {
20		"RetentionDays": 90
21	E	},
22	Ē	"DocumentStoreSettings": {
23	Ę	"Urls": [
24		"http://127.0.0.1:27019"
25	-],
26		"CertificatePath": "",
27		"CertificatePassword": ""
28	上	},
29	노	"Serilog": {
30	닉	"MinimumLevel": {
31		"Default": "Information",
32	딕	"Override": {
33		"Microsoft": "Warning"
34	-	}
35	上	},
36	노	"WriteTo": [
37		{
38		"Name"• "File"

Figure 5-20: Configuring the default Super Admin (1)

Note: Figure 5-20 has the IHS D1 directory (credential store) information for authentication. If the site is using another or local directory service (user credential store), modify the highlighted fields as shown in Figure 5-21. Make sure that the **Directory Name** value and **Super Admin Domain** value are the same.



Figure 5-21: Configuring the default Super Admin (2)

- 5. Use the correct port (LDAP) in the directory settings. The default port for Microsoft Active Directory (LDAP) is **389**.
 - a. **Optional**: The **LDAPS** (secure LDAP) parameter can be set to **True** if it is implemented in the directory service; input the correct port for LDAPS.
- 6. The document store settings show the URL for the RavenDB. For a single-tier installation the default value is the correct value.

📄 apps	ettings	.json 📙 appsettings.json 🔗 🗵
10	-]
11	-	},
12	Ē	"DefaultSuperAdmin": {
13		"Domain": "dl",
14		"Username": "first.last",
15		"FirstName": "first",
16		"LastName": "last",
17		"Email": "emailAddress"
18	-	},
19	Ē	"PurgeSettings": {
20		"RetentionDays": 90
21	-	},
22	Ē	"DocumentStoreSettings": {
23	Ē	"Urls": [
24		"http://127.0.0.1:27019"
25	-	1,
26		"CertificatePath": "",
27		"CertificatePassword": ""
28	-	},
29	Ē	"Serilog": {
30	Ē	"MinimumLevel": {
31		"Default": "Information",
32	Ę	"Override": {
33		"Microsoft": "Warning"
34	-	}
35	-	},
36	Ę	"WriteTo": [
37	Ę	{
38		"Name". "File"

Figure 5-22: Configuring the default Super Admin (3)

7. Save and close the **appsettings.json** file.

Note: If there are access issues in saving this file after completing the modifications, make a copy of this file and save it to the **Desktop** or **Documents** folder, complete the changes in that file and then copy/paste that file to the **C:\Inetpub\ECQM** folder to overwrite the original file. Alternatively, write permissions could be added to the **C:\Inetpub\ECQM** folder for the current user making the modifications.

5.2.2 Configure IIS Request Content Length

To configure the IIS Request Content Length:

- 1. Click Start | Administrative Tools | Internet Information Services (IIS) Manager. Select the server name in the IIS Manager Tree.
- 2. Double-click the **Request Filtering** icon as shown in Figure 5-23.

Conternet Information Services (IIS)	Manager								
← → ♥ RPMS									
File View Help									
Connections	Filter:	MS	• 🐨 Go - 1	Show All	Group by: Ar	ea	-		
 ✓ Sites ✓ ✓ 	ASP.NET NET Authorizat Providers	.NET Compilation	NET Error Pages SMTP E-mail	.NET Globalization	.NET Trust Levels	Application Settings	Connection Strings	Machine Key	Pages and Controls
	IIS Authentic ISAPI Filters	Compression Logging	Default Document MIME Types	Directory Browsing	Error Pages	Handler Mappings Request Filtering	HTTP Redirect	HTTP Respon Worker Processes	ISAPI and CGI Restri
	Manageme	nt Feature Delegation	Shared Configurat	Web Platfor					

Figure 5-23: Request Filtering

- 3. Click the Edit Feature Settings link in the Action pane on the right side.
- 4. Set the **Maximum allowed content length (Bytes)** to **100000000** (one hundred million) as shown in Figure 5-24.
- 5. Click OK.

Reque	est Filtering		Alerts (i) File name extensions
se this feature to	configure filtering rules		are blocked. No othe
File Name Ext	tensions 🧭 Rules 🚥	Hidden Segments 🤤 URI 🍠 HTTP Verbs 🍓 Headers 🕐 Query Strings	Actions
File Name Ext File Extension asax ascx master skin browser sitemap config cs csproj .vb .vbproj .vb .vbproj .vb .vbproj .ilcx .resx .resources .mdb .vjsproj .java .java	Allowed Allowed False False	Hidden Segments <table-cell> URL 🖋 HTTP Verbs 🆓 Headers 🕐 Query Strings</table-cell>	Actions Allow File Name Ext Deny File Name Ext Edit Feature Settings Help
ldb dsdgm ssdgm Isad	False False False False		
ssmap	False	OK Cancel 🗸	

Figure 5-24: Edit Request Filtering Settings

5.2.3 Add the ECQM Application Pool

To add the Application Pool:

1. Return to the **IIS Manager** opened in Section 5.2.2 and browse to **Application Pools** in the tree structure below your IIS node as shown in Figure 5-25.



Figure 5-25: IIS Manager browsed to Application Pools

2. Right-click **Application Pools** and select **Add Application Pool**. The **Add Application Pool** dialog (Figure 5-26) displays.

dit Application Pool	? 2
Name:	
ECQM	
.NET Framework version:	
No Managed Code	-
Managed pipeline mode:	
Integrated I	
Start application pool immediate	ely
ок	Cancel
	Carlest

Figure 5-26: Edit Application Pool dialog

- 3. In the Name field, type the name of the application pool (ECQM).
- 4. In the .NET Framework version: field, select No Managed Code.
- 5. Click OK.
- 6. Right-click the newly created application pool in **IIS Manager** and click **Advanced Settings**. A dialog similar to Figure 5-27 displays.

٧ð	anced Settings		Ŷ
Ξ	(General)		-
	.NET Framework Version	¥4.0	
	Managed Pipeline Mode	Integrated	
	Name	MoonwalkNew	
	Queue Length	1000	
	Start Automatically	True	
	CPU		
	Limit	0	
	Limit Action	NoAction	
	Limit Interval (minutes)	5	
	Processor Affinity Enabled	False	
	Processor Affinity Mask	4294967295	
Ξ	Process Model		
	Identity	ApplicationPoolIdentity	
	Idle Time-out (minutes)	20	
	Load User Profile	False	
	Maximum Worker Processes	1	
	Ping Enabled	True	
	Ping Maximum Response Time (second	90	
	Ping Period (seconds)	30	
	Shutdown Time Limit (seconds)	90	
	Startup Time Limit (seconds)	90	
7	Process Ornhaning		
Id [ic sh	Ile Time-out (minutes) deTimeout] Amount of time (in minutes) iuts down. A worker process is idle if it quests are received.	a worker process will remain idle befor is not processing requests and no new	e it
		OK Canc	ei

Figure 5-27: Application Pool Advanced Settings

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- 7. Change the Idle Time-out value to 15 minutes.
- 8. Change the **Identity** value to **LocalSystem**.
- 9. Click **OK** to save the changes and close the dialog.

5.2.4 Add the ECQM Site

To add the new Web Site:

1. Right-click **Sites** in the **Connections** pane of the IIS Manager and select **Add Web Site**. The **Add Web Site** dialog (Figure 5-28) displays.

Add Web Site	? ×
Site name: Application pool:	
ECQM ECQM	Select
Content Directory	
Physical path:	
Pass-through authentication	
Connect as Test Settings	
Binding	
Type: IP address: Port:	
http 🔽 All Unassigned 🔽 470	19
Host name:	
Example: www.contoso.com or marketing.contoso.com	
Start Web site immediately	
OK	Cancel

Figure 5-28: Add Web Site dialog

- 2. In the Site name field, type ECQM.
- 3. Click **Select** and select the ECQM application pool created in the previous steps.
- 4. In the **Physical Path** field, browse to the **C:\inetpub\ECQM** folder created in Section 5.2. Be aware that the location will be different if the folder was created on a different drive.
- Set the port number in the **Binding** section. The recommended port for ECQM is 47019. The port may need to be added to Firewall exceptions if firewall is enabled.
- 6. Click **OK** to save the changes and close the **Add Web Site** dialog.

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5.2.5 Configure the ECQM Connection Timeout

To configure the ECQM connection timeout:

- 1. Select the ECQM site under the Sites tree control.
- 2. Click Limits on the right side under Configure.
- 3. Set the **Connection time-out** to **900** as shown in Figure 5-29.
- 4. Click OK.

) Internet Information Services (II	i) Manager	
↔ ♦	► Sites ► ECQM ►	
File View Help		
Connections	ECQM Home Fitte: <li< th=""><th>Actions Actions Edit Permissions Edit Stee Bindings Basic Settings View Applications View Virtual Director Manage Website Restart Start Stop Browse Website Browse *:80 (http) Advanced Settings Configure Limits Winstall Application Fr Install Application Fr</th></li<>	Actions Actions Edit Permissions Edit Stee Bindings Basic Settings View Applications View Virtual Director Manage Website Restart Start Stop Browse Website Browse *:80 (http) Advanced Settings Configure Limits Winstall Application Fr Install Application Fr

Figure 5-29: Connection time-out

5.3 Install the SSL Certificate

Note: Follow this section if SSL configuration is required.

To install the SSL server certificate acquired in Section 4.1:

- 1. From the Windows Start menu, select Administrative Tools.
- 2. Select Internet Information Services (IIS) Manager.
- 3. Click the server name in the left panel.
- 4. Double-click **Server Certificates** in the **Security** section (near the bottom of the panel).

DEMOSE	RVER	Home	•				
Group by: Area	FIP SSC Settings	• 🐨 • FIP User Isolation					4
Authentication	9 Compression	Default	Directory Browsing	Error Pages	Failed Request Tracing Rules	Handler Mappings	
HTTP Redirect	HTTP Respo	ISAPI and CGI Restrictions	ISAPI Filters	Logging	MIME Types	Modules	
Output Caching	Serves Tes	Worker Processes					
	Group by: Area Filtering IIS Authentication C HTTP Redirect	Group by: Area FIP Request FIP SS Filtering Settings IIS Authentication Compression HITP Redirect HITP Respo Output Caching	Group by: Area FIP Request FIP Request FIP Request FIP SSL FIP Der Filtering Settings Settings FIP Der FIP Der FIP Der FIP Der FIP Der FIP SSL FIP Der FIP SSL FIP Der FIP SSL FIP Der FIP SSL FIP Der FIP SSL FIP SSL	Group by: Area FIP Kequest FIP Kequest FIP SSL Filtering Authentication Compression HTTP Redirect HTTP Respo Output Caching DemosERVER FIP Def FIP De	DEMOSERVER FIOITIC Group by: Area PIP Request PIP SSL Filtering Settings Isolation II5 Authentication Compression Default Directory Error Pages HTTP Redirect HTTP Respo ISAPI and CGI ISAPI and CGI Uput Caching Vorker Processes	DEMOSERVER FIOTTIC Group by: Area Image: Comparison of the second secon	DEMOSERVER FIOITIE Group by: Area Image: Composition of the second seco

Figure 5-30: Internet Information Services (IIS) Manager

5. In the Actions panel (on the right), click Complete Certificate Request. The Complete Certificate Request dialog displays.

e 3	Internet Information Services (IIS) Manager	_ 0 X
©) •	þ.	🖬 🗟 🔂 😡
File View Help		
Connections Connections Start Page Application Pools Sites b Confault Web Site	Use t Specify Certificate Authority Response File Nam Complete a previously created certificate request by retrieving the file that contains the certificate authority's response. File name containing the certification authority's response: Image: Image	C Actions Import Create Cardificate Request Create Domain Certificate. Create Self-Signed Certificate. Enable Automatic Rebind of Renewed Certificate P Help
<	C M Cancel	

Figure 5-31: Complete Certificate Request dialog

Note: The Complete Certificate Request must be completed on the same system where the Certificate Signing Request was generated (Section 4.1.1, Step 11) to ensure the private key is correctly associated with the new certificate.

- 6. Click the **ellipses** button (...) to browse to the location where the server certificate file acquired in Section 4.1 was saved.
- 7. In the **Friendly name** field, type the **friendly name** for the certificate. This name is intended for use for management of certificate stores on the server.
- 8. In the Select a certificate store for the certificate field, verify Personal Store is selected.
- 9. Click **OK** to complete the procedure.

5.4 Configure the SSL Certificate

Note: Follow this section if SSL configuration is required.

To configure the SSL certificate:

- 1. In the **IIS Manager** window, select the **name** of the server where the certificate was installed.
- 2. Under Sites, select the site to be secured with the SSL certificate.
- 3. In the Actions pane, click Bindings.
- 4. Click Add.
- 5. In Add Site Binding:
 - a. For **Type**, select **https**.
 - b. For IP address, select All Unassigned, or the IP address of the site.
 - c. For **Port**, specify a port for SSL, the default is **443**. The recommended port for ECQM is **47019**.

Note: When installing SSL with HTTPS, first remove any previous site bindings for HTTP. The **Site Bindings** dialog as shown in Figure 5-30 will indicate whether there any HTTP site bindings and allow their removal.

d. Select the SSL certificate just installed. Click OK.

Start Page	Filter:	🔹 🏭 Go 🕞 😽 Show All 🛛 Group by:	Ŧ	Edit Permissions
Application Pools Sites Default Web Site ECOM]	Edit Site Bindings Basic Settings View Applications
	Site Bindings		<u>?×</u>	View Virtual Directories
	Type Host Name	Port IP Address Binding	Add	Manage Web Site
	nttps	4/019 **	Edit	Chart Chart
Edit 9	Site Binding	? ×	Remove	Stop
Tyr htt	pe: IP address: tps II All Unassigned	Port:	Browse	Browse Web Site Browse *:47019 (https)
Ho	ist name:			Advanced Settings
551	L certificate:			Configure Limits
	ihs.gov	View		Help Opline Help
		OK Cancel		

Figure 5-32: Edit Site Binding dialog

6. Click Close.

7. Close Internet Information Services (IIS) Manager.

The SSL Certificate is now configured. Visit the Web site via an HTTPS connection, using the domain name, not the IP address, to verify the installation.

6.0 Initiate the ECQM System

6.1 Reset the ECQM Application

To reset the ECQM application:

1. Stop ECQM Web site.



Figure 6-1: Manage Web Site-Stop

2. Stop ECQM Web site application pool.

Sei Internet Information Sei	rvices (IIS) Manager				
()	MAP 🕨 Applicati	on Pools			🖸 🖸 🖬 🖬 🖬 🖬
File View Help					
Connections Start Page Start Page Start Page Stes Connection Pool Stes Connection Pool Stes Ste	Application application pools on the are associated with work one or more applications among different applicat Filter: Name ASP.NET v4.0 ASP.NET v4.0 Cl Classic .NET App DefaultAppPool ECQM MoonwalkA MoonwalkB MoonwalkC	on Pool and manage server. App ver process , and provisions. Status Started Started Started Started Started Started Started Started Started Started	S a the list of olication pools es, contain de isolation GO .NET Frame. v4.0 v4.0 v2.0 v2.0 v4.0	Act	tions Add Application Pool Set Application Pool Defaults Application Pool Tasks Start Stop Recycle Edit Application Pool Basic Settings Recycling Advanced Settings Rename Remove View Applications Help Online Help
Ready					S.:

Figure 6-2: Application Pool Tasks–Stop

3. **Start** the ECQM Web site application pool.



Figure 6-3: Application Pool Tasks-Start

4. **Start** the ECQM web site.



Figure 6-4: Manage Web Site-Start

6.2 Launch the ECQM Application

To launch ECQM:

- 1. Open Google Chrome.
- 2. In the Address bar, enter the **IP address** of your Windows application server and the **port number**.
 - For sites using SSL: https://domain_name:47019
 - For sites not using SSL: http://ip_address:47019
- 3. Wait for the ECQM Login screen to load.

Login Sign In to your account User Name	Warning
a d1\ ✓ jsl	This system is provided for Government-authorized use only. Unauthorize improper use of this system is prohibited and may result in disciplinary ar and/or civil and criminal penalties. At any time, and for any lawful Govern purpose, the government may monitor, record, and audit your system u
▲ ••••••	and/or intercept, search and seize any communication or data transmin stored on this system. Therefore, you have no reasonable expectation of pri Any communication or data transming or stored on this system may be discl or used for any lawful Government purpose.

Figure 6-5: Login screen

Note:	It takes approximately three minutes for ECQM
	initialization after the application is accessed for the first
	time. Wait three minutes before attempting to login for the
	first time.

- 4. Confirm that the drop-down has the **domain/directory** name selected as configured in the **ECQM Configuration Parameters** section.
- 5. Login using the **DefaultSuperAdmin** credentials as configured in Section 5.2.1.

Note: At this stage, the application only authorizes the Default Super Admin user. Once the Admin logs in, he/she can add additional users as per the user manual.

- 6. Click Login. For further steps refer to the user manual.
- 7. Verify ECQM version is ECQM 7.0.0.



Figure 6-6: ECQM Version

Appendix A Disable Logging in IIS Manager

The Internet Information Services (IIS) manager is set up by default with a Logging feature which allows it to capture certain types of requests to log files in the IIS installation folder. We recommend disabling this logging feature for the ECQM web sites as it may result in storage issues if the log file is not maintained or monitored.

The following steps show how to disable the Logging feature for each ECQM Web site setup at your site. This information can also be found on the Microsoft web site at:

https://technet.microsoft.com/en-us/library/cc754631%28v=ws.10%29.aspx.

- 1. From the Windows Start menu, select Administrative Tools.
- 2. Select **Internet Information Services (IIS) Manager** to display the IIS Management Console.



Figure A-1: Opening Internet Information Services (IIS) Manager

- 3. Select the ECQM Web site in the left pane.
- 4. Double-click Logging to display the Logging dialog.

Connections					
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Start Page	Filter:		• 🗿 Go 🔹 🖣	Show All G	roup by:
Application Pools	115				
Sites Site Site Site ECQM	8	Ð	0	T	404
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	Handler Mappings	HTTP Redirect	HTTP Respo	ISAPI Filters	Logging
		4		3	9
	MIME Types	Modules	Output Caching	Request Filtering	SSL Settings
	Manageme	nt			
	Configuration Editor				

Figure A-2: IIS Management Console

5. Click **Disable** in the **Actions** pane.

Connections	Logging Use this feature to configure how IIS logs requests on the Web server. One log file per: Site Log File Format: W3C Select Fields Directory: Encoding: UTF-8 Cog File Rollover Select He method that IIS uses to create a new log file. © Schedule: Daity © Maximum file size (in bytes): © Do not create new log files	Actions Apply Cancel Disable View Log Files Help Online Help
	Do not create new log files Use local time for file naming and rollover	

Figure A-3: Logging window

An example of a disabled logging window is shown in Figure A-4.

File View Help		
Connections	Logging Use this feature to configure how IIS logs requests on the Web server. One log file per: Image: Ima	Actions Apply Cancel Enable View Log Files Help Online Help

Figure A-4: Disabled Logging window

Acronym List

Acronym	Term Meaning
eCQM	electronic Clinical Quality Measures
GUI	Graphical User Interface
HTTPS	HyperText Transfer Protocol Secure
IHS	Indian Health Service
IIS	Internet Information Service
IP	Internet Protocol
QRDA	Quality Reporting Document Architecture
SSL	Secure Sockets Layer
URL	Uniform Resource Locator

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

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