

# **Department of Veterans Affairs**

## **Maternity Tracker (MT) Project**



## **2012 Dashboard Installation Manual**

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Version 3.0   February 2017



## Revision History

Date	Page	Description of Change	Author
02/21/2017	All	Updated manual for 2012, version 3.0.	TE
09/15/2016	All	Updated manual for 2012.	TE

# Table of Contents

<b>Revision History .....</b>	<b>i</b>
<b>Table of Contents .....</b>	<b>ii</b>
<b>List of Figures .....</b>	<b>iv</b>
<b>Introduction .....</b>	<b>1</b>
Overview of Software .....	1
<b>Minimum Hardware/Software Requirements .....</b>	<b>2</b>
Minimum Hardware Requirements .....	2
Server (Application) .....	2
Client/Training Room Hardware (Desktop PC) .....	2
Network Connection .....	2
Minimum Software Requirements .....	2
Server .....	2
Client/Training Room (Desktop PC) .....	2
<b>Required KIDS File .....</b>	<b>3</b>
<b>Vista Menu Option Requirements .....</b>	<b>4</b>
<b>Triggers for Dashboard .....</b>	<b>5</b>
<b>Directory Information .....</b>	<b>6</b>
Directory Structure .....	6
Sharing & Security Permissions .....	7
Sharing .....	7
Security .....	10
<b>MTEExchangeTemporary Encryption .....</b>	<b>13</b>
<b>Folder/File Mapping .....</b>	<b>14</b>
X:\MATERNITY TRACKER .....	14
<b>Vista Configuration .....</b>	<b>15</b>
TIU Document Titles .....	15
Reminder Dialogs .....	15
DSIO KIDS Install .....	15
Verification that the TIU Document Titles Were Extracted .....	17
Assign Secondary Menu Option .....	18
Schedule the Task to PUSH Discreet Data .....	18
Set Trigger Parameters .....	20
Configure Triggering .....	20
Configure Consults .....	21
Configure Labs .....	21
Configure Problems .....	22
<b>MCC Dashboard – System Setup and Configuration .....</b>	<b>24</b>
Verify the IIS Role .....	24
Install the Web Platform Installer .....	29
Install msdeploy.exe (Web Deploy X.X) Using Web Platform Installer .....	30
Copy Installation Files to Any Local Folder on the Server .....	30
Install the Dashboard Application by Running the Following Command from an Administrative Command Prompt .....	31
Install and Bind an SSL Certificate to the Web Application Using IIS Manager .....	35
Web.config Configuration .....	41
Server Manager Configuration .....	41

Manual Configuration .....	43
<b>Rollback Instructions .....</b>	<b>45</b>
User's Access to Maternity Tracker .....	45
Scheduled Task .....	45
Triggering of Consults, Labs & Problems .....	45
Dashboard's access to VistA .....	46

## List of Figures

Figure 1: VMS Directory Format .....	1
Figure 2: Maternity Tracker Properties .....	7
Figure 3: Advanced Sharing .....	8
Figure 4: Permissions for Maternity Tracker .....	9
Figure 5: Maternity Tracker Properties - Security .....	10
Figure 6: Permissions for MTExchangeTemporary .....	11
Figure 7: Select Users or Groups .....	11
Figure 8: Select Users or Groups - Check Names (IIS_IUSERS) .....	12
Figure 9: Permissions for IIS_USRS - Full Control .....	12
Figure 10: Problem List to Search .....	22
Figure 11: Dashboard .....	24
Figure 12: Before You Begin .....	24
Figure 13: Installation Type .....	25
Figure 14: Server Selection .....	25
Figure 15: Add Roles and Features Wizard .....	26
Figure 16: Features .....	26
Figure 17: Web Server Role (IIS) .....	27
Figure 18: Web Server Configuration .....	27
Figure 19: Management Tools .....	28
Figure 20: Installation Progress .....	29
Figure 21: Web Deploy 3.6 .....	30
Figure 22: Run as Administrator .....	31
Figure 23: Command Prompt .....	31
Figure 24: Artemis Deploy .....	32
Figure 25: CDA Properties .....	33
Figure 26: cda Properties - Security .....	34
Figure 27: Permissions for cda .....	34
Figure 28: Server Manager .....	35
Figure 29: Server Certificates .....	36
Figure 30: Site Bindings .....	36
Figure 31: Add Site Binding .....	37
Figure 32: Site Bindings .....	37
Figure 33: MCCDashboard Web Site .....	38
Figure 34: Browse *.443 (https) .....	38
Figure 35: Certificate Error .....	39
Figure 36: Security Alert .....	39
Figure 37: Maternity Tracker Web Page .....	40
Figure 38: Server Manager Configuration .....	41
Figure 39: Server Manager .....	42
Figure 40: Internet Information Services (IIS) Manager .....	42
Figure 41: Collection Editor - appSettings/ .....	43
Figure 42: Web.config .....	43

# Introduction

## Overview of Software

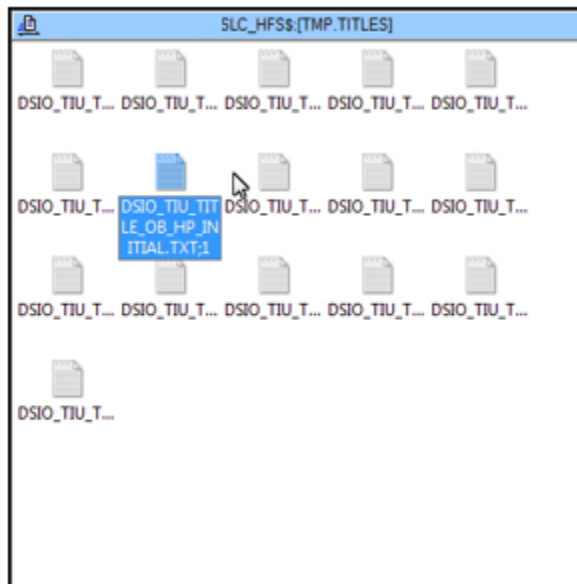
The Maternity Tracker is a set of applications and enhancements which facilitate tracking of maternal care in the perinatal period. The purpose of the system is to provide the Maternity Care Coordinator (MCC) and other key providers with the tools necessary to ensure that the veteran receives optimal care during pregnancy. The system also collects relevant data that is necessary for program tracking and analysis. The system consists of several components including a web-based dashboard application, and a patient portal prototype.

**Note:** In general, the installation should be followed in the order in which it is structured in this manual. However, the MCC Dashboard can be installed once a server and directory structure have been configured.

**\*\*Note:** The areas including **MTEExchangeTemporary Encryption** and **MCC Dashboard – System Setup and Configuration** are not complete with respect to a site's Security Policy. For this reason, **IT IS THE RESPONSIBILITY OF THE SITE** to configure these in compliance with their Security Policy.\*\*

\*\*\* In addition, this manual utilizes a windows structure for the directory format, however this will depend on the underlying platform. For example, below is an illustration of VistA being hosted on a VMS machine  
\*\*\*

**Figure 1:VMS Directory Format**



# Minimum Hardware/Software Requirements

## **Minimum Hardware Requirements**

### **Server (Application)**

- 2.3 GHz Processor Speed or faster, 64-bit (Recommended – 4 Core +).
- 8.0 GB of Memory (RAM) or higher.
- 100.0 GB C:\ Partition for the Operating System, Patches, Service Packs, Installation Files, etc.
- 60.0 GB of storage available to install applications (Recommended – Non C:\ Partition).
- 100 Mbps Network Interface Card (Recommended – 1.0 Gbps / Full Duplex).
- CD/DVD input device, Keyboard, Monitor, Mouse.
- Ports 80/443 should be available and open.

### **Client/Training Room Hardware (Desktop PC)**

- 3.0 GHz Processor Speed (or multi core equivalent).
- 4.0 GB of Memory (RAM).
- 20.0 GB of storage available to install applications.
- 100 Mbps Network interface card.
- CD/DVD input device, Keyboard, Monitor, Mouse.
- USB 2.0 Connection.

### **Network Connection**

Minimum network connection to the backbone is 100Mbps. Minimum connection between the Client/ Training room PC and the VISTA share is 100 Mbps (This is only a LAN requirement and does not specify the minimum for a WAN connection).

MCC Dashboard Application **MUST** have access to SLC VA Cache/VistA database by Server Name and Port

## **Minimum Software Requirements**

**Note:** The Dashboard will by default install to the c:\ drive, and is not recommended to be changed.

### **Server**

- Microsoft Windows Server (2008 or 2012) R2, 64-bit.
- Latest service pack, critical updates, and all security patches.
- Adobe Acrobat Reader (Current VA released version, Optional).
- Microsoft Internet Explorer (v9.0 and above).
- SSL Certificate **MUST** be installed and available to be bound to the web application.

### **Client/Training Room (Desktop PC)**

- Microsoft Windows 7, 64-bit.
- Latest service pack, critical updates, and all security patches applied.
- Adobe Acrobat Reader (Current VA released version, Optional).
- RPC Broker 1.1 or higher.
- Microsoft Internet Explorer (v9.0 and above).



## Required KIDS File

**DSIO\_X\_X.KID**

## VistA Menu Option Requirements

Users authorized to use the MCC Dashboard require the following secondary menu option:

**DSIO GUI CONTEXT**

## Triggers for Dashboard

1. Consults - What are the exact names of any consults or consult services pertaining to a new pregnancy?
2. Lab tests - What are the names of labs done for pregnancy (beta HCG, Pregnancy Test, etc.)? These are the test names as they are set up in the Laboratory Test file (60).
3. Problem List - What problems would be entered on the CPRS Problems tab that indicate a new pregnancy? What are the problem descriptions and SNOMED codes?

# Directory Information

## Directory Structure

The following are **Recommended Guidelines** to be performed on the Maternity Tracker Web Server, for the folders and related security to be created prior to the install. A facility may have their own policy for folder shares and their respective permissions.

The **X** in the table is meant to represent the drive chosen to store the Maternity Tracker folder structure. This is **HIGHLY RECOMMENDED** to be a **NON-SYSTEM** folder, off the root of the server.

**Note:** The base of the Maternity Tracker folder structure is specified in this scenario as - “**Maternity Tracker**”, but in actuality it could be any comparable folder.

**Table 1:**

Root Folder	Sub-Folder	Description
X:\Maternity Tracker		The Base of the Maternity Tracker folder structure.
	\Dashboard	Sub-Folder to contain dashboard related files.
	\Documentation	Sub-Folder to contain product documentation files.
	\Updates	Sub-Folder to contain updates.
X:\MTExchangeTemporary		Encrypted folder.

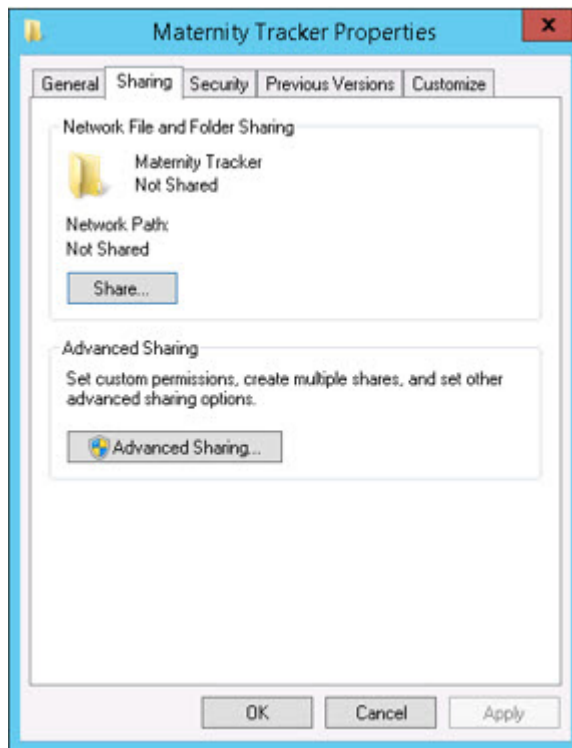
## **Sharing & Security Permissions**

For the **NON-SYSTEM** Folder (X:\), off the root of the server (\\SERVERNAME), the Sharing & Security Permissions are set as follows:

### **Sharing**

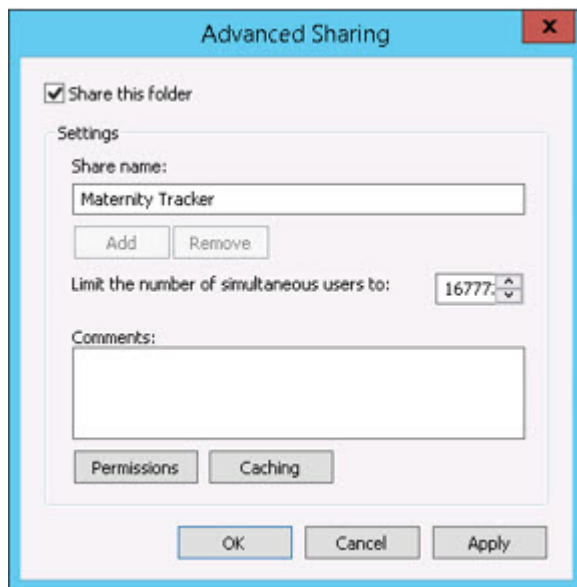
1. Right-click the **Maternity Tracker** folder, then click the **Properties** option.
2. The **Properties** dialog box appears. Click the **Sharing** tab, and then click the **Advanced Sharing** button.

**Figure 2: Maternity Tracker Properties**



3. The Advanced Sharing screen displays. At this point, check the **Share this folder** checkbox, and click the **Permissions** button.

**Figure 3:Advanced Sharing**



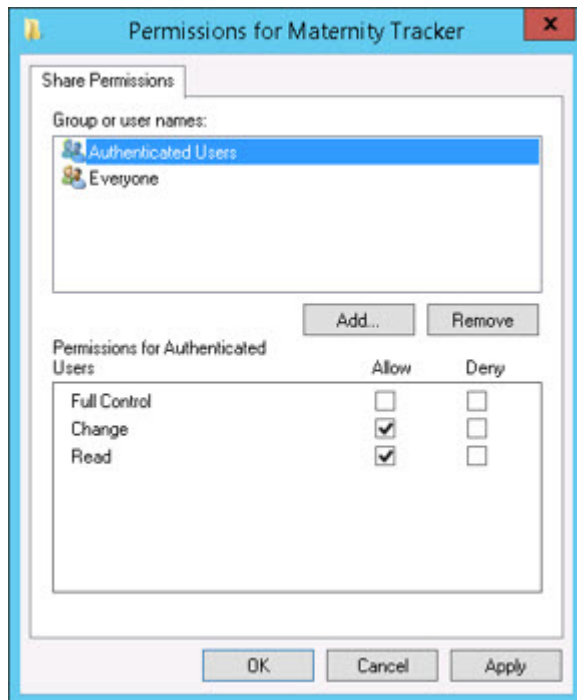
4. The Permissions screen displays. Verify if Authenticated Users is listed in the Group or user names list box.

**Note:** The User/Group added will depend on the Site's Security Policy. It is recommended that the **Authenticated Users** group be utilized.

5. If Authenticated Users is not listed, then click the **Add** button to add the Authenticated Users Group.

6. Click/select **Authenticated Users** in the Group or user names list box, and in the Permissions for Authenticated Users list box, click the **Allow** check boxes for **Change** and **Read**.

**Figure 4:Permissions for Maternity Tracker**



7. Click the **Apply** button, then the **OK** button, and then the **OK** button again, to return to the Properties screen.

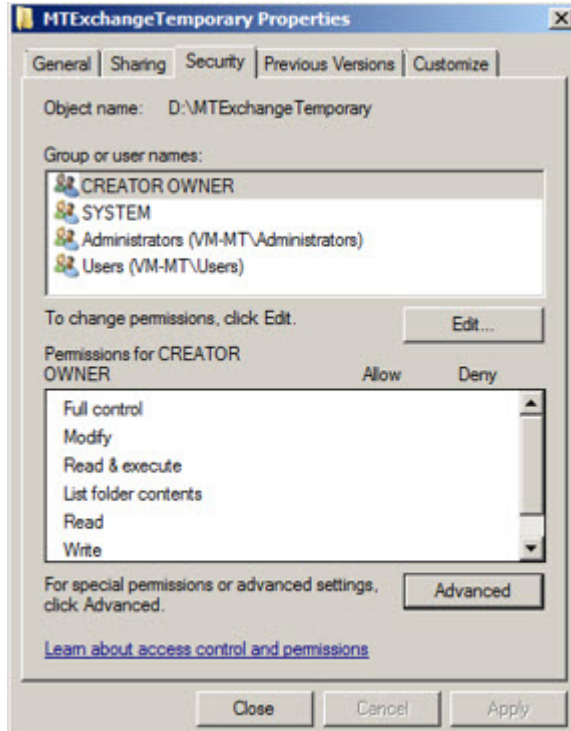
**Note:** Per site security, you may want to remove the **Everyone** group.

## Security

### MTEExchangeTemporary

1. Right click the MTEExchangeTemporary folder, and click **Properties**.
2. From the Properties screen, click the **Security** tab.
3. Verify that the Appropriate Group(s) are listed in the Group or user names list box, and that they have the Appropriate Permissions.
4. Click **Edit** to change permissions.

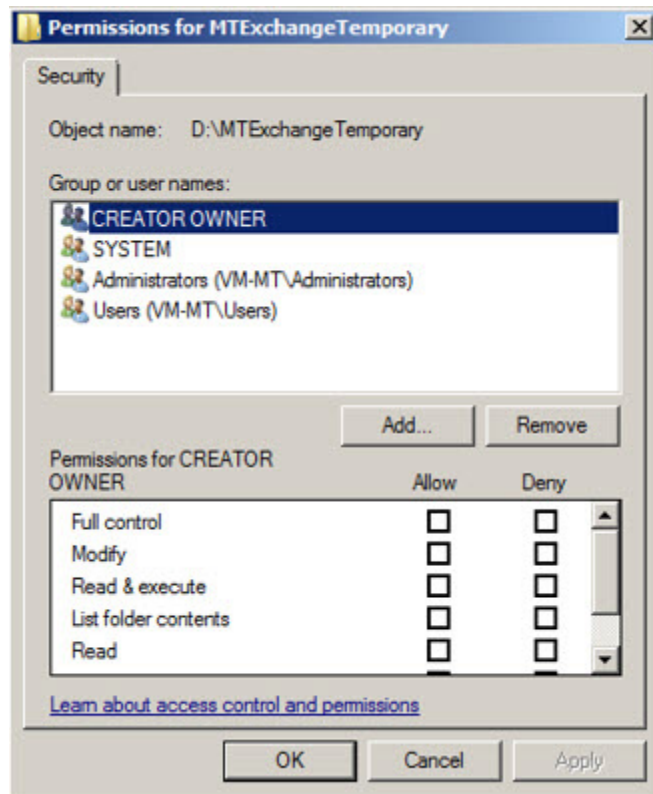
**Figure 5:Maternity Tracker Properties - Security**





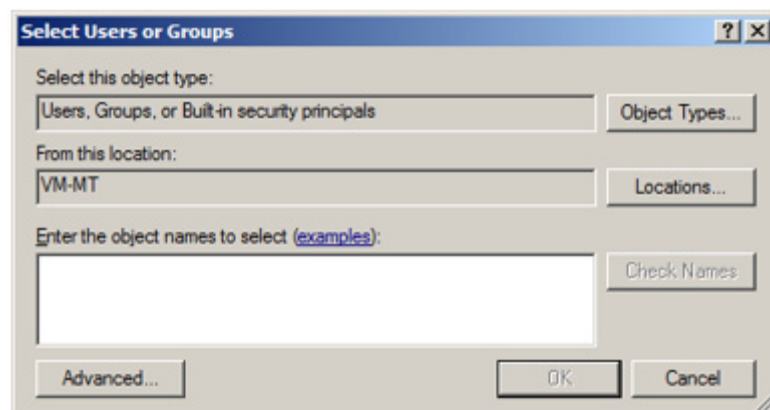
5. Verify the **Group or user names** list box for the **IIS\_IUSRS** group.

**Figure 6:Permissions for MTEExchangeTemporary**



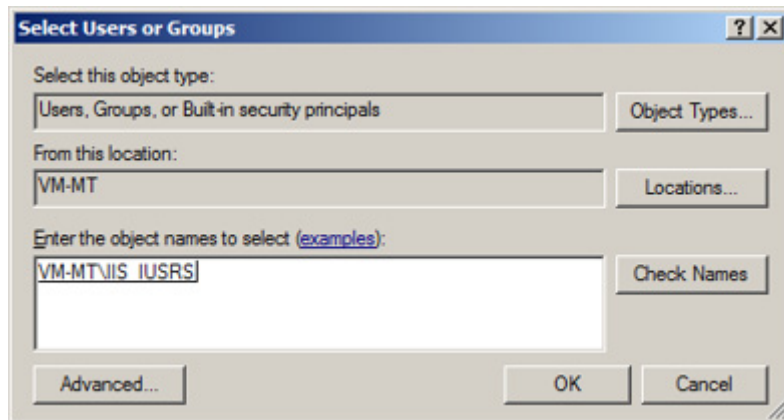
6. If **IIS\_IUSERS** is not included in the list, click the **Add** button, so the **Select Users or Groups** window displays.

**Figure 7:Select Users or Groups**



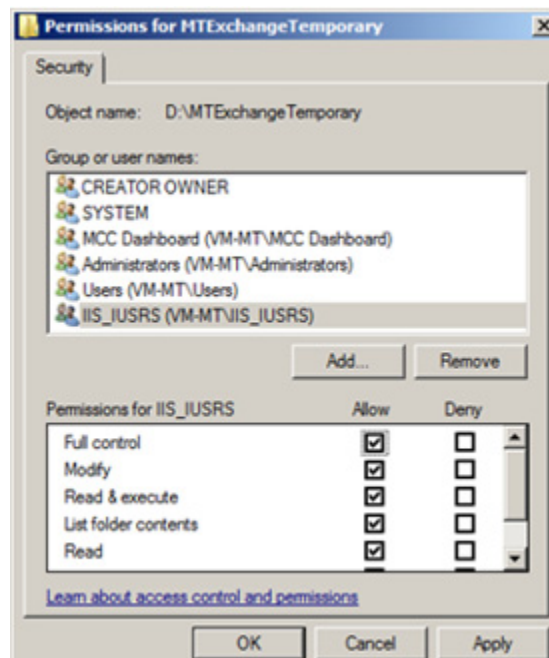
7. Click the **Advanced** and **Find Now** buttons to select **IIS\_IUSERS**, and click **OK** to close the window.

**Figure 8:Select Users or Groups - Check Names (IIS\_IUSERS)**



8. For the **IIS\_IUSRS** group, click the **Full control** check box (for Allow). Then click **Apply** and **OK**.

**Figure 9:Permissions for IIS\_USRS - Full Control**



## MTEExchangeTemporary Encryption

Encryption should be enabled for the X:\MTEExchangeTemporary folder.

This folder is a temporary storage location for patient IHE documents.

The full development of the subject is beyond the scope of this document. The actual implementation of the Encryption **MUST** be in compliance with the site's security policies, and **IS THE RESPONSIBILITY OF THE SITE** to implement and maintain the encryption.

## Folder/File Mapping

The placement of the associated Maternity Tracker files is only a recommendation, in order to group the files in a central location.

### **X:\MATERNITY TRACKER**

<b>X:\MATERNITY TRACKER\DASHBOARD</b>
InstallExisting.bat
InstallExistingTest.bat
Install.bat
InstallTest.bat
va.gov.artemis.ui.deploy.cmd
va.gov.artemis.ui.deploy-readme.txt
va.gov.artemis.ui.SetParameters.xml
va.gov.artemis.ui.SourceManifest.xml
va.gov.artemis.ui.zip
<b>X:\MATERNITY TRACKER\DOCUMENTATION</b>
Maternity Tracker Installation Manual vX.XX.pdf
Maternity Tracker Configuration Guide vX.XX.pdf
Maternity Tracker User Manual vX.XXpdf
<b>X:\MATERNITY TRACKER\UPDATES</b>
DSIO_XXX.KID
DSIO_TITLES.zip
MD_PP_FU_vX.XX.PRD
<b>X:\PORTAL</b>
mt-portal.deploy.cmd
mt-portal.deploy-readme.txt
mt-portal.SetParameters.xml
mt-portal.SourceManifest.xml
mt-portal.zip

# VistA Configuration

The following items of configuration are involved with Maternity Tracker:

- TIU Document Titles
- Reminder Dialogs
- DSIO KIDS INSTALL
- Verification that the TIU Document Titles were extracted
- Assign Secondary Menu Option
- Schedule the Task to PUSH Discreet Data
- Set Trigger Parameters
- Configure Triggering
  - Configure Consults
  - Configure Labs
  - Configure Problems

## **TIU Document Titles**

Prior to the install of DSIO, the TIU Document Titles zip file (TITLES.zip) **MUST** be extracted and placed in the Default directory of the VistA server being utilized.

If the Default directory is not known, the following command can be executed from a terminal window:

```
VAH>W $$DEFDIR^%ZISH  
C:\HFS\
```

**Note:** This example is the Default directory for the machine the demonstration is being performed on. The actual machine may or may not have the same Default Directory. Should the value need to be changed, there are commands available for this purpose.

Copy the DSIO TIU Document Titles zip file into the default directory. Once the TIU Document Titles have been copied, select the file, right click and select **EXTRACT HERE**. Verify that a folder called **TITLES** exists within the default directory, and that TIU Document Titles exist within the TITLES folder. The extraction of the TIU Document Titles **MUST** be performed before the builds are installed, as the DSIO build will look for these TIU Document Titles inside the default directory's Titles folder during installation and bring them into CPRS. *(Once installation of the builds has been finalized, the builds and titles can be erased from the default directory. If a build needs to be re-installed it should be copied into the default directory of the server).*

## **Reminder Dialogs**

The file **MD\_PP\_FU\_vX.XX.PRD** (from X:\MATERNITY TRACKER\UPDATES) **MUST** also be placed in the Default directory of the VistA server being utilized.

## **DSIO KIDS Install**

Perform a normal KIDS install through Kernel Installation & Distribution System.

**Note:** To complete the installation, you will be asked to complete the PATH to the TIU TITLE import files. This Path **MUST** be the full Path.

\*\*\*\*\*

Set the path where the TIU TITLE import files are located.

Enter directory name or path: C:\HFS\ <Enter full path>

**For example**, if the full Path includes the **TITLES** folder, then it **MUST** be included: C:\HFS\TITLES.

Enter directory name or path: C:\HFS\ C:\HFS\TITLES

\*\*\*\*\*

**Note:** The Hospital Location **MUST** be specified. A search for existing locations has been provided, and will only be required if it has not already been specified.

This is required for configuring the dashboard to use maternity related TIU notes, **if not completed the dashboard will be unable to save a note** and will have to be configured manually. Otherwise, the location can be changed after installation. In either case, the edits can be accomplished through FileMan via the DSIO TITLE CONFIGURATION file. To run post installation again you can “D ^DSIO99” at programmer prompt (without quotes).

\*\*\*\*\*

Choose your Maternity Tracker hospital location. All TIU notes created via the dashboard will use this hospital location.

Select HOSPITAL LOCATION: <Select the dashboard hospital location>

**For example**, if GENERAL MEDICINE was desired, the following sequence would select **GENERAL MEDICINE**.

Select HOSPITAL LOCATION: GENERAL <RETURN>

1 **GENERAL MEDICINE**

2 GENERAL MEDICINE 1

3 GENERAL MEDICINE 10

4 GENERAL MEDICINE 2

5 GENERAL MEDICINE 3

Press <RETURN> to see more, '^' to exit this list, OR

CHOOSE 1-5: 1 <RETURN>

## Verification that the TIU Document Titles Were Extracted

VAH>D ^XUP

Select OPTION NAME: **TIU IRM**

- 1 TIU IRM MAINTENANCE MENU TIU Maintenance Menu
- 2 TIU IRM TEMPLATE MGMT TIU Template Mgmt Functions

CHOOSE 1-2: **1 TIU IRM MAINTENANCE MENU** TIU Maintenance Menu

- 1 TIU Parameters Menu ...
- 2 Document Definitions (Manager) ...
- 3 User Class Management ...
- 4 TIU Template Mgmt Functions ...

You have PENDING ALERTS

Enter "VA to jump to VIEW ALERTS option

Select TIU Maintenance Menu Option: **2 Document Definitions** (Manager)

--- Manager Document Definition Menu ---

- 1 Edit Document Definitions
- 2 Sort Document Definitions
- 3 Create Document Definitions

You have PENDING ALERTS

Enter "VA to jump to VIEW ALERTS option

Select Document Definitions (Manager) Option: **1 Edit Document Definitions**.....

Edit Document Definitions Jan 15, 2015@12:02:58 Page: 1 of 1

BASICS

	<u>Name</u>	<u>Type</u>
1	CLINICAL DOCUMENTS	CL
2	+PROGRESS NOTES	CL
3	+ADDENDUM	DC
4	+DISCHARGE SUMMARY	CL
5	+SURGICAL REPORTS	CL
6	+LR LABORATORY REPORTS	CL
7	+CLINICAL PROCEDURES	CL
?Help >ScrollRight PS/PL PrintScrn/List +/- >>>		
	Jump to Document Def Status...	Delete
	Boilerplate Text Name/Owner/PrintName...	Copy/Move

Select Action: Quit// **EX Expand/Collapse**

Select Entry: (1-7): **2**

Edit Document Definitions Jan 15, 2015@12:03:21 Page: 4 of 4

BASICS

+	<u>Name</u> <u>Type</u>
...	
44	+C&P EXAMINATION REPORTSDC
45	+SCI OUTCOMESDC
46	+MEDICINEDC
47	+CARE COORDINATION HOME TELEHEALTH NOTESDC
48	+FORM LETTERSDC
49	+SECURE MESSAGING DOCUMENTSDC
50	+ <b>MATERNITY TRACKER</b> DC
51	+PROVIDERDC
52	+TBI/POLYTRAUMA DOCUMENTSDC

53 +ADDENDUMDC  
 54 +DISCHARGE SUMMARYCL  
 55 +SURGICAL REPORTSCL  
 56 +LR LABORATORY REPORTSCL  
 57 +CLINICAL PROCEDURESCL

**Note:** **MATERNITY TRACKER** can be expanded to view the notes.

## **Assign Secondary Menu Option**

**VistA Menu Option Requirement — DSIO GUI CONTEXT**

### **Schedule the Task to PUSH Discreet Data**

VAH>**D ^XUP**

Press <**Enter**>

Select OPTION NAME: **EVE**

- 1 EVE Systems Manager Menu
- 2 EVENT CAPTURE ECX ECS MAINTENANCE Event Capture

...

CHOOSE 1-5: 1 **EVE** Systems Manager Menu

- Core Applications ...
- Device Management ...
- FM VA FileMan ...
- Menu Management ...
- Programmer Options ...
- Operations Management ...
- Spool Management ...
- Information Security Officer Menu ...
- Taskman Management ...
- User Management ...
- Application Utilities ...
- Capacity Planning ...
- HL7 Main Menu ...
- Manage Mailman ...

Select Systems Manager Menu Option: **Taskman Management**

- Schedule/Unschedule Options
- One-time Option Queue
- Taskman Management Utilities ...
- List Tasks
- Dequeue Tasks
- Require Tasks
- Delete Tasks
- Print Options that are Scheduled to run
- Cleanup Task List
- Print Options Recommended for Queueing

Select Taskman Management Option: **Schedule/Unschedule Options**

Select OPTION to schedule or reschedule: **DSIO DDCS CHECK STATUS** Act on TIU  
 note status



Are you adding 'DSIO DDCS CHECK STATUS' as  
a new OPTION SCHEDULING (the 144TH)? No// **YES** (Yes)

Edit Option Schedule

Option Name: DSIO DDCS CHECK STATUS

Menu Text: Act on TIU note status

TASK ID:

---

**Note:** Schedule a start date/time.

QUEUED TO RUN AT WHAT TIME: **OCT 22,2015@22:00**

DEVICE FOR QUEUED JOB OUTPUT:

QUEUED TO RUN ON VOLUME SET:

**Note:** Schedule a duration or frequency.

RESCHEDULING FREQUENCY: **1D**

TASK PARAMETERS:

**Note:** Schedule the type of queuing.

SPECIAL QUEUEING: **Persistent**

---

Exit   Save   Next Page   Refresh

## **Set Trigger Parameters**

For each of the follow three items, set the parameter to **YES** to flag patients for tracking:

- **DSIO EVAL CONSULTS NOW**
- **DSIO EVAL LABS NOW**
- **DSIO EVAL PROBLEMS NOW**

An example for **DSIO EVAL CONSULTS NOW** is displayed below.

VAH>**D ^XPAREEDIT**

Press <**Enter**>

--- Edit Parameter Values ---

Select PARAMETER DEFINITION NAME: **DSIO**

- 1 **DSIO EVAL CONSULTS NOW** Evaluate consults for maternity
- 2 **DSIO EVAL LABS NOW** Evaluate labs for maternity
- 3 **DSIO EVAL PROBLEMS NOW** Evaluate problems for maternity.
- 4 **DSIO OCNT LOCATION** DSIO oCNT Network Address

CHOOSE 1-4: **1 DSIO EVAL CONSULTS NOW** Evaluate consults for maternity

---- Setting DSIO EVAL CONSULTS NOW for System: SMA.FO-TEST.MED.VA.GOV ----  
EVALUATE CONSULTS DURING PATIENT SEARCH: **YES**

## **Configure Triggering**

As the names of various Consults, Labs, and Problems may differ from site to site, what is displayed below are examples of how to configure each type.

If not all of the names for each type are known, then this section may need to be revisited to configure them as necessary.

- **Consults** –What are the exact names of any consults or consult services pertaining to a new pregnancy?
- **Lab tests** –What are the names of labs done for pregnancy (beta HCG, Pregnancy Test, etc.) These are the test names as they are set up in the Laboratory Test file (60).
- **Problem List** –What problems would be entered on the CPRS Problems tab that indicate a new pregnancy? What are the problem descriptions and SNOMED codes?

## **Configure Consults**

The procedure below illustrates the steps to enable triggering, for a specific Consult. **For this example**, the Consult is **Initial OB Referral**.

VAH>**D Q^DI**

Select OPTION: **1 ENTER OR EDIT FILE ENTRIES**

INPUT TO WHAT FILE: DSIO TRIGGER CONSULT// **DSIO TRIGGER CONSULTS**  
(1 entry)

EDIT WHICH FIELD: ALL//

Select DSIO TRIGGER CONSULT REQUEST SERVICES: **INITIAL OB REFERRAL**

Are you adding 'INITIAL OB REFERRAL' as

a new DSIO TRIGGER CONSULT (the 2ND)? No// **Y** (Yes)

INACTIVE:

STATUS OF: **C**

1 CANCELLED x

2 COMPLETE c

CHOOSE 1-2: 2 **COMPLETE** c

## **Configure Labs**

The procedure below illustrates the steps to enable triggering, for a specific lab test, specimen and associated value. For this example, the associated parameters are: **Pregnancy Test** and **URINE 7X100**.

VAH>**D Q^DI**

Select OPTION: **1 ENTER OR EDIT FILE ENTRIES**

INPUT TO WHAT FILE: **DSIO TRIGGER LABS** (3 entries)

EDIT WHICH FIELD: ALL//

Select DSIO TRIGGER LAB TEST: **Pregnancy Test** PREGNANCY TEST

Are you adding 'PREGNANCY TEST' as

a new DSIO TRIGGER LAB TEST (the 4TH)? No// y (**Yes**)

INACTIVE:

Select SITE/SPECIMEN: Urine

1 URINE 7X100

2 URINE 24 HR URINE URINE

CHOOSE 1-2: 1 **URINE 7X100**

Are you adding 'URINE' as a new SITE/SPECIMEN (the 1ST for this DSIO TRIGGER LAB TEST)?

No// y (**Yes**)

POSITIVE LAB VALUE: **POS**

Select SITE/SPECIMEN:

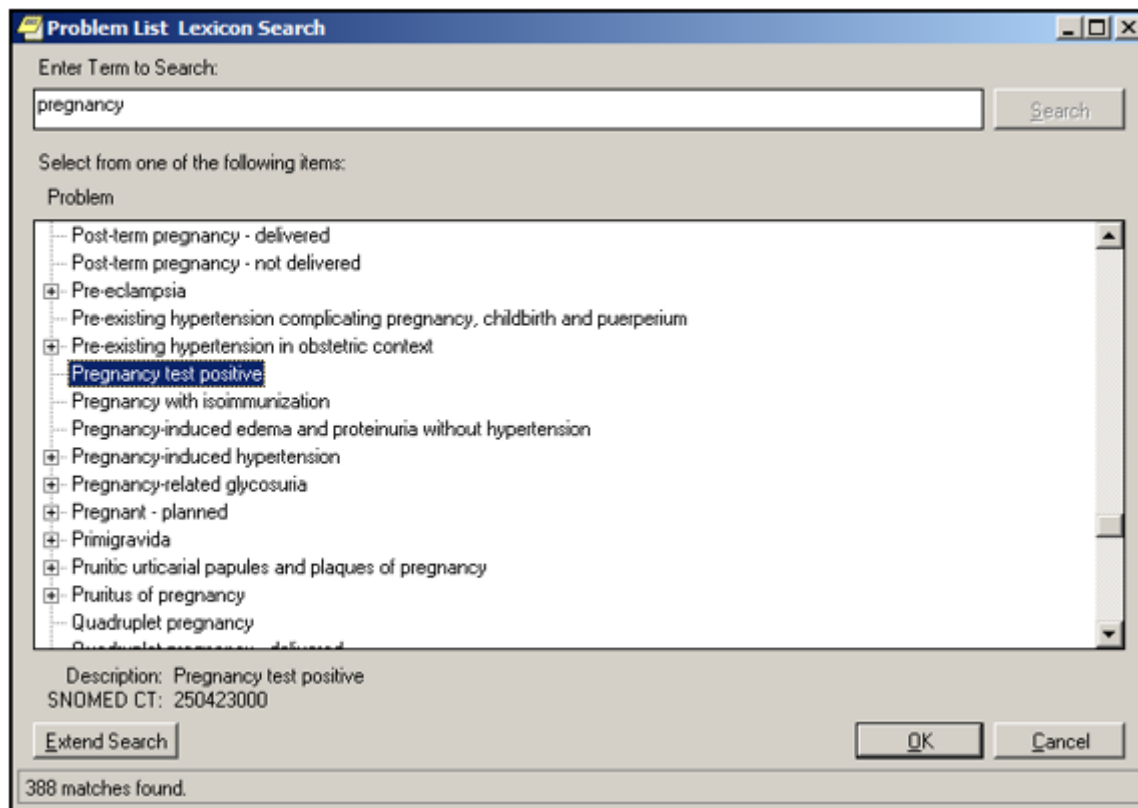
Select PATIENT:

## Configure Problems

The procedure below illustrates the steps to enable triggering, for a specific problem. For this example, the problem is: **Pregnancy test positive**.

1. In CPRS, perform a search of the problem that will be used (Pregnancy test positive in this case), and take note of the code (SNOWMED CT) associated with the problem.

**Figure 10: Problem List to Search**



2. Open a VistA session and complete the following:  
VAH>D Q^DI  
VA FileMan 22.0  
Select OPTION: **ENTER OR EDIT FILE ENTRIES**  
INPUT TO WHAT FILE: **DSIO TRIGGER PROBLEMS//**  
EDIT WHICH FIELD: ALL//

**Note:** Enter the SNOWMED code.

Select DSIO TRIGGER PROBLEMS CODE: **250423000**  
Searching for a ICD, (pointed-to by CODE)  
Searching for a SCT, (pointed-to by CODE)  
??  
A suitable term could not be found based on user input  
Enter Term/Concept:<**ENTER**>  
Searching for a ICD  
Searching for a SCT  
250423000 Pregnancy test positive 250423000 SCT Preferred Active Primary  
...OK? Yes// (**Yes**)  
Are you adding 'Pregnancy test positive' as  
a new DSIO TRIGGER PROBLEMS (the 3RD)? No// y (**Yes**)  
INACTIVE:  
Select PATIENT:

# MCC Dashboard – System Setup and Configuration

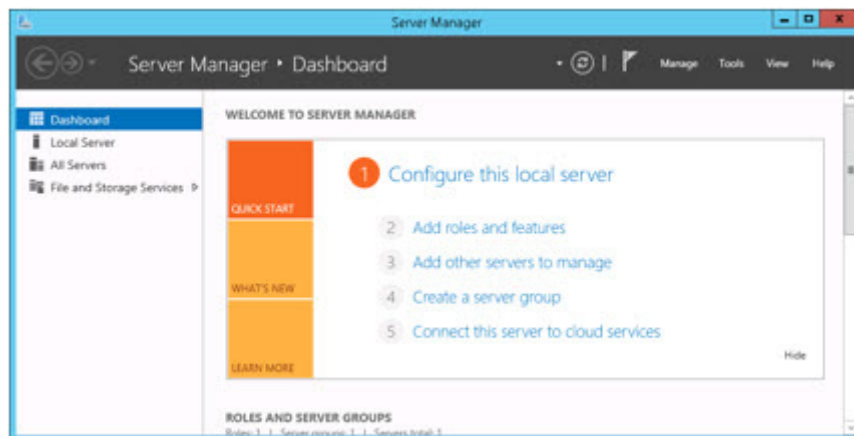
The following steps illustrate the steps involved in setting up a basic Web Server, on a Windows 2012 Server.

**IT IS THE RESPONSIBILITY OF THE SITE** implementing the Web Server, to verify it is in compliance with their security policy.

## **Verify the IIS Role**

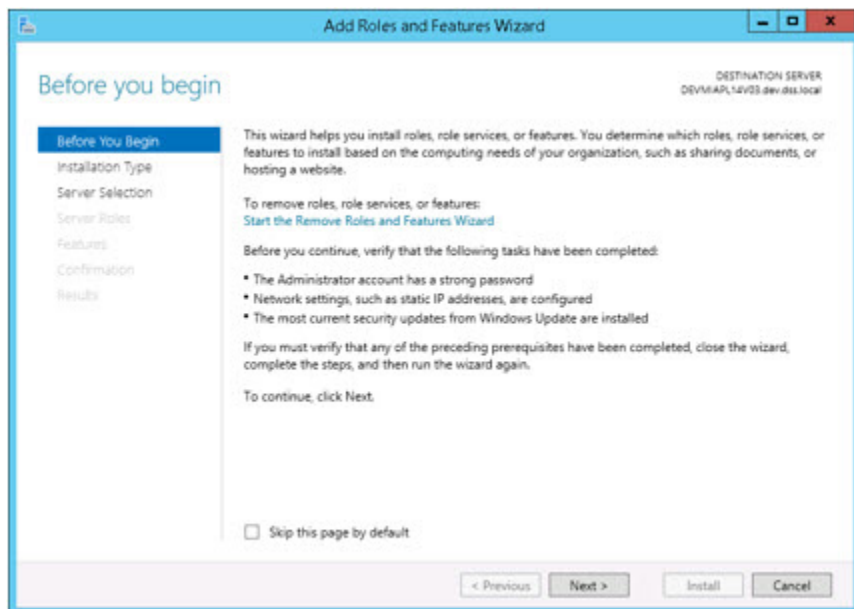
1. Open the **Server Manager**.
2. If IIS has not been installed as a Role, then click the **Add roles and features** option.

**Figure 11:Dashboard**



3. Click **Next**.

**Figure 12:Before You Begin**



4. Click **Next** for the **Role-based or feature-based installation** option.

DESTINATION SERVER  
DEV\MIAPL14V03.dev.dss.local

## Select installation type

Before You Begin  
**Installation Type**  
 Server Selection  
 Server Roles  
 Features  
 Confirmation  
 Results

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

- ☒ **Role-based or feature-based installation**  
Configure a single server by adding roles, role services, and features.
- ☐ **Remote Desktop Services installation**  
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

< Previous    Next >    Install    Cancel

5. Click **Next** for the appropriate server.

The screenshot shows the 'Add Roles and Features Wizard' window. The title bar says 'Add Roles and Features Wizard'. The main heading is 'Select destination server'. On the right, it says 'DESTINATION SERVER' with a small icon. On the left, there is a navigation pane with the following items: 'Before You Begin', 'Installation Type', 'Server Selection' (highlighted), 'Server Roles', 'Features', 'Confirmation', and 'Results'. The main content area has the text 'Select a server or a virtual hard disk on which to install roles and features.' Below this are two radio buttons: 'Select a server from the server pool' (selected) and 'Select a virtual hard disk'. Below the radio buttons is a section titled 'Server Pool'. It contains a table with the following columns: 'Name', 'IP Address', and 'Operating System'. The table has one row: '10.10.10.10', '10.10.10.10', and 'Microsoft Windows Server 2012 R2 Standard'. Below the table, it says '1 Computer(s) found'. At the bottom, there is a text box that says 'This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.' At the bottom right, there are four buttons: '< Previous', 'Next >' (highlighted), 'Install', and 'Cancel'.

Before You Begin  
Installation Type  
**Server Selection**  
Server Roles  
Features  
Confirmation  
Results

Select a server or a virtual hard disk on which to install roles and features.

☒ Select a server from the server pool  
☐ Select a virtual hard disk

Server Pool

Name	IP Address	Operating System
10.10.10.10	10.10.10.10	Microsoft Windows Server 2012 R2 Standard

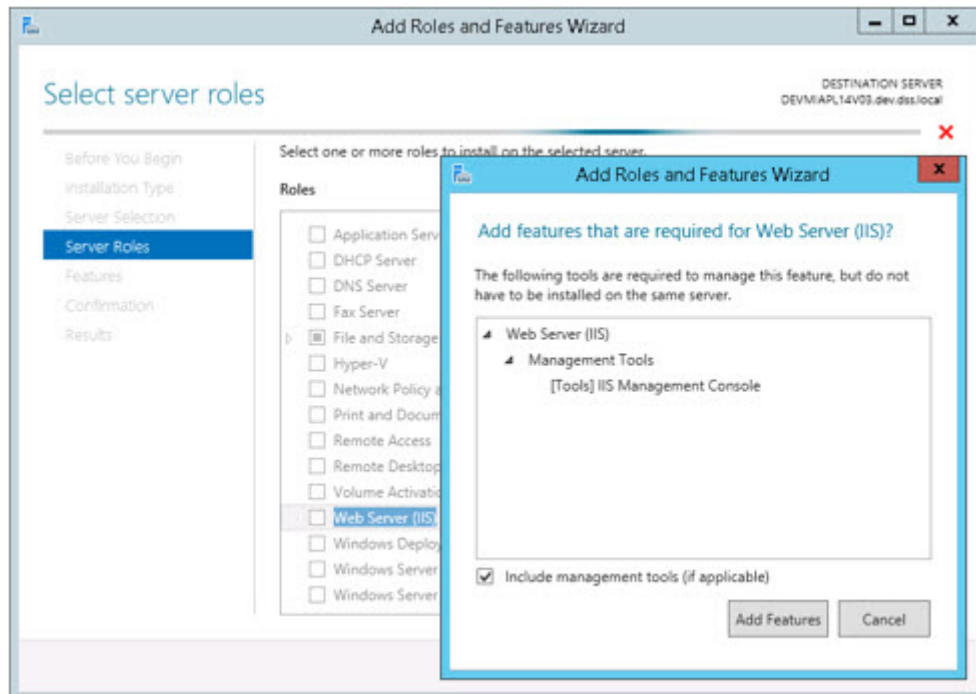
1 Computer(s) found

This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

< Previous   **Next >**   Install   Cancel

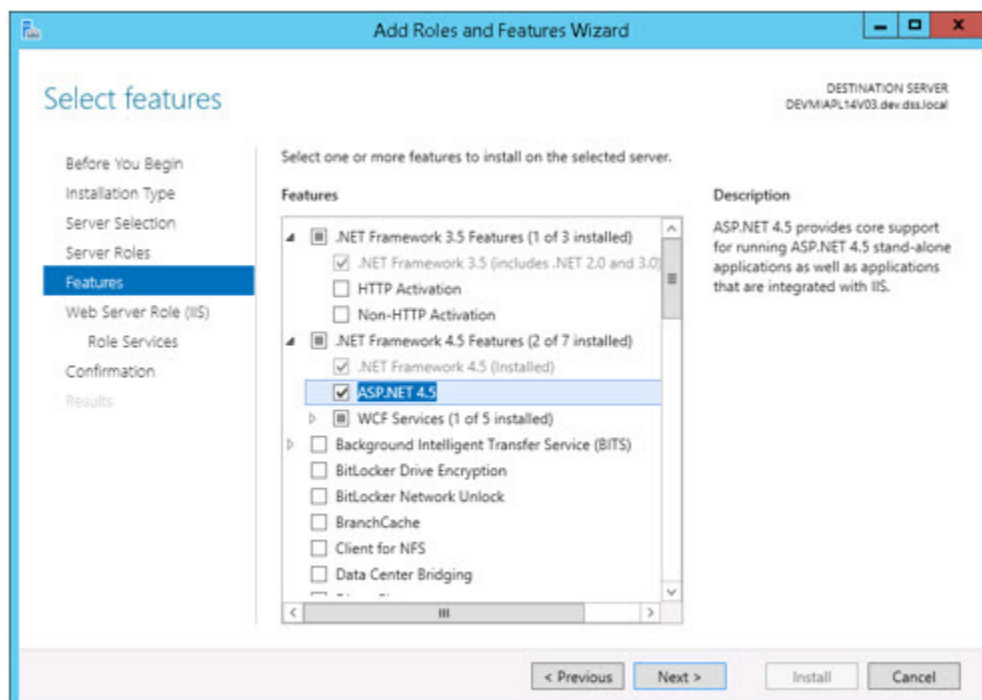
6. Click on **Web Server (IIS)**, which will display the Add Roles and Features Wizard. Click the **Include management tools (if applicable)** checkbox, and click **Add Features**. Click **Next**.

Figure 15: Add Roles and Features Wizard



7. Verify .NET Framework 3.5 is selected along with .NET Framework 4.5, and ASP.NET 4.5. Click **Next**.

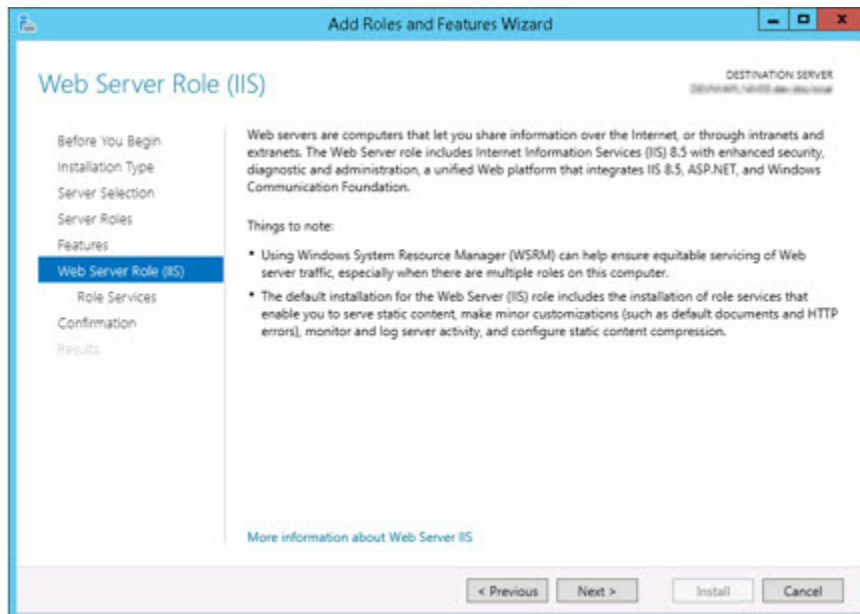
Figure 16: Features





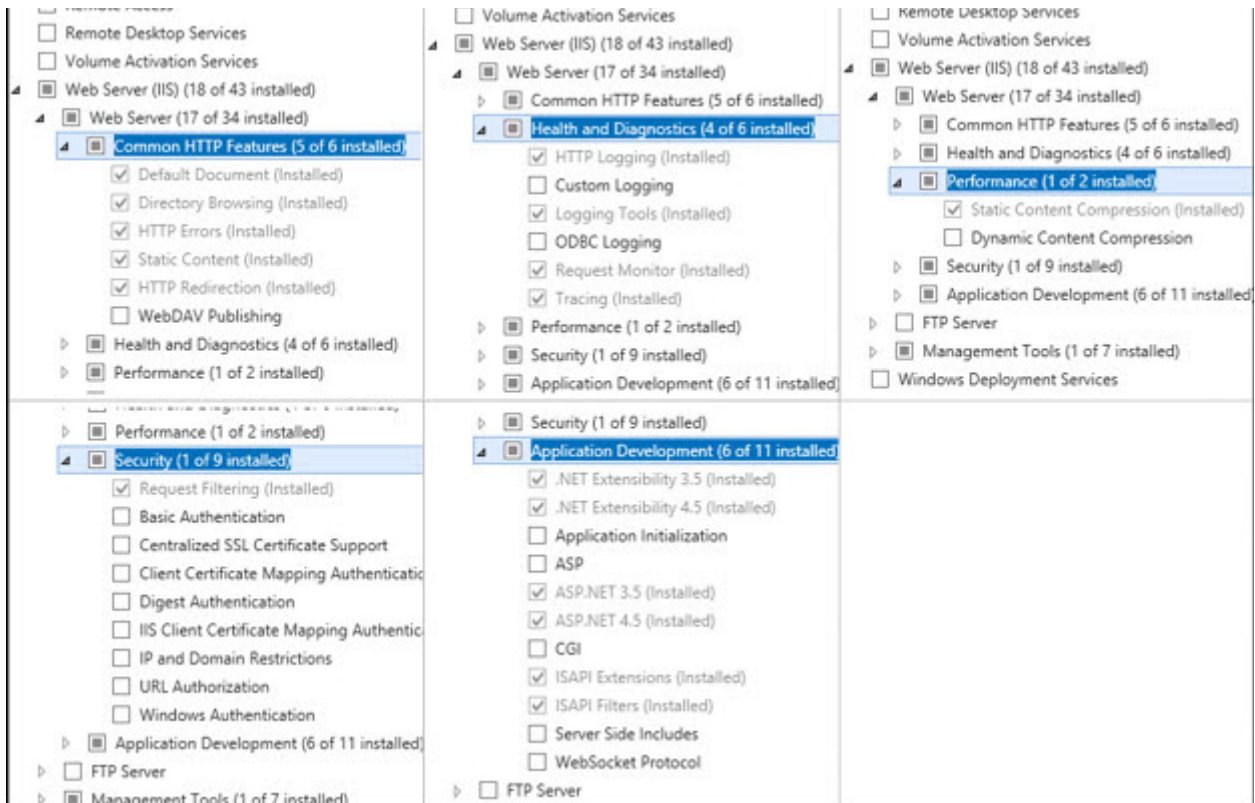
8. Click Next.

Figure 17: Web Server Role (IIS)



9. Whether selecting the roles initially, or during an update, the following roles need to be verified for **Web Server**:

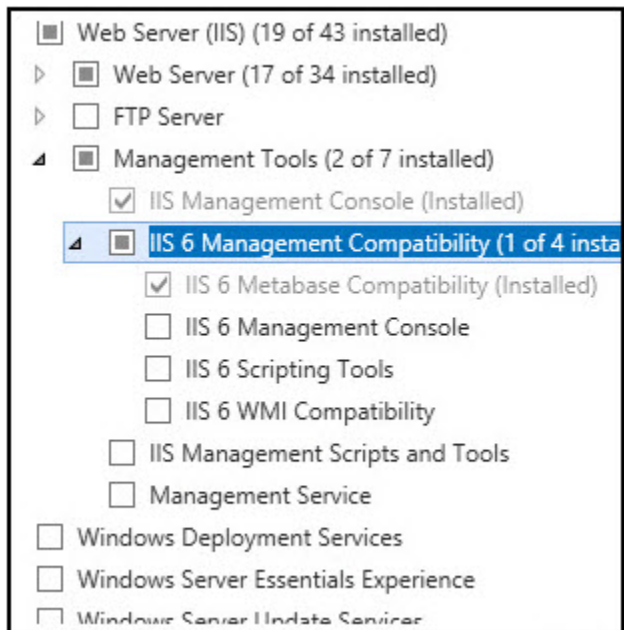
Figure 18: Web Server Configuration



**Note:** Clicking on **ASP.NET 3.5** will result in an **Add Roles and Features Wizard**. Accept the defaults and click **Add Features**.

10. The following roles need to be verified for **Management Tools**:

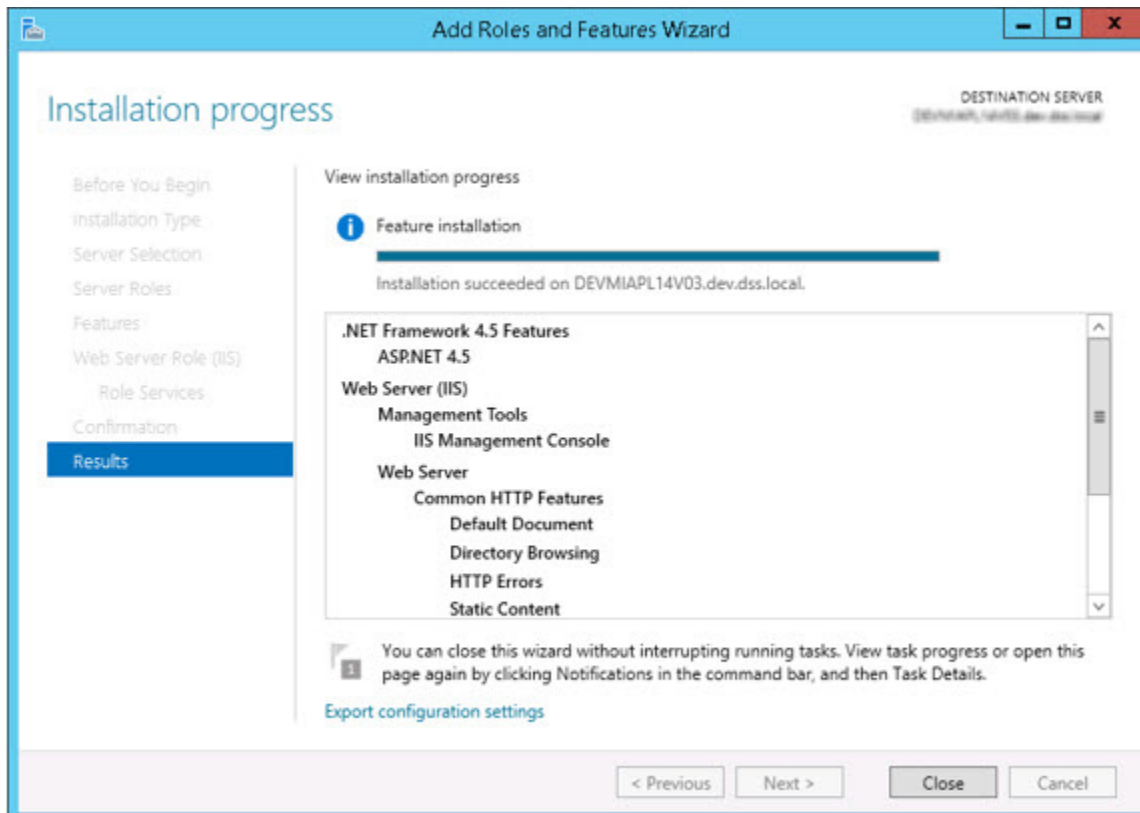
**Figure 19:Management Tools**



11. Click **Next**. On the **Confirmation/Confirm installation selections** page, check the checkbox for **Restart the destination server automatically if required**, if desired.

12. Click **Install** and finally the **Close** button.

**Figure 20:Installation Progress**



## **Install the Web Platform Installer**

Navigate to the Internet, download and install the latest **Web Platform Installer**. Leave this open for use in the following steps to install Web Deploy.

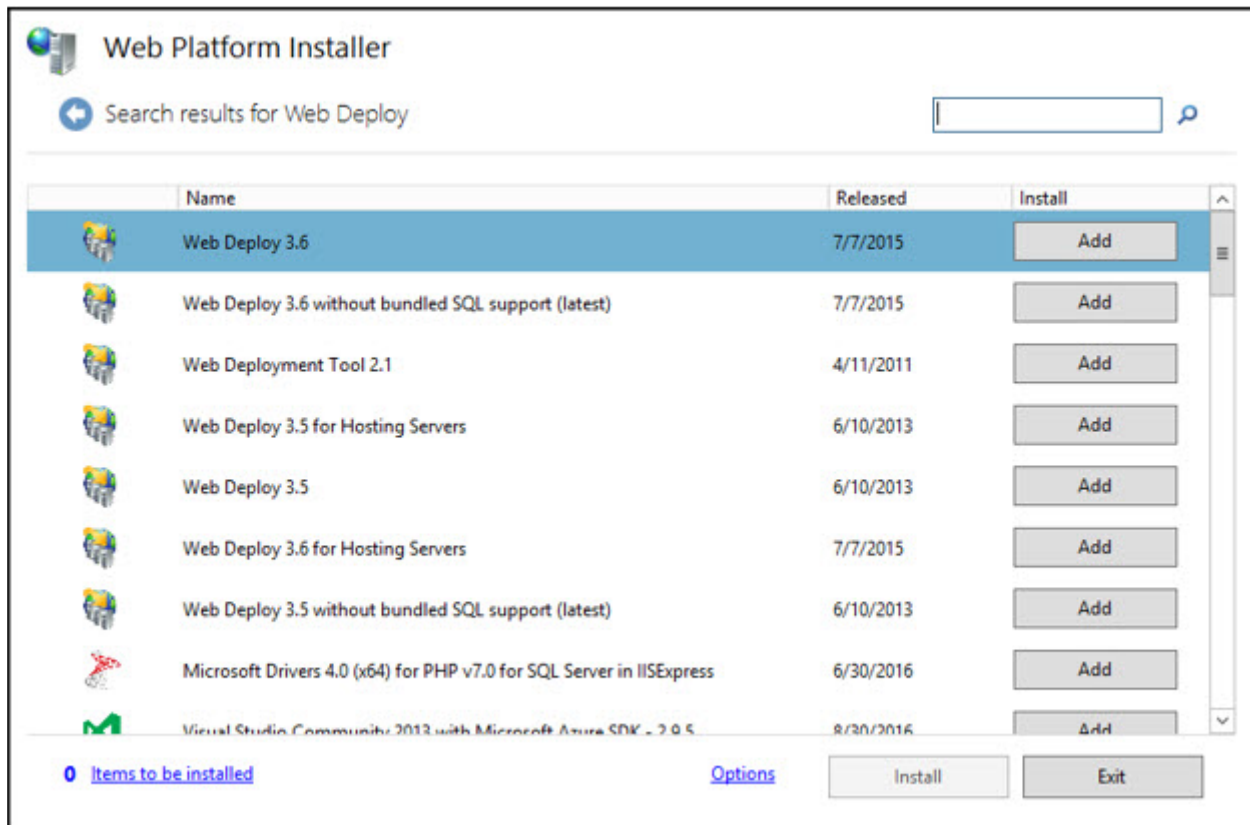
**Note:** Alternatively, you may download and install Web Deploy 3.6 directly without using the Web Platform Installer. The following link (as of Sept. 2016) contains the download page for it:

<https://www.microsoft.com/en-us/download/details.aspx?id=43717>

## Install msdeploy.exe (Web Deploy X.X) Using Web Platform Installer

From the Web Platform Installer, locate the latest **Web Deploy**, and click the **Add** button. This is performed by entering Web Deploy into the search box and pressing <Enter>. Click the **Install** button, followed by the **I Accept**, and **Finish** buttons.

Figure 21: Web Deploy 3.6



## Copy Installation Files to Any Local Folder on the Server

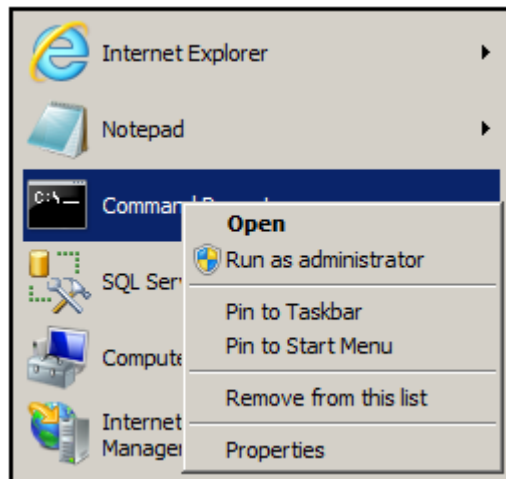
The files required for the installation of the Dashboard can be placed anywhere on the server where the Dashboard is to be installed, however it is recommended that they be placed in the following folder:

\\SERVERNAME\MATERNITY TRACKER\DASHBOARD

## Install the Dashboard Application by Running the Following Command from an Administrative Command Prompt

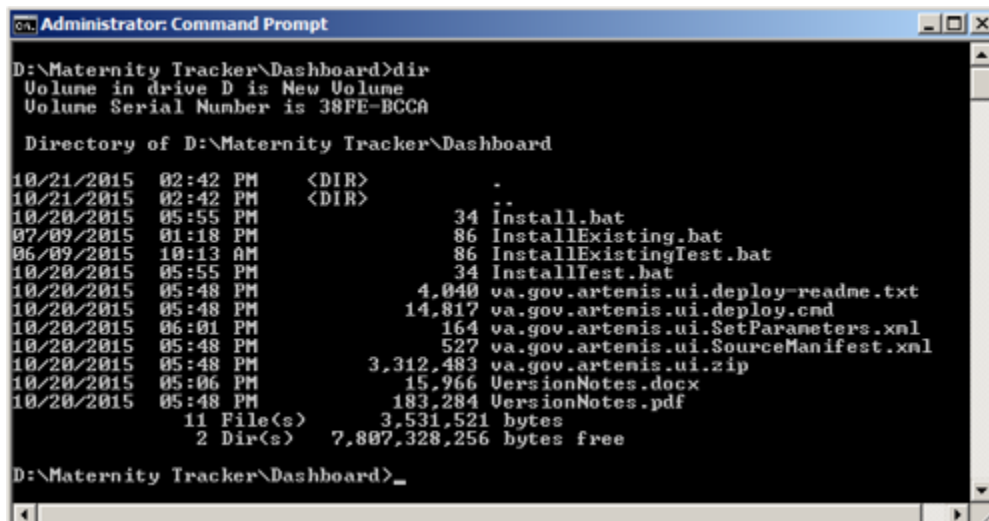
1. From a **Command Prompt** start option, right click **Command Prompt**, and click **Run as administrator**, from the newly displayed menu options.

Figure 22:Run as Administrator



2. CD to the location of the installation files.

Figure 23:Command Prompt



3. In file **va.gov.artemis.ui.SetParameters.xml**, verify that the correct Web Site is being installed.

```
<?xml version="1.0" encoding="utf-8"?>
<parameters>
<setParameter name="IIS Web Application Name" value="Default Web Site/MCCDashboard" />
</parameters>
```

For instance - **MCCDashboard** - will be the name of the Default Web Site.

4. To test the installation, execute the following, verifying no errors occur:

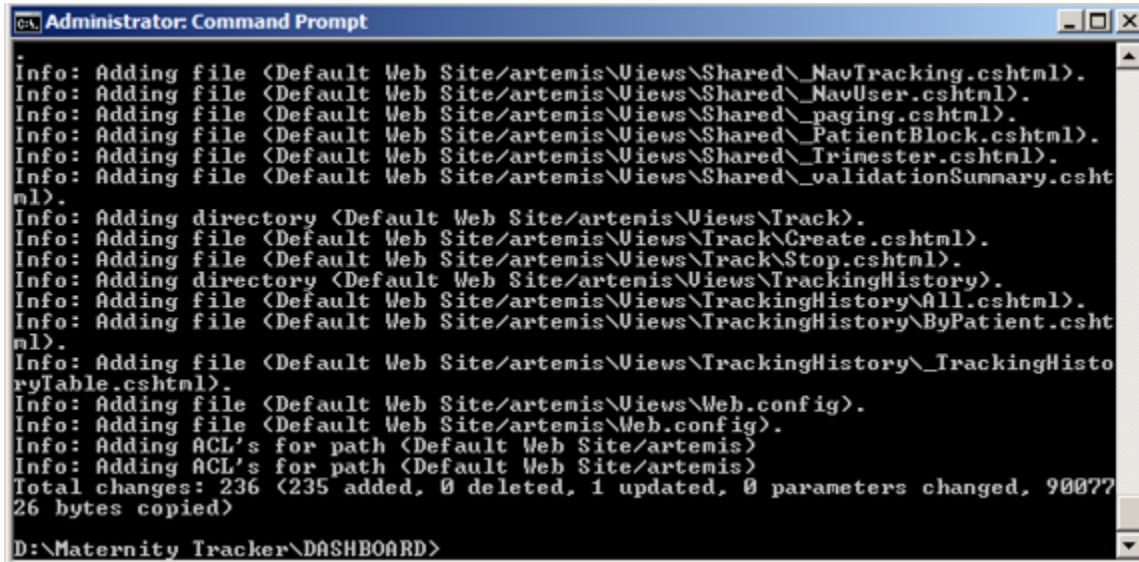
**InstallTest.bat**

5. To run the actual installation, execute the following, again verifying no errors occur:

**Install.bat**

**Note:** For **updating** the Dashboard, **InstallExistingTest.bat**, followed by **InstallExisting.bat**.

Figure 24:Artemis Deploy

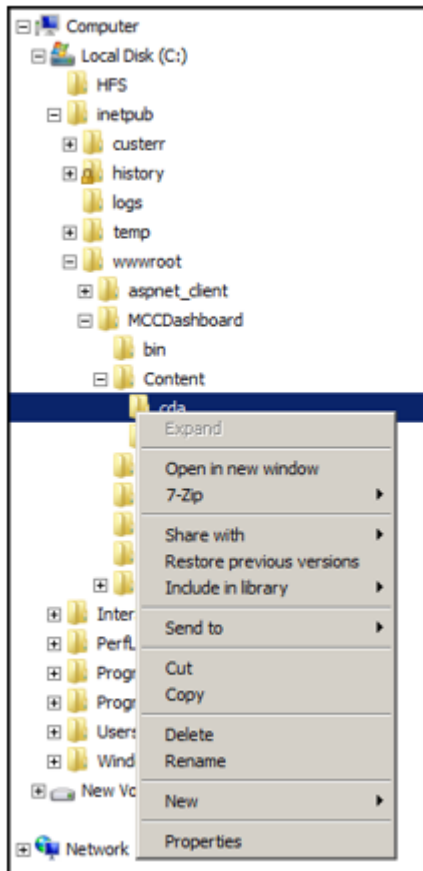


```
Administrator: Command Prompt
Info: Adding file <Default Web Site/artemis\Views\Shared\_NavTracking.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Shared\_NavUser.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Shared\_paging.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Shared\_PatientBlock.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Shared\_Trimester.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Shared\_validationSummary.cshtml>.
Info: Adding directory <Default Web Site/artemis\Views\Track>.
Info: Adding file <Default Web Site/artemis\Views\Track\Create.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Track\Stop.cshtml>.
Info: Adding directory <Default Web Site/artemis\Views\TrackingHistory>.
Info: Adding file <Default Web Site/artemis\Views\TrackingHistory\All.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\TrackingHistory\ByPatient.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\TrackingHistory\_TrackingHistoryTable.cshtml>.
Info: Adding file <Default Web Site/artemis\Views\Web.config>.
Info: Adding file <Default Web Site/artemis\Web.config>.
Info: Adding ACL's for path <Default Web Site/artemis>
Info: Adding ACL's for path <Default Web Site/artemis>
Total changes: 236 (235 added, 0 deleted, 1 updated, 0 parameters changed, 90077
26 bytes copied)
D:\Maternity Tracker\DASHBOARD>
```

6. Verify that the following folder exists: c:\inetpub\wwwroot\MCCDashboard\content\cda.

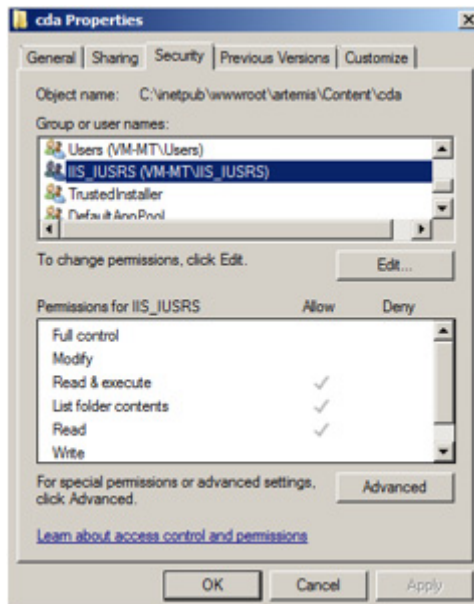
7. Verify **Full control** permissions exist for this folder, for the IIS\_IUSRS group
  - a. Navigate to the \Content\CDA folder, right-click the **CDA** folder, and click **Properties**.

**Figure 25:CDA Properties**



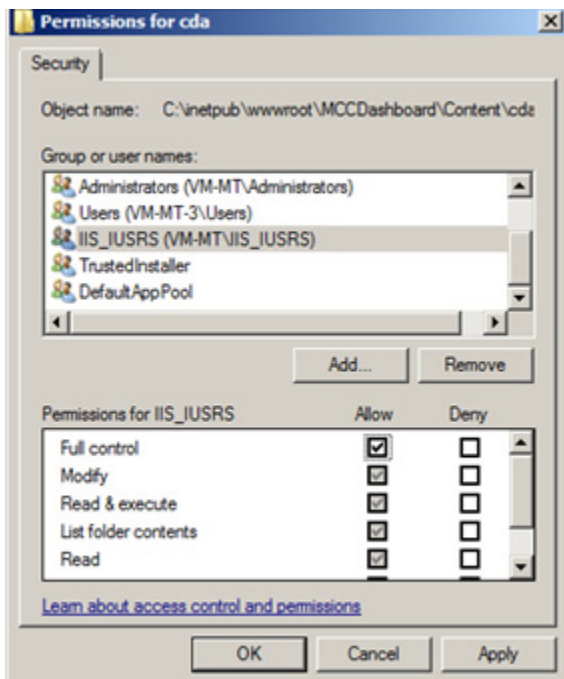
- b. Click the **Security** tab, and locate the **IIS\_IUSRS** group.

**Figure 26:cda Properties - Security**



- c. Click the **Edit** button, and again locate the **IIS\_IUSRS** group. Verify the **Full control** permissions have been selected, and click **Apply**, **OK**, and close the Permissions for cda dialog box.

**Figure 27:Permissions for cda**





8. Verify that the following folder exists - c:\inetpub\wwwroot\MCCDashboard\content\logs.

If necessary create the **logs** folder:

c:\inetpub\wwwroot\MCCDashboard\content\logs

9. As with the cda folder - verify **Full control** permissions exist for the **logs** folder, for the IIS\_IUSRS group.

## **Install and Bind an SSL Certificate to the Web Application Using IIS Manager**

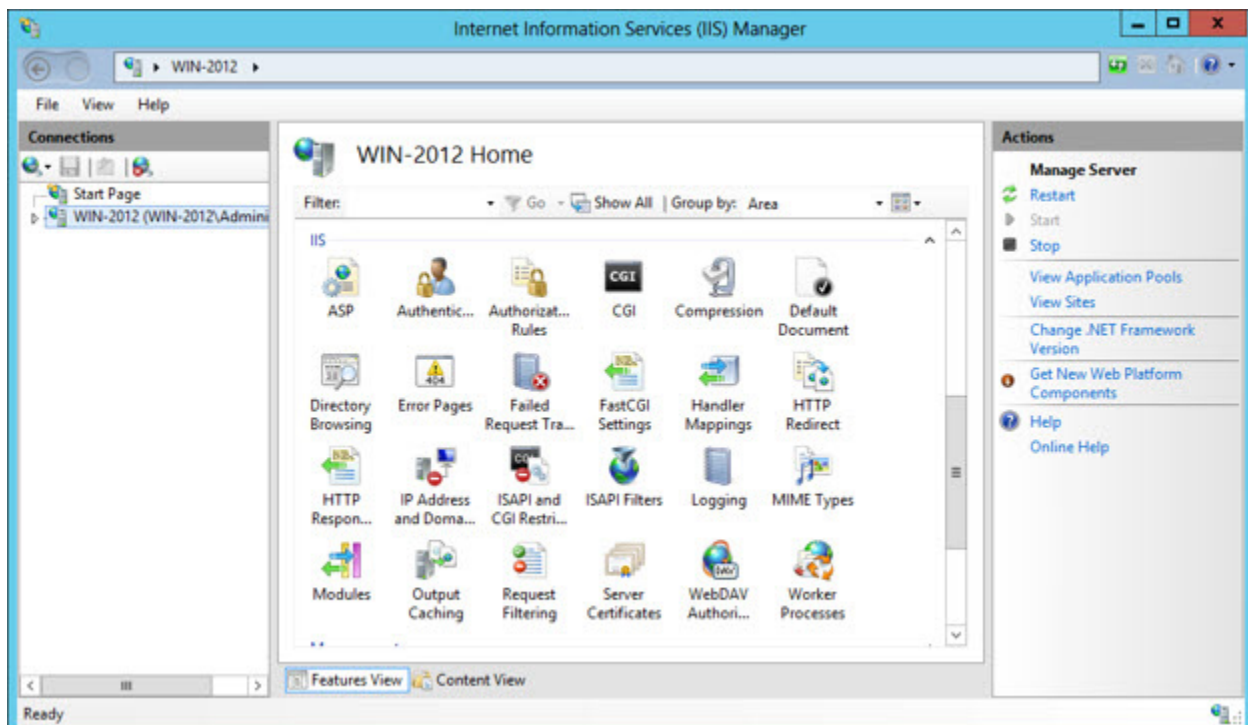
**Note:** The following represents a simple example for creating/configuring a certificate. The full development of the subject is beyond the scope of this document. The actual implementation of creating/configuring the certificate **MUST** be in compliance with the site's security policies, and **IS THE RESPONSIBILITY OF THE SITE** to implement and maintain the SSL certificate. For instance, the certificate **MUST** be renewed periodically, prior to its expiration.

For information on Binding, SSL certificates and Web Applications, please consult the following web site:

<http://www.iis.net/learn/manage/configuring-security/how-to-set-up-ssl-on-iis>

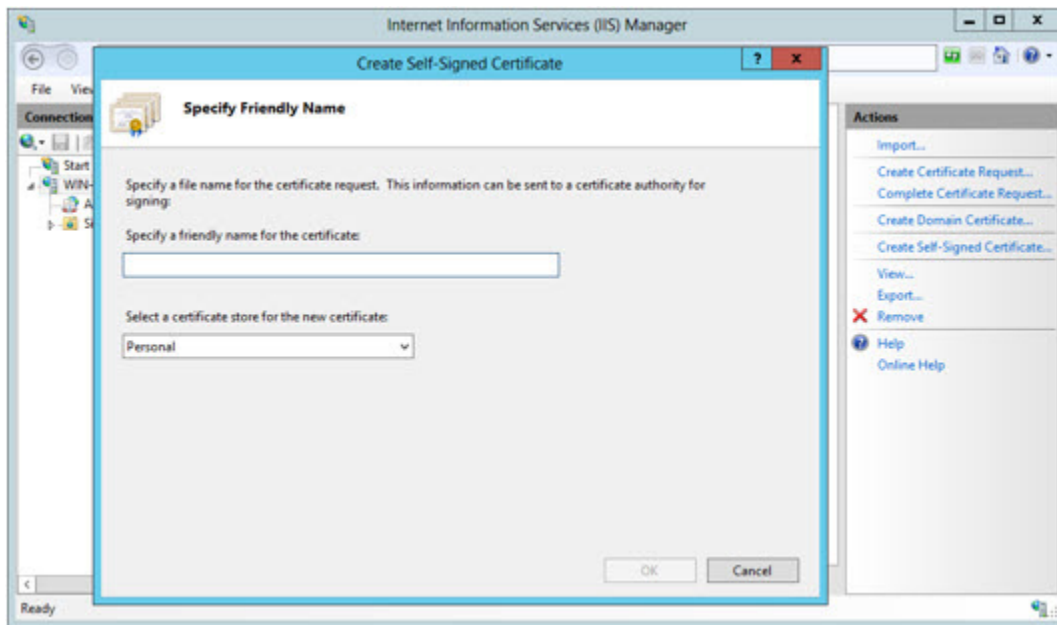
1. Obtain a certificate by first opening the **Server manager**, clicking on **Tools** (top right), and selecting **Internet Information Services (IIS) Manager** from the drop down. Next, select the Web Server node (WIN-2012 in this case), in the Internet Information Services (IIS) Manager window. Lastly double-click the **Server Certificates** icon, in the **IIS** section.

**Figure 28:Server Manager**



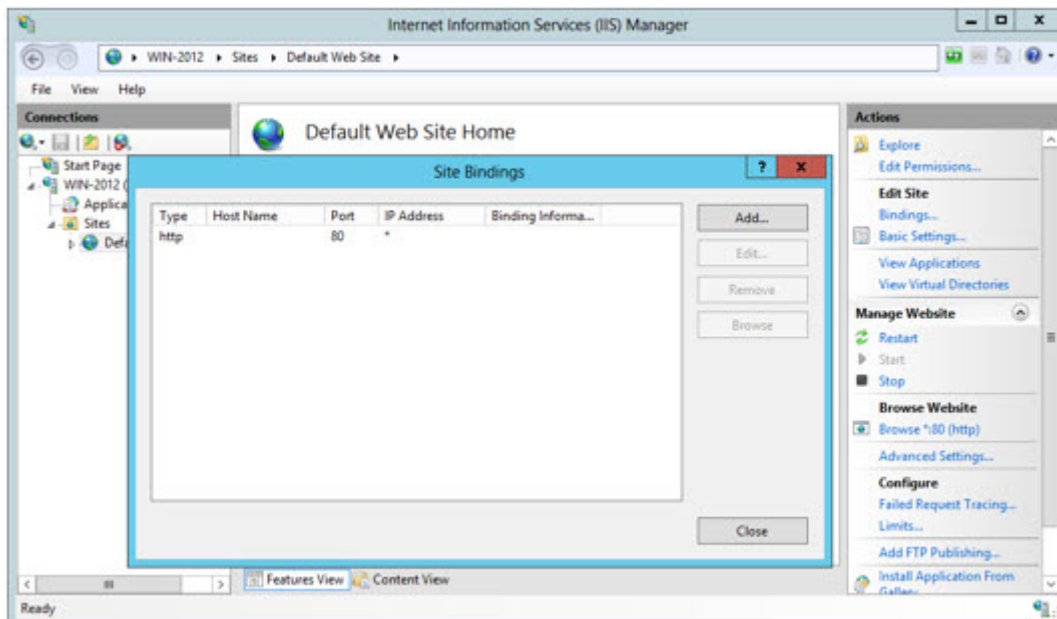
2. If a certificate is needed, then create one by clicking on the **appropriate** link (Create Self-Signed Certificate in this example), under Actions.

**Figure 29:Server Certificates**



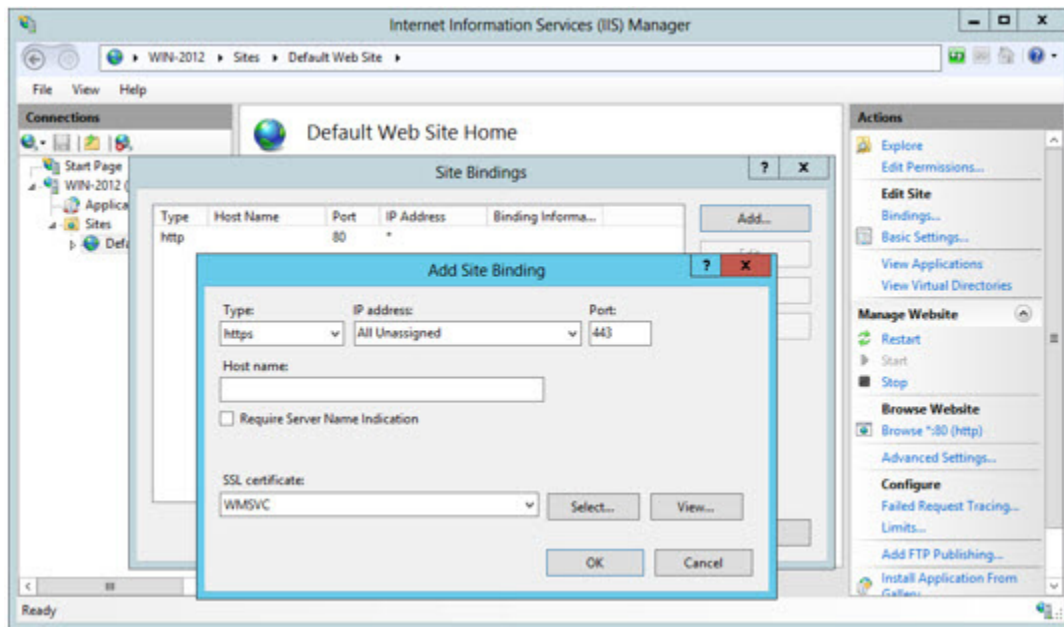
3. When a certificate is available, create an SSL Binding by first expanding **Sites**, selecting **Default Web Site**, clicking the **Binding** link under Actions. A Site Binding window will then display.

**Figure 30:Site Bindings**



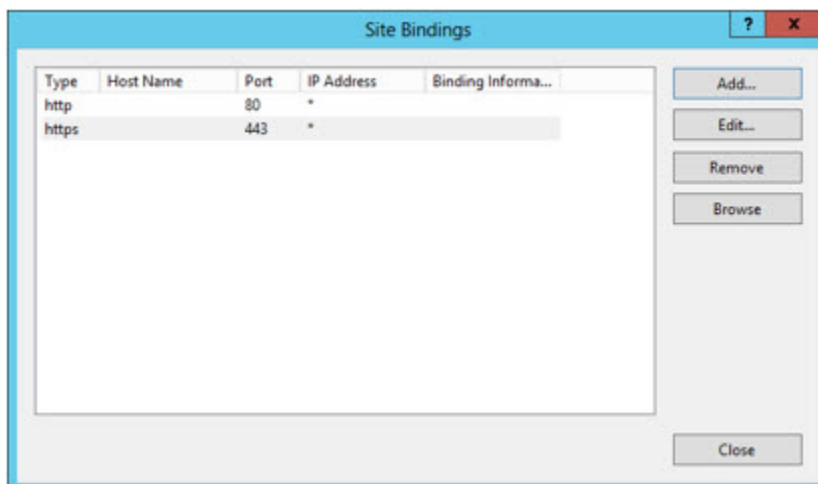
4. In the Site Binding window, click **Add** (which will result in the Add Site Binding window). In the Add Site Binding window, select **https** for Type, select a certificate, a desired port, and click **OK**.

**Figure 31: Add Site Binding**



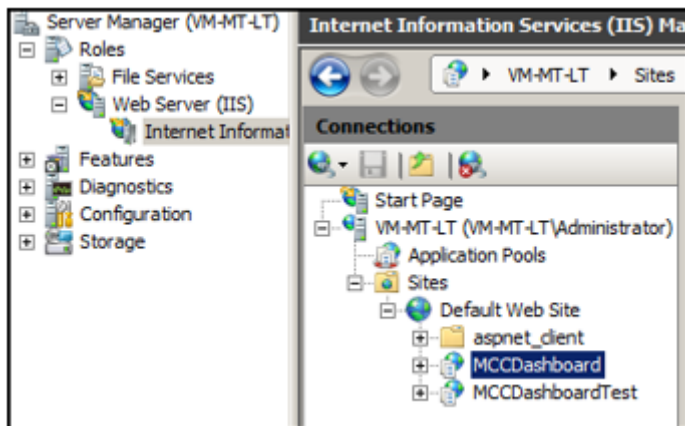
5. Click **Close**.

**Figure 32: Site Bindings**



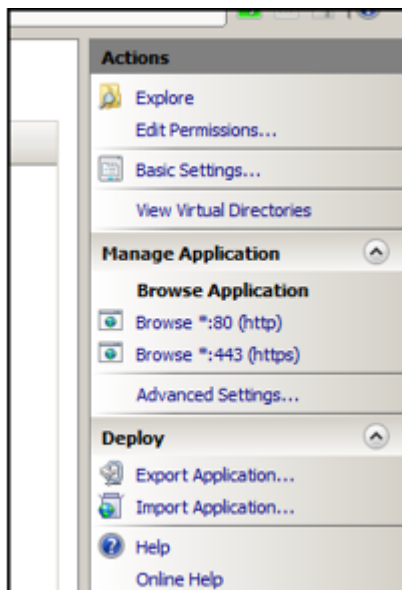
6. To verify the SSL Binding, first check that the Web Server is started. Then under Connections, click/select the Web Site to test (MCCDashboard in this instance).

**Figure 33:MCCDashboard Web Site**



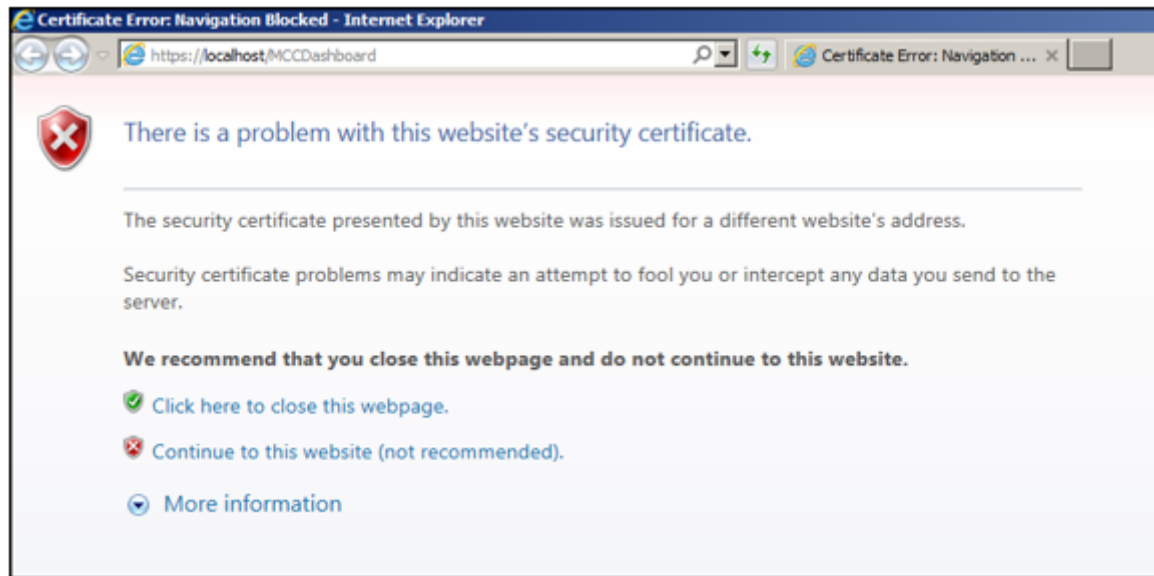
7. Under Actions/Manage Application Web Site, click **Browse \*:443 (https)**.

**Figure 34:Browse \*.443 (https)**



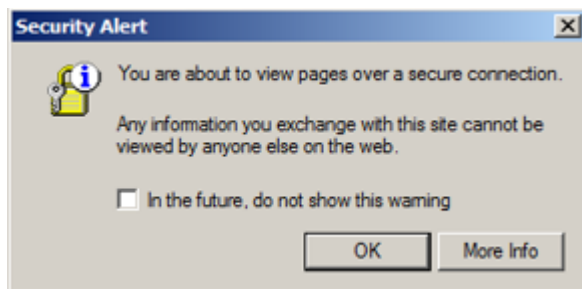
8. This following Certificate Error will occur if the Web Server is not a trusted Certificate Authority. Click the **Continue to this website (not recommended)** link.

**Figure 35:Certificate Error**



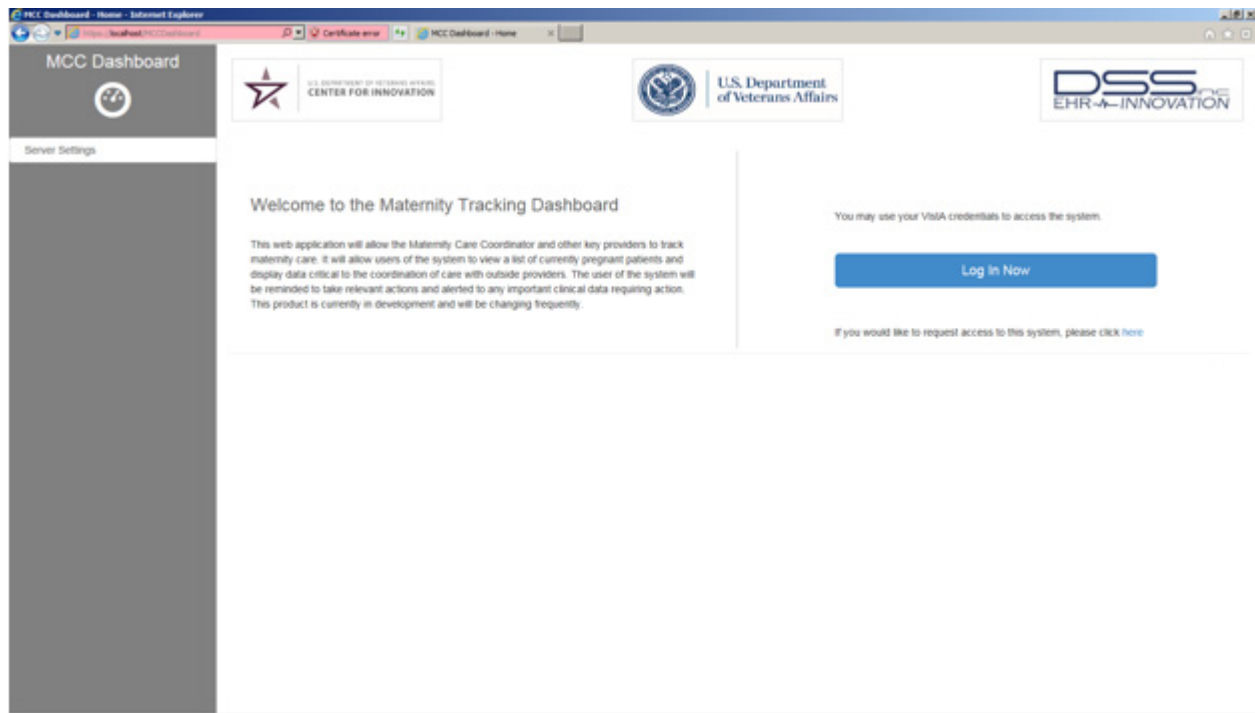
9. Click **OK** on the Security Alert, should this message occur.

**Figure 36:Security Alert**



10. Log on to the Maternity Tracker Web Page.

**Figure 37:Maternity Tracker Web Page**



## Web.config Configuration

Various configuration items are handled by editing the web.config file located in the root of the installation folder (C:\inetpub\wwwroot\MCCDashboard - for example). There are two methods to perform the configuration - Server Manager and Manual.

The following is the list of the common Items (Key/, Value) that \require Configuration:

- key="vistaServer" value="localhost"
- key="vistaListenerPort" value="9000"
- key="cdaExportFolder" value="c:\cda\outgoing"
- key="Text4BabyApiPassword" value="XXXXXX"

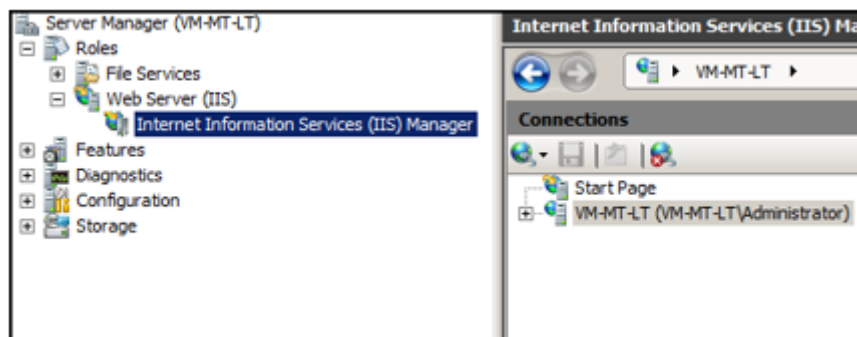
**Note:** Text4baby will be discussed in the **Manual Configuration** below.

**Note:** Just the update of the **cdaExportFolder** key will be illustrated here, as this is a known value.

### **Server Manager Configuration**

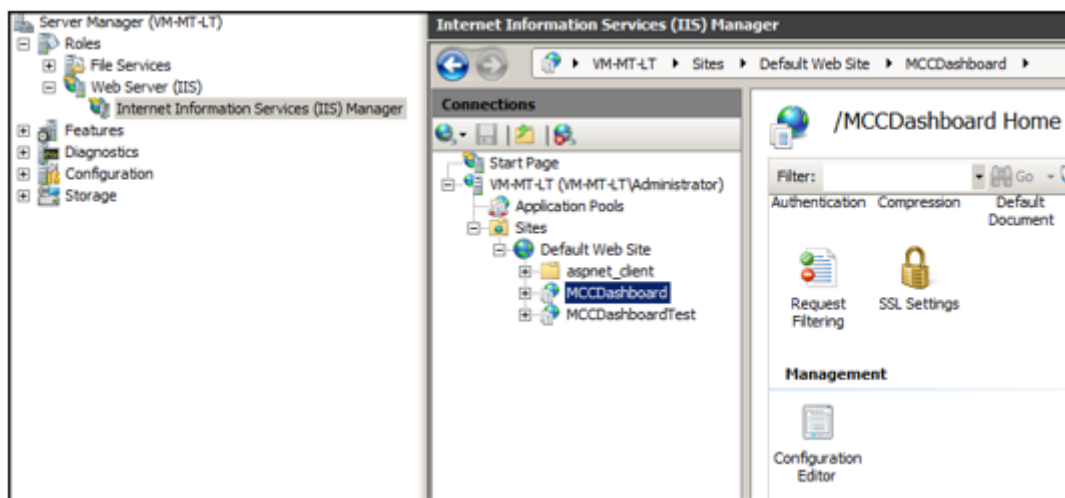
1. Open the **Server Manager**. Expand **Roles** followed by **Web Server (IIS)**, and click the **Internet Information Services (IIS) Manager**.

**Figure 38:Server Manager Configuration**



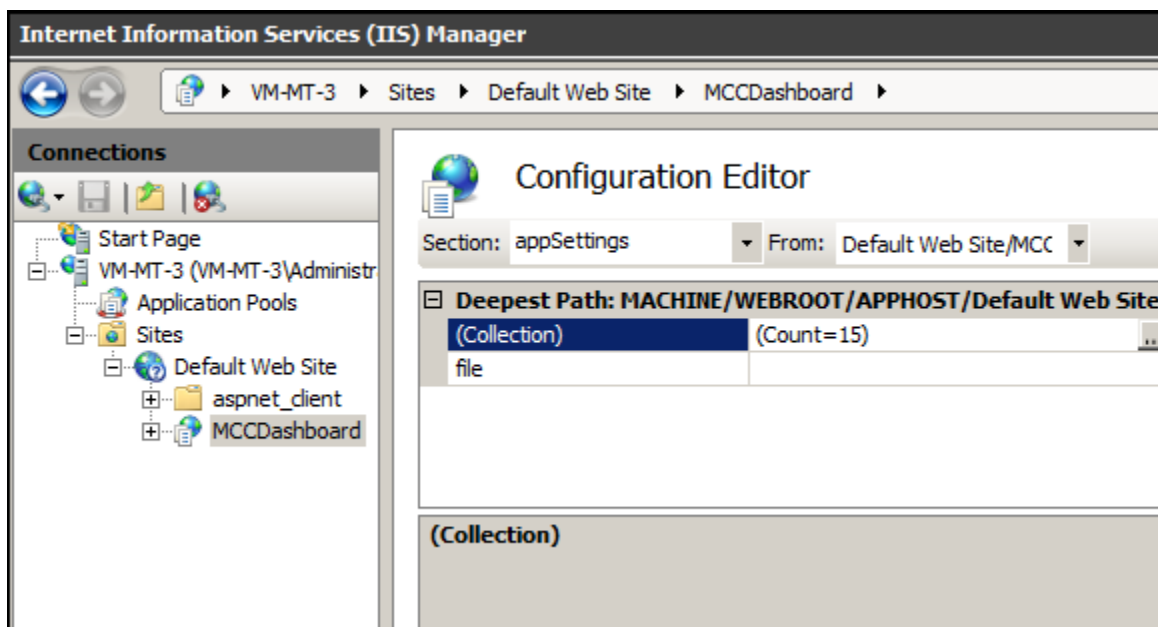
2. In the Internet Information Services (IIS) Manager pane, in the Connections section, expand the **Web Server node** (VM-MT-LT in this case), followed by **Sites**, **Default Web Site**, and finally the specific Web Site: **MCCDashboard**.

Figure 39:Server Manager



3. In the /MCCDashboard Home pane (see above), double-click the **Configuration Editor**, in the Management section. The /MCCDashboard Home pane then becomes the Configuration Editor pane.

Figure 40:Internet Information Services (IIS) Manager

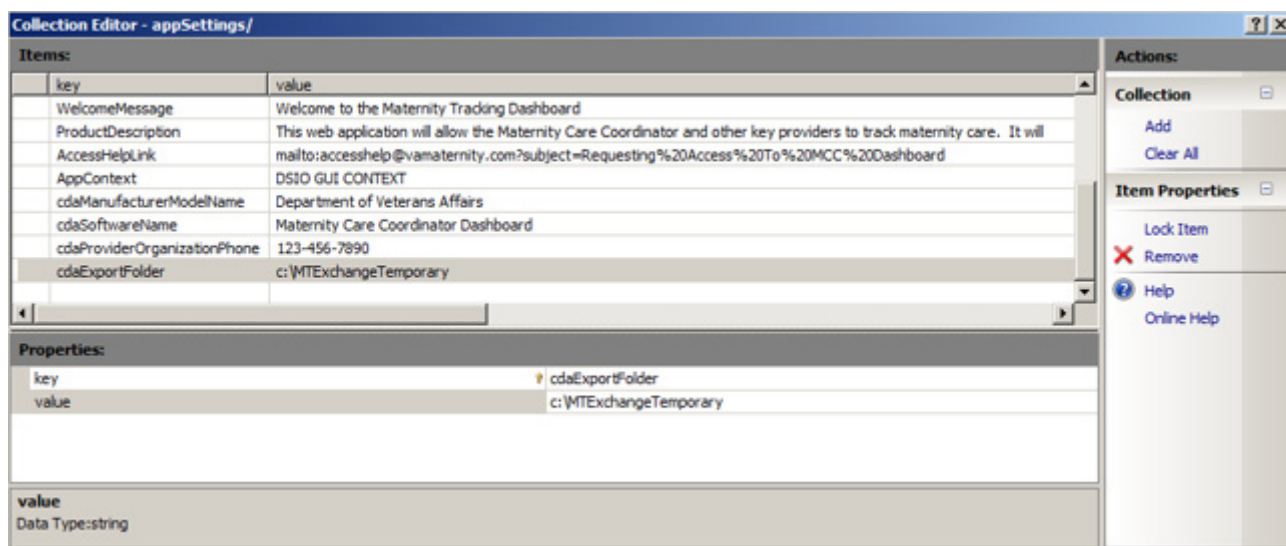


4. By placing the cursor at the end of the line (see above), the ellipsis (“...”) will appear. Clicking the ellipsis (“...”), then renders the **Collection Editor - appSettings/** window.
5. By clicking any of the keys, the corresponding key - value pair display in the lower portion of the screen, allowing modifications.

**Note:** Changes are made as the field is modified.



Figure 41:Collection Editor - appSettings/



6. Close the window by clicking the X in the top right.

## Manual Configuration

Navigate to C:\inetpub\wwwroot\MCCDashboard, or a corresponding folder to find the web.config file. Here the following data elements should be examined for correctness, and modified if necessary. Each of which can be found in the following section of the config (xml) file.

Figure 42:Web.config

```
<appSettings>
  <add key="webpages:Version" value="2.0.0.0" />
  <add key="webpages:Enabled" value="false" />
  <add key="PreserveLoginUrl" value="true" />
  <add key="ClientValidationEnabled" value="false" />
  <add key="UnobtrusiveJavaScriptEnabled" value="false" />
  <add key="vistaServer" value="localhost" />
  <add key="vistaListenerPort" value="9000" />
  <add key="WelcomeMessage" value="Welcome to the Maternity Tracking Dashboard" />
  <add key="ProductDescription" value="This web application will allow the Maternity Care Coordinator and other key providers to track maternity care." />
  <add key="AccessHelpLink" value="mailto:accesshelp@vamaternity.com?subject=Requesting%20Access%20To%20MCC%20Dashboard" />
  <add key="AppContext" value="DSIO GUI CONTEXT" />
  <add key="cdaManufacturerModelName" value="Department of Veterans Affairs" />
  <add key="cdaSoftwareName" value="Maternity Care Coordinator Dashboard" />
  <add key="cdaProviderOrganizationPhone" value="123-456-7890" />
  <add key="cdaExportFolder" value="d:\MTExchangeTemporary" />

  <!-- TEST URL -->
  <!--<add key="Text4BabyApiUserName" value="DSSincAPI" />
  <add key="Text4BabyApiPassword" value="eKl4MosmJy7R" />-->

  <!-- PRODUCTION URL -->
  <add key="Text4BabyApiUserName" value="DSSincAPI"/>
  <add key="Text4BabyApiPassword" value="dK8dAxjW"/>

  <add key="Text4BabyApiReferringUrl" value="DSS Maternity Tracker" />
  <add key="Text4BabyApiApplicationId" value="22" />
</appSettings>
```

- VistA Server Settings
  - **vistaServer** - The name of the vista server name
  - **vistaListeningPort** - The port number
- Home Page Settings
  - **WelcomeMessage** - The exact text of the welcome message
  - **ProductDescription** - Text of the product description
  - **AccessHelpLink** - A link pointing to help getting access to the application
- **AppContext** - Default is DSIO GUI CONTEXT
- CDA Settings
  - **cdaManufacturerModelName** - The manufacturer of the software
  - **cdaSoftwareName** - The name of the software
  - **cdaProviderOrganizationPhone** - The central phone number for the local VA hospital
- Provide for folder encryption
  - In the web.config file, locate the entry with a key equal to "cdaExportFolder". Change the associated value from "c:\cda\outgoing" to "X:\MTExchangeTemporary", such that the entry equals (as illustrated in figure 42):

```
<add key="cdaExportFolder" value="d:\MTExchangeTemporary" />
```

- Text4baby
  - **Text4BabyApiPassword**  
 The MCC Dashboard includes integration with Text4Baby, a free service for pregnant women. The service is configured inside the web.config file. The dashboard calls the API (hosted by Text4Baby) to register a patient for the service. There is an API available for both test and production (live) environments. When in **test**, set the values in the configuration file to the test URL, user name, and password. When **production**, the application should be set to use the production URL, user name, and password. Once set up in the web.config file all interactions with Text4Baby through the dashboard will use those settings.

**Note:** As illustrated in figure 42 – **production** (PRODUCTION URL) is active, and thus the TEST URL is commented out.

# Rollback Instructions

In the event that Maternity Tracker is required to be shut down or rolled back, the following sections can be disabled:

- User's access to Maternity Tracker
- Scheduled Task
- Triggering of consults, labs & problems
- Dashboard's access to VistA

## User's Access to Maternity Tracker

Users given access to the **DSIO GUI CONTEXT** secondary menu options should have this removed.

## Scheduled Task

Remove the setting for **RESCHEDULING FREQUENCY** (see Schedule the Task to PUSH Discreet Data section for usage).

## Triggering of Consults, Labs & Problems

For each of the follow three items, set the parameter to **NO** to prevent patients from being flagged, for configured issues:

- DSIO EVAL CONSULTS NOW
- DSIO EVAL LABS NOW
- DSIO EVAL PROBLEMS NOW

An example for **DSIO EVAL CONSULTS NOW** is displayed below.

VAH>**D ^XPAREEDIT**

Press <Enter>

--- Edit Parameter Values ---

Select PARAMETER DEFINITION NAME: **DSIO**

1. DSIO EVAL CONSULTS NOW Evaluate consults for maternity
  2. DSIO EVAL LABS NOW Evaluate labs for maternity
  3. DSIO EVAL PROBLEMS NOW Evaluate problems for maternity.
  4. DSIO OCNT LOCATIONDSIO oCNT Network Address
- CHOOSE 1-4: **1 DSIO EVAL CONSULTS NOW** Evaluate consults for maternity

---- Setting DSIO EVAL CONSULTS NOW for System: SMA.FO-TEST.MED.VA.GOV ---- EVALUATE CONSULTS DURING PATIENT SEARCH: **NO**

**Note:** Each of the triggers for Consults, Labs and Problems, set INACTIVE to **YES**:

INACTIVE: **YES** (See Configure Triggering section for usage)

## **Dashboard's access to Vista**

- Similar to configuration of the **key="cdaExportFolder"** - in the previous Web.config Configuration section – the **value's** for **key="vistaServer"** and **key="vistaListenerPort"** should be set to **null**.