

Inform.NET

Read Me - Server Installation

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BEFORE YOU BEGIN!

STOP! Before installing Inform.NET, ensure the following requirements are met:

1. Required server hardware and system software are installed.
2. Required user login permissions to install and configure all components on server.
3. Supported ATGs and end-user web browsers. (Refer to the Inform.NET administrator manual for details on how to 'bulk upload' ATG information and configure Inform.NET for end-user use.)

1. REQUIREMENTS TO INSTALL INFORM.NET ON SERVER

Inform.NET is an Enterprise level software package to be installed on a server.

1.1 Minimum Specifications

- Dedicated server with no other applications running beyond required Inform.net components
- A physical server is recommended, though virtual machine is supported.
- Server hardware must meet minimum specs (see Table 1). For higher performance options (see Table 2).

Table 1. Minimum Server Specification

	Physical Server (recommended)	Virtual Machine
CPU Cores: XEON class processors @ 2Ghz or greater and 1 MB L2 Cache per core	4 Cores: 2 Dual Core Processors with hyper-threading enable	4 cores assigned <u>exclusively</u> to Inform.NET in VMWare or Hyper-V environment
Memory	4 GB	4 GB assigned
Disk	2 X 36 GB, RAID 1	36 GB assigned, fixed size
Network Card	100 Mbit NIC with access to ATGs	100 Mbit NIC with access to ATGs
Modem Card	4 or 8 multi-port modem with PCI or PCI-express interface. Dedicated line.	Not Supported
Support Considerations:		
Level of support from Veeder-Root	Certified and fully supported for Inform.NET	Not certified and partial support for Inform.NET
Licensing	License bound to Physical Server where installed.	License bound to Machine name and CPU ID of virtual machine. No support for hardware abstraction at this time. Do not move virtual machine or license fails.
Max polling throughput (IP ATGs, low latency network, inventory only poll)	25 sites/minute. Max supported TCP resources setting of 25 (under Admin user, Global settings)	20 sites/minute. Max supported TCP resources setting of 20 (under Admin user, Global settings)

Table 2. Higher Performance Server Options (assume Physical Server)

	Mid-Grade Performance	Premium Performance
CPU Cores: XEON class	8 Cores: 2 Quad Core Processors with hyper-threading enabled. 2MB L2 Cache per core	12 cores: 2 Hex Core Processors with hyper-threading enabled. 3Ghz or greater, 2 MB L2 Cache per core
Memory	8 GB (use 64-bit Windows Server, SQL Server)	16 GB (use 64-bit Windows Server, SQL Server)

Table 2. Higher Performance Server Options (assume Physical Server)

	Mid-Grade Performance	Premium Performance
Disk	2 X 100 GB, RAID 1	4 X 250 GB, RAID 10, 7200 rpm drives
Network Card	100 Mbit NIC with access to ATGs	100 Mbit NIC with access to ATGs
Max polling throughput (IP ATGs, low latency network, inventory only poll)	125 sites/minute. Max supported TCP resources setting of 125	800 sites/minute. Max supported TCP resources setting of 400

Required Microsoft System Components installed on a single Server:

- Microsoft Windows Server 2008 or 2008 R2, Standard Edition or greater
- Microsoft SQL Server 2008 or 2008 R2, Standard Edition or greater, with:
 - SSRS (SQL Server Reporting Services)
 - Default collation of SQL_Latin1_General_CP1_CI_AS
 - Configure Database mail and set-up SSRS for e-mail delivery (instruction found in readme.doc)
- Microsoft Internet Information Services 7.0 /7.5; with 6.0 compatibility components in either case
- Microsoft .NET Framework 4.0
- Static components for IIS 7.0
- SSRS configured without SSL

2. ADMINISTRATOR PERMISSIONS ON SERVER

Proper permissions are very important for Inform.NET to install and operate successfully. Inform.NET installation requires the creation of, and access to, two user accounts:

- Server Administrator user account
- SQL Database user account.

2.1 Server Administrator User Account

These user credentials are needed to perform tasks on the server such as granting access to folders (Inform.NET folders), restarting services, accessing SSRS, creating Log files, etc... This user can be setup as a Local User or a Domain user, but should be a member of Group Administrators or Local Administrators (this topic will be covered later in the installation notes, but please note, certain admin privileges are essential especially since service creations and deletion may be needed by the user.)

2.2 SQL Database User Account

Similar to the server user, this user can be a local account or a domain account, but should be properly configured on the SQL Server instance which should allow both Windows Integrated and SQL Authentication. The SQL Server Role should be at minimum PUBLIC & DBCREATOR, though higher credentials may be setup and the specific user can be listed as the Inform.NET Database Owner.

Administrator means Administrator. It is critical the proper permissions have been established in order for the application to install and run smoothly. In this manual we will cover generic setups provided to help demonstrate what is needed, but every network is different, so please consult your Network Administrator or Database Administrator on group policies which may need to be considered to properly configure permissions.

3. ATG AND END-USER BROWSER REQUIREMENTS FOR INFORM.NET

Additional requirements to use Inform.NET:

1. Ensure Automatic Tank Gauge make/model/firmware are supported by Inform.NET (Table 3)
2. Ensure end-user browser is Internet Explorer 7/8/9 with scripting enabled

Table 3. Supported Automatic Tank Gauges

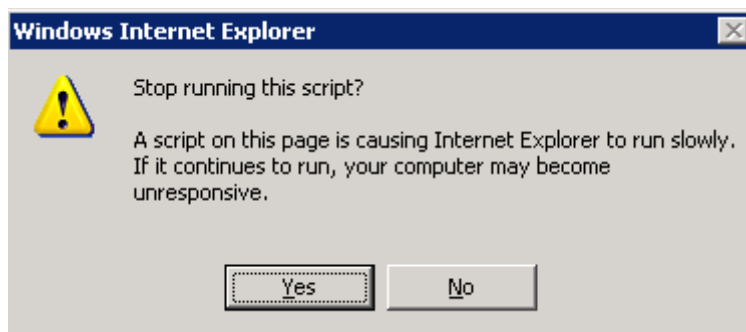
Supported Automatic Tank Gauges	Level of Support	Firmware Requirements
Veeder-Root Model TLS-2	Monitor	Version 1 +
Veeder-Root Model TLS-300 (series)	Monitor	Version 15 or Greater
Veeder-Root Model TLS-350	Monitor & Manage	Version 15 or Greater
Veeder-Root Model TLS-450	Monitor & Manage	Version 2 or Greater (Except Version 3b & 3c)
INCON TS Series: TS1000, TS1001, TS2001	Monitor	latest firmware with ATG in VR emulation mode
Franklin Fuel Systems Model TS-550, TS-5	Monitor	latest firmware with ATG in VR emulation mode
Fafnir VISY-Command and VISY-Command XL	Monitor	latest firmware with ATG in VR emulation mode
OMNTEC OEL8000	Monitor	Latest firmware
H protocol ATGs	Inventory only	Latest firmware

Level of support: ‘monitor’ support means typical ATG polling commands, while ‘manage’ includes functionality used to manage ATG configuration (see operator manual for details). To meet firmware requirements, download latest version and have certified technician install. VR emulation mode refers to Veeder-Root emulation mode, whereby non Veeder-Root gauges accept basic Veeder-Root commands.

Other ATG make/model/firmware combinations may work with Inform.NET, but are not officially supported. Future releases of Inform.NET will likely include additional ATG models.

3.1 Browser Settings – Enable Scripting

Inform.NET supports Internet Explorer 7.0, 8.0 and 9.0, but occasionally due to browser security settings or updated versions of the browser, you may experience a script error.



To prevent browser errors, please follow the instructions below:

1. Under Tools in Internet Explorer, click on Internet Options.
2. Click on the Security Tab
3. Under the security tab click on Custom Level.
4. Inside the Scripting section, insure Enable Scripting is marked enabled. If for any reason, you receive a 'Script Timeout error', please download the patch using the following link:

<http://support.microsoft.com/kb/175500>

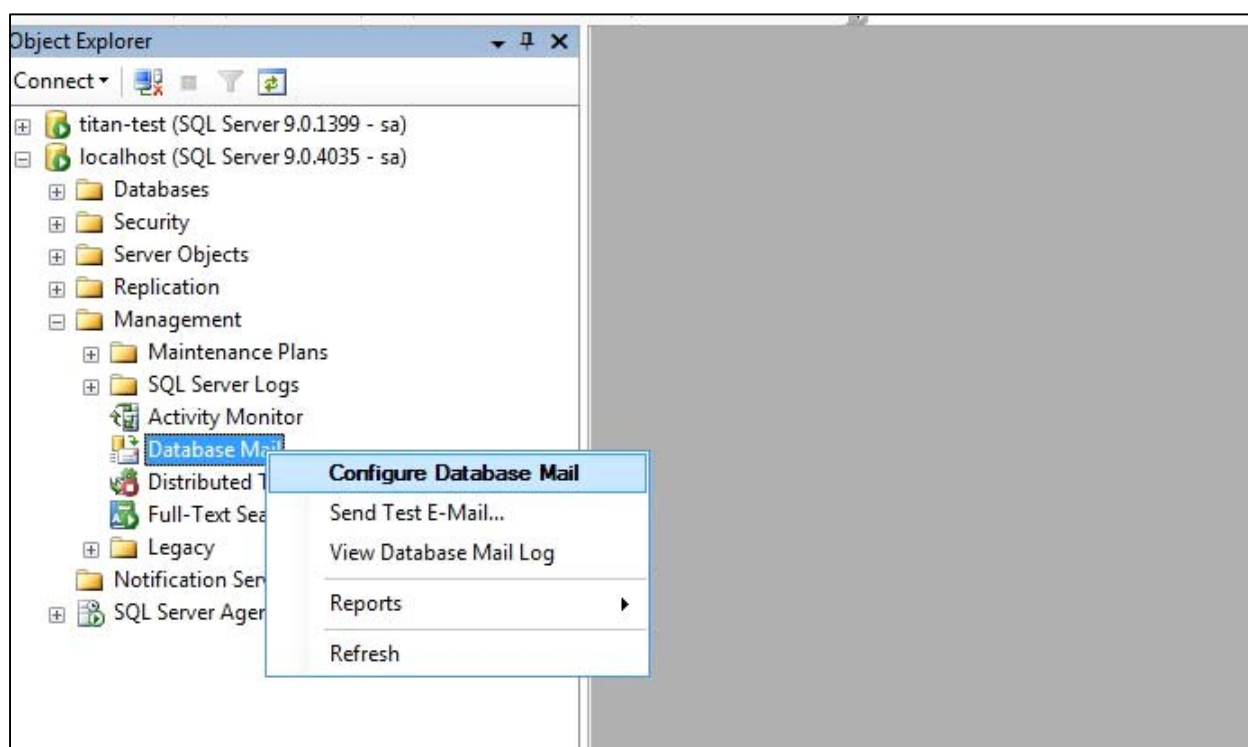
Once the above link is open, click on "FIX IT" image and download "**MicrosoftFixit50403.msi**" from the page.

3.2 Database Mail Settings

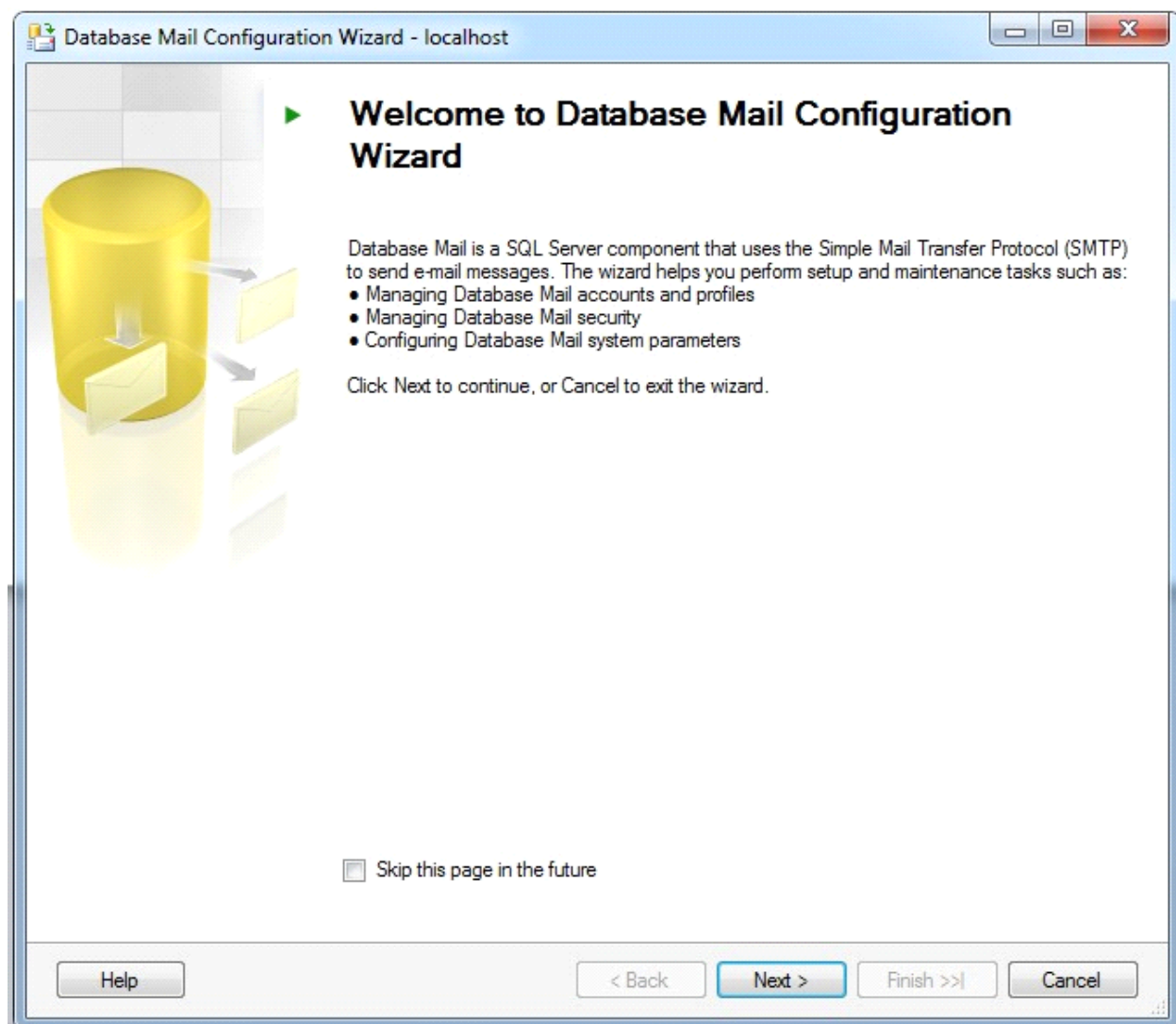
Inform.NET does perform email functions, but takes advantage of the Database Mail configured through SQL. This part of the configuration should be performed after installation has been performed. To configure the database mail on SQL server perform following steps:

Step 1:

Right Click on **Database Mail (From SQL server name -> Management -> Database Mail)** and click on “**Configure Database Mail**” option (refer below screen).

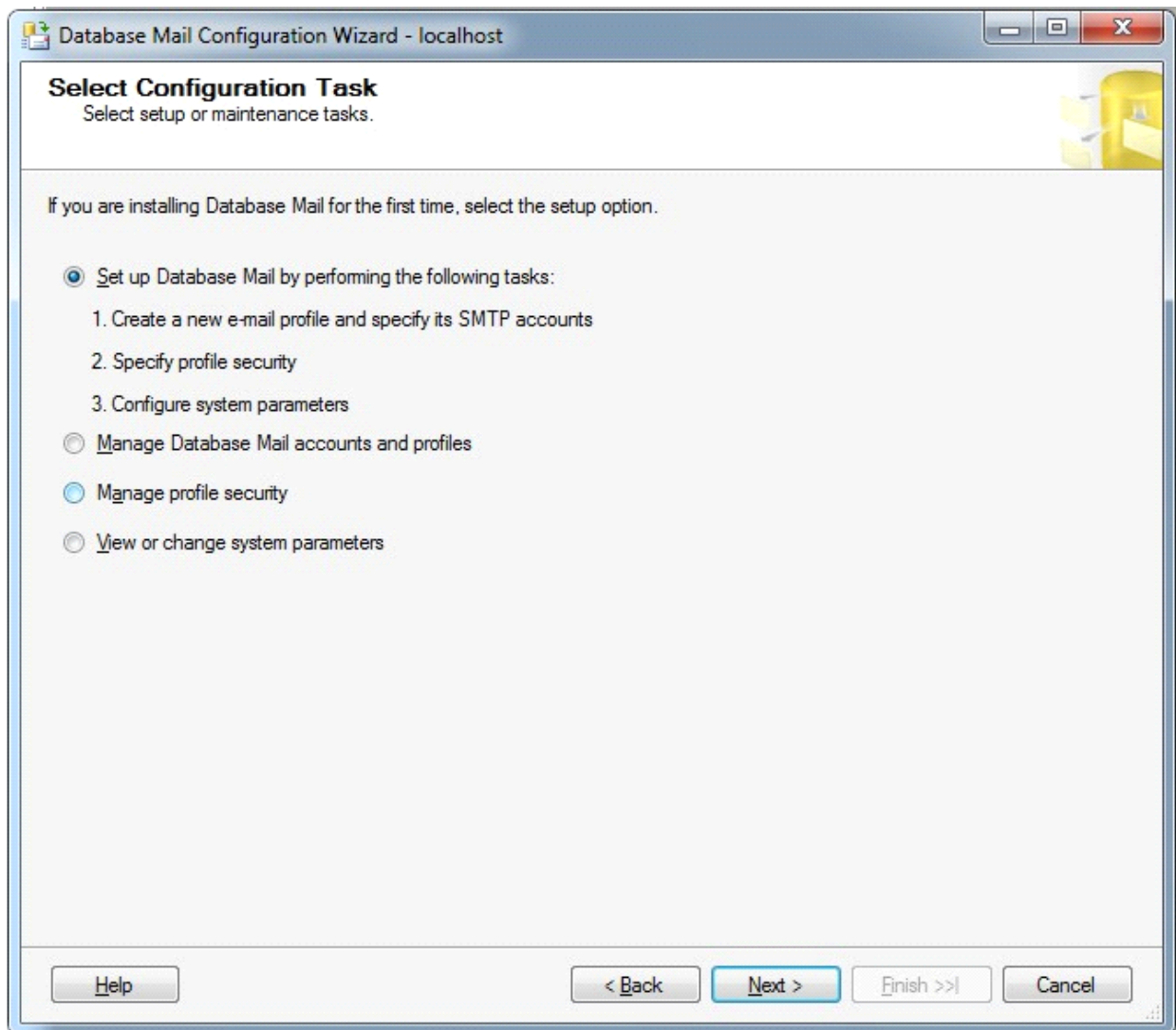


Click Next from following screen:

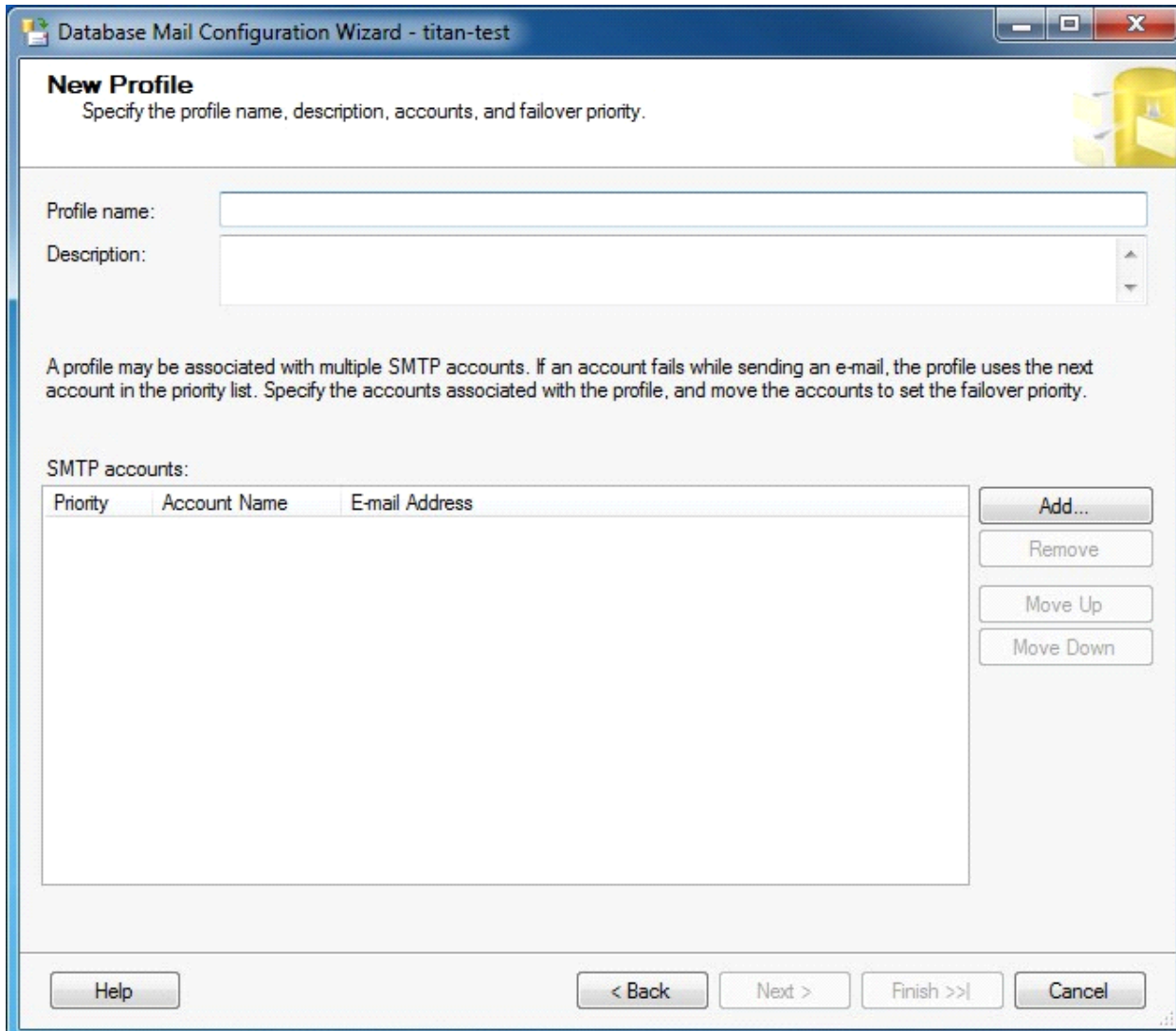


It will open the below new Window. Select the first option from below screen and click on Next:

If database mail settings are not enabled on the server than it will prompt for the enable database mail settings.



By Clicking on Next button, following screen will be opened.



Database Mail Configuration Wizard - titan-test

New Profile

Specify the profile name, description, accounts, and failover priority.

Profile name:

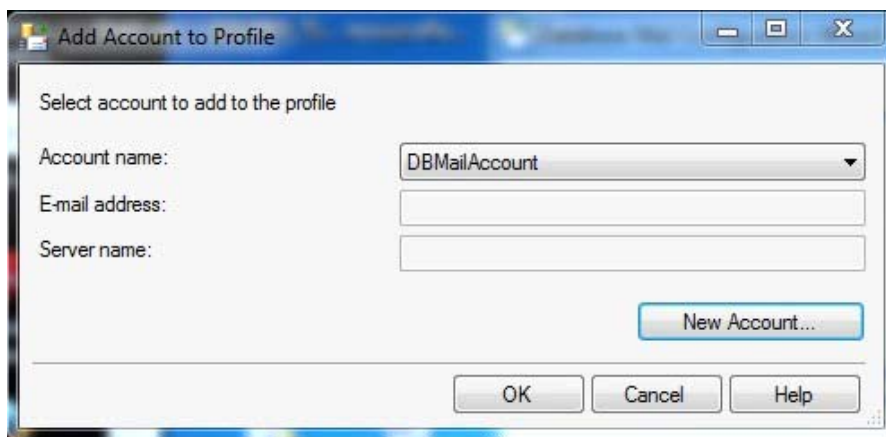
Description:

A profile may be associated with multiple SMTP accounts. If an account fails while sending an e-mail, the profile uses the next account in the priority list. Specify the accounts associated with the profile, and move the accounts to set the failover priority.

SMTP accounts:

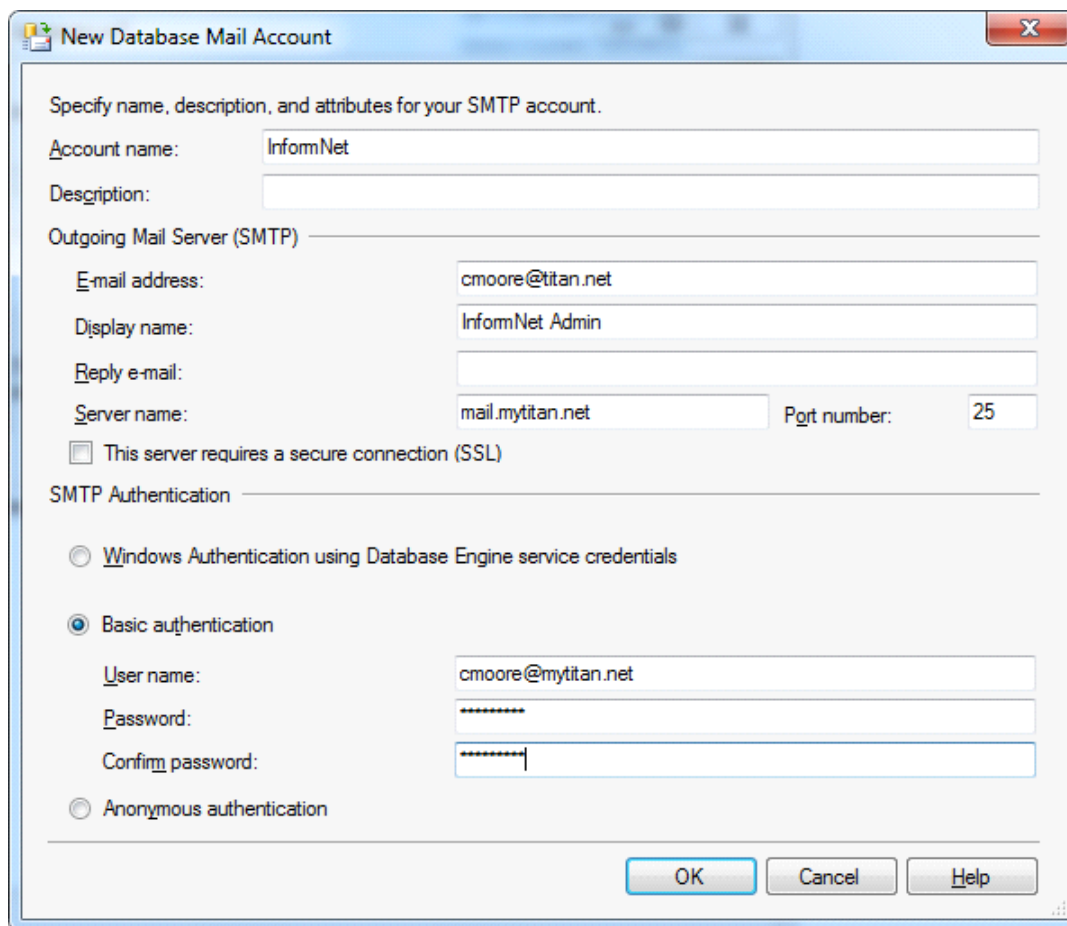
Priority	Account Name	E-mail Address
----------	--------------	----------------

User can enter the profile name “Inform.NET” into above screen, and by clicking on “Add” button into above screen, following screen will be opened.

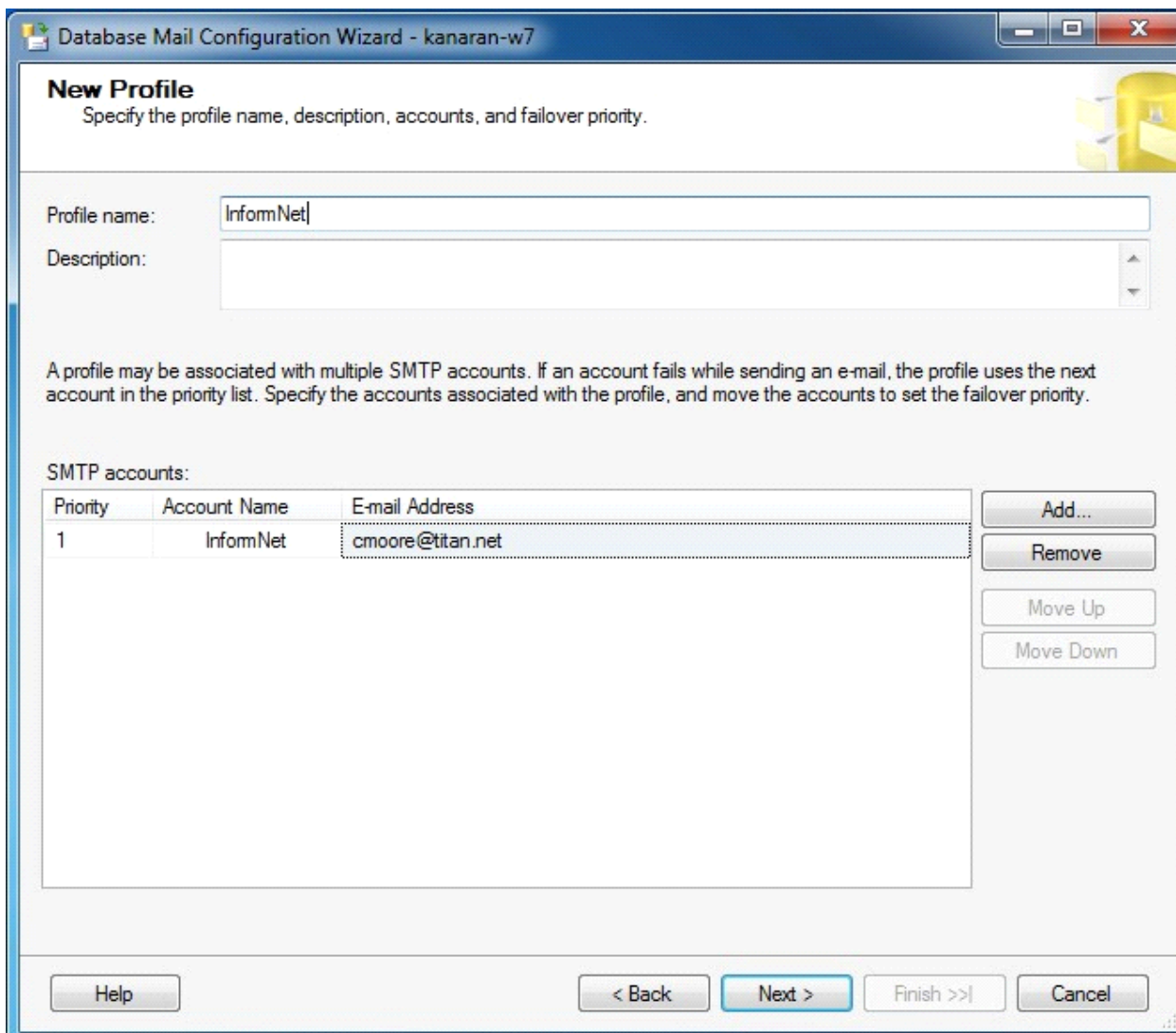


By Clicking on “New Account” button, following screen will be opened:

User can enter the account name and other information like SMTP server information with credentials, and outgoing Email address and display name.



By clicking on OK button Account information will be saved and displayed under SMTP accounts information. See below screen.



New Profile
Specify the profile name, description, accounts, and failover priority.

Profile name: InformNet

Description:

A profile may be associated with multiple SMTP accounts. If an account fails while sending an e-mail, the profile uses the next account in the priority list. Specify the accounts associated with the profile, and move the accounts to set the failover priority.

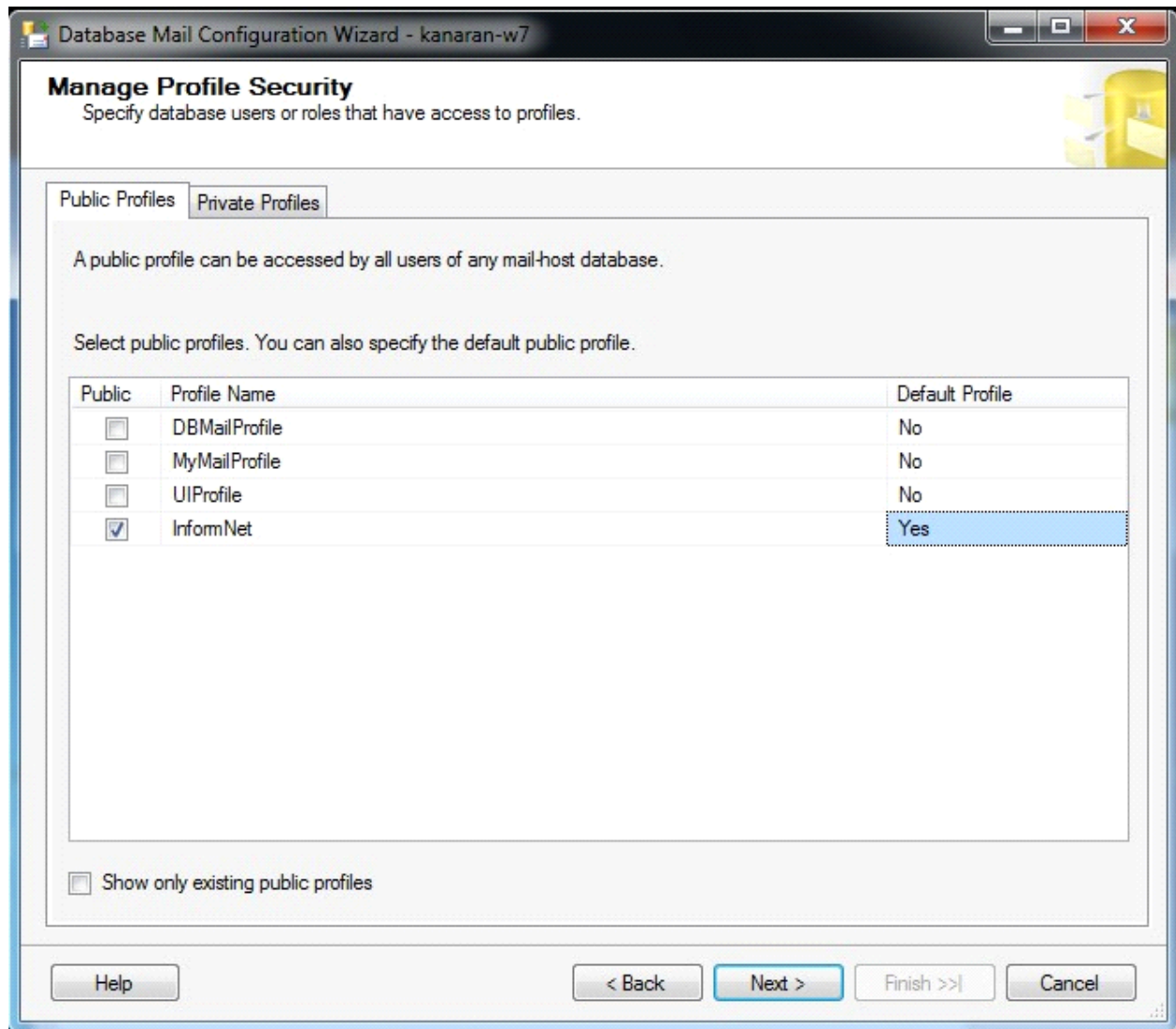
SMTP accounts:

Priority	Account Name	E-mail Address
1	InformNet	cmoore@titan.net

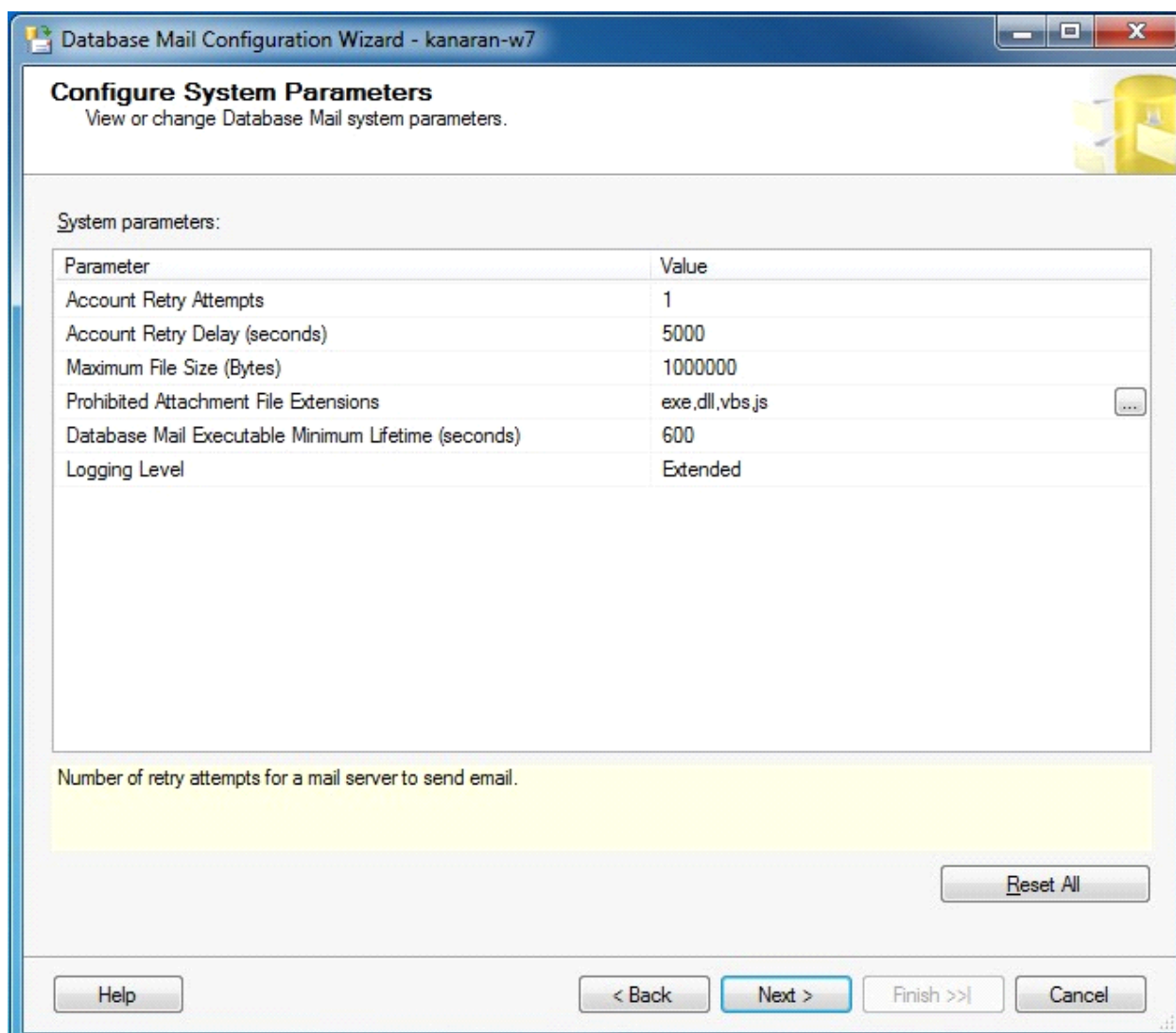
Add...
Remove
Move Up
Move Down

Help < Back Next > Finish >> Cancel

Click on Next button, following screen will be opened, where all the existing profiles will be displayed. Make the "Inform.NET" profile public and Select Yes into Default Profile.



By clicking on Next button in above screen, following screen will be opened, where user can specify the different mail parameters.



By Clicking on “Next” button Final Overview screen will be displayed and Click on Finish button to create the database mail settings.

After creating a mail profile, you can send the test mail using following steps:

1. Right Click on **Database Mail (From SQL server name -> Management -> Database Mail)** and click on “**Send Test E-mail**” option.

3.3 How To Setup SSRS For Email Delivery

When setting up a subscription inside SSRS, you have a selection for delivery method. The default is “File Share location”. If you want your scheduled reports to be automatically delivered via email, please visit the following link:

<http://msdn.microsoft.com/en-us/library/ms345234.aspx>

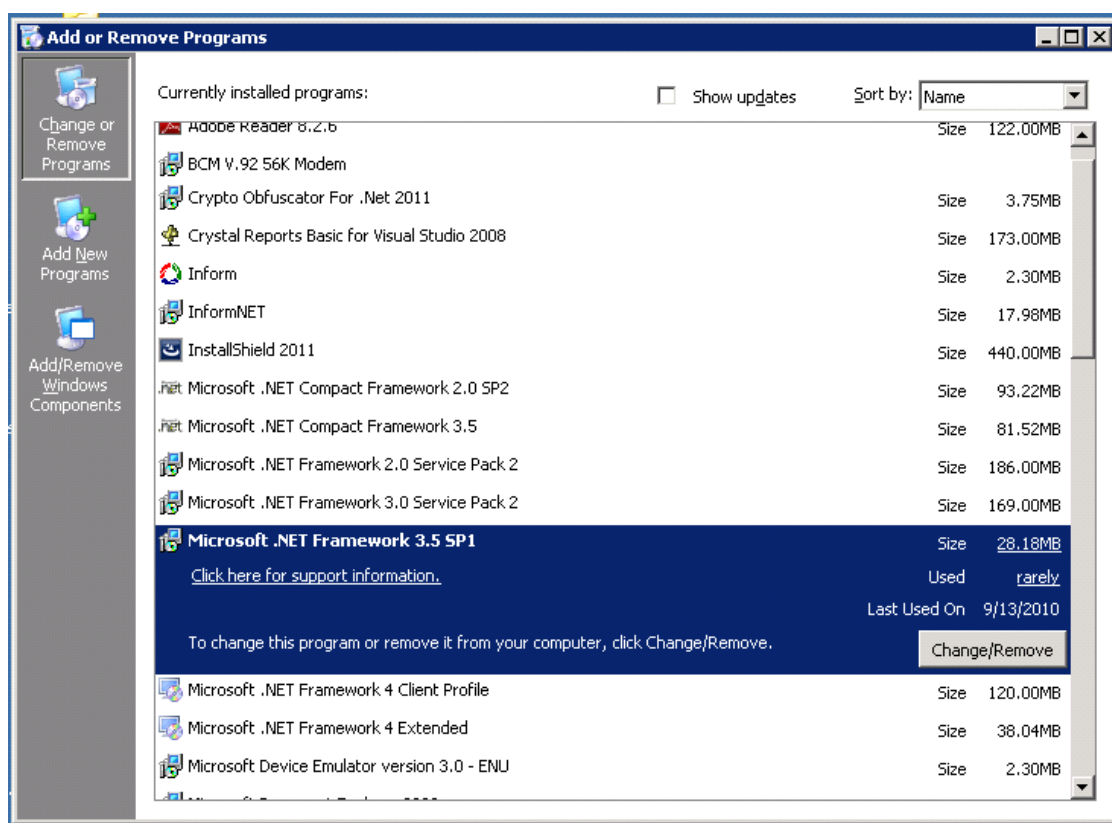
4. HOW TO VERIFY INSTALLATION REQUIREMENTS

4.1 How to verify .NET Framework 3.5

One of the essential components is .NET Framework 3.5, though other versions of the .NET Framework may be available, it is necessary to have this version installed on the server.

To verify the proper version is installed:

1. Click on the START menu on the lower left corner of the screen
2. Select Control Panel
3. Select Add/Remove Programs
4. Browse the list of installed components and applications for Microsoft .NET Framework 3.5 as shown below:



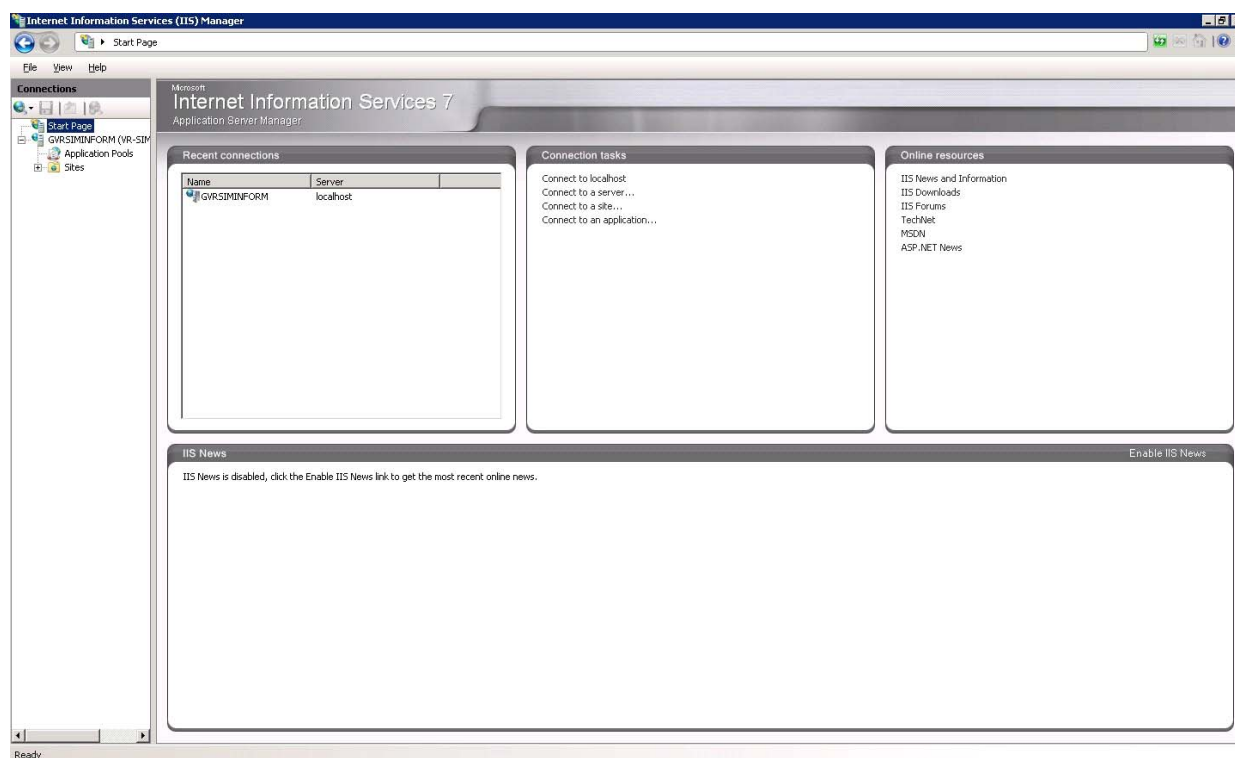
4.2 How To Verify IIS 7 And Compatibility Components Are Installed

Internet Information Services (IIS) is Microsoft's web server application. Inform.NET supports 7.0 but IIS 6.0 compatible components must be installed.

The most common way to access IIS is to select Administrative Tools then select IIS from the menu (see below):

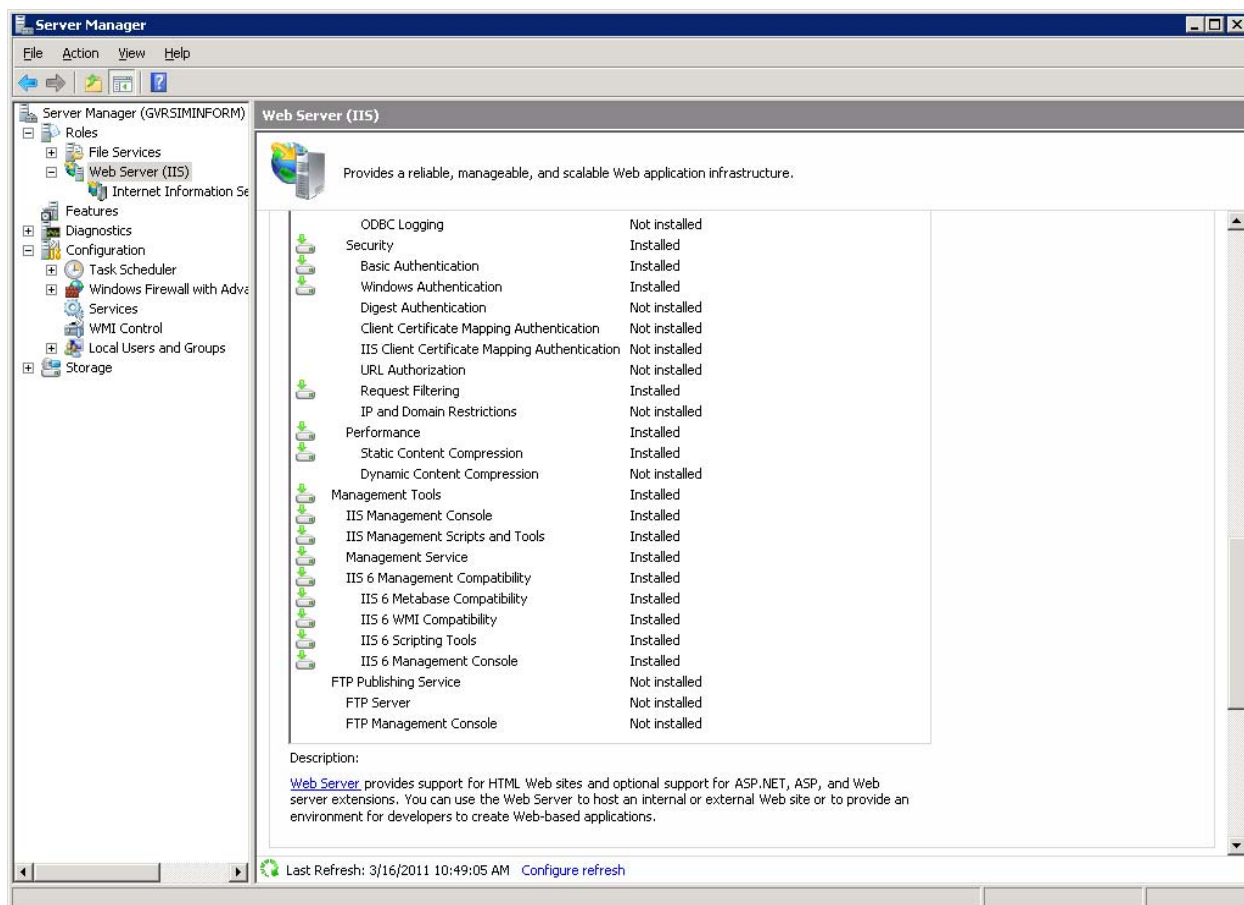


IIS 7.0 – It is accessible by going through the Administrative Tools menu, but as you can see below it looks entirely different:



Inform.NET does support IIS 7.0, but it does require that the 6.0 compatibility components are installed. To install IIS 6.0 compatibility components:

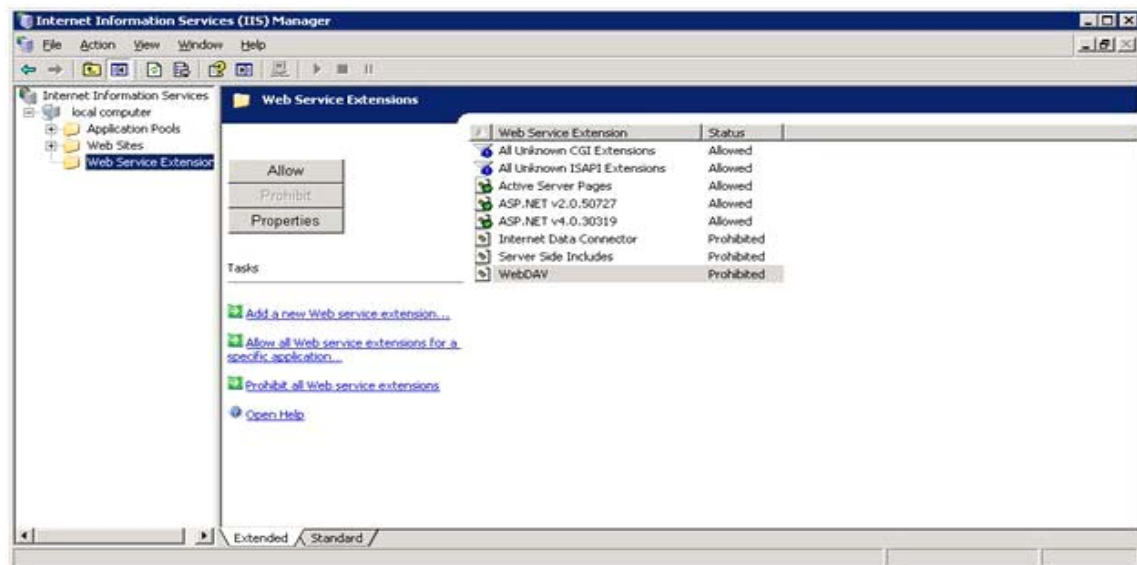
1. Go to the Control Panel on the server.
2. Select Programs and Features page in the Windows control panel.
3. Select Turn Windows features on or off.
4. Select Internet Information Services>Web Management Tools>IIS 6 Management Compatibility>IIS Metabase and IIS 6 configuration compatibility.



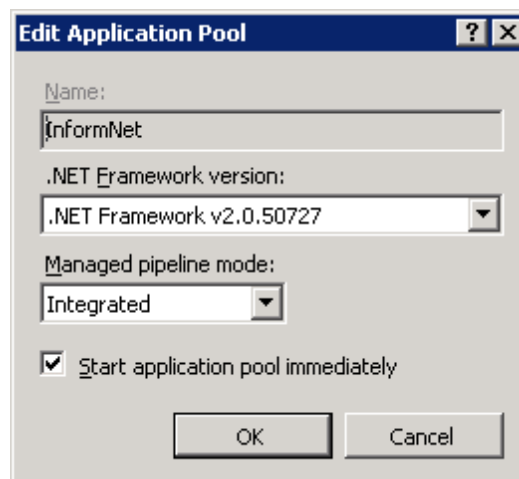
To verify - As shown above, they are listed in the Web Server (IIS) menu.

4.3 IIS .NET components Settings

One item that needs to be verified is if IIS has been configured to allow ASP.NET v2.0.50727 components. In IIS 6, this is accessed by going to the IIS Manager and selecting Web Service Extensions. You should see the .NET component marked "Allowed".



In IIS 7.0, please verify the Application Pool by double clicking Inform.NET's application pool:

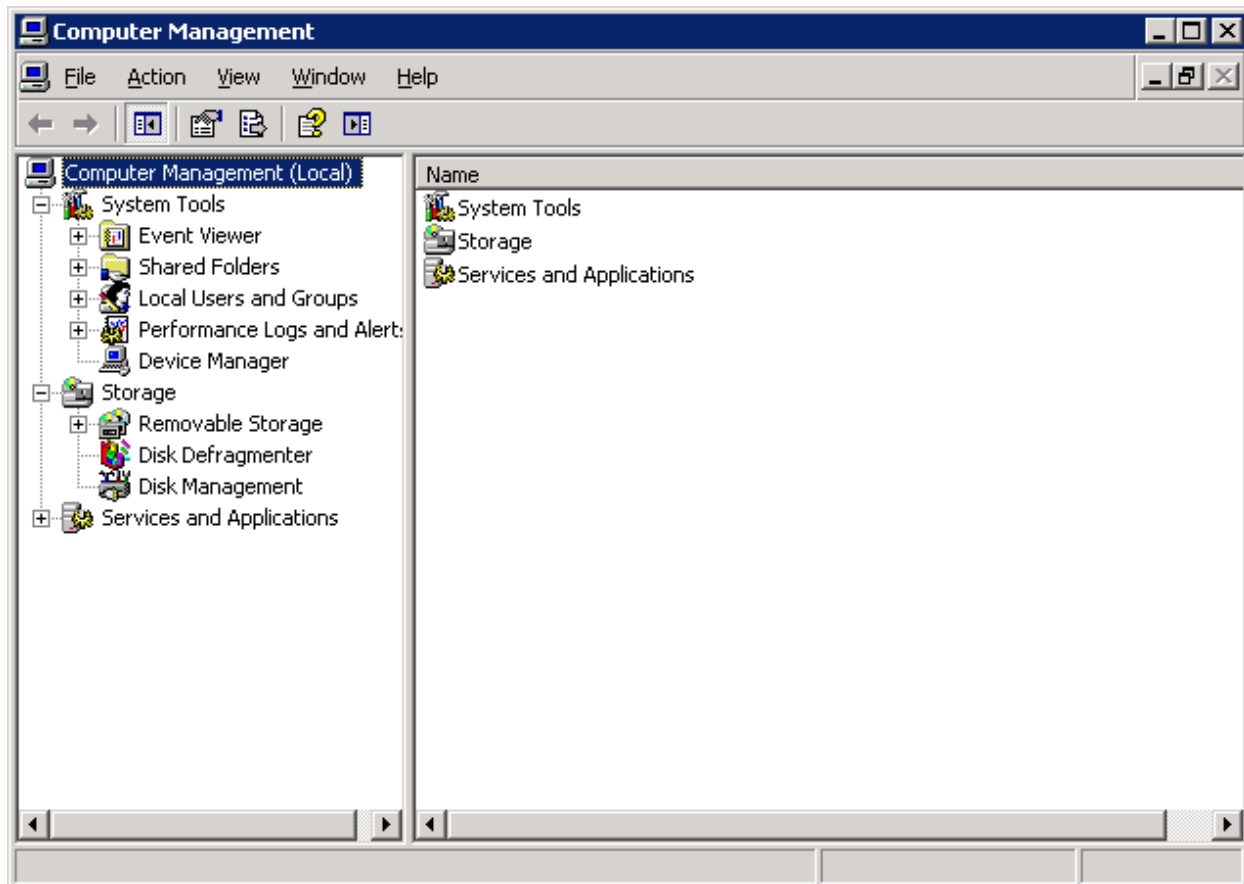


4.4 How To Setup A User On Windows Server 2008

This section will demonstrate how to setup the Server Administrator on a Windows Server 2008 machine.

Step 1 – Open the Computer Manager browser

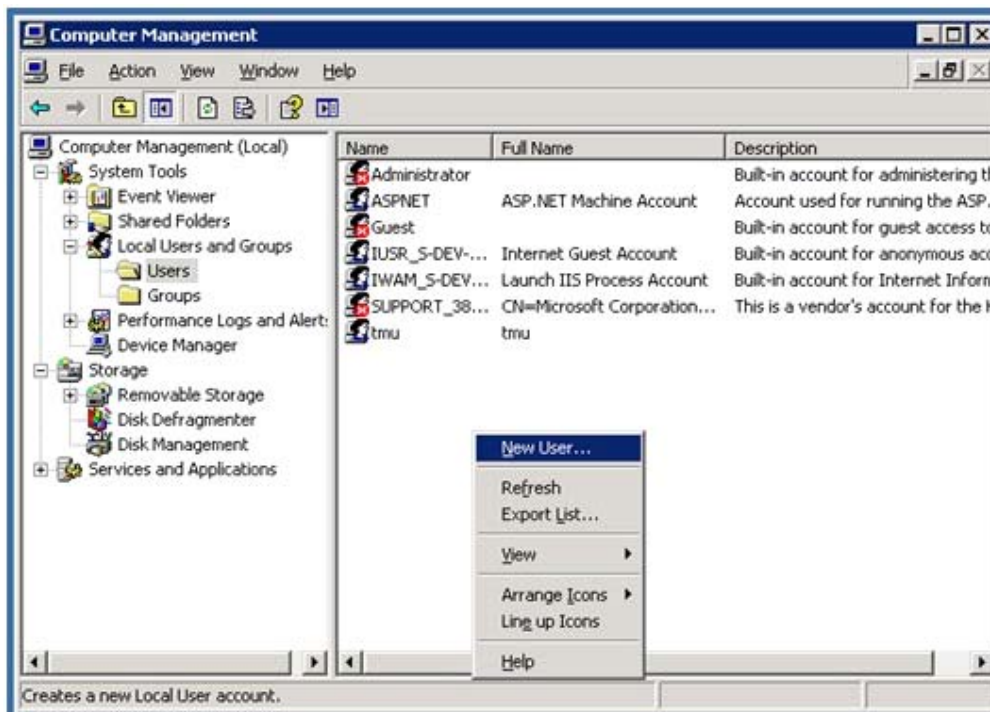
Right click “My Computer” and select “Manage” and the Computer Manager window will open:



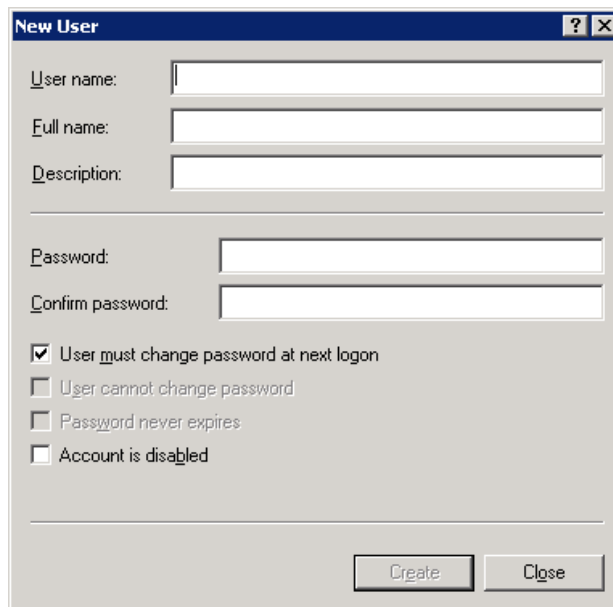
Under the Local Users and Groups menu, you will see 2 Folders. The USERS folder is a method of adding a local user. The GROUPS menu allows you to add domain users to the server and give proper permissions. Please remember that you may set up a Server Account in a couple of different manners so please defer to your local Network Administrator on proper configuration. The options listed below are only illustrations on how to setup a user based on 2 different methods.

4.4.1 TO SET UP LOCAL USER

To add a new Local User, Right-click and Select “New User...”



Then simply add a local user, but be sure to UNCHECK the box “User must change password at next logon” and “Password never expires” should be checked.

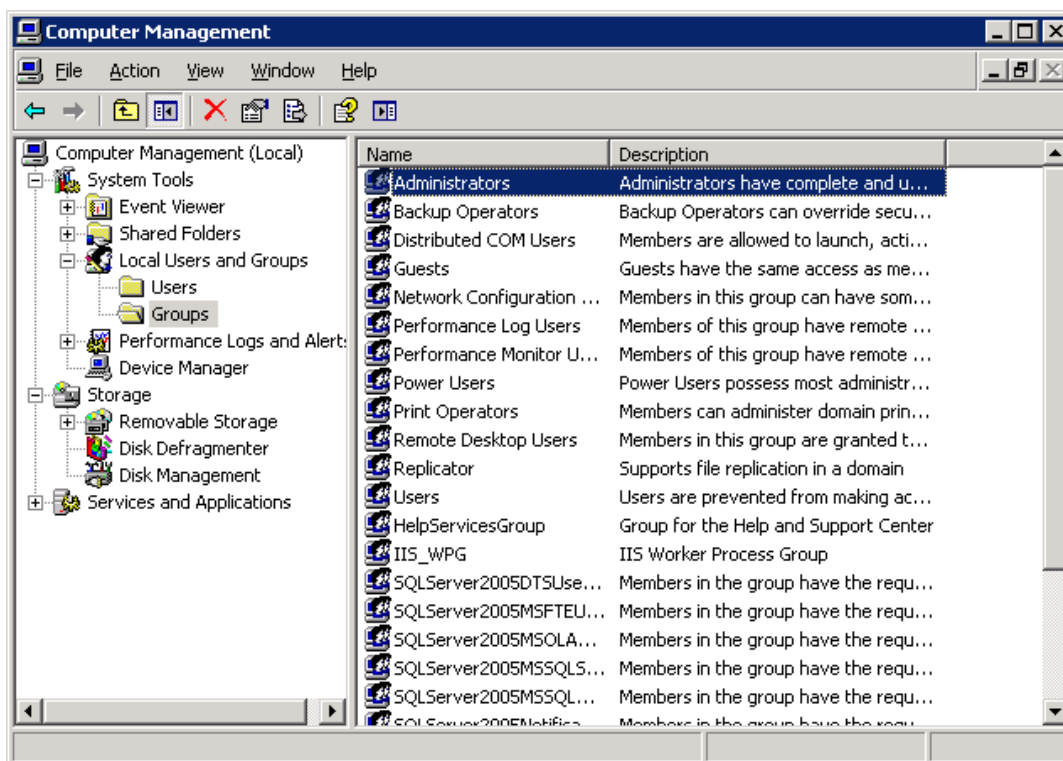


The 'New User' dialog box is shown. It contains the following fields and options:

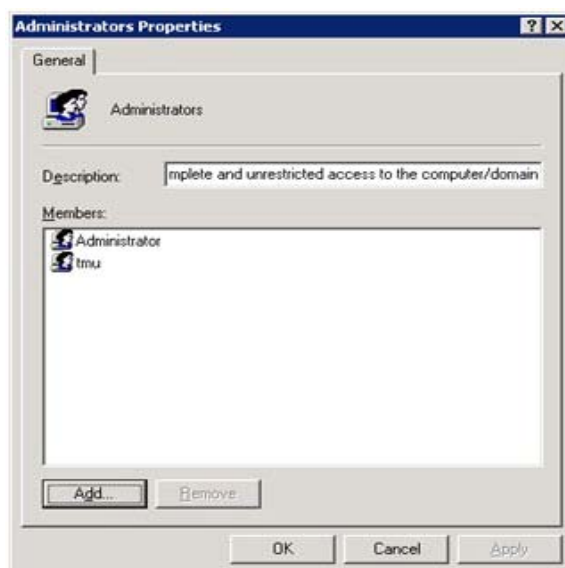
- User name: [text box]
- Full name: [text box]
- Description: [text box]
- Password: [text box]
- Confirm password: [text box]
- ☒ User must change password at next logon
- ☐ User cannot change password
- ☐ Password never expires
- ☐ Account is disabled
- Create [button]
- Close [button]

4.4.2 TO SET UP LOCAL GROUP USER

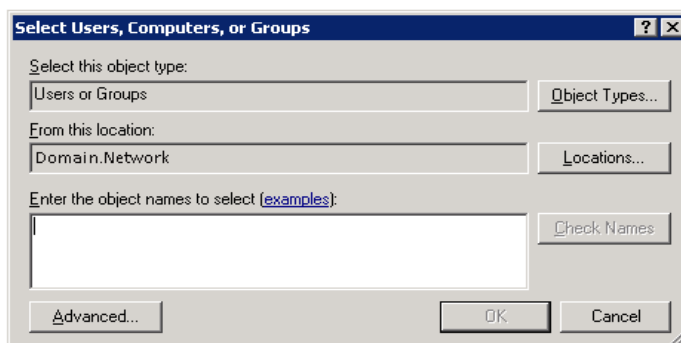
Under the Groups folder, you'll see a list of roles that users can be assigned. The user we will be adding is an Administrator user.



Open the ADMINISTRATORS group as shown below:



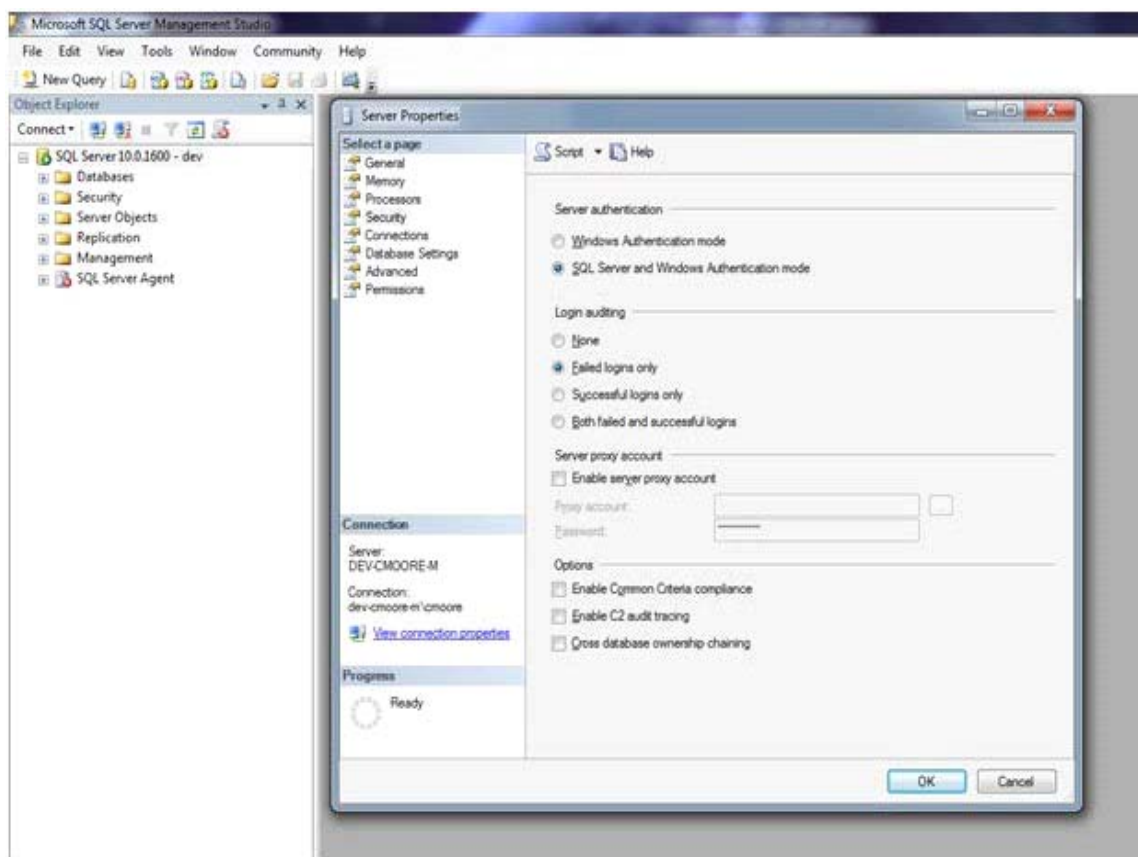
Please notice the Users that are added to the Administrators group can consist of Domain level users as well as local users. Simply click “Add..” and a new window will open which will allow you to browse for the user you wish to add.



4.5 How To Setup A SQL To Allow SQL Authentication

In this section, we will review how to configure the SQL server. Inform.NET takes advantage of both Windows Integrated Security as well as SQL Authentication, so the first step is to make sure the SQL user security has been configured.

1. Open SQL Server Management Studio.
2. Connect to SQL Instance (typically Windows Integrated method if the Management Studio was installed properly).
3. Right click SQL Instance and select PROPERTIES.
4. Double click the SECURITY menu item on the left hand section.
5. Verify that SQL Server and Windows Authentication Mode is selected.

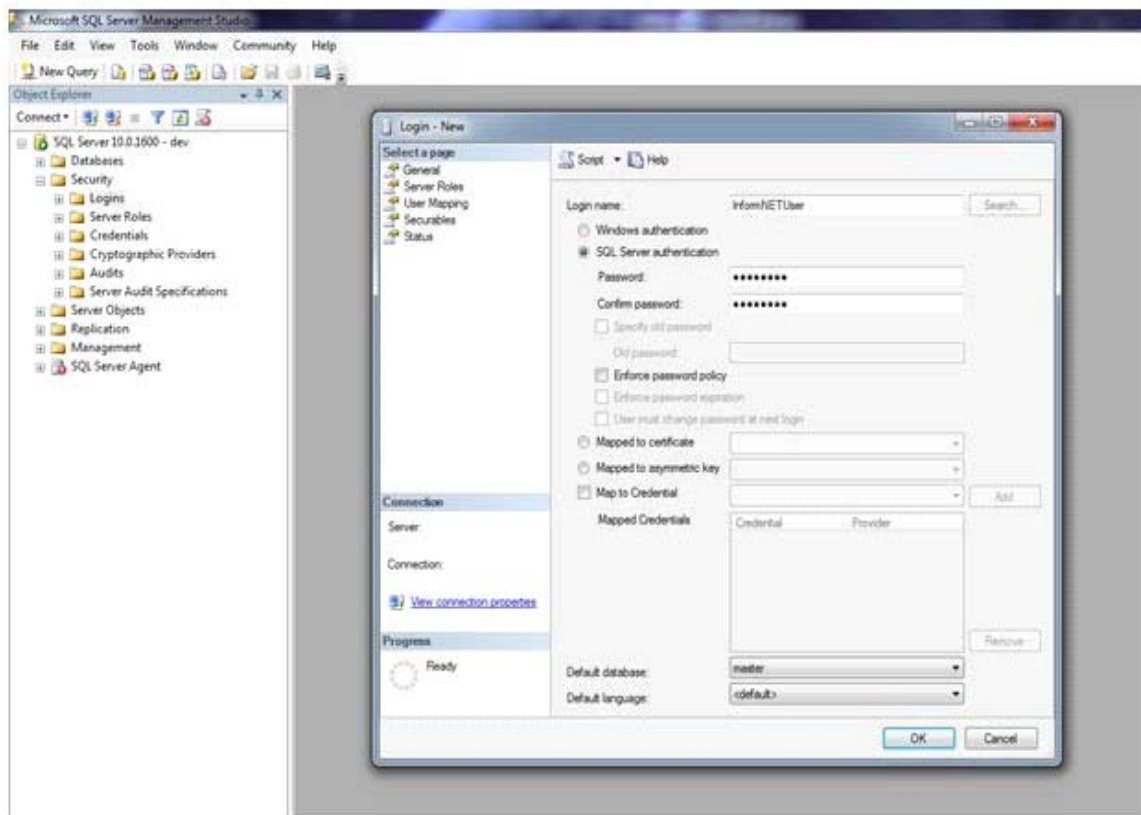


4.6 How To Setup A User On SQL Server 2008

From the SQL Server Management Studio, you'll see the SQL Instance on the left menu if connected properly. In the pane, you'll see a list of items including "Database", "Security", "Server Objects", "Management", etc...

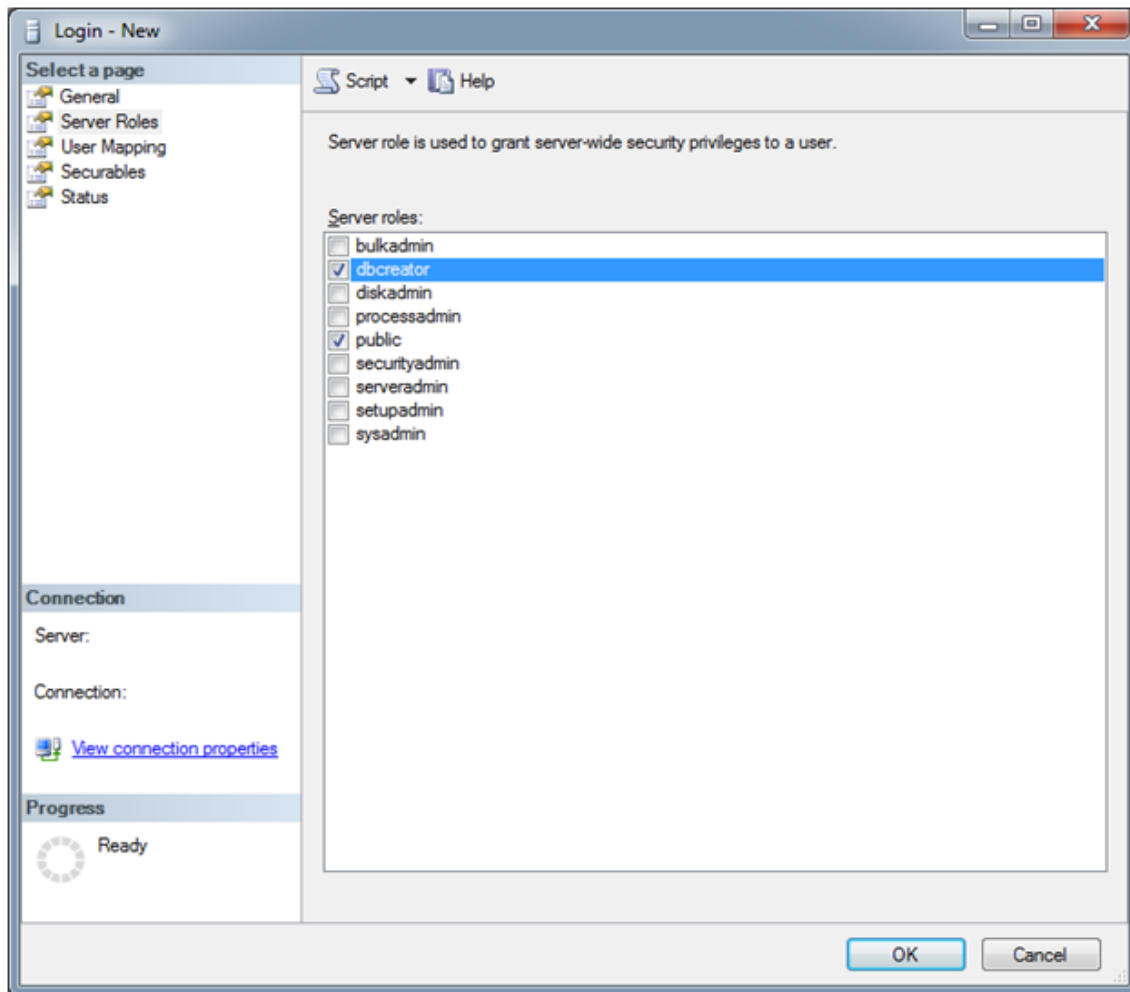
To create a SQL user:

1. Open the Security folder on the left hand menu.
2. Right Click Logins and select "New Login".
3. Select either Windows Authenticated user or SQL server authentication.
4. Create Login name or select it from Domain list.
5. Since this should be a service account, please uncheck "Enforce Password Policy".



4.7 Permissions for SQL User

It is important to make sure the SQL user account has the proper permissions. The minimum level of security for the application to install is PUBLIC and DBCREATOR. Under the Login User's screen in the previous section, there is a menu on the left-hand side "Server Role". As shown below, the following items MUST be selected.



4.8 How to setup SSRS configuration

Inform.NET takes advantage of SSRS (SQL Server Reporting Services) for reporting purposes. This integration allows for a vast number of capabilities, but in order for reporting to be displayed successfully, it is important that SSRS be installed and configured properly.

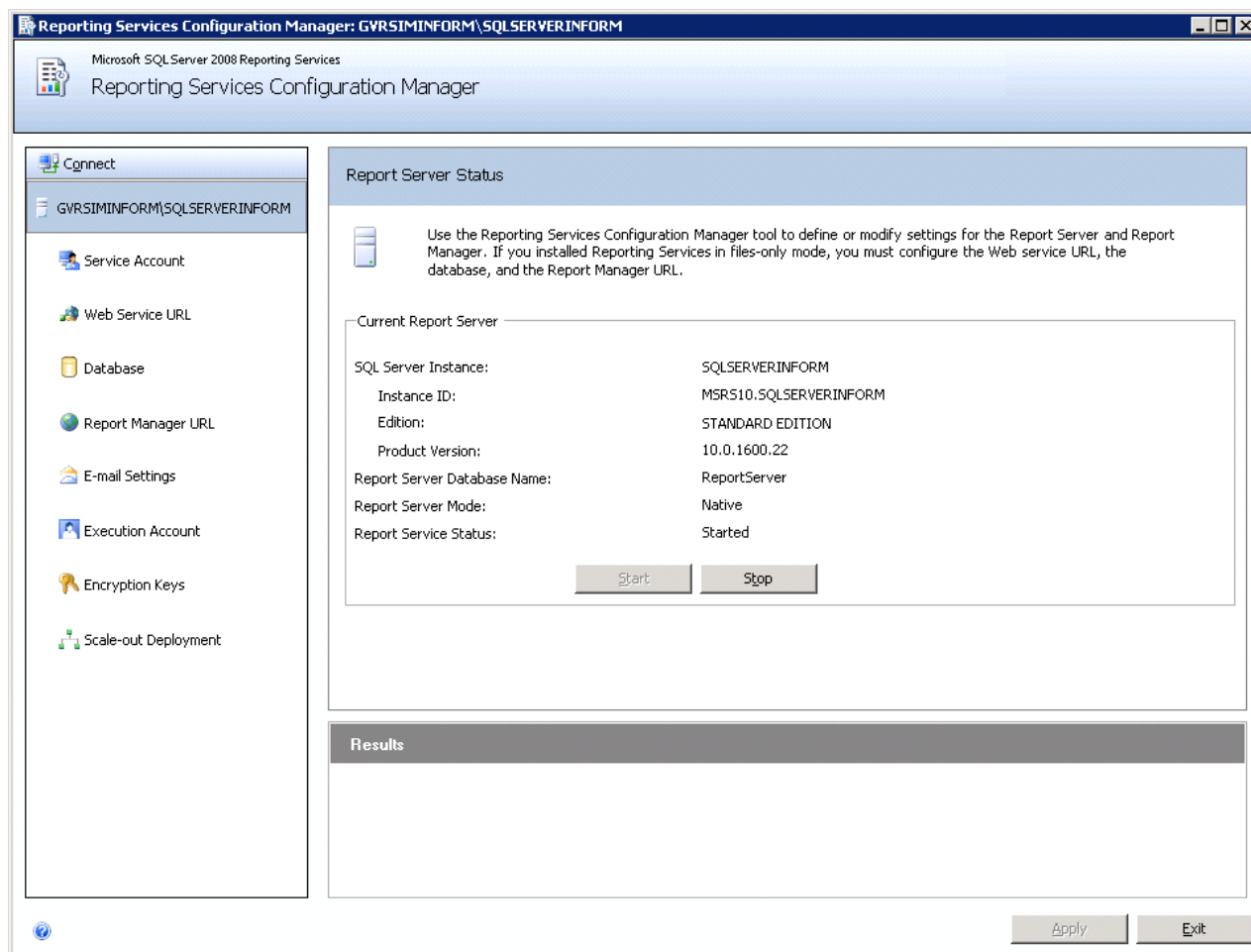
Please check with your Network Administrator or Database Administrator to insure SSRS components were installed. Once installed, please verify the following configurations.

4.8.1 SQL 2008 SSRS Configuration

As described above and illustrated for SQL 2005 SSRS configuration, to setup SSRS for 2008, navigate through the START menu, navigate to the Microsoft SQL Server 2008 selection and under the Configuration Tools, then select REPORTING SERVICES CONFIGURATION as shown below.

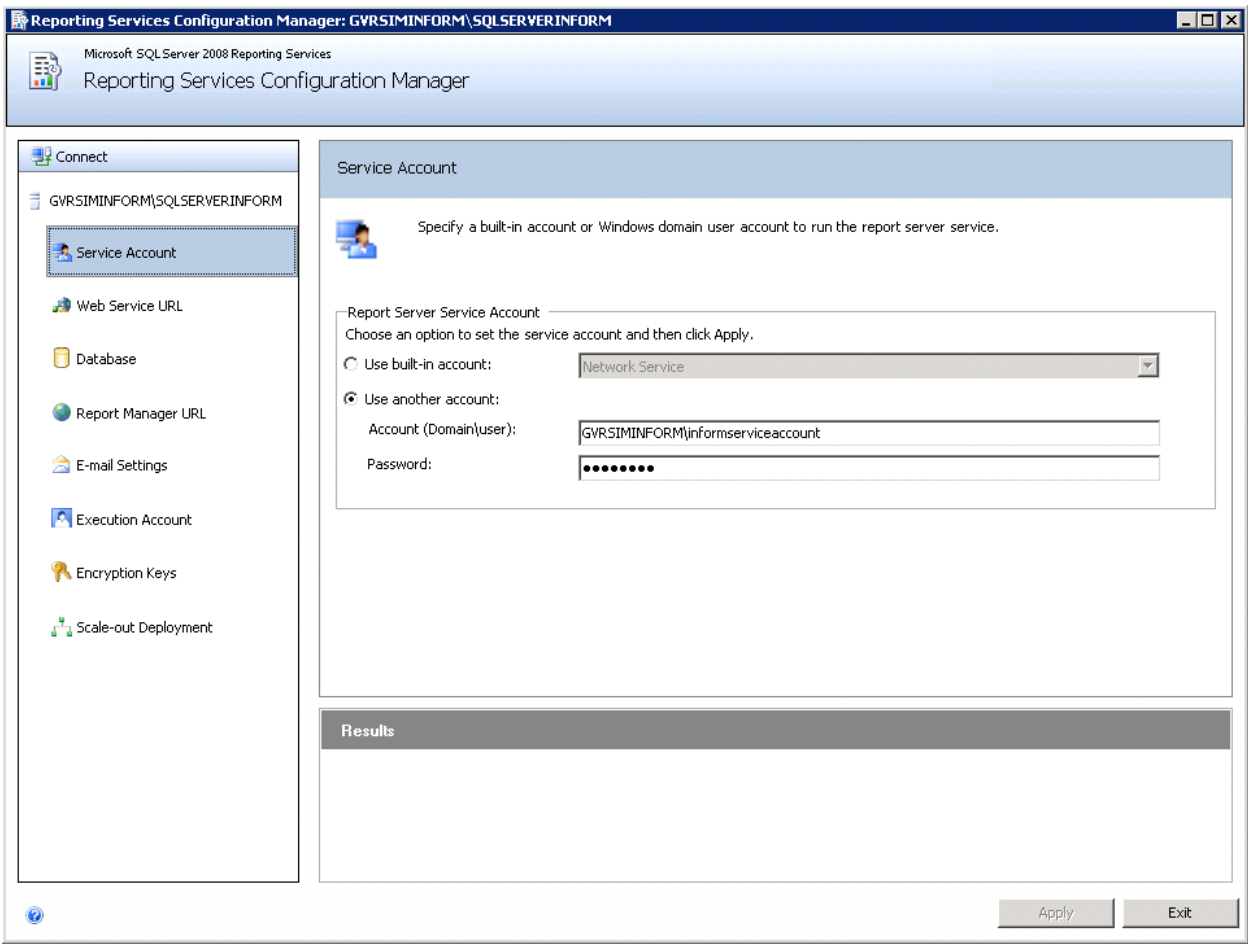
The Reporting Services Configuration Manager is similar to the 2005 version, but the interface is dif-

ferent. Items that need to be configured do not always show as green check boxes. As shown below.



There are 4 sections that need to be configured. The images below will illustrate a typical installation, but again, please refer to your Database Administrator especially if SSRS is already implemented for other websites on your network. These are provided as a guide and educational purposes and cover the four areas.

- Service Account
- WebService URL
- Database
- Report Manager URL



Reporting Services Configuration Manager: GVRSIMINFORM\SQLSERVERINFORM

Microsoft SQL Server 2008 Reporting Services
Reporting Services Configuration Manager

Connect

GVRSIMINFORM\SQLSERVERINFORM

Service Account

Web Service URL

Database

Report Manager URL


E-mail Settings

Execution Account

Encryption Keys

Scale-out Deployment

Web Service URL

 Configure a URL used to access the Report Server. Click Advanced to define multiple URLs for a single Report Server instance, or to specify additional parameters on the URL.

Report Server Web Service Virtual Directory

Virtual Directory: ReportServer

Report Server Web Service Site identification

IP Address: All Unassigned

TCP Port: 80

SSL Certificate: (Not Selected)

SSL Port:

Advanced...

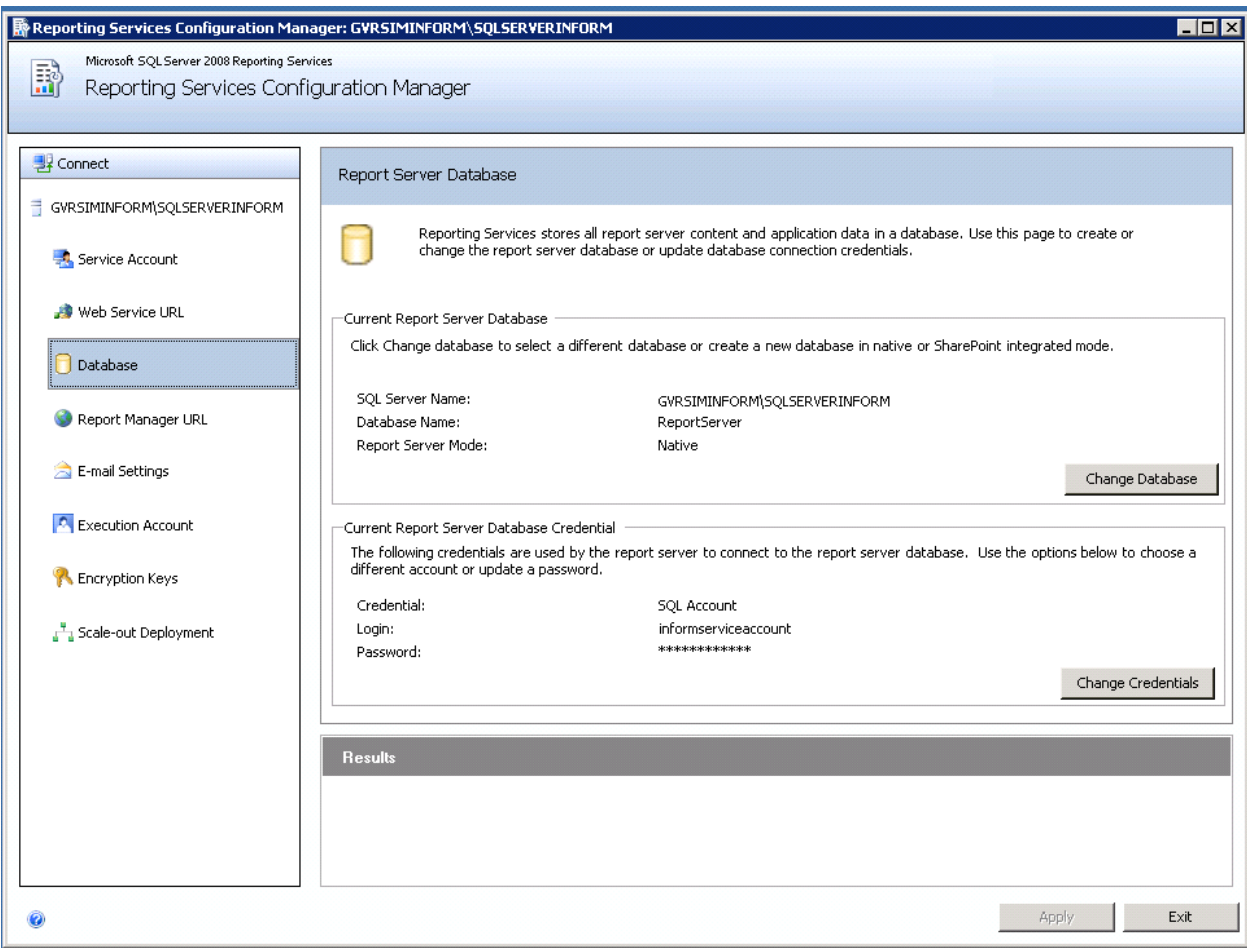
Report Server Web Service URLs

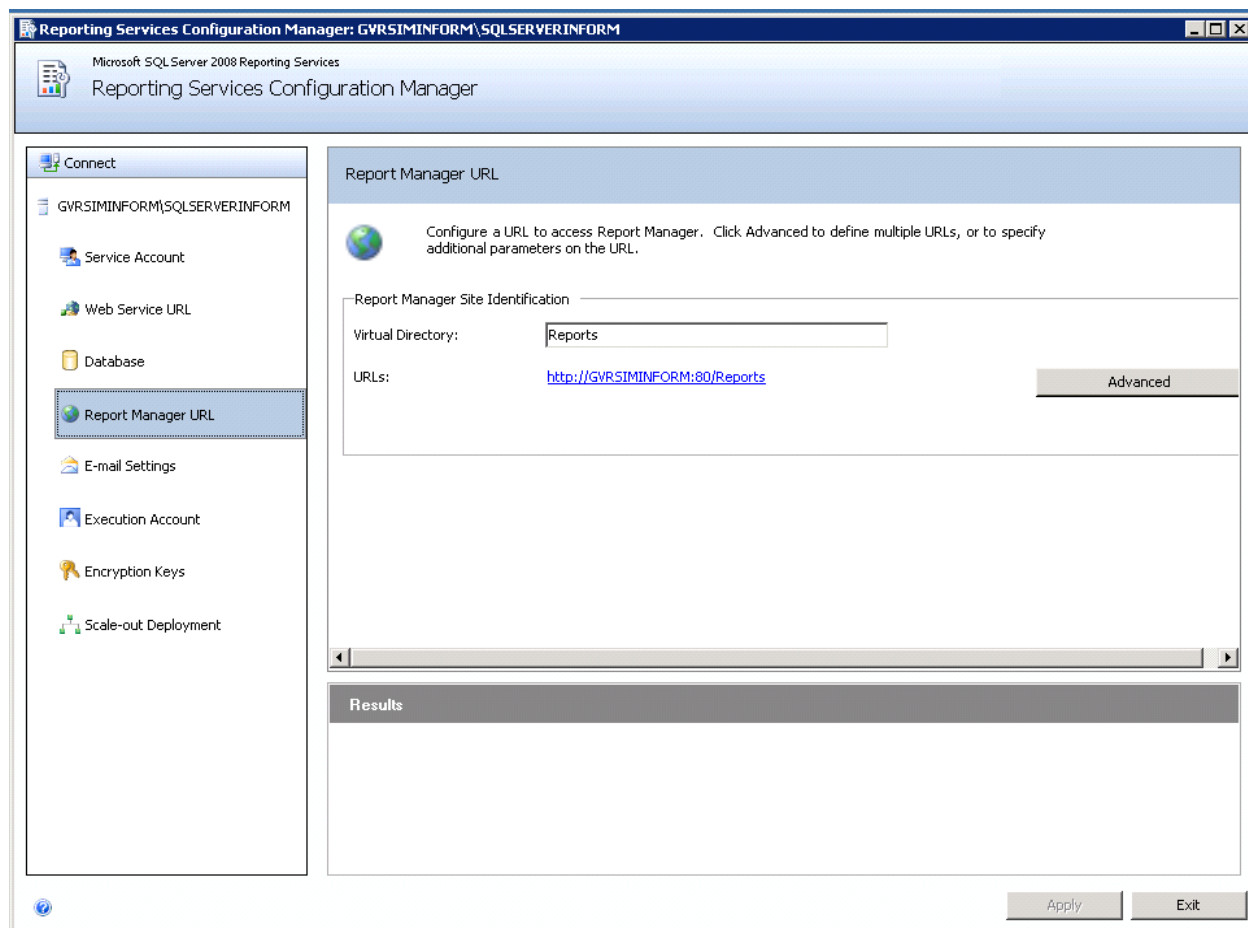
URLs: <http://GVRSIMINFORM:80/ReportSer...>

Results

Apply

Exit





4.9 How to verify SSRS is configured properly

If the above sections were properly configured, you can test to verify if it is running properly by following the following links:

(replace servername with your servername or localhost if running on the server itself)

[http://\[servername\]/Reports](http://[servername]/Reports)

[http://\[servername\]/ReportServer](http://[servername]/ReportServer)

4.10 Collation & localization settings for non-U.S. gauges

Inform.NET does support a multi-language SQL installation, but in order to do so there are a few settings that need to be setup and/or verified. The Collation Settings for the Inform.NET database needs to be set at **SQL_Latin1_General_CP1_CI_AS**. In addition, to insure data is properly inserted into the Database, the database user entered at the time of installation (SQL user) needs to be set to an **English language as its default**.

