Microsoft SQL Server Staging

Unified ICM requires that you install Microsoft SQL Server on each server that hosts a Logger or Administration & Data Server (Real Time Distributor and HDS only) component.

Microsoft SQL Server efficiently manages the available system memory while not affecting other running processes. SQL Server does take all the physical memory on the machine until requested by the OS to return it. There are, however, cases where SQL does not respond to requests from the OS for memory, such as during a user query.

This section contains guidelines for setting up Microsoft SQL Server for use with the system's Logger and Administration & Data Server components.

For more information about specific versions and patches of Microsoft SQL Server supported by system software, see the Compatibility Matrix for Unified CCE.

This section does not provide step-by-step instructions for tasks related to Microsoft SQL Server. For such information, see Microsoft documentation.

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Microsoft SQL Server Component Installation

To install Microsoft SQL Server, you must complete the following tasks:

- Install and configure Microsoft SQL Server.
- Install Service Pack 1 or higher.
- Verify the SQL protocol order.

Install and Configure Microsoft SQL Server

To install and configure Microsoft SQL Server, complete the following steps.
Procedure

Step 1 Run setup.exe.

Step 2 From the SQL Server Installation Center, select Installation > New Installation or add features to an existing installation. The Produce Key view appears.

Step 3 Enter the product key and then click Next. The License Terms view appears.

Step 4 Select the I accept the license terms check box, and then click Next. The Setup Support Files view appears.

Step 5 Click Install.

Step 6 Under Setup role, select SQL Server Feature Installation. The Feature Selection view appears.

Step 7 Select all the check boxes, excluding Analyze Services and Reporting Services and then click Next. The Installation Rules view appears.

Step 8 Click Next. The Installation Configuration view appears.

Step 9 Select Default Instance and then click Next. The Disk Space Requirements view appears.

Step 10 Click Next. The Server Configuration view appears.

Step 11 On the Service Account tab, in the Account Name column, select NT AUTHORITY \SYSTEM for the following services:

- SQL Server Agent
- SQL Server Database Engine
- SQL Server Integration Services 10.0

For the remaining services, accept the default values.

Step 12 In the Start Up Type column, for the SQL Server Agent service account, select Automatic from the list.

Step 13 Click the Collation tab and then click the Customize button. The Customize SQL Server Database Engine Collation dialog box appears.

Step 14 Select the Windows collation designator and sort order option.

Step 15 From the Collation designator list, select Latin1_General for English and west European languages. Refer to the Compatibility Matrix for Unified CCE for details about collations used for other languages.

IMPORTANT: It is critical to select the correct collation setting for the customer’s language display. If you do not select the correct collation during installation, the customer will need to uninstall and re-install Microsoft SQL Server.

The collation you select affects what can be written to the database. For example, if you set the collation for Latin1_General and a user at the customer site selects Chinese as his language selection at sign-in and enters...
field values in Chinese, the application will return an unsupported characters error as the database will be unable to handle the characters.

**Step 16** Select the **Binary** checkbox.

**Step 17** Click **OK**.

Latin1_General_BIN appears in the Database Engine box.

**Step 18** Click **Next**.

The Database Engine Configuration view appears.

**Step 19** For Authentication Mode, select the Mixed Mode option and then enter and confirm a password for the SQL Server system administrator account.

**Step 20** Click **Add** to add the BUILTIN\Administrators group.

Select user, or the group dialog box appears.

**Step 21** Click **Object Types** and confirm that the **Groups** checkbox is checked.

**Step 22** Click **Locations** and confirm that the local box server name is selected.

**Step 23** Enter **Administrators** in the object name and then click **Check Names**.

The system validates the group name.

**Step 24** Click **OK**.

**Step 25** Select the **BUILTIN\Administrators** group from the list and click **OK**.

**Step 26** Click **Next**.

The Error Reporting view appears.

**Step 27** Accept the defaults and then click **Next**.

The Installation Configuration Rules view appears and setup runs to determine if the installation will be blocked.

**Step 28** Click **Next**.

The Ready to Install view appears.

**Step 29** Click **Install**.

The Installation Progress view appears and displays the installation progress and status.

**Step 30** Click **Next**.

The Complete view appears.

**Step 31** Click **Close**.

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**What to Do Next**

Install Service Pack 1 or higher.

Verify the SQL protocol order.

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**Set Users as System Administrators**

Any users who are involved in installing or upgrading a Unified ICM/CCE & Hosted solution must be added as part of SQL Server Security login and associated with the System Administrator role. To set a user as a System Administrator, complete the following steps.
## Verify the SQL Protocol Order

After you install Microsoft SQL Server, you must enable Named Pipes and set the protocol sort order.

### Procedure

**Step 1** Click **Start** > **All Programs** > **Microsoft SQL Server 2008 R2** or **Microsoft SQL Server 2012 R2** > **Configuration Tools** > **SQL Server Configuration Manager**.

**Step 2** In the left pane, navigate to **SQL Native Client 10.0 Configuration (32bit)** > **Client Protocols**.

**Step 3** In the right pane, right-click **Named Pipes** and select **Order**.

**Step 4** In the **Client Protocols Properties** window, select **Named Pipes** and click the up arrow to move **Named Pipes** above **TCP/IP**, and then click **OK**.

**Step 5** In the left pane, navigate to **SQL Native Client 10.0 Configuration** > **Client Protocols**.

**Step 6** In the right pane, right-click **Named Pipes** and select **Order**.

**Step 7** In the **Client Protocols Properties** window, select **Named Pipes** and click the up arrow to move **Named Pipes** above **TCP/IP**, and then click **OK**.

**Step 8** In the left pane, navigate to **SQL Server Network Configuration** > **Protocols for MSSQLSERVER**.

**Step 9** In the right pane, right-click **Named Pipes** and select **Enable** from the list.

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## Increase Database and Log File Size

Use the Microsoft SQL Server Enterprise Manager to increase the database and log sizes.
For the Tempdb, follow these guidelines:

- For Data Files:
  - Set the **Space Allocated** to **1400 MB**.
  - Set **Automatically grow files** to **100MB**.
  - Set **Unrestricted file growth**.

- For Transaction Log Files, follow these guidelines:
  - Set the **Space Allocated** to **400 MB**.
  - Set **Automatically grow files** to **10%**.
  - Set **Unrestricted file growth**.
  - In the **Options** tab, ensure the following options are set to **False**: ANSI NULL, Recursive triggers, Auto close, Auto shrink and Use quoted identifiers.