CygNet v9.4
64-bit Installation Guide

Release Date: February 28, 2020

This document describes how to install CygNet v9.4 64-bit components, which include:

- 64-bit **Universal Interface Service (UIS)**
- 64-bit **Value History Service (VHS)**
- 64-bit **EIE device drivers**
- 64-bit **Utilities**

If you have previously installed 64-bit components and wish to upgrade to v9.4, refer to the *CygNet v9.4 Upgrade Procedure* for more information.

Contents

Introduction to 64-bit CygNet Services and Drivers

CygNet Software supports a 64-bit **Universal Interface Service (UIS)**, 64-bit **EIE drivers**, and a 64-bit **Value History Service (VHS)**. The 64-bit drivers must be used with the 64-bit UIS.

This document describes the supported service binaries, device drivers, installation notes, and other required files needed to install 64-bit components on your CygNet system. The document describes three options for running 64-bit services and drivers. Choose the option that works best for your enterprise.

Option A

Use this option to replace your existing 32-bit UIS and/or VHS services and drivers with 64-bit UIS and/or VHS services and drivers on the CygNet host server.

Option A: Upgrade Existing UIS and/or VHS Services and Drivers from 32-bit to 64-bit

Option B

Use this option to add 64-bit UIS and/or VHS services and drivers to an existing CygNet site.

Option B: Add New 64-bit UIS and/or VHS Services and Drivers to Existing CygNet Site

Option C

Use this option to install 64-bit UIS and/or VHS services and drivers on a new independent 64-bit server, with all other 32-bit services running on a separate CygNet host server.

Option C: Install 64-bit Services and Drivers on an Independent Server

Installation Notes

Take note of the following important notes before beginning any installation procedure.

- The 64-bit CygNet services and drivers operate only on a server running a 64-bit version of Microsoft Windows.
- The 64-bit drivers must be used with the 64-bit UIS.
- References in this document to the "product source" mean the CygNet v9.4 files that you downloaded from the CygNet Web site. If you require the software on physical media (DVD), contact CygNet Support at 1-866-4CYGNET (1-866-429-4638) or CygNetSupport@weatherford.com.
- References in this document to "host server" mean a server machine where CygNet services are running.
- References in this document to the path "CygNet\" (e.g., **CygNet\Utilities** or **CygNet\Services**) use the name "CygNet" as an example to mean the folder where your CygNet host software is installed, for example, **C:\CygNet**.
- The **CygNet SCADA Services (64-bit)** installer (**CygNetSCADAServicesSetup64.exe**) will install the 64-bit services to the **CygNet\Services** folder, and create sub-directories named **CygNet\Services\UIS64** and **CygNet\Services\VHS64** respectively. The 64-bit drivers will be installed to the **CygNet\Support64** folder.

- If an existing installation of CygNet is detected, the 64-bit installer will present that path as the install location, otherwise the path **C:\CygNet** is presented. You can browse to create or choose another location to install the components if desired.

- Each 64-bit service will be installed with a default service configuration file (**Uis.cfg** and **Vhs.cfg**). After the installation you will need to edit the service configuration file for the instance of the service. Instructions are provided in this document.

- The 64-bit VHS will run as a Microsoft Extensible Storage Engine (ESE) datastore. For information about migrating data from another VHS, refer to the *Migrating a VHS Datastore* tech note located in the **General Documents** folder on the product source.

- The amount of time it takes to perform the various install tasks depends on the size and complexity of your system. Installation assistance can be obtained by contacting CygNet Support at 1-866-4CYGNET (1-866-429-4638) or CygNetSupport@weatherford.com.

64-bit Components

The CygNet v9.4 64-bit components comprise the following executables, libraries, and files:

64-bit Services

The following 64-bit CygNet services are supported:

- Universal Interface Service (UIS) (Uis64.exe)
- Value History Service (VHS) (Vhs64.exe)

The installer sets up the directory structure. It does not modify the service configuration file (.cfg) for each service. After the installation you will need to edit the service configuration file for the instance of the service.

64-bit Remote Device Drivers

The following 64-bit remote device drivers are supported. Note that only the driver portion of the EIE is 64-bit; the associated editor (CxDds*Editors.dll) is not 64-bit.

- Allen Bradley CIP EIE (UisAllenBradleyCIPDeviceDriver64.dll)
- Allen Bradley EIE (UisAllenBradleyDeviceDriver64.dll)
- Amocams 300 EIE (UisAmo300Driver64.dll)
- Amocams 700 EIE (UisAmo700Driver64.dll)
- Amocams 1000 EIE (UisAmo1000Driver64.dll)
- AutoCom EIE (UisAutoComDriver64.dll)
- Benchmark EIE (UisBenchmarkDriver64.dll)
- BSAP EIE (UisBsapDeviceDriver64.dll)
- DNP3 EIE (UisDNP3Driver64.dll)
- DNP3 Emerson EIE (UisDNP3EmersonDriver64.dll)
- Eagle EIE (UisEagleDriver64.dll)
- Emerson ROC EIE (UisEmersonRocDriver64.dll)
- Emerson ROCPlus EIE (UisEmersonRocPlusDriver64.dll)
- eProd EIE (UisEProdRpcDeviceDriver64.dll)
- Ferguson Beauregard EFM3000 EIE (UisEfm3000DeviceDriver64.dll)
- Ferguson Beauregard Net EIE (UisFbNetDriver64.dll)
- Flow Automation EIE (UisFlowAutoDeviceDriver64.dll)
- IoT EIE (UisIoTDriver64.dll)
- IoT Sparkplug EIE (UisIoTSparkplugDriver64.dll)
- Lufkin MPC/RPC EIE (UisLufkinDeviceDriver64.dll)
- Lufkin SAM EIE (UisSamDeviceDriver64.dll)
- Mercury EIE (UisMercuryDriver64.dll)
- Micro1c EIE (UisMicro1cDeviceDriver64.dll)
- Modbus EFM EIE (UisModbusEfmDeviceDriver64.dll)
- Modbus Omni EIE (UisModbusOmniDeviceDriver64.dll)
- Modbus Realflo EIE (UisModbusRealfloDeviceDriver64.dll)
- NuFlo EIE (UisNuFloDeviceDriver64.dll)
- OPC EIE (UisOPCDriver64.dll)
- OPC Lufkin EIE (UisOPCLufkinDriver64.dll)
- OPC Weatherford EIE (UisOPCWFordDriver64.dll)
- ProSoft EIE (UisProSoftDeviceDriver64.dll)
- Reynolds EIE (UisReynoldsDriver64.dll)
- ScanCom EIE (UisScanComDeviceDriver64.dll)
- Thermo EIE (UisThermoDeviceDriver64.dll)
- Totalflow EIE (UisToFloDriver64.dll)
- TriEnerTech EIE (UisTetDeviceDriver64.dll)
- Weatherford WellPilot DLQ/K-Series EIE (UisWFordKSDeviceDriver64.dll)

64-bit Communication Device Drivers

The following 64-bit communication device drivers are supported. Note that only the driver portion of the EIE is 64-bit; the associated editor (CxDds*Editors.dll) is not 64-bit.

- Cryout Listen EIE (UisCryoutListenCommDriver64.dll)
- Direct Serial EIE (UisDirectSerialCommDriver64.dll)
- Modem Bank EIE (UisModemBankCommDriver64.dll)
- MQTT Comm EIE (UisMqttCommDriver64.dll)
- OPC Comm EIE (UisOPCCommDriver64.dll)
- Serial Modem EIE (UisSerialModemCommDriver64.dll)
- Serial Radio EIE (UisSerialRadioDriver64.dll)
- TCP/IP EIE (UisTcpipCommDriver64.dll)
- TCP/IP MultiPoint EIE (UisTcpipMPCommDriver64.dll)
- TCP Modem EIE (UisTcpModemCommDriver64.dll)
- UDP EIE (UisUdpCommDriver64.dll)

64-bit Import/Export Drivers

The following 64-bit Import/Export drivers are supported. Note that only the driver portion of the EIE is 64-bit; the associated editor (CxDds*Editors.dll) is not 64-bit.

- Energy Load Forecasting (ELF) EIE (UisElfDeviceDriver64.dll)
- Enterprise Operations EIE (UisEntOpsDeviceDriver64.dll)
- Gas Contract Monitor EIE (UisGcmCalcDeviceDriver64.dll)
- Line Pack EIE (UisLPackDeviceDriver64.dll)
- Text Import EIE (UisTextDeviceDriver64.dll)

The Import/Export drivers that rely on Sonic software are not 64-bit, as Sonic is not 64-bit. As such, these are *not* included in the 64-bit installer package.

- SonicMQ Export EIE (UisSMQDeviceDriver.dll)
- SonicQ EIE (UisSonicQDeviceDriver.dll)

Note: *If you need to use these drivers (or any other 32-bit drivers) on a 64-bit system, they must be managed by a 32-bit UIS, which must have its own corresponding Device Definition Service (DDS).*

64-bit Utilities

The following 64-bit utilities are supported for handling larger data sets associated with 64-bit services. Each utility can be installed using the CygNet Client Installer from the APP/UTILS directory.

- Group Manager (GrpMgr64.exe)
- Point Configuration Manager (PointCfgMgr64.exe)
- VHS Check utility (VhsCheck64.exe)
- VHS Import/Export utility (VhsImportExport64.exe)

Other Required Files

Please note the following information about other *required* files, which will be placed and registered during the install by the 64-bit installer. These details are informational only.

- To install the CygNet 64-bit services, the following 64-bit versions of the Microsoft Visual C++ Redistributable Package will be loaded on the server where the installation is taking place before any of the CygNet files are installed.

    - **Microsoft Visual C++ 2012 Redistributable Package (x64)**
    - **Microsoft Visual C++ 2013 Redistributable Package (x64)**
    - **Microsoft Visual C++ 2015-2019 Redistributable Package (x64)**

- The file **DCLND64.DLL** will be installed and registered before any 64-bit drivers are registered. The 64-bit services also need this file in place in order to function correctly. The 64-bit installer will install the file to the **CygNet\Support64** folder, along with the driver .dll files.

- The 64-bit Totalflow driver requires ABB's 64-bit toolkit API (**TCIDLL64.DLL**). This DLL file is included in the CygNet product image and is copied (but not registered) to the **Windows\System32** folder by the 64-bit installer. Please contact ABB for more information about its 64-bit implementation.

- The OPC EIE and the OPC Comm EIE may require the OpcFoundation OPC Core Components when installing the EIE for the first time. This requirement is met by the CygNet Services installers for first-time setup. For upgraded CygNet hosts, OPC Core Components Redistributable (x86).msi and OPC Core Components Redistributable (x64).msi are included in the CygNet product image.

Option A: Upgrade Existing Services and Drivers from 32-bit to 64-bit

The steps in this option describe how to replace your existing 32-bit components (UIS, drivers, and/or VHS) with 64-bit components (UIS, drivers, and/or VHS) on the host server. After this upgrade you will have the same number of services configured for your site.

It is important to run the **CygNet SCADA Services (64-bit) Setup** application, rather than just copy the service executables and drivers, as the setup installs other required files in addition to the 64-bit CygNet components.

Note: *Do not use this option if you have devices configured that do not have 64-bit support, such as the 32-bit Sonic driver.*

A.1 Stop All Clients and Services on the Host Server

Installation requires that all services be stopped.

1. Close all CygNet client applications running on the host server.
2. Use **CygNet Host Manager** to **Stop** the services.
3. Exit **CygNet Host Manager**.

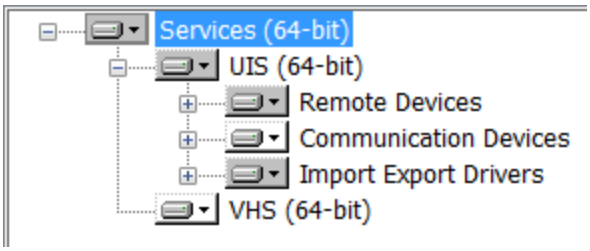
A.2 Install the 64-bit CygNet Services and Drivers

This step installs the 64-bit components using the **CygNet SCADA Services (64-bit) Setup** installer.

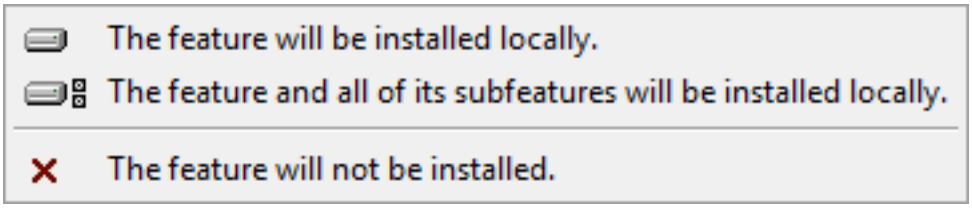
1. Use **Windows Explorer** to browse to the **\Setup** folder in the product source.
2. Start the **CygNet SCADA Services (64-bit) Setup** on the host server by double-clicking the program executable (**CygNetSCADAServicesSetup64.exe**).
    a. Read and accept the License Agreement. Click **Install**.
    b. On the **Choose Install Location** dialog box, browse to the desired CygNet install path. The installer will detect an existing CygNet installation and present that path, or you can create a new folder. Click **Next**.
    c. On the **Feature Selection** dialog box, select the components to be installed.

    Note: *By default, the only components automatically selected for installation are the two services, the Communication Devices, and the Text Import Driver. None of the Remote Devices will be installed automatically. You must select the Remote Device Drivers you need for your enterprise.*

        i. Expand the + **Services (64-bit)** node to view the services and drivers to install.



ii. Select the desired install option for each component:



iii. Click **Disk usage** to see the space required to install the selected features.

iv. Click **Next** to start the feature installation.

d. Once completed click to **Close** the **CygNet SCADA Services (64-bit) Setup** dialog box.

A.3 Configure Services

In this step you will copy the 64-bit service executables to the original **Services\UIS** and **Services\VHS** directories, and configure the RSM service definitions.

1. Use **Windows Explorer** to browse to the **CygNet\Services\UIS64** folder on the host server.

    a. Copy the **UIS64.exe** from **Services\UIS64** and paste it into **Services\UIS** (and/or any other UIS directories that you would like to upgrade from 32- to 64-bit).

    b. Delete the **CygNet\Services\UIS64** directory.

Note: *If you plan to forward data from other CVSs in your site to the new VHS64, you will need to change the* ***VHS*** *keyword in the service configuration files (.cfg) for those CVSs.*

2. Use **Windows Explorer** to browse to the **CygNet\Services\VHS64** folder on the host server.

    a. Copy the **VHS64.exe** from **Services\VHS64** and paste it into **Services\VHS** (and/or any other VHS directories that you would like to upgrade from 32- to 64-bit).

    b. Delete the **CygNet\Services\VHS64** directory.

3. Manually configure your RSM's service definitions by editing the RSM database file, **SvcDef.rsx**. This XML file lists the services in the order they will be started by the RSM.

    a. Using a text editor, make the following changes to **CygNet\Services\RSM\SvcDef.rsx**:

        i. Edit all VHS and/or UIS service definitions that were upgraded from 32- to 64-bit as part of steps 1 and 2 above:

            A. For UIS service definitions, the *.exe* parameter should be changed to *exe="uis64.exe"*

            B. For VHS service definitions, the *.exe* parameter should be changed to *exe="vhs64.exe"*

    b. Save and close the **SvcDef.rsx**.

A.4 Restart the Services

Restart all services on the host server.

1. Start **CygNet Host Manager** from the **Start** menu or desktop icon.
2. Select the RSM for your Site.Service and click **Start**.
3. Wait for the **Status** to indicate *RUNNING*.

Option B: Add New 64-bit Services and Drivers to Existing Site

The steps in this option describe how to install 64-bit components (UIS, drivers, and/or VHS) on the host server. After this process you will have three additional services (a second 32-bit DDS to be used by the new UIS64, a UIS64, and a VHS64), and 64-bit drivers configured for your site.

B.1 Stop All Clients and Services on the Host Server

Installation requires that all services be stopped.

1. Close all CygNet client applications running on the host server.
2. Use **CygNet Host Manager** to **Stop** the services.
3. Exit **CygNet Host Manager**.

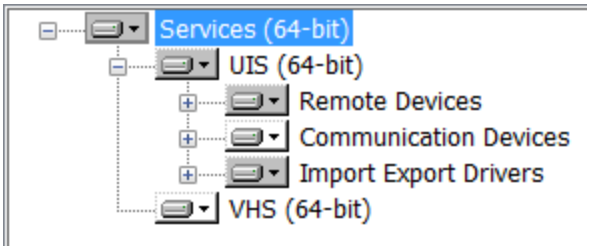
B.2 Install the 64-bit CygNet Services and Drivers

This step installs the 64-bit components using the **CygNet SCADA Services (64-bit) Setup** installer.

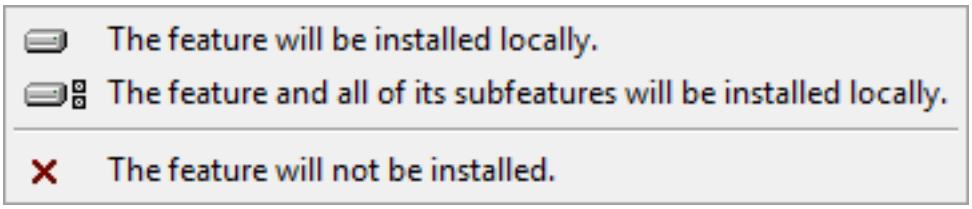
1. Use **Windows Explorer** to browse to the **\Setup** folder in the product source.
2. Start the **CygNet SCADA Services (64-bit) Setup** on the host server by double-clicking the program executable (**CygNetSCADAServicesSetup64.exe**).
    a. Read and accept the License Agreement. Click **Install**.
    b. On the **Choose Install Location** dialog box, browse to the desired CygNet install path. The installer will detect an existing CygNet installation and present that path, or you can create a new folder. Click **Next**.
    c. On the **Feature Selection** dialog box, select the components to be installed.

    Note: *By default, the only components automatically selected for installation are the two services, the Communication Devices, and the Text Import Driver. None of the Remote Devices will be installed automatically. You must select the Remote Device Drivers you need for your enterprise.*

        i. Expand the + **Services (64-bit)** node to view the services and drivers to install.



        ii. Select the desired install option for each component:



iii. Click **Disk usage** to see the space required to install the selected features.

iv. Click **Next** to start the feature installation.

d. Once completed click to **Close** the **CygNet SCADA Services (64-bit) Setup** dialog box.

B.3 Configure Services

Each 64-bit service will have a clean service configuration file (.cfg) installed in its respective folder. Each file needs to be customized for your CygNet system.

Note: *The new 64-bit services need to be renamed to distinguish them from the 32-bit services on the CygNet host. You can rename them to whatever you like, as long as their names are unique.*

1. Create a new DDS to be used by the new 64-bit UIS.

    a. Use **Windows Explorer** to browse to the **CygNet\Services\DDS** folder on the host server.

    b. Copy the following files from the DDS folder: **Dds.cfg**, **Dds.ddl**, **Dds.exe**.

    c. Create a new directory for the new DDS. Name it *DDS2* (or whatever name you prefer for this DDS, as long as the name is unique.).

    d. Paste the files into the new *DDS2* directory.

    e. Edit the **Dds.cfg** file in a text editor and make the following changes:

        i. Under **Service Info**, change the **SERVICE** keyword to *MYSITE.DDS2*.

        ii. Under **Service Info**, change the **SVC_PORT** keyword to a *unique port number*.

        iii. Under **Associated Services**, change the **UIS** keyword to *MYSITE.UIS64*.

    f. Save and close the **Dds.cfg**.

2. Configure the new UIS64.

    a. Use **Windows Explorer** to browse to the **CygNet\Services\UIS64** folder on the host server.

    b. Edit the **Uis.cfg** file in a text editor and make the following changes:

        i. Replace all instances of "XXX" with the *MYSITE*.

        ii. Under the **Service Info** section:

            A. Change the **SERVICE** keyword to *MYSITE.UIS64* (or another name that you prefer such as *MYSITE.UIS01*).

            B. Change the **SVC_PORT** keyword to a *unique port number*.

iii. Under the **Associated Services** section:

A. Change the **DDS** keyword to reflect the name of the second DDS you created above, e.g. *MYSITE.DDS2*.

B. Uncomment the **VHS** keyword.

C. Configure other keywords as desired.

c. Save and close the **Uis.cfg**.

Note: *If you plan to forward data from other CVSs in your site to the new VHS64, you will need to change the* ***VHS*** *keyword in the service configuration files for those CVSs.*

3. Configure the new VHS64.

a. Use **Windows Explorer** to browse to the **CygNet\Services\VHS64** folder on the host server.

b. Edit the **Vhs.cfg** file in a text editor and make the following changes:

i. Replace all instances of "XXX" with the *MYSITE*.

ii. Under the **Service Info** section:

A. Change the **SERVICE** keyword to *MYSITE.VHS64* (or another name that you prefer such as *MYSITE.VHS01*.

B. Change the **SVC_PORT** keyword to a *unique port number*.

iii. Configure other keywords as desired.

c. Save and close the **Vhs.cfg**.

B.4 Restart the Services

Restart all services on the host server.

1. Start **CygNet Host Manager** from the **Start** menu or desktop icon.

2. Select the RSM for your Site.Service and click **Start**.

3. Wait for the **Status** to indicate *RUNNING*.

B.5 Add the UIS64, VHS64, and DDS2 to the ARS

You now need to add the new services to the Address Resolution Service (ARS) on the host server.

1. Add the new **UIS64** service to the relevant **ARS**.
    a. Using **CygNet Explorer**, open the ARS, right-click in its service pane, and click **New**.
    b. In the **New Service** dialog box, select the **UIS** Service Type.
    c. Type the **Site** and **Service** names.
    d. Type a **Description** for the service, e.g., UIS 64-bit, and click **OK**.
2. Add the new **VHS64** service to the relevant **ARS**.
    a. Using **CygNet Explorer**, open the ARS, right-click in its service pane, and click **New**.
    b. In the **New Service** dialog box, select the **VHS** Service Type.
    c. Type the **Site** and **Service** names.
    d. Type a **Description** for the service, e.g., VHS 64-bit, and click **OK**.
3. Add the new **DDS2** service to the relevant **ARS**.
    a. Using **CygNet Explorer**, open the ARS, right-click in its service pane, and click **New**.
    b. In the **New Service** dialog box, select the **DDS** Service Type.
    c. Type the **Site** and **Service** names.
    d. Type a **Description** for the service, e.g., Device Definition Service 2, and click **OK**.

B.6 Add the UIS64, VHS64, and DDS2 to the RSM

You now need to add the new services to the Remote Service Manager (RSM) on the host server.

1. Add the new **UIS64** service to the **RSM**.
    a. Using **CygNet Explorer**, open the RSM, right-click in its service pane, and click **New**.
    b. In the **New RSM Entry** dialog box, select the UIS64 service and confirm or alter its default settings.
        i. Change the service executable to *UIS64.EXE*.
        ii. *Optional*: If the UIS64 service executable and data folders are not under the same **Services** folder, type their directory paths in the **Executable** and **Data** fields respectively.
        iii. *Optional*: Click **Automatic Service Recovery...** and configure the recovery settings. Refer to the **Configuring Automatic Service Recovery** topic in the *CygNet Help* for more information.
        iv. Click **OK** to save RSM settings.
    c. Once the service is added to the RSM, right-click its entry in the RSM and click **Start**.

2. Add the new **VHS64** service to the **RSM**.

    a. Using **CygNet Explorer**, open the RSM, right-click in its service pane, and click **New**.

    b. In the **New RSM Entry** dialog box, select the VHS64 service and confirm or alter its default settings.

        i. Change the service executable to *UIS64.EXE*.

        ii. *Optional*: If the VHS64 service executable and data folders are not under the same **Services** folder, type their directory paths in the **Executable** and **Data** fields respectively.

        iii. *Optional*: Click **Automatic Service Recovery...** and configure the recovery settings. Refer to the **Configuring Automatic Service Recovery** topic in the *CygNet Help* for more information.

        iv. Click **OK** to save RSM settings.

    c. Once the service is added to the RSM, right-click its entry in the RSM and click **Start**.

3. Add the new **DDS2** service to the **RSM**.

    a. Using **CygNet Explorer**, open the RSM, right-click in its service pane, and click **New**.

    b. In the **New RSM Entry** dialog box, select the DDS2 service and confirm or alter its default settings.

        i. *Optional*: If the DDS2 service executable and data folders are not under the same **Services** folder, type their directory paths in the **Executable** and **Data** fields respectively.

        ii. *Optional*: Click **Automatic Service Recovery...** and configure the recovery settings. Refer to the **Configuring Automatic Service Recovery** topic in the *CygNet Help* for more information.

        iii. Click **OK** to save RSM settings.

    c. Once the service is added to the RSM, right-click its entry in the RSM and click **Start**.

Option C: Install 64-bit Services and Drivers on an Independent Server

The steps in this option describe how to set up 64-bit components (UIS, drivers, and/or VHS) on a new independent 64-bit server, with all other 32-bit services running on a separate CygNet host server. After this process you will have two additional 64-bit services (UIS and VHS), a 32-bit ARS, DDS, and RSM, and 64-bit drivers configured for your site on an independent server.

- References to "old server" or "separate server" mean the host server where the original 32-bit CygNet site is running.
- References to "new server" mean the host server where the new 64-bit services and drivers are installed.

C.1 Install 32-bit CygNet Services

You will need to install a few 32-bit services (an ARS, DDS, and RSM) on the independent 64-bit host server.

1. Use **Windows Explorer** to browse to the **\Setup** folder in the product source.
2. Copy both the 32-bit and 64-bit program executables, **CygNetSCADAServicesSetup.exe** and **CygNetSCADAServicesSetup64.exe**, from the product source to the new server.
3. On the new server, install the 32-bit services by double-clicking the **CygNet SCADA Services Setup** program executable (**CygNetSCADAServicesSetup.exe**).
    a. Read and accept the License Agreement.
    b. Type your **User Name** and **Company**.
    c. Select the **Destination Location** (the root install folder).
    d. Select the **Service Directories** (**Base**, **Data**, and **Backup**).
    e. Install the services with the same **Site Name** as the 32-bit CygNet host (for example: *MYSITE*).
    f. On the **Select Features** page:
        i. By default, **Server Applications** and **CygNet Client Availability** are checked. Clear all check boxes.
        ii. Under **Server Applications**, check the boxes for **Address Resolution Service** (ARS), **Device Definition Service** (DDS), and **Services Support**.

            Note: *When the DDS is checked, the installer will force an Access Control Service (ACS), Remote Service Manager (RSM), and a Table Reference Service (TRS) to be installed as well. Do not clear the check box for the* ***Remote Service Manager*** *(RSM), as it is required and will be configured in step C.3 below. You will be instructed to manually delete the ACS and TRS services later.*
        iii. Do not check **Universal Interface Service Device Drivers**.
        iv. Do not check **CygNet Client Availability**.
        v. Click **Next**.

g. On the **Service Configuration** page:

   i. Select **Run as System Service**.

   ii. Click **Configure Network Settings** to set the domain. If *MYSITE* is running on a domain other than the default, 5410, change the new server's domain to match that of the 32-bit *MYSITE* host. Click **OK** and **Yes**.

h. Finish the installation.

C.2 Install the 64-bit CygNet Services and Drivers

This step installs the 64-bit components using the **CygNet SCADA Services (64-bit) Setup** installer.

1. On the new server, install the 64-bit services by double-clicking the **CygNet SCADA Services (64-bit) Setup** program executable (**CygNetSCADAServicesSetup64.exe**).

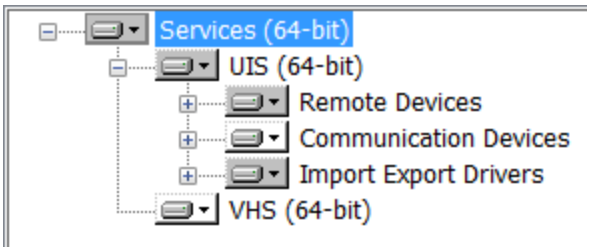
   a. Read and accept the License Agreement. Click **Install**.

   b. On the **Choose Install Location** page, browse to the desired CygNet install path.

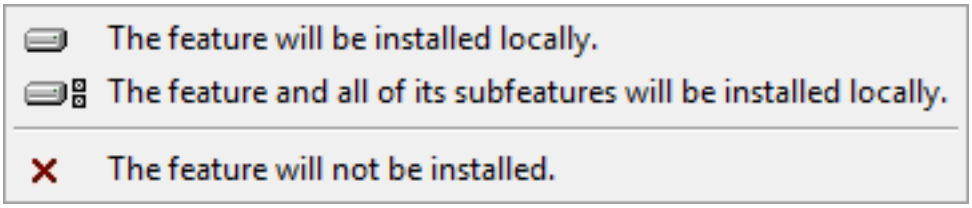
   c. On the **Feature Selection** page, select the components to be installed.

   Note: *By default, the only components automatically selected for installation are the two services, the Communication Devices, and the Text Import Driver. None of the Remote Devices will be installed automatically. Optionally select the Remote Device Drivers you need for your enterprise.*

      i. Expand the + **Services (64-bit)** node to view the services and drivers to install.



      ii. Select the desired install option for each component:



      iii. Click **Disk usage** to see the space required to install the selected features.

      iv. Click **Next** to start the feature installation.

   d. Once completed click to **Close** the **CygNet SCADA Services (64-bit) Setup** dialog box.

C.3 Rename the 32-bit Services on the New Server

The new 32-bit services need to be renamed to distinguish them from the other services on the old 32-bit CygNet host. In this example we suggest renaming them from ARS, DDS, and RSM to ARS2, DDS2, and RSM2. You can rename them to whatever you like, as long as their names are unique.

1. On the new server, rename the new ARS to ARS2:
    a. Rename the **CygNet\Services\ARS** directory to *ARS2*.
    b. Edit the **Ars.cfg** in a text editor:
        i. Under **Service Info**, change the **SERVICE** keyword value from MYSITE.ARS to *MYSITE.ARS2*.
        ii. Configure other keywords as desired.
    c. Save and close the **Ars.cfg**.
2. On the new server, rename the new DDS to DDS2:
    a. Rename the **CygNet\Services\DDS** directory to *DDS2*.
    b. Edit the **Dds.cfg** in a text editor:
        i. Under the **Service Info** section:
            A. Change the **SERVICE** keyword value from MYSITE.DDS to *MYSITE.DDS2*.
            B. Change the **SVC_PORT** keyword to a *unique port number*.
        ii. Under the **Associated Services** section:
            A. Change the **UIS** keyword to *MYSITE.UIS64*.
            B. Uncomment the **FAC** keyword.
        iii. Configure other keywords as desired.
    c. Save and close the **Dds.cfg**.
3. On the new server, rename the new RSM to RSM2:
    a. Rename the **CygNet\Services\RSM** directory to *RSM2.*
    b. Edit the **Rsm.cfg** in a text editor:
        i. Under **Service Info**, change the **SERVICE** keyword value from MYSITE.RSM to *MYSITE.RSM2*.
        ii. Configure other keywords as desired.
    c. Save and close the **Rsm.cfg**.
4. On the new server, remove the ACS and TRS that were added by the installer in step C.1.3. Since the 32-bit server is already hosting *MYSITE.TRS* and *MYSITE.ACS*, these services are not needed on the new server.
    a. Delete the **CygNet\Services\ACS** directory.
    b. Delete the **CygNet\Services\TRS** directory.

C.4 Configure the New 64-bit Services

Each 64-bit service will have a clean service configuration file (.cfg) installed in its respective folder, which needs to be customized for your new 64-bit system.

1. On the new server, use **Windows Explorer** to browse to the **CygNet\Services\UIS64** folder.
    a. Edit the **Uis.cfg** file in a text editor and make the following changes:
        i. Replace all instances of "XXX" with *MYSITE*.
        ii. Under the **Service Info** section:
            A. Change the **SERVICE** keyword to *MYSITE.UIS64*.
            B. Change the **SVC_PORT** keyword to a *unique port number*.
        iii. Under the **Associated Services** section:
            A. Change the **DDS** keyword to reflect the name of the second DDS you created above, e.g. *MYSITE.DDS2*.
            B. Uncomment the **VHS** keyword.
            C. Change the **VHS** keyword to *MYSITE.VHS64*. (This step assumes that you will be using the new VHS. If you choose to use the VHS on the 32-bit server, leave the **VHS** keyword as is.)
        iv. Configure other keywords as desired.
    b. Save and close the **Uis.cfg**.

Note: *If you plan to forward data from other CVSs on the old server to the new VHS64, you will need to change the VHS keyword in the service configuration file (.cfg) for those CVSs.*

2. On the new server, use **Windows Explorer** to browse to the **CygNet\Services\VHS64** folder.
    a. Edit the **Vhs.cfg** file in a text editor and make the following changes:
        i. Replace all instances of "XXX" with *MYSITE*.
        ii. Under the **Service Info** section:
            A. Change the **SERVICE** keyword to *MYSITE.VHS64*.
            B. Change the **SVC_PORT** keyword to a *unique port number*.
        iii. Configure other keywords as desired.
    b. Save and close the **Vhs.cfg**.

C.5 Edit the RSM Service Definitions

Manually configure the service definitions for MYSITE.RSM2 by editing the RSM database file, **SvcDef.rsx**. This XML file lists the services in the order they will be started by the RSM.

1. Using a text editor, make the following changes to **CygNet\Services\RSM2\SvcDef.rsx**:

    a. Remove the service definition elements for the ACS and TRS.

    b. Edit the ARS and DDS service definition elements to reflect the service name changes to *ARS2* and *DDS2*. The *service*, *exedir*, and *datadir* parameters must match the new services:

```
<servicedef service="MYSITE.ARS2" exe="ars.exe" cmdline="" exedir="ars2" datadir="ars2" />

<servicedef service="MYSITE.DDS2" exe="dds.exe" cmdline="" exedir="dds2" datadir="dds2" />
```

    c. Add service definition elements for *UIS64* and *VHS64*.

    d. Edit the new UIS64 and VHS64 service definitions. The *service*, *exe*, *exedir*, and *datadir* parameters must match the new services:

```
<servicedef service="MYSITE.UIS64" exe="uis64.exe" cmdline="" exedir="uis64" datadir="uis64" />

<servicedef service="MYSITE.VHS64" exe="vhs64.exe" cmdline="" exedir="vhs64" datadir="vhs64" />
```

2. Save and close the **SvcDef.rsx**.

C.6 Start the Services

Open **CygNet Host Manager** on the new server to optionally change the new server's domain and to start the ARS2 and RSM2.

1. Double click INVALID PATH and make the following changes:

    a. Correct the **RSM Executable Directory** by browsing to ***CygNet\Services\RSM2***.

    b. Change the **Run Type** to *Run as System Service*.

    c. Change the **Startup Type** to *Automatic*.

    d. Click **OK** and **Yes** to apply the RSM settings. A new RSM configuration will be added.

2. Remove the INVALID PATH configuration.

3. Using **CygNet Host Manager** on the new server, start the new RSM2 by selecting the new entry and click **Start**.

    a. Wait for the **Status** for MYSITE.RSM2 to indicate *RUNNING*.

4. Using **CygNet Explorer** on the either server, view all services running on *MYSITE*.

5. Activate the new host. Refer to the **Host Activation** section of the *CygNet Help* for more information.