



CygNet v9.4

System Requirements

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This document describes the system requirements for v9.4 of CygNet SCADA, CygNet Measurement, and CygNet Bridge applications.

For instructions on updating your host, refer to the *CygNet v9.4 Upgrade Procedure* document.

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Product Lifecycle

For more information on the lifecycle of CygNet components, refer to the *CygNet Software Product Lifecycle Matrices* on the [CygNet Support portal](#) (login required).

CygNet Component Lifecycle Notice

The following products and components have reached lifecycle milestones with the release of CygNet v9.4:

- **CygNet v9.1** will enter Limited Support on July 20, 2020 and will reach its End of Life on July 20, 2021.
- **CygNet v9.0** is in Limited Support effective December 19, 2019 and will reach its End of Life on December 19, 2020.
- **CygNet v8.5.1** is in Limited Support effective June 16, 2019 and will reach its End of Life on June 16, 2020.
- **Windows 7** is no longer a supported operating system for CygNet v9.4.

Windows Server 2008 R2 is no longer a supported operating system for CygNet v9.4.

Please contact your Account Manager or CygNet Sales (CygNetSales@weatherford.com) for more information.

Upgrade Assistance

Upgrade assistance is provided through prepaid professional service hours provided with your **Annual Maintenance Agreement** or through time-and-materials consulting services. If you need assistance in planning, upgrading, or deploying this release, please contact CygNet Support for more information about these options. CygNet Support can be reached at 1-866-4CYGNET (1-866-429-4638) or CygNetSupport@weatherford.com.

CygNet Documentation

The *CygNet Help* documentation for CygNet v9.4 is accessible from <https://soft-waredocs.weatherford.com/cygnets/94/>.

Server Requirements

The following section describes hardware and operating system requirements for running CygNet Software.

Server Requirements – Hardware

Hardware is not included with the CygNet software license and must be purchased separately.

We recommended that CygNet services, as an enterprise application, be run on server-class hardware and software. As such, the minimum hardware requirements are based on the operating system and the applications installed. Hardware considerations that may affect performance include number of cores, speed of processors, amount and speed of memory, and speed of disk infrastructure.

An Excel spreadsheet named *CygNet_94_Memory_Disk_Calculator.xlsx* is provided (in the **Docs\General** folder) to help you determine the amount of memory and disk space required for your CygNet system. CygNet configuration settings such as data retention settings, database disk caching settings, logging settings, and backup strategies will also affect the amount of disk space required for your CygNet system.

For best performance, CygNet services should be installed on a different physical drive from the operating system. If the machine has only a single hard drive, we recommend installing the services on a separate partition.

If you are using virtual servers, be sure that the physical machine has enough resources for all of its virtual machines and their applications.

Server Requirements – Operating System

The operating systems supported for CygNet services and clients (SCADA services/clients, Measurement (FMS) services/clients, and Web services/clients) are listed in the Supported Operating Systems table in this document. Install the latest Windows updates and service packs to keep your operating systems up to date.

Development Support for CygNet running on a particular operating system is dependent upon the CygNet release version. Be advised that CygNet may not run unless the operating system is supported by the CygNet version. Technical Support continues per your Maintenance Agreement.

Refer to the *CygNet Software Product Lifecycle Matrices* on the [CygNet Support portal](#) (login required) for more information on the product lifecycle for the operating system.

User Account Control (UAC)

CygNet Software allows operators to enable **Microsoft's User Account Control (UAC)** for all supported operating systems running CygNet *clients*. We recommend that you review the security environment for your enterprise, determine your UAC settings requirements, and configure UAC on computers running CygNet client applications to help prevent unauthorized changes to the computer.

Computers running CygNet Host Services still require that UAC be *disabled* (CygNet SCADA service hosts, CygNet Measurement (FMS) service hosts, and CygNet Web service hosts and clients).

Refer to the **Security > CygNet and User Account Control** topic in the *CygNet Help* for more information about this requirement.

Supported Operating Systems

The following table lists the operating systems supported for CygNet v9.4, v9.3, v9.2, v9.1, v9.0, and v8.5.1.

CygNet Version	Supported Operating Systems for CygNet Services	Supported Operating Systems for CygNet Clients
9.4	<ul style="list-style-type: none"> Windows Server 2019 Windows Server 2016 Windows Server 2012 R2 	<ul style="list-style-type: none"> All supported server operating systems Windows 10 (Pro, Enterprise) Windows 8.1 (Pro, Enterprise) Windows 8 (Pro, Enterprise)
9.3	<ul style="list-style-type: none"> Windows Server 2019 Windows Server 2016 Windows Server 2012 R2 Windows Server 2008 R2 	<ul style="list-style-type: none"> All supported server operating systems Windows 10 (Pro, Enterprise) Windows 8.1 (Pro, Enterprise) Windows 8 (Pro, Enterprise) Windows 7 (Professional, Enterprise, Ultimate)
9.2	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2008 R2 	<ul style="list-style-type: none"> All supported server operating systems Windows 10 (Pro, Enterprise) Windows 8.1 (Pro, Enterprise) Windows 8 (Pro, Enterprise) Windows 7 (Professional, Enterprise, Ultimate)
9.1 ¹	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2008 R2 	<ul style="list-style-type: none"> All supported server operating systems Windows 10 (Pro, Enterprise) Windows 8.1 (Pro, Enterprise) Windows 8 (Pro, Enterprise) Windows 7 (Professional, Enterprise, Ultimate)
9.0 ²	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2008 R2 	<ul style="list-style-type: none"> All supported server operating systems Windows 10 (Pro, Enterprise) Windows 8.1 (Pro, Enterprise) Windows 8 (Pro, Enterprise) Windows 7 (Professional, Enterprise, Ultimate)
8.5.1 ³	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2012 Windows Server 2008 R2 Windows Server 2008 	<ul style="list-style-type: none"> All supported server operating systems Windows 10 (Pro, Enterprise) Windows 8.1 (Pro, Enterprise) Windows 8 (Pro, Enterprise) Windows 7 (Professional, Enterprise, Ultimate)

1. CygNet v9.1 will enter Limited Support on July 20, 2020 and will reach its End of Life on July 20, 2021.

2. CygNet v9.0 is in Limited Support effective December 19, 2019 and will reach its End of Life on December 19, 2020.

3. CygNet v8.5.1 is in Limited Support effective June 16, 2019 and will reach its End of Life on June 16, 2020.

Other Software Requirements

Listed below are other software requirements for your CygNet system. These components are either part of the operating system or supplied by CygNet.

Supported Version	Required for
Microsoft Core XML Services	
MSXML 6.0 (MSXML6)	CygNet Measurement (FMS service and clients) CygNet Native Clients CygNet Services CygNet web clients
Microsoft .NET Framework ¹	
<i>It is recommended that you upgrade to the latest version available for your operating system.</i>	
Microsoft .NET Framework 4.7.1 or greater ²	CygNet Software, including any executable deployed from the \Bin folder
Microsoft .NET Framework 4.6.2 or greater	CygNet Bridge
Microsoft .NET Framework 4.5.2 or greater	CygNet Measurement (FMS)
Microsoft Visual C++ Redistributable Packages	
<i>These packages install run-time components of Visual C++ libraries and can be used to run such applications on a computer even if it does not have Visual Studio 2017 installed.</i>	
Microsoft Visual C++ Redistributable for Visual Studio 2015, 2017, and 2019 (x64)	CygNet 9.4, 64-bit components and service installer CygNet 9.3, 64-bit components and service installer CygNet 9.2, 64-bit components and service installer CygNet 9.1, 64-bit components and service installer CygNet 9.0, 64-bit components and service installer CygNet 8.5.1, 64-bit components and service installer
Microsoft Visual C++ Redistributable for Visual Studio 2015, 2017, and 2019 (x86)	CygNet 9.4 CygNet 9.3 CygNet 9.2 CygNet 9.1 CygNet 9.0 CygNet 8.5.1
Microsoft Visual C++ Redistributable for Visual Studio 2008 (x86)	Third-party tools that use LEADTOOLS
Microsoft Internet Explorer Web Browser	
Microsoft Internet Explorer (IE) 11 (in Compatibility View) Microsoft Internet Explorer (IE) 10 (in Compatibility View) Microsoft Internet Explorer (IE) 9 (in Compatibility View)	CygNet Web Clients
Microsoft Internet Information Services (IIS)	
Microsoft IIS 10, 8.5, 8.0	CygNet Web Server CygNet Mobile Application Suite

1. Windows 10 Enterprise 2015 LTSC is limited to Microsoft .NET Framework .NET 4.6 and is therefore incompatible with CygNet v9.4.

2. The Microsoft .NET Framework 4.7.1 is a highly compatible, in-place update to the Microsoft .NET Framework 4, 4.5, 4.5.1, 4.5.2, 4.6, 4.6.1, 4.6.2 and 4.7.

32- and 64-bit Requirements

The following information applies to 32- and 64-bit operating systems:

- The **64-bit ODBC driver** requires a 64-bit operating system.
- The **32-bit ODBC driver** can run on both 32- and 64-bit operating systems; however, regardless of the type of operating system, it only supports the use of a 32-bit DSN and 32-bit applications. Refer to the *CygNet Help* for creating 32-bit DSNs on a 64-bit operating system.
- The **CygNet Web Server** can be run on a 64-bit operating system; however, it must be run with a 32-bit version of ASP.NET. Refer to <http://support.microsoft.com/kb/894435> for more information.
- **For 32-bit services** to access large address memory (virtual memory greater than 2 GB) they must be run on a 64-bit operating system. This option applies to CygNet versions 8.0.1 or greater.
- **64-bit services** require a 64-bit operating system.
- **64-bit clients** require a 64-bit operating system.
- **64-bit drivers** must be used in conjunction with a 64-bit UIS.
- **64-bit Totalflow EIE** requires the 64-bit ABB toolkit (TCIDLL.dll). For more information on this toolkit contact your ABB representative.

GNS Hardware and Software Requirements

The following components are required for the server for specific features of the General Notification Service (GNS). If these features are not used, the components are not required.

Item	Supported Versions	Required for
Speech API	Microsoft Speech API (SAPI) 5.1+ Note: <i>The GNS uses the Microsoft Speech API (SAPI) for text-to-speech conversion. The SAPI comes pre-installed with Windows. If you want to install other third-party voices, they must be compatible with version of SAPI pre-installed with Windows.</i>	Voice callouts (notifications) The native API for Microsoft Windows is used for text-to-speech conversion.
Email protocol	Any POP3 Email Server Note: <i>Email server must be licensed separately.</i>	Email acknowledgment of call-outs
Text-to-Speech board	Intel Dialogic System Release 5.11 (with Service Update 214 or greater) Intel Dialogic System Release 6.0 (with Service Update 214 or greater) Note: <i>Board must be licensed directly from Intel. Any additions must be compatible with the installed version.</i>	Voice call-outs (notifications) and call-in acknowledgments The board is used for text-to-speech conversion.

CygNet Measurement Software Requirements

The following components are required for CygNet installations licensed for CygNet Measurement (FMS). If the measurement application is not used, the components are not required.

Requirements listed in the table below apply for most CygNet Measurement systems. These requirements do not apply for CygNet Measurement v9.4, v9.3, v9.2, v9.1, v9.0, or v8.5.1 installations using the optional FMS Internal Database. Microsoft SQL Server is required for other CygNet Measurement installations, and must be licensed by you from Microsoft. Install the latest updates and service packs to keep your operating systems up to date. Refer to the **FMS Internal Database** topic in the *CygNet Help* for more information about appropriate CygNet Measurement database options.

Development support for CygNet Measurement using a particular version of SQL is dependent upon the CygNet Measurement version installed. CygNet Measurement may not function unless the version of SQL used is supported by the CygNet Measurement version. Technical Support continues per your Maintenance Agreement.

Refer to the *CygNet Software Product Lifecycle Matrices* on the [CygNet Support portal](#) (login required) for information about SQL product version lifecycle.

Server Requirements

CygNet Measurement requires installation of a compatible Microsoft SQL server. This requirement does not apply to installations that use the FMS Internal Database.

Supported Microsoft SQL Server Versions

The following table lists Microsoft SQL Server versions supported for v9.4, v9.3, v9.2, v9.1, v9.0, and v8.5.1.

FMS Version	Supported Server Versions
9.4	<ul style="list-style-type: none">• Microsoft SQL Server 2019• Microsoft SQL Server 2017• Microsoft SQL Server 2016 - SP2 or later• Microsoft SQL Server 2014 - SP2 or later• Microsoft SQL Server 2012 - SP4 or later
9.3	<ul style="list-style-type: none">• Microsoft SQL Server 2017• Microsoft SQL Server 2016 - SP2 or later• Microsoft SQL Server 2014 - SP2 or later• Microsoft SQL Server 2012 - SP4 or later
9.2	<ul style="list-style-type: none">• Microsoft SQL Server 2016 - SP2 or later• Microsoft SQL Server 2014 - SP2 or later• Microsoft SQL Server 2012 - SP4 or later• Microsoft SQL Server 2008 R2 ¹ - SP3
9.1²	<ul style="list-style-type: none">• Microsoft SQL Server 2016 - SP1 or later• Microsoft SQL Server 2014 - SP2 or later• Microsoft SQL Server 2012 - SP3• Microsoft SQL Server 2008 R2 ¹ - SP3
9.0³	<ul style="list-style-type: none">• Microsoft SQL Server 2016 - SP1 or later• Microsoft SQL Server 2014 - SP2 or later• Microsoft SQL Server 2012 - SP3• Microsoft SQL Server 2008 R2 ¹ - SP3
8.5.1⁴	<ul style="list-style-type: none">• Microsoft SQL Server 2016 - SP1 or later• Microsoft SQL Server 2014 - SP2 or later• Microsoft SQL Server 2012 - SP3• Microsoft SQL Server 2008 R2 ¹ - SP3• Microsoft SQL Server 2008 ¹ - SP4

1. Standard or Enterprise version
2. CygNet v9.1 will enter Limited Support on July 20, 2020 and will reach its End of Life on July 20, 2021.
3. CygNet v9.0 is in Limited Support effective December 19, 2019 and will reach its End of Life on December 19, 2020.
4. CygNet v8.5.1 is in Limited Support effective June 16, 2019 and will reach its End of Life on June 16, 2020.

Client Requirements

CygNet Measurement requires installation of compatible database server clients. This requirement does not apply to installations that use the FMS Internal Database.

Supported Microsoft SQL Client Versions

The following table lists server clients (as applicable for your Microsoft SQL Server version) supported for CygNet v9.4, v9.3, v9.2, v9.1, v9.0, and v8.5.1.

FMS Version	Supported Clients
9.4	<ul style="list-style-type: none"> Microsoft SQL Server Native Client 11.x; install with Administrator rights Oracle Database Client 12c; install with Administrator rights Oracle Database Client 11g; install with Administrator rights <p>Note: This Oracle database support only pertains to specific CygNet Measurement installations requiring access to the optional bi-directional database interface, as described below.¹</p>
9.3	<ul style="list-style-type: none"> Microsoft SQL Server Native Client 11.0; install with Administrator rights Microsoft SQL Server Native Client 10.5; install with Administrator rights Oracle Database Client 12c; install with Administrator rights Oracle Database Client 11g; install with Administrator rights <p>Note: This Oracle database support only pertains to specific CygNet Measurement installations requiring access to the optional bi-directional database interface, as described below.¹</p>
9.2	<ul style="list-style-type: none"> Microsoft SQL Server Native Client 11.0; install with Administrator rights Microsoft SQL Server Native Client 10.5; install with Administrator rights Oracle Database Client 12c; install with Administrator rights Oracle Database Client 11g; install with Administrator rights <p>Note: This Oracle database support only pertains to specific CygNet Measurement installations requiring access to the optional bi-directional database interface, as described below.¹</p>
9.1 ²	<ul style="list-style-type: none"> Microsoft SQL Server Native Client 11.0; install with Administrator rights Microsoft SQL Server Native Client 10.5; install with Administrator rights Oracle Database Client 12c; install with Administrator rights Oracle Database Client 11g; install with Administrator rights <p>Note: This Oracle database support only pertains to specific CygNet Measurement installations requiring access to the optional bi-directional database interface, as described below.¹</p>
9.0 ³	<ul style="list-style-type: none"> Microsoft SQL Server Native Client 11.0; install with Administrator rights Microsoft SQL Server Native Client 10.5; install with Administrator rights Oracle Database Client 12c; install with Administrator rights Oracle Database Client 11g; install with Administrator rights <p>Note: This Oracle database support only pertains to specific CygNet Measurement installations requiring access to the optional bi-directional database interface, as described below.¹</p>

FMS Version	Supported Clients
8.5.1 ⁴	<ul style="list-style-type: none"> • Microsoft SQL Server Native Client 11.0; install with Administrator rights • Microsoft SQL Server Native Client 10.5; install with Administrator rights • Microsoft SQL Server Native Client 10.0; install with Administrator rights • Oracle Database Client 12c; install with Administrator rights • Oracle Database Client 11g; install with Administrator rights <p>Note: This Oracle database support only pertains to specific CygNet Measurement installations requiring access to the optional bi-directional database interface, as described below. ¹</p>

1. This requirement applies when CygNet Measurement is licensed for v9.4, v9.3, v9.1, v9.0, or v8.5.1, in **Repository** mode, and when the installation will utilize the optional Flow-Cal export functionality. In this specific case, the version of the Oracle database compatible with your (32-bit) operating system and with your third-party system must be installed for the host client (the computer hosting your FMS service). The Oracle database client is obtained by you from Oracle. Refer to the Oracle website and your Flow-Cal provider for more information.

2. CygNet v9.1 will enter Limited Support on July 20, 2020 and will reach its End of Life on July 20, 2021.

3. CygNet v9.0 is in Limited Support effective December 19, 2019 and will reach its End of Life on December 19, 2020.

4. CygNet v8.5.1 is in Limited Support effective June 16, 2019 and will reach its End of Life on June 16, 2020.

CygNet Bridge Requirements

The following components are required for CygNet Bridge. If CygNet Bridge and its companion products are not used, the components are not required.

CygNet Bridge operates in conjunction with the CygNet Mobile, CygNet Dispatch, and/or CygNet Bridge API products. The following table lists the software and hardware requirements for CygNet Bridge to operate with the companion products you have selected and licensed.

Item	Supported Versions
Operating system	<ul style="list-style-type: none">• Windows Server 2019• Windows Server 2016• Windows Server 2012 R2• Windows Server 2012
C++ support	<ul style="list-style-type: none">• Microsoft Visual C++ Redistributable for Visual Studio 2017 (x64)
.NET Framework	<ul style="list-style-type: none">• Microsoft .NET Framework 4.6.2 Developer Pack or later
Web server	<ul style="list-style-type: none">• Microsoft IIS 10• Microsoft IIS 8.5• Microsoft IIS 8.0
SSL certificate	<p>An SSL certificate is required to activate the HTTPS protocol (strongly recommended).</p> <p>Notes:</p> <p><i>HTTPS - During CygNet Bridge installation, the HTTPS (secure) communication protocol is selected by default. It is strongly recommended that you use HTTPS host-client communications, since HTTPS traffic is encrypted from end-to-end to ensure that data transmitted between the web server and companion products is more secure. To provide HTTPS, you must install an SSL certificate either before or after installing the CygNet Bridge software. Note that self-signed certificates are not supported.</i></p> <p><i>HTTP - Although HTTP is also supported, it is not secure therefore is not considered safe for use in production environments. HTTP is suggested for use only in limited circumstances such as test environments.</i></p>
CygNet Bridge license	<p>CygNet Bridge is licensed in conjunction with its companion products CygNet Mobile, CygNet Dispatch, and/or CygNet Bridge API. The appropriate license must be installed on your CygNet host.</p> <p>Contact your CygNet or Weatherford Software Sales representative for licensing information.</p>
CygNet Bridge companion products	<p>Meet additional requirements for each of the optional CygNet Bridge companion products you have selected and licensed for use:</p> <ul style="list-style-type: none">• CygNet Mobile Requirements• CygNet Dispatch Requirements• CygNet Bridge API Requirements <p>Refer to the <i>CygNet Help</i> for information about these products.</p>

CygNet Mobile Requirements

The following components are required to run the CygNet Mobile Application Suite with CygNet Bridge.

Item	Supported Versions
Mobile device and operating system	<ul style="list-style-type: none">• Apple iPhone with iOS 8 or later installed• Android mobile device with OS 5.0 Lollipop or later installed
Polling application	<ul style="list-style-type: none">• CygNet SCADA v8.5.1 or later, including one or more Group Services (GRP) configured as a hierarchy service
Communication interface	<ul style="list-style-type: none">• CygNet Mobile Notification Plugin software to enable communication of alarms and notifications to CygNet Operator <p>Note: The CygNet Notification Plugin Manager, which is included in the GNS, is required to use the CygNet Mobile Notification Plugin. Refer to the CygNet Help for more information.</p>
Data access	<ul style="list-style-type: none">• CygNet Bridge v4.2
License	CygNet Mobile is licensed in conjunction with CygNet Bridge.
	Contact your CygNet or Weatherford Software Sales representative for information.

CygNet Dispatch Requirements

The following components are required to operate the CygNet Dispatch application with CygNet Bridge.

Item	Supported Versions
Polling application	<ul style="list-style-type: none">• CygNet SCADA v9.4• CygNet SCADA v9.3• CygNet SCADA v9.2• CygNet SCADA v9.1• CygNet SCADA v9.0
Measurement application	<ul style="list-style-type: none">• CygNet Measurement v9.4• CygNet Measurement v9.3• CygNet Measurement v9.2• CygNet Measurement v9.1• CygNet Measurement v9.0
Data access	<ul style="list-style-type: none">• CygNet Bridge v4.2 (for CygNet Dispatch v9.4)• CygNet Bridge v4.1 (for CygNet Dispatch v9.3)• CygNet Bridge v4.0 (for CygNet Dispatch v9.2)• CygNet Bridge v3.1.65 or later (for CygNet Dispatch v9.1)• CygNet Bridge v3.0.72
License	CygNet Dispatch is licensed in conjunction with CygNet Bridge.
	Contact your CygNet or Weatherford Software Sales representative for information.

CygNet Bridge API Requirements

The following components are required to use the CygNet Bridge API with CygNet Bridge.

Item	Supported Versions
Polling application	<ul style="list-style-type: none">• CygNet SCADA v8.5.1 or later
Data access	<ul style="list-style-type: none">• CygNet Bridge v4.2
License	CygNet Bridge API is licensed in conjunction with CygNet Bridge. Contact your CygNet or Weatherford Software Sales representative for information.