

# General Specifications

LPC7800 VTSPortal Basic Pack  
LPC7801 VTSPortal Multiple  
Client Builder License



GS 33K20H10-50E

[Release 5]

## ■ GENERAL

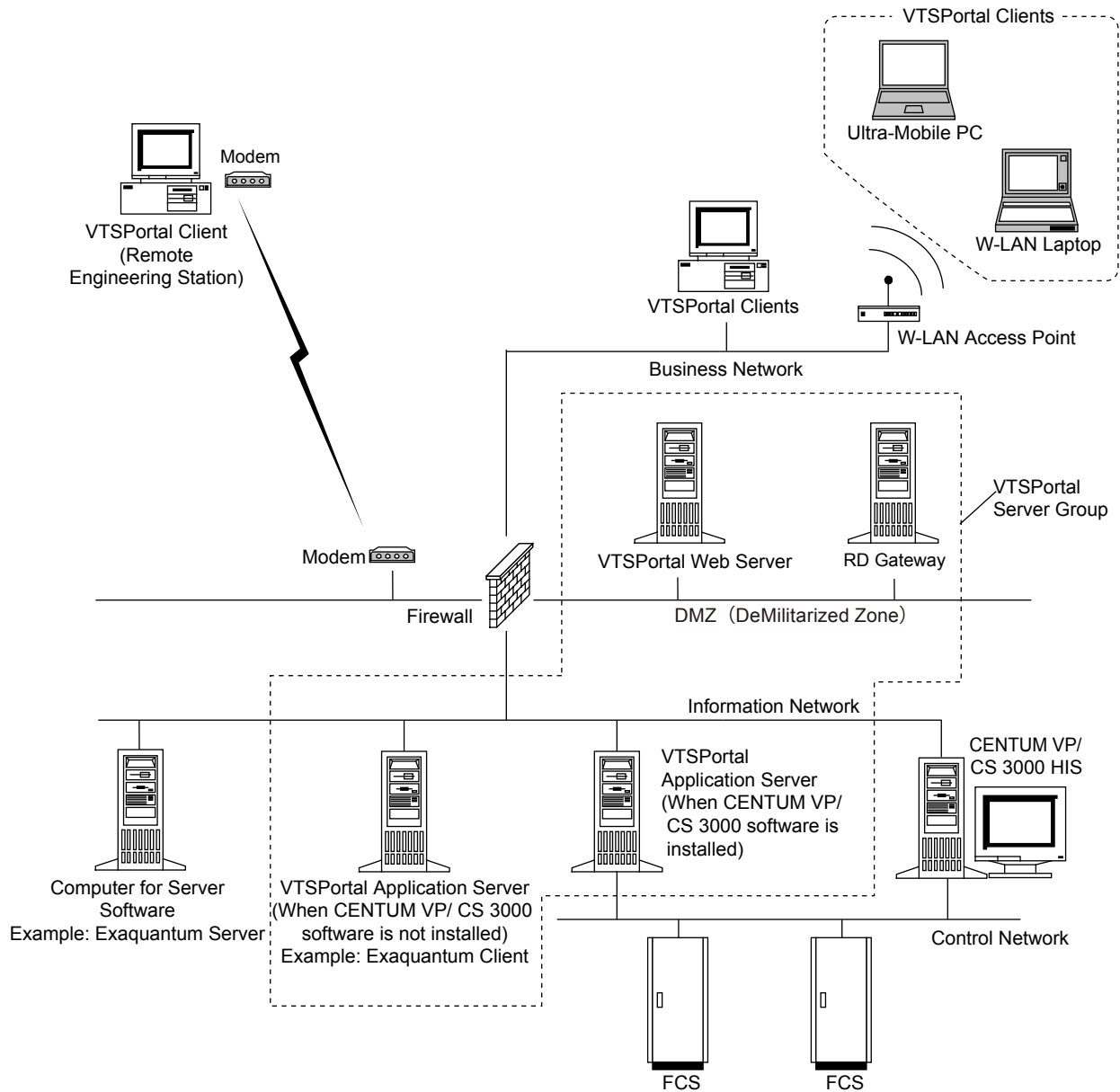
*The primary objective of the Yokogawa Versatile Terminal Service Application Portal (VTSPortal™) enables you to put CENTUM VP/CS 3000, Exaplog, Exapilot, Exaquantum, Exarqe, Exasmoc and Plant Resource Manager (PRM) on the web site via the Windows remote desktop service. VTSPortal enables to use YOKOGAWA HMI applications such as CENTUM VP/CS 3000 HIS from remote terminals, and an integrated Human-Machine Interface (HMI) framework can be provided.*

## ■ Potential Features

- Support remote maintenance or engineering work for CENTUM VP/CS 3000 installations via a dialup or other WAN connection.
- Support an aggregated access point for all applications deployed in a Yokogawa installation.
- Support application deployment on dedicated thin-client hardware.
- Support accessing CENTUM VP/CS 3000 HIS HMI using web browsers from the remote terminals (i.e. Portable HMI terminals on the offshore platforms and remote tank farms, and occasionally manned terminals with unmanned control centers, etc.)

## ■ VTSPotal SYSTEM ARCHITECTURE

The VTSPotal can be deployed in an internal LAN environment (e.g. Office Network), a WAN environment with remote access capabilities (e.g. internet), or in a mixture that provides both LAN and WAN access.



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**Figure VTSPotal System Architecture**

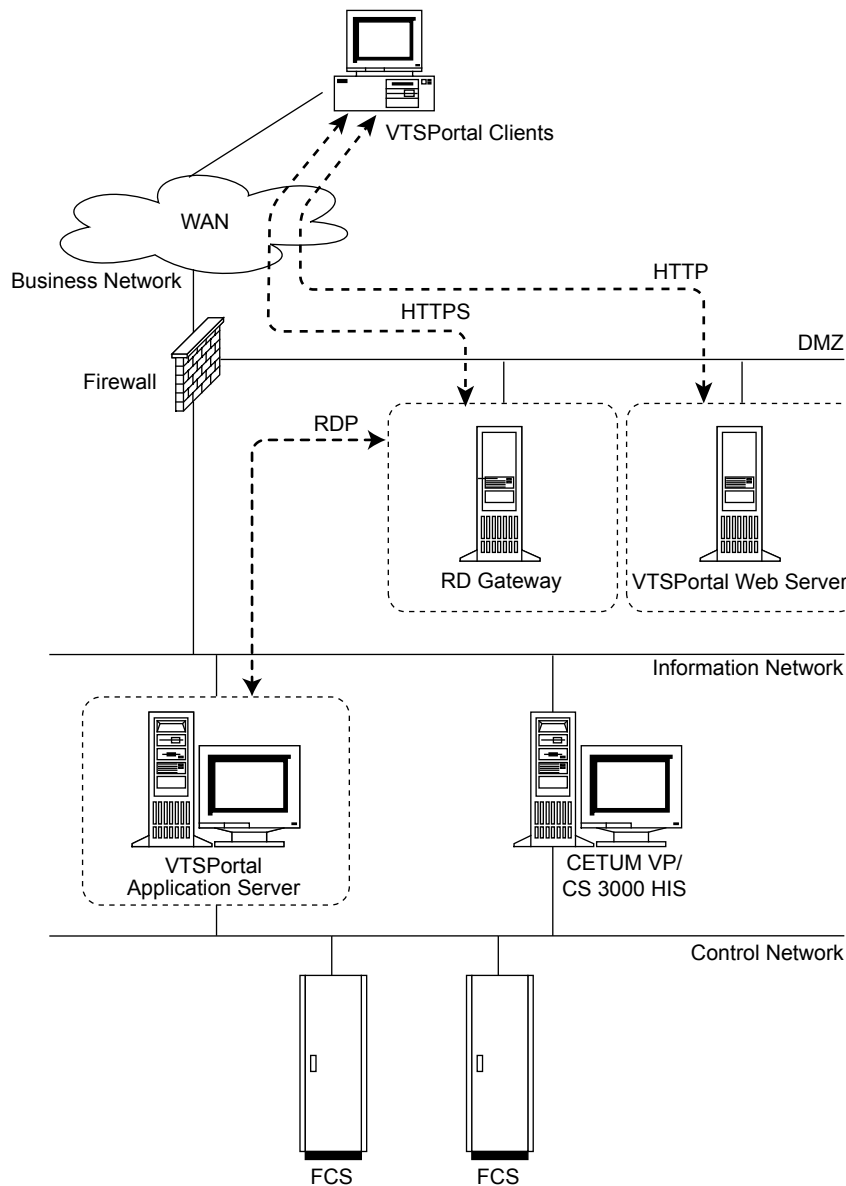
- The VTSPotal client is a station providing client access to the VTSPotal application server. A client can connect to the server via Ethernet based Local Area Network (LAN), Wireless LAN (W-LAN), or Wide Area Network (WAN).
- The VTSPotal Web server is a station hosting the portal site. The VTSPotal client can display and operate applications by accessing this portal site.
- The VTSPotal application server is a computer that provides HMI of applications for the VTSPotal client by using the Windows remote desktop service. Install the Windows remote desktop service, each product package, and the VTSPotal application server function on the computer (Hereinafter, this computer is referred to as an application server). In the figure above, the application server for CENTUM VP/CS 3000 and the application server for Exaquantum client are prepared respectively. For more detail about the execution of applications, refer to “● Note for Executing Each Application.”
- The VTSPotal Web server function and the application server function cannot be installed on one computer. Please prepare a computer for the VTSPotal Web server and a computer for the application server respectively.
- When the VTSPotal Multiple Client Builder License is installed on the application server, you can run builder functions on the several client computers simultaneously.
- The VTSPotal supports to use the RD gateway (Remote Desktop Gateway).

## ■ RD GATEWAY

RD Gateway is a Windows Server 2008 R2 function which translates HTTPS (Hyper Text Transfer Protocol over SSL) into RDP (Remote Desktop Protocol). HTTPS is used for communication between the VTSPortal client and the RD gateway. RDP is used for communication between the RD gateway and the VTSPortal application server. And the VTSPortal client on external network can communicate with the VTSPortal application server without special settings on the firewall.

The RD Gateway and the VTSPortal Web Server can be installed in the same computer.

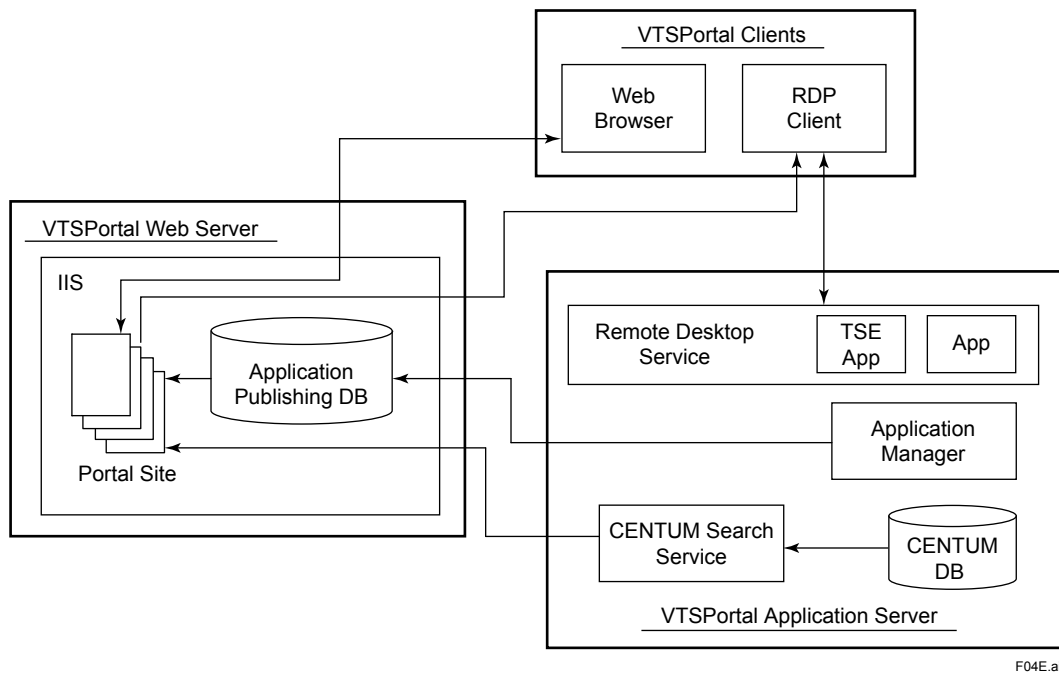
Note: In a Windows Server 2008, RD Gateway means TS Gateway and Remote Desktop Service means Terminal Service.



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Figure VTSPortal Network Architecture for RD Gateway

## ■ FUNCTIONAL OVERVIEW



**Figure Functional Overview**

- Web Browser is the client program used to navigate the portal site. Either the secure browser (VTSExplorer) provided with the portal software or Internet Explorer can be used for this purpose.
- RDP Client is the Remote Desktop Client provided by Microsoft to execute Remote Desktop Connections. This client is freely available for use on any Windows OS.
- Portal Site is the collection of prepared web pages, data stores, and template files used to support the web access to the terminal service applications.
- Application Manager is the administration tool used on each application server to selectively publish the installed applications to the portal users.
- CENTUM Search Service is the search engine web service used to find matching results for CENTUM VP/CS 3000 HIS/ENG applications.
- Remote Desktop Services is the function supported in the Windows Server 2008 R2 operating system. By using Remote Desktop Services, the VTSPortal client can use the Windows based applications installed in the VTSPortal application server.
- TSE App/App are the Server for Remote Operation and Monitoring Function or other applications that are available for the VTSPortal client.

## ■ FUNCTIONAL SPECIFICATIONS

### ● Supported Products and Applications

Table Supports CENTUM CS 3000 revision

VTSPortal revision	CENTUM CS 3000		
	R3.05	R3.08.70	R3.09
R2.01	Yes (*1)	—	—
R2.02	Yes (*1)	Yes	—
R2.03	Yes (*1)	Yes	Yes
R2.04	Yes (*1)	Yes	Yes

\*1: R3.06.10 and later when installed in Windows Server 2003 SP1, R3.08.50 and later when installed in Windows Server 2003 SP2.

Table Supports CENTUM VP revision

VTSPortal revision	CENTUM VP							
	R4.01.00	R4.01.60	R4.02	R4.03	R5.01	R5.02	R5.03	R5.04.20
R2.01	—	—	—	—	—	—	—	—
R2.02	Yes	Yes	—	—	—	—	—	—
R2.03	Yes	Yes	Yes	Yes	—	—	—	—
R2.04	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table Supports Exaquantum revision

VTSPortal revision	Exaquantum				
	R2.20	R2.40	R2.50	R2.80	R2.85
R2.01	Yes	—	—	—	—
R2.02	Yes	Yes	—	—	—
R2.03	Yes	Yes	Yes	—	—
R2.04	Yes	Yes	Yes	Yes	Yes

Table Supports Exasmoc revision

VTSPortal revision	Exasmoc		
	R3.06	R4.01	R4.03
R2.01	Yes	—	—
R2.02	Yes	Yes	—
R2.03	Yes	Yes	—
R2.04	Yes	Yes	Yes

Table Supports Exaplog revision

VTSPortal revision	Exaplog			
	R3.02	R3.20	R3.30	R3.40
R2.01	Yes	—	—	—
R2.02	Yes	Yes	—	—
R2.03	Yes	Yes	Yes	—
R2.04	Yes	Yes	Yes	Yes

Table Supports Exarqe revision

VTSPortal revision	Exarqe		
	R3.06	R4.01	R4.03
R2.01	Yes	—	—
R2.02	Yes	Yes	—
R2.03	Yes	Yes	—
R2.04	Yes	Yes	Yes

Table Supports Exapilot revision

VTSPortal revision	Exapilot				
	R3.30.20	R3.60.10	R3.70	R3.95	R3.96.10
R2.01	Yes	—	—	—	—
R2.02	Yes	Yes	—	—	—
R2.03	Yes	Yes	Yes	—	—
R2.04	Yes	Yes	Yes	Yes	Yes

Table Supports PRM revision

VTSPortal revision	PRM			
	R2.10	R3.03	R3.05	R3.11
R2.01	Yes (*1)	—	—	—
R2.02	Yes (*1)	Yes	—	—
R2.03	Yes (*1)	Yes	Yes	—
R2.04	Yes (*1)	Yes	Yes	Yes

\*1: R2.20 and later when installed in Windows Server 2003 SP1.

## ■ OPERATING ENVIRONMENT

### ● Hardware Requirements

The following hardware environment is required to run VTSPortal normally.

**Table Hardware Environment Requirements (VTSPortal Web Server, RD Gateway)**

Item	VTSPortal Web Server	RD Gateway
<b>Processor</b>	Pentium 1.8 GHz or equivalent, or higher	Pentium 1.8 GHz or equivalent, or higher
<b>Memory (RAM)</b>	512 MB minimum, 1024 MB recommended	512 MB minimum, 1024 MB recommended
<b>Disk</b>	Hard disk capacity of 1.5 to 4 GB	Hard disk capacity of 1.5 to 4 GB
<b>Network</b>	Ethernet network card	Ethernet network card

**Table Hardware Environment Requirements (VTSPortal Application Server, VTSPortal Client)**

Item	VTSPortal Application Server (*1)	VTSPortal Client
<b>Processor</b>	PC for Server with Pentium 2.4 GHz processor or equivalent, or higher	(*2)
<b>Memory (RAM)</b>	1024 MB minimum	(*2)
<b>Disk</b>	Hard disk capacity of 10 GB minimum, NTFS partition	(*2)
<b>Network</b>	Ethernet network card, Yokogawa control bus interface card (*3)	Ethernet network card
<b>Display</b>	—	Color: True Color recommended Resolution: 1280x1024 recommended (*4)

\*1: The hardware environment of the VTSPortal application server must satisfy the hardware requirements of the installed applications.

\*2: This environment must satisfy the hardware requirements of the operating system.

\*3: A control bus interface card is required to publish the CENTUM VP/CS 3000 software.

\*4: The display environment of the VTSPortal client must satisfy the hardware requirements of the installed applications.

### ● Software Requirements

The following software environment is required to run VTSPortal normally.

**Table Software Environment Requirements (VTSPortal Web Server, RD Gateway)**

Item	VTSPortal Web Server	RD Gateway (*1)
<b>OS</b>	Windows Server 2008 Standard Edition Non-SP, SP2 Windows Server 2008 Web Edition Non-SP, SP2 (*2) Windows Server 2008 R2 Standard Edition Non-SP, SP1 Windows Server 2008 R2 Web Edition Non-SP, SP1 (*2)	Windows Server 2008 Standard Edition Non-SP, SP2 Windows Server 2008 R2 Standard Edition Non-SP, SP1
<b>Web server</b>	Microsoft IIS v7.0 (Windows Server 2008) Microsoft IIS v7.5 (Windows Server 2008 R2)	Microsoft IIS v7.0 (Windows Server 2008) Microsoft IIS v7.5 (Windows Server 2008 R2)
<b>Database</b>	SQL Server 2008 Datacenter, Enterprise, Standard, Express (*3) SQL Server 2008 R2 Datacenter, Enterprise, Standard, Express (*3)	—
<b>Document reader</b>	Adobe Reader 10.1 / 11.0	—
<b>Application environment</b>	.NET Framework 3.5 SP1 or later	.NET Framework 3.0 or later

\*1: VTS Portal R2.03 and later supports to use RD Gateway.

\*2: VTSPortal Web Server function and RD Gateway function can be installed in the same computer. In this case, Windows Server 2008 Standard Edition Non-SP, SP2, Windows Server 2008 R2 Standard Edition Non-SP or SP1 is required.

\*3: Microsoft SQL Server 2008 / 2008 R2 Express is a free database software provided by Microsoft. Please download it from the Microsoft website. In addition, official software such as Microsoft SQL Server 2008 / 2008 R2 Datacenter, Enterprise, and Standard can also be used. There is no functional difference in the range of VTSPortal Web Server either the free version or the official version is used.

**Table Software Environment Requirements (VTSPortal Application Server, VTSPortal Client)**

Item	VTSPortal Application Server	VTSPortal Client
<b>OS</b>	Windows Server 2003 Standard Edition Non-SP, SP1, SP2, R2 Non-SP, R2 SP2 (*1) Windows Server 2008 Standard Edition Non-SP, SP2 (*1) Windows Server 2008 R2 Standard Edition SP Non-SP, SP1 (*1)	Windows XP Professional SP3 Windows Vista Business Edition SP1, SP2 Windows 7 Professional Non-SP, SP1 Windows 7 Professional 64bit Non-SP, SP1 (*6)
<b>Browser</b>	—	VTSExplorer (*2) (*6) Microsoft Internet Explorer 6.0/7.0/8.0/9.0/10.0
<b>Application</b>	CENTUM VP / CS 3000 (*3), Exaquantum, Exaplog, Exapilot, Exasmoc, Exarqe, PRM (*4)	—
<b>Document reader</b>	Adobe Reader 10.1 / 11.0 (*5)	—
<b>Application environment</b>	.NET Framework 3.0 or later	—

- \*1: In order to use the Windows Remote Desktop Service, Remote Desktop Server Client Access License (RDS CAL) is required in addition to the regular Windows Server 2008 R2/2008/2003 Client Access License (CAL).
- \*2: VTSExplorer is the software provided by VTSPortal. Install VTSExplorer as needed.
- \*3: Using the CENTUM Search Service requires engineering functions of CENTUM VP/CS 3000.
- \*4: The licenses of applications are not included in the license of the VTSPortal software. Please purchase the licenses of the required applications separately.
- \*5: In case Adobe Reader's software version is specified by the installed applications, follow the instructions. When the installed application use Adobe Acrobat, do not install Adobe Reader.
- \*6: VTSExplorer supports Windows OS 32 bit edition only. If Windows 7 Professional 64 bit is used, use an Internet Explorer instead of the VTSExplorer.

#### ● Note for Executing Each Application

- The hardware requirements and the software requirements of the VTSPortal application server are required to meet the software requirements of each installed application. For the software requirements of each application, please refer to GS of each application.
- For Exaplog, Exapilot, Exarqe, Exasmoc and the plant resource manager, the computer on which the server function and the client function are installed can be used as an application server. For Exaquantum, the computer on which only the client function is installed can be used as an application server; the computer on which the server function and the client function are installed cannot be used.
- On the VTSPortal application server, FDA:21 CFR Part 11 compliant package (LHS5170) cannot be used. On FDA:21 CFR Part 11 compliant system, do not publish the builder function and the recipe management function.
- When the application of CENTUM VP/CS 3000 is published, it is required the Standard Operation and Monitoring Function (LHS1100/LHM1101) and the Server for Remote Operation and Monitoring Function (LHS1150/LHM1150).
- The Server for Remote Operation and Monitoring Function is used for publishing the operation and monitoring of CENTUM VP/CS 3000. Therefore, the software package not supported by the Server for Remote Operation and Monitoring Function is not supported also by VTSPortal. For the software package supported by the Server for Remote Operation and Monitoring Function, refer to GS of "LHS1150, LHM1150 Server for Remote Operation and Monitoring Function".

## ■ MODEL AND SUFFIX CODE

### VTSPortal Basic Pack (for New Installation)

		Description
<b>Model</b>	LPC7800	VTSPortal Basic Pack [Media model LPCAM80-C11]
<b>Suffix Codes</b>	-S	Basic software license
	-C	Multiple software license (for 2 or more)
	1	Always 1
	1	English version
<b>Option Codes</b>	/N□□□□	The number of additional clients

Note: The Web server license, the application server license, the application manager license, and the 10 client connection license are included in this package.

Note: Please specify the number of excess clients by the Option Code when connected clients exceed 10 in ordering newly.

Note: The number of clients might be restricted by the application side.

Note: This package does not require the project ID license of CENTUM VP.

Note: When there are multiple VTSPortal systems in the network, please select suffix code "Multiple software license" for the second and more VTSPortal web servers.

### VTSPortal Basic Pack (for Addition)

		Description
<b>Model</b>	LPC7800	VTSPortal Basic Pack [Media model LPCAM80-C11]
<b>Suffix Codes</b>	-A	Software License for additional clients
	1	Always 1
	1	English version
<b>Option Codes</b>	/N□□□□	The number of additional clients

Note: Please specify the number of clients by the Option Code when connected clients are increased.

Note: When the number of clients is restricted by the application side, add the client licenses on the application side if required.

Note: This package does not require the project ID license of CENTUM VP.

### VTSPortal Multiple Client Builder License

		Description
<b>Model</b>	LPC7801	VTSPortal Multiple Client Builder License [Media model LPCAM80-C11]
<b>Suffix Codes</b>	-S	Basic software license
	-C	Multiple software license (for 2 or more)
	1	Always 1
	1	English version

Note: This license does not require the project ID license of CENTUM VP.

Note: This license is required for each VTSPortal application server respectively. When there are multiple VTSPortal application servers in the network, please select suffix code "Multiple software license" for the licenses that are used for the second more VTSPortal application servers.

### Software Media for VTSPortal

		Description
<b>Model</b>	LPCAM80	Software Media for VTSPortal
<b>Suffix Codes</b>	-C	Supplied media: CD-ROM
	1	Always 1
	1	English version

Note: Electronic Instruction Manual is included in this media.

Note: No license is required to use the electronic instruction manual media.

## ■ ORDERING INFORMATION

Specify the model and suffix codes.

## ■ TRADEMARKS

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