General Specifications

Model SSS7100 Field Wireless Device OPC Server

CENTUM VP

GS 33K20S10-50E

[Release 5]

■ GENERAL

This document describes about Model SSS7100 Field Wireless Device OPC Server which provides data of field wireless gateway to the OPC client via an OPC interface. The subject field wireless system complies with the ISA100.11a field wireless standard defined by the International Society of Automation (ISA) and it accesses to the field wireless devices data. Field Wireless Device OPC Server should be R2.01.01 or later.

Major OPC Client (Connected System):
• Generic Subsystem Gateway (GSGW) (for CENTUM VP and CENTUM CS 3000)
• OPC DA client application (i.e. SCADA)

Field Wireless Gateway:
• YFGW410 Field Wireless Management Station
• YFGW710 Field Wireless Integrated Gateway

■ FUNCTIONAL SPECIFICATION

The Field Wireless Device OPC Server provides an interface compliant with OPC DA specifications.

Data Access (DA) Server Function
The DA server transmits various data of the field wireless devices such as process data, parameters, and devices status to the OPC client.

■ SYSTEM CONFIGURATION

● Configuration with CENTUM System

The figure below shows a typical configuration of the field wireless devices with a CENTUM system. The field wireless device data are transmitted via the field wireless gateway (YFGW410/YFGW710) and stored in the Field Wireless Device OPC Server. The data stored in the Field Wireless Device OPC Server are transmitted to the CENTUM's Human Interface Station (HIS) via a GSGW which is an OPC client.
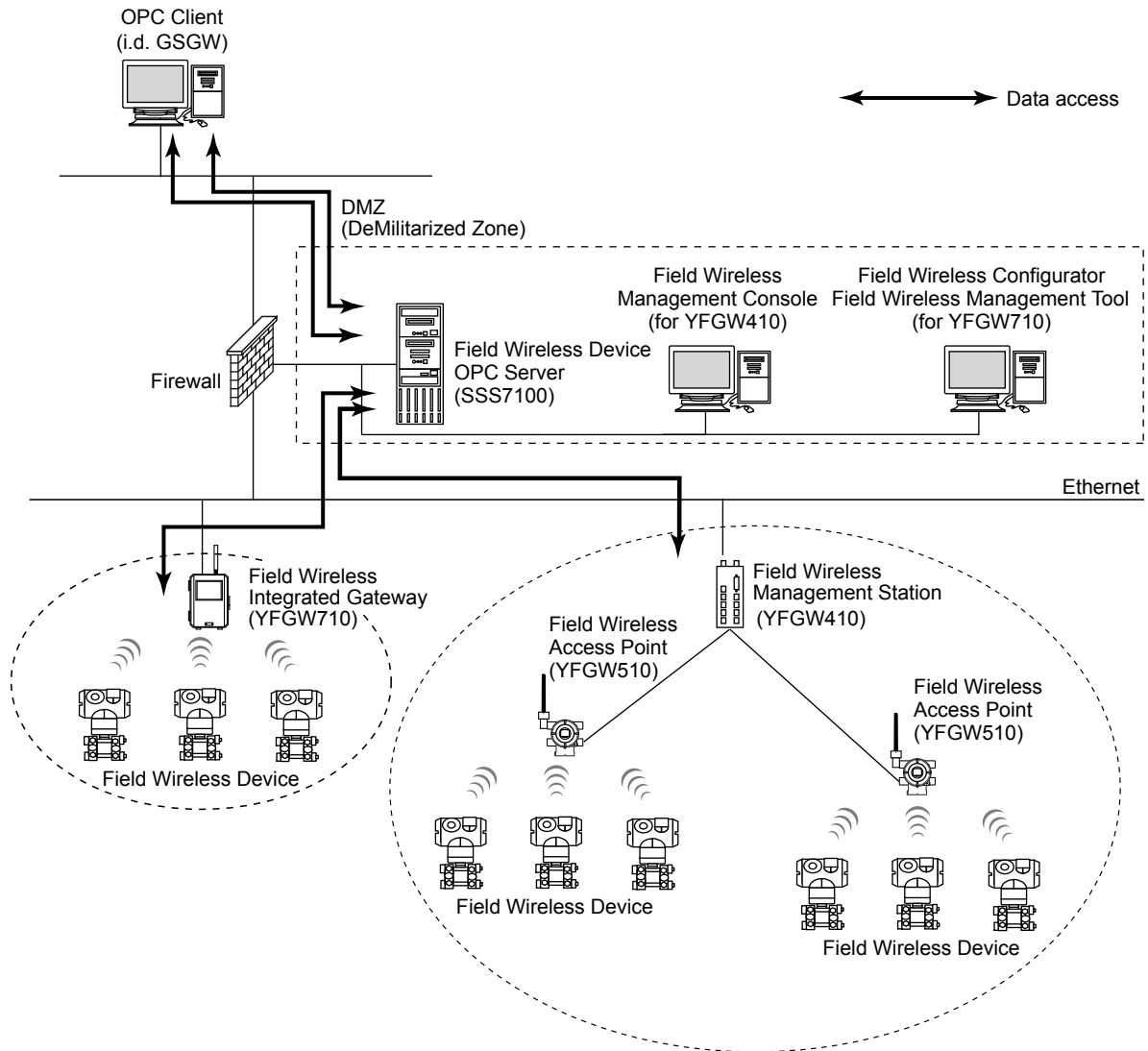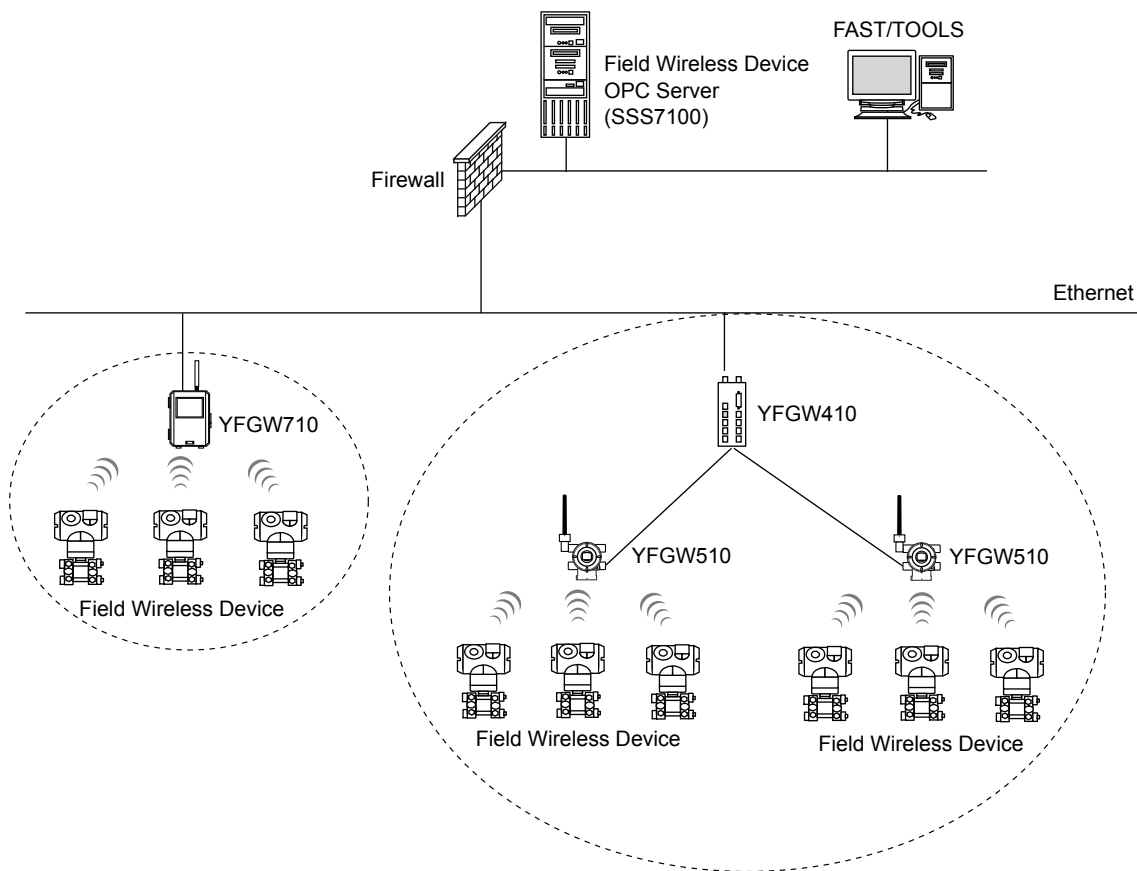
Figure System Configuration Example

● Configuration with FAST/TOOLS

The figure below shous a typical configuration of the field wireless devices and FAST/TOOLS. The field wireless devices data are transmitted via the YFGW410/YFGW710 and stored in the Field Wireless Device OPC Server. The data stored in the Field Wireless Device OPC Server are transmitted to FAST/TOOLS of the OPC client. The Field Wireless Device OPC Server and FAST/TOOLS can coexist on the same computer.


Figure System Configuration with FAST/TOOLS Example

● **Dual-redundant Configuration of YFGW410**

YFGW410 can be configured in single or dual-redundant configurations. In the dual-redundant configuration, the Field Wireless Device OPC Server continues transmitting the data without error notification when the YFGW410 switches its control from a master to a slave while the OPC client processes its data acquisition requests. (*1)

*1:   When the field wireless device OPC server and the dual-redundantly configured YFGW410 are connected, at the moment that the YFGW410 switches the control right, the field wireless device data displayed on OPC client may not be updated until the maximum delay time is reached.

Number of Devices Connected to YFGW410	Delay Time
50 or less	Max. 7 Seconds
200 or less	Max. 15 Seconds
500 or less	Max. 30 Seconds
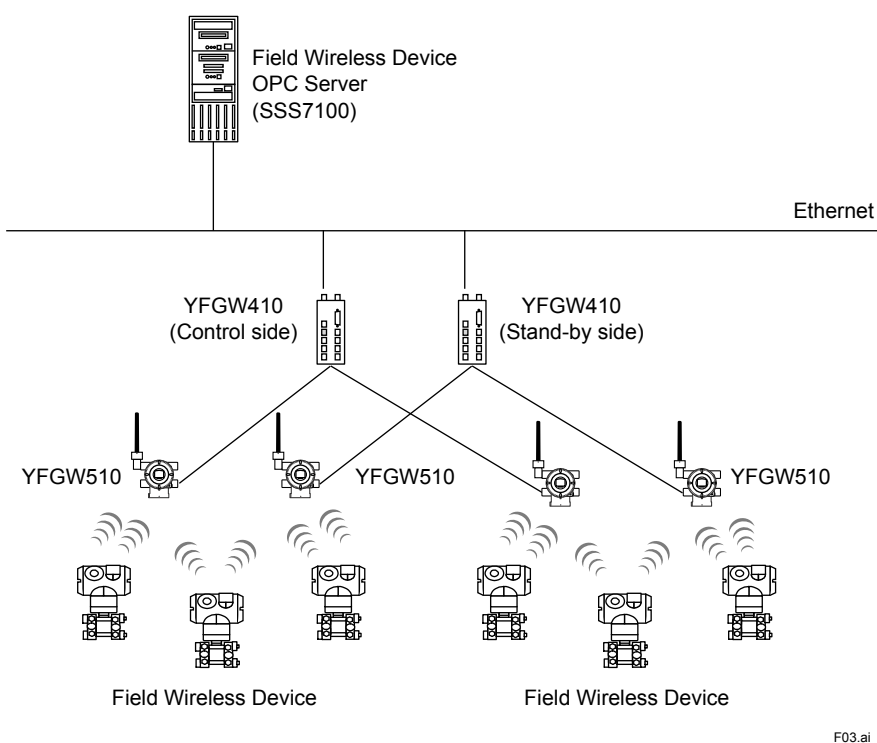
Figure YFGW410 Dual-redundant Configuration Example

● **Server and Client Configuration**

The OPC client of the Field Wireless Device OPC Server can be configured in two ways as described below.
 • The OPC client and the Field Wireless Device OPC Server coexist on the same computer. (*1)
 • The OPC client and the Field Wireless Device OPC Server are installed on independent computers.

*1:   In case the OPC client (e.g. GSGW) and the Field Wireless Device OPC Server coexist on a single computer, the hardware environment of the computer must satisfy the hardware specifications for both.

● **Multiple OPC Clients Configuration**

A Field Wireless Device OPC Server can be accessed by multiple OPC clients.

■ APPLICATION CAPACITY

Item	Specifications
Number of clients (Number of server objects)	Max. 100 clients
Number of field wireless gateways	Max. 10 gateways (*1)
Number of groups (Number of group objects)	Max. 1000 groups
Number of item IDs	Max. 100000 item IDs (1000 item IDs/group)
Cache update period (Data gathering period)	1 to 3600 sec.
Throughput of data access	Max. 2500 item IDs/5 sec (*2)

*1:   This is the sum of YFGW410 and YFGW710. When YFGW410 has a dual-redundant configuration, a pair of gateways (control side and stand-by side) is counted as one.

*2:   This is when 500 field wireless devices, 10 field wireless gateways, and 5 data/field devices are monitored in a scan time of 5 seconds.

■ OPERATING ENVIRONMENT

● Hardware Requirements

SSS7100 works on a computer which has the following specifications:

For Windows Vista and Windows Server 2008
   CPU: Intel Pentium4 2.8 GHz or higher (Intel Core 2 Duo 2.13 GHz or higher recommended)
   Main memory: 2 GB or more
   Hard disk capacity: 15 GB or more free space (40 GB or more free space recommended)
   Communication device: Ethernet network card

For Windows 7
   CPU: Intel Core 2 Duo 2.13 GHz or higher (Xeon Dual Core 2.0 GHz or higher recommended)
   Main memory: 4 GB or more
   Hard disk capacity: 20 GB or more free space (40 GB or more free space recommended)
   Communication device: Ethernet network card

For Windows Server 2008 R2
   CPU: Xeon Dual Core 2.93 GHz or higher
   Main memory: 4 GB or more
   Hard disk capacity: 20 GB or more free space (50 GB or more free space recommended)
   Communication device: Ethernet network card

   Note: In case the OPC client (e.g. GSGW) and the Field Wireless Device OPC Server coexist on a single computer, the hardware environment of the computer must satisfy the hardware specifications for both.

● Software Requirement

Windows Vista Business Edition SP2 (32-bit)

Windows 7 Professional Edition SP1 (64-bit)

Windows Server 2008 Standard Edition SP2 (32-bit)

Windows Server 2008 R2 Standard Edition SP1 (64-bit)

● Connected System Requirement

CENTUM VP R5.02.00 or later

CENTUM VP R4.02.30 or later

CENTUM CS 3000 R3.09.50 or later

FAST/TOOLS R9.02 or later

■ SCOPE OF OPC SPECIFICATON SUPPORT

The Field Wireless Device OPC Server provides an interface for OPC clients defined in the following specifications.

 • OPC Data Access Custom Interface Specification Version 2.05a

■ MODEL AND SUFFIX CODES

Field Wireless Device OPC Server (for New Installation)

		Description
Model	SSS7100	Field Wireless Device OPC Server [Media Model SSSAM10-C11]
Suffix Codes	-V	Software license (with media)
	1	Always 1
	1	English version
	N0001	Number of connected gateway: 1
	N0010	Maximum number of connected gateways: 10

Field Wireless Device OPC Server (for Addition)

		Description
Model	SSS7100	Field Wireless Device OPC Server [Media Model SSSAM10-C11]
Suffix Codes	-E	Number of licenses for the additionally connected gateways
	1	Always 1
	1	English version
	N0110	Expand maximum number of gateways: 1 to 10

■ ORDERING INFORMATION

Specify model and suffix codes.

■ TRADEMARKS

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