



Media Gateway Software

Installation Guide

Software Version 2.4.0

PWA-MGW1

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Overview

PWA-MGW1 Media Gateway software is an application software to archive files stored in the PWS-4500 multi-port AV storage unit and BPU4800 Broadband Processor Unit, to media, and to retrieve files stored in media to the PWS-4500. Optical disc archive cartridges, Professional Discs*, SxS memory*, network drives, XDCAM, and hard disk drives can be used as media.

This document describes the installation of the PWA-MGW1.

The intended audience for this documentation is engineers who perform system integration and installation.

Installing the ODS Driver

1. Turn on the PC.
2. Install the ODS driver (setup.exe).
3. Shut down the PC.
4. Turn on the PC again.
5. Check that ODS-D55U/D77U has been correctly recognized in Device Manager.

Environment

PC to install PWA-MGW1

An application dedicated to PWS-100MG1 series. HP DL320e witch supported up to v1.x is not supported.

Other Equipment

To use the PWA-MGW1, the following equipment is required.

- PWS-4500 Multi-port AV storage unit
- 10GbE NIC card (either one of the following.)
 - Intel Ethernet Converged Network Adapter X540-T1
 - Intel Ethernet Converged Network Adapter X520-DA1
- USB Audio (PWS-100MG1 supports audio playback using HDMI)
 - Connect Sound Blaster Play! to a USB connector for sound check during preview. Connect headphones to the Phone connector first, and then start Catalyst Browse for playing back audio.

If headphones are connected after the start of Catalyst Browse, Catalyst Browse needs to be restarted.

The following are optional equipment for production control.

- PWS-100PR1/PWS-110PR1 Production Control Software (PWA-PRC1 is installed)
- PWSK-4403 USB Control Device
- MSQ-S321 XAVC 4K/HD Codec Card (installed in the PWS-100PR1/PWS-110PR1)

Preparation

Configuring PRC Manager

PRC Manager software is included with PWA-MGW1. PRC Manager is software that manages the PWS-4500/BPU4800 devices, PWA-PRC1, and PWA-MGW1 on a network without using an operation screen.

Only one PRC Manager instance must be running on a network, regardless of whether there is only one PWA-MGW1 or multiple PWA-PRC1 installations on the same network.

Note

If both PWA-PRC1 and PWA-MGW1 are on the same network, do not use PRC Manager on the PWA-MGW1.

To perform management functions using PRC Manager, the PWS-4500/BPU4800 and PWA-MGW1 must have the following settings.

PWS-4500/BPU4800 settings

Click [System] – [Network], and configure the following settings in [PRCM Setting] on the displayed screen.

Item	Setting
Port Number	50000
PRCM 1 Connection	Enable
PRCM 1 IP Address	IP address of PC on which PRC Manager is installed

PWA-MGW1 settings

Click [Settings] – [PRC Manager] – [PRC Manager List] – [Add], and configure the following settings on the displayed screen.

Item	Setting
IP Address	IP address of PC on which PRC Manager is installed
Port Number	51000

PWA-PRC1 settings

If using an NMI and Share Play, different settings for PTP domain are required. If the settings need to be changed, change the PTP domain setting in [Settings] – [System] – [PRC manager].

Setting the PSW-4500

1. Configure the PWS-4500 Port A through Port D settings, according to the PGM mode used by PWA-PRC1.

When each condition is selected in the following figure (①), select the desired settings from the enabled I/O configurations.

Refer to the PWS-4500 Operation Manual for details on port settings.

Note

PWA-PRC1 V2.1 does not support 1-IN, 2-IN, 3-IN, 4-IN, 2-OUT, 3-OUT, 4-OUT, 1-IN 3-OUT, 2-IN 3-OUT, and 8-IN configurations as the local server.

Board Setting

Step 1. Frequency + I/O > Step 2. Port Type > Step 3. Port Codec > Step 4. Port Configuration > Step 5. Remote > Step 6. Send Form

Select Recommended Solution

If you have narrowed down the solutions, the following settings will be easy.

☐ Select All

☒ Select Condition

Codec ☒ XAVC ☐ Avid DNxHD(R) ☐ Apple ProRes

Pixel and FPS ☐ HD with 1x fps ☐ HD with 2x - 4x fps ☐ HD with 6x - 8x fps ☒ 4K/QFHD with 1x fps ☐ QFHD with 2x fps

HD Cut Out ☒ Unavailable ☐ Available

Preview Control ☒ Unavailable ☐ Available ☐ with BPU4800

Selected Combinations: 5

Definition of Port Type

Name	XAVC	XAVC + HFR Data
Input	Input: HD with 1x - 4x fps, 4K with 1x fps, Sub Recording	
HD Multi-Input	Input: HD with 1x fps, 2 Input Ports per 1 Board	
Input with 2 Boards	Input: HD with 6x - 8x fps, 4K with 2x fps, Sub Recording	
Output	Output: HD and 4K	
HD Multi-Output	Output: HD, 2 Output Ports per 1 Board	
HD Cut Out	Output: HD Cut Out	

Name	Avid DNxHD(R)	Apple ProRes
Input	Input: HD with 1x fps	Input: HD with 1x fps
HD Multi-Input	Input: HD with 1x fps, 2 Input Ports per 1 Board	Input: HD with 1x fps, 2 Input Ports per 1 Board
Input with 2 Boards	Input: Not Supported	Input: Not Supported
Output	Output: HD	Output: HD
HD Multi-Output	Output: HD, 2 Output Ports per 1 Board	Output: HD, 2 Output Ports per 1 Board
HD Cut Out	Output: Not Supported	Output: Not Supported

Select a Combination of Port Type

	4-IN	3-IN 1-OUT	2-IN 2-OUT	1-IN 3-OUT	4-OUT
Port A	Input	Input	Input	Input	Output
Port B	Input	Input	Output	Output	Output
Port C	Input	Input	Input	Output	Output
Port D	Input	Output	Output	Output	Output

2. Configure each port.

Note

PWA-PRC1 may not function properly if the following settings are not correctly made. Be sure to make the following settings.

- Make the same Video Format settings for each port.
- In Cut Out mode, make the same Format settings for PortD: Output and [Monitor Out].
- In Cut Out mode, make the same settings for [Monitor Out] for each port.
- In modes other than Cut Out mode, set [Monitor Out] to "xxp to xxI & HD-SDI" (where "xx" is the resolution) where available.

Board Setting > Step 1. Frequency + I/O > Step 2. Port Type > Step 3. Port Codec > **Step 4. Port Configuration** > Step 5. Remote > Step 6. Send Form

Common Settings

If you have set common settings of SDI Type, each port settings of SDI Type will be selected by priority.

SDI/NMI Type for Cable: ☐ HD-SDI ☐ 3G-SDI (Level A) ☒ 3G-SDI (Level B)

SDI/NMI Type for QFHD/4K: ☒ Square Division ☐ 2-Sample Interleave Division

SDI Type for 2x mode: ☒ Aligning with Horseshoe-shape Field ☐ Aligning with Field

Monitor Out: ☒ HD-SDI ☐ 3G-SDI (Level A) ☐ 3G-SDI (Level B)

Port A-1: Input: HD with 1x - 4x fps, 4K with 1x fps, Sub Recording

XAVC	HD: 1280 x 720 YPbPr 4:2:2 10bit	HD: 1920 x 1080 YPbPr 4:2:2 10bit	QFHD: 3840 x 2160 YPbPr 4:2:2 10bit		4K: 4096 x 2160 YPbPr 4:2:2 10bit	
	Class 100	Class 100	Class 300	Class 480	Class 300	Class 480
59.94i		<input type="radio"/>				
59.94i 2x		<input type="radio"/>				
59.94i 3x		<input type="radio"/>				
59.94i 4x		<input type="radio"/>				
29.97PsF		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29.97p		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59.94p	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59.94p 2x	<input type="radio"/>	<input type="radio"/>				
59.94p 3x	<input type="radio"/>	<input type="radio"/>				
59.94p 4x	<input type="radio"/>	<input type="radio"/>				

Next: 59.94p QFHD: 3840 x 2160 YPbPr 4:2:2 10bit XAVC Class 300

SDI/NMI Type for Cable: ☐ HD-SDI ☐ 3G-SDI (Level A) ☒ 3G-SDI (Level B)

SDI/NMI Type for QFHD/4K: ☒ Square Division ☐ 2-Sample Interleave Division

SDI Type for 2x mode: ☐ Aligning with Horseshoe-shape Field ☐ Aligning with Field

Monitor Out: ☒ 59.94p to 59.94i & HD-SDI ☐ 59.94p & 3G-SDI (Level A) ☐ 59.94p & 3G-SDI (Level B)

Sub Recording: ☒ Off ☐ Using Internal Signal ☐ Using External Interface

Sub Recording Configuration: Unusable Configuration

Port B-1: Output: HD and 4K

XAVC	HD: 1280 x 720 YPbPr 4:2:2 10bit	HD: 1920 x 1080 YPbPr 4:2:2 10bit	QFHD & 4K to QFHD: 3840 x 2160 YPbPr 4:2:2 10bit		4K: 4096 x 2160 YPbPr 4:2:2 10bit	
	Class 100	Class 100	Class 300	Class 480	Class 300	Class 480
59.94i		<input type="radio"/>				
59.94p to 59.94i		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29.97PsF		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29.97p		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59.94p	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next: 59.94p QFHD & 4K to QFHD: 3840 x 2160 YPbPr 4:2:2 10bit XAVC Class 300

SDI/NMI Type for Cable: ☐ HD-SDI ☐ 3G-SDI (Level A) ☒ 3G-SDI (Level B)

SDI/NMI Type for QFHD/4K: ☒ Square Division ☐ 2-Sample Interleave Division

SDI Type for 2x mode: ☐ Aligning with Horseshoe-shape Field ☐ Aligning with Field

Monitor Out: ☒ 59.94p to 59.94i & HD-SDI ☐ 59.94p & 3G-SDI (Level A) ☐ 59.94p & 3G-SDI (Level B)

Sub Recording: ☐ Off ☐ Using Internal Signal ☐ Using External Interface

Sub Recording Configuration: Unusable Configuration

- Set [Chunk File] of the input port to "24H".
- TC to Input shall be in synchronization. Set [TCG Source] of the input port to "Master TC".

- Configure the correct [DF mode] for each input/output port. Do not mix DF and NDF settings.

Note

Correct operation will not occur if a TC jump exists in the recorded file.

HomeStatusSystemPortFileStorageMaintenanceSNMP

CommonPort A-1Port B-1Port C-1Port D-1

Board A: Input: HD with 1x - 4x fps, 4K with 1x fps, Sub Recording

Port A-1

IN QFHD → FILE QFHD

Next: CAM1

CLOSE

IN 59.94p 3840x2160 YPbPr 4:2:2 10bit XAVC

FILE 59.94p 3840x2160 YPbPr 4:2:2 10bit XAVC Class 300

TR 1	TR 2	TR 3	TR 4	TR 5	TR 6	TR 7	TR 8	TR 9	TR 10	TR 11	TR 12	TR 13	TR 14	TR 15	TR 16
CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8	CH 9	CH 10	CH 11	CH 12	CH 13	CH 14	CH 15	CH 16
SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI

Option

Remote 9pin

Off

Off

Remote 25pin

Off

Off

Chunk File

24H

24H

User Specified Name

CAM1

CAM1

- Template -

Submit

Cancel

TC

TC Setup

TCG Source

Master TC

Master TC

REGENE Source

TC & UB

TC & UB

RUN Mode

Free Run

Free Run

DF Mode

DF

DF

TC OUT

Regene

Regene

Timer Select

TC

TC

Timer Set: Disabled

--

--

--

--

Set

Reset

- Set [Forced Shuttle Mode] of the output port to “Off”.

Home Status System **Port** File Storage Maintenance SNMP

Common Port A-1 **Port B-1** Port C-1 Port D-1

Board B: Output: HD and 4K

Port B-1 NONE → QFHD

CLOSE

59.94p 3840x2160 YPbPr 4:2:2 10bit XAVC

CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8	CH 9	CH 10	CH 11	CH 12	CH 13	CH 14	CH 15	CH 16
TR 1	TR 2	TR 3	TR 4	TR 5	TR 6	TR 7	TR 8	TR 9	TR 10	TR 11	TR 12	TR 13	TR 14	TR 15	TR 16
SDI-A/E	SDI-A/E	SDI-A/E	SDI-A/E	SDI-A/E	SDI-A/E	SDI-A/E	SDI-A/E	SDI	SDI	SDI	SDI	SDI	SDI	SDI	SDI

Option

Remote 9pin

Remote 25pin

Continuous Mode

Feed Play Mode

Forced Shuttle Mode

TC

TC Setup

TCR Select

DF Mode

TC OUT

- Set [Shuttle Muting] of the output port to “On”.

Audio

Audio Output Select

	CH01	CH02	CH03	CH04	CH05	CH06	CH07	CH08	CH09	CH10	CH11	CH12	CH13	CH14	CH15	CH16
Track	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16

Shuttle Muting

VAR Muting

Audio Output Phase samples [0 ≤ 128: default ≤ 255]

- When using Cut Out mode, set [Time Shifted Play] to "From Storage Only".

The screenshot shows the 'System Parameters' configuration page. The 'Time Shifted Play' setting is highlighted with a red box and is set to 'From Storage Only'. Other settings include Reference Source (Input Port A-1), Preroll Time (5 sec), Rec Inhibit (Off), Frame PB Mode (Field), Freeze PB Mode (Field1), Record File Naming (FILE + Sequential), File Delete Mode (Inhibit), Front LED Mode (On), QFHD/4K SDI with TC (SDI-1 Only), Output Port SDI-1,2,3,4 (On), No Video Output Signal (Gray), Control Inhibit (Off), Automatic Start (Off), Master TC (Internal-Preset), REGENE Source (TC & UB), and DF Mode (DF).

- When recording using Loop Recording, set all recording ports on the PWS-4500 to the same settings.

Note

If the port settings are changed, reconfigure [Create Loop Recording Area].

The screenshot shows the 'Create Loop Recording Area' configuration page. The 'Port A-1' and 'Port C-1' sections are highlighted with a red box. Both sections show 'Assign Port' set to '59.94p 3840x2160 YPbPr 4:2:2 10bit XAVC Class 300' and 'Assign Area' set to 'Memory Board: 6/16 - Size: 676 GB - Time: About 02 h 15 min'. The 'Area Information' field is set to 'Area 1' for Port A-1 and 'Area 2' for Port C-1. The 'Submit' and 'Cancel' buttons are visible at the bottom of the highlighted section.

3. Configure FTP Server

Note

PWA-MGW1 may not function properly if the following settings are not correctly made. Be sure to make the following settings.

- Set [Importing File Naming] to "Off".

The screenshot displays the configuration interface for PWA-MGW1, specifically the 'Network' tab under the 'System' section. The interface is divided into two main parts: 'Network Setting' and 'FTP Server'.

Network Setting

Network 1 (1GbE)

IP Address	192	168	0	74	192	168	0	74
Subnet Mask	255	255	255	0	255	255	255	0
Default Gateway	0	0	0	0	0	0	0	0
MAC Address	10:4F:A8:F8:C9:5F							

Network 2 (1GbE)

IP Address	192	168	2	74	192	168	2	74
Subnet Mask	255	255	255	0	255	255	255	0
Default Gateway	0	0	0	0	[Network 1 Common]			
MAC Address	10:4F:A8:F8:C9:5E							

Network 3 (10GbE)

IP Address	192	168	0	84	192	168	0	84
Subnet Mask	255	255	255	0	255	255	255	0
Default Gateway	0	0	0	0	0	0	0	0
MAC Address	90:E2:BA:C1:13:E6							
MTU	1500				1500			

This setting has the following restrictions.
- We need to reboot the server.
- All ports will be closed automatically.

FTP Server

Activation	On	On
Importing File Naming	Off	Off

- Set [Import Clips with Odd Frames(50p & 59.94p)] to "Acceptable (Omit Last Frame)".

Home

Status

System

Port

File

Storage

Maintenance

SNMP

Board

Setup

Monitor

Remote

Network

Share Play

Bank

Power

Network Setting

Network 1 (1GbE)

IP Address

192168074

192168074

Subnet Mask

2552552550

2552552550

Default Gateway

0000

0000

MAC Address

10:4F:A8:F8:C9:5F

Network 2 (1GbE)

IP Address

192168274

192168274

Subnet Mask

2552552550

2552552550

Default Gateway

0000

[Network 1 Common]

MAC Address

10:4F:A8:F8:C9:5E

Network 3 (10GbE)

IP Address

192168084

192168084

Subnet Mask

2552552550

2552552550

Default Gateway

0000

0000

MAC Address

90:E2:BA:C1:13:E6

MTU

1500

1500

This setting has the following restrictions.

- We need to reboot the server.

- All ports will be closed automatically.

Submit

Cancel

FTP Server

Activation

On

On

Importing File Naming

Off

Off

Import Clips with Odd Frames (50p & 59.94p)

Acceptable (Omit Last Frame)

Acceptable (Omit Last Frame)

Note

When doing the setting from which the odd material is received by frequency of 50p/59.95p on PWS-4500 side, the last odd frame is omitted.

Configuring the BPU4800

Configure the input/output ports of the BPU4800.

The following four methods are supported for using ports.

Port	Description
Replay Port	Set when using as the PWA-PRC1 local server for replay control. It can also be used as a network server for Share Play connection. Clips created on the BPU4800 cannot be transferred to an external device.
XAVC Transcode Port	Set when using as a network server for Share Play connection. Clips created on the BPU4800 can be transferred to an external device. Cannot be used as the local server.
HD Cut Out Port	Set when using as the PWA-PRC1 local server for Cut Out operation. It can also be used as a network server for Share Play connection. Clips created on the BPU4800 cannot be transferred to an external device.
Replay Port + XAVC Transcode Port	This setting is selected automatically if the format is HD. It enables replay control and transcoding to XAVC files.

The playback port method selection is configured using the [Replay Port + XAVC Transcode Port] setting in the web menu of the BPU4800.

Board Setting

Step 1.

Port Configuration

Step 2.

Send Form

System Frequency

25Hz

29.97Hz

Replay Port + XAVC Transcode Port

Replay Port

Replay Port

XAVC Transcode Port: 59.94p QFHD: 3840x2160

HD Cut Out Port

HFR Data Record Port

HFR Data	HD: 1920 x 1080 16bit	QFHD: 3840 x 2160 16bit
59.94p 4x		
59.94p 8x		
59.94p 16x		

Current

59.94p 8x QFHD: 3840 x 2160 16bit HFR Data

Replay Port

HFR Data	HD: 1920 x 1080 to HD: 1280 x 720 16bit	HD: 1920 x 1080 16bit	QFHD: 3840 x 2160 16bit
59.94p to 59.94i			
59.94p			

Slot 1 Configuration

59.94p QFHD: 3840 x 2160 HFR Data 3G-SDI (Level B) SQD

Slot 2 Configuration

59.94i HD: 1920x1080 HD-SDI

Slot 3 Configuration

59.94i HD: 1920x1080 HD-SDI

Back

Next

Cancel

Notes

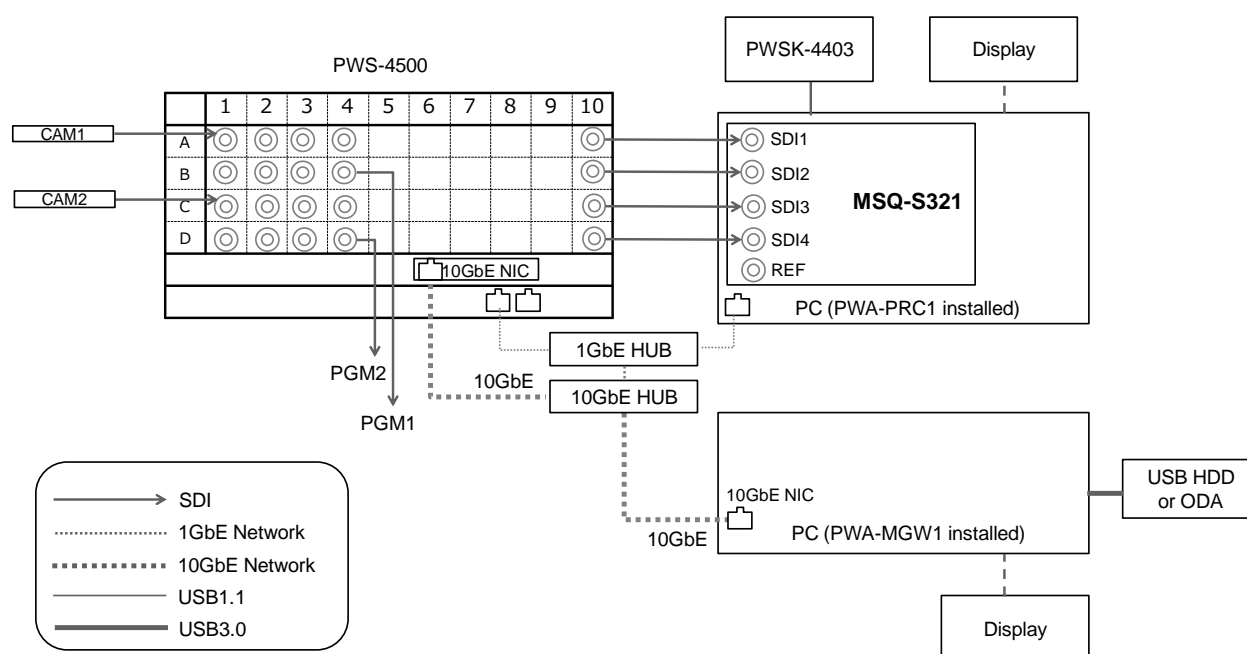
- When HD Cut Out Port is selected, make sure the Format of the slot used for connection with the PWS-100PR1/PWS-110PR1 is the same as the Format of Slot 1 Replay (Slot 1 is set using the web menu, and the slot used for PWS-100PR1/PWS-110PR1 connection is set using the BPU menu).
- Set each port to the correct [DF Mode] setting. Do not mix DF and NDF settings.
- Set the [Forced Shuttle Mode] setting of the Replay port to [Off].
- When HD Cut Out Port is selected, set [Time Shifted Play] to [From Storage Only].

Connection

Note

- In configurations that require two MSQ-S321 boards, only PWS-100PR1/PWS-110PR1 connection is supported.
- In following figures, MSQ-S321 or MSQ-S321(1) means an upper slot and MSQ-S321(2) means a lower slot.
- Be sure to use 10GbE as the NIC of PWS-100MG1. Also, when using other NICs, please do not use the same network segment for IP address.

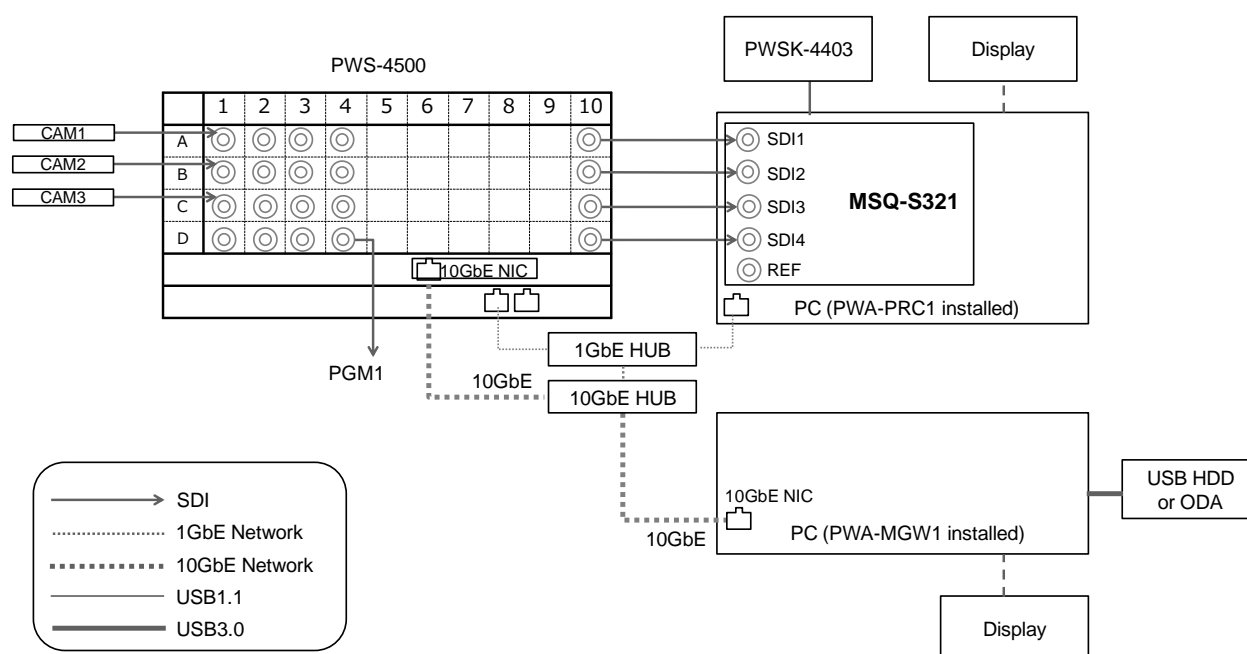
2IN/2OUT (4K) with 10GbE Network



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

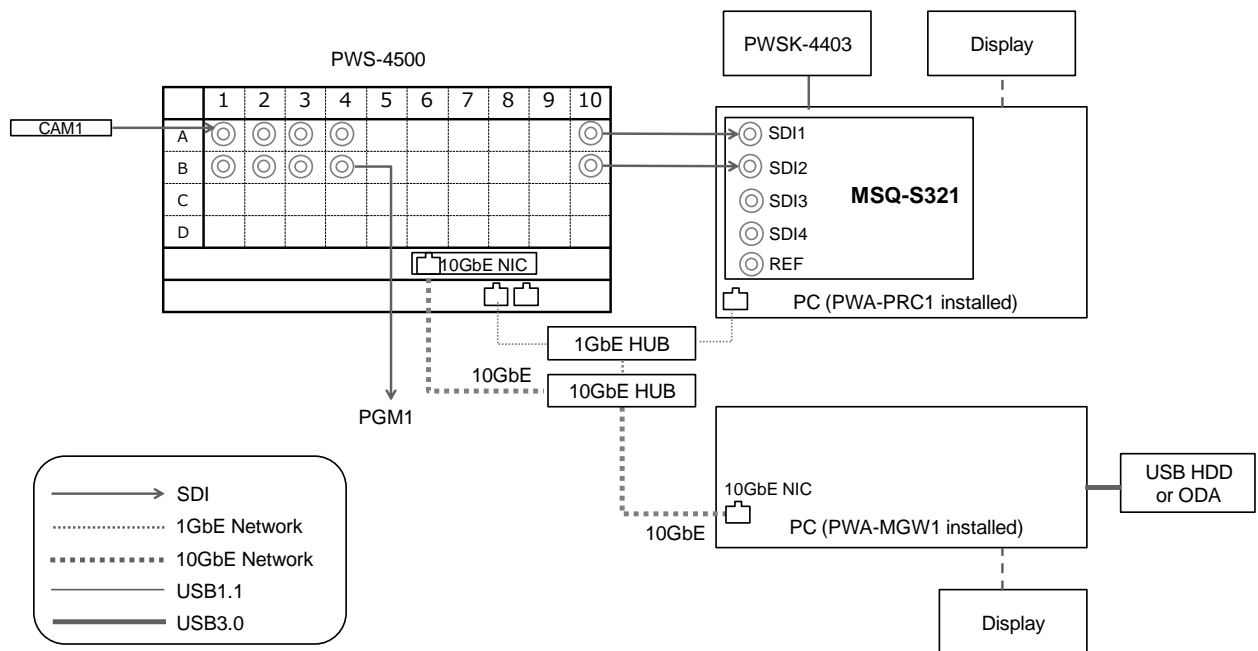
3IN/1OUT (4K) with 10GbE Network



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

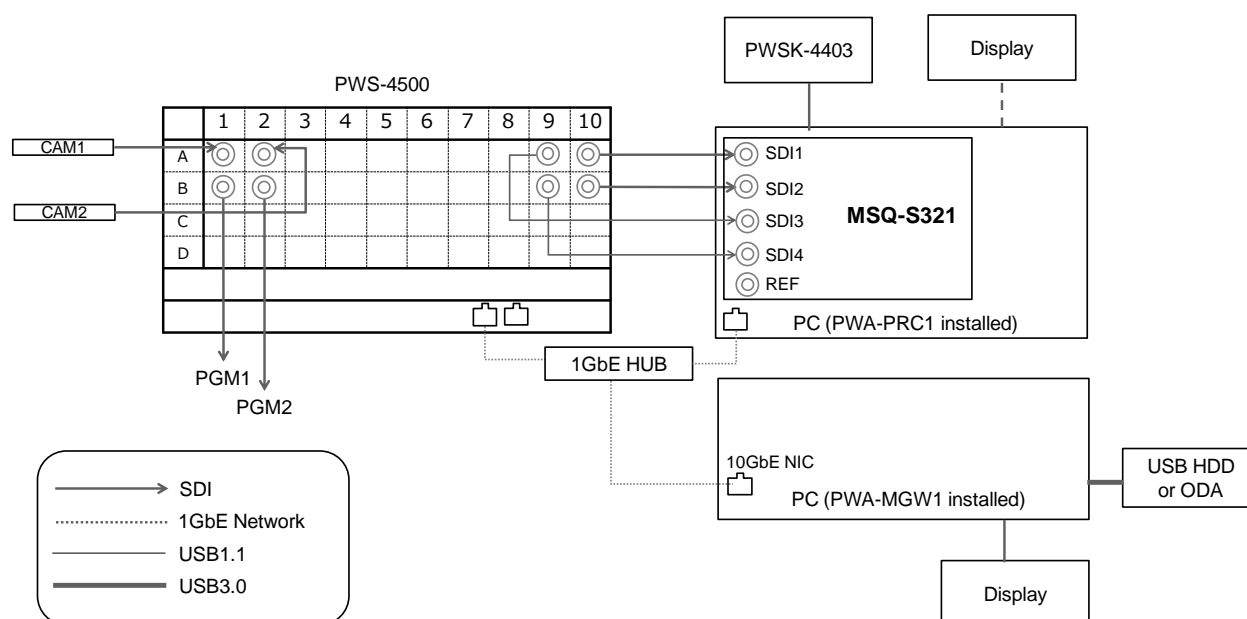
1IN/1OUT (4K) with 10GbE Network, without PWSK-4504



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

2IN/2OUT (HD) with 1GbE Network, without PWSK-4504



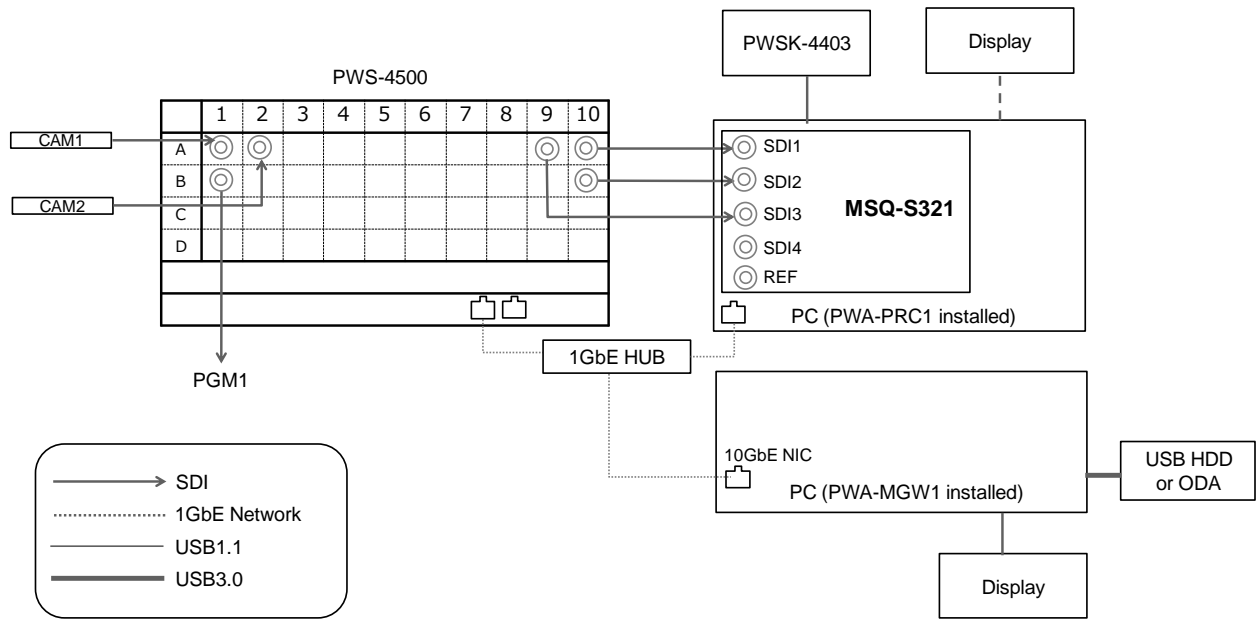
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

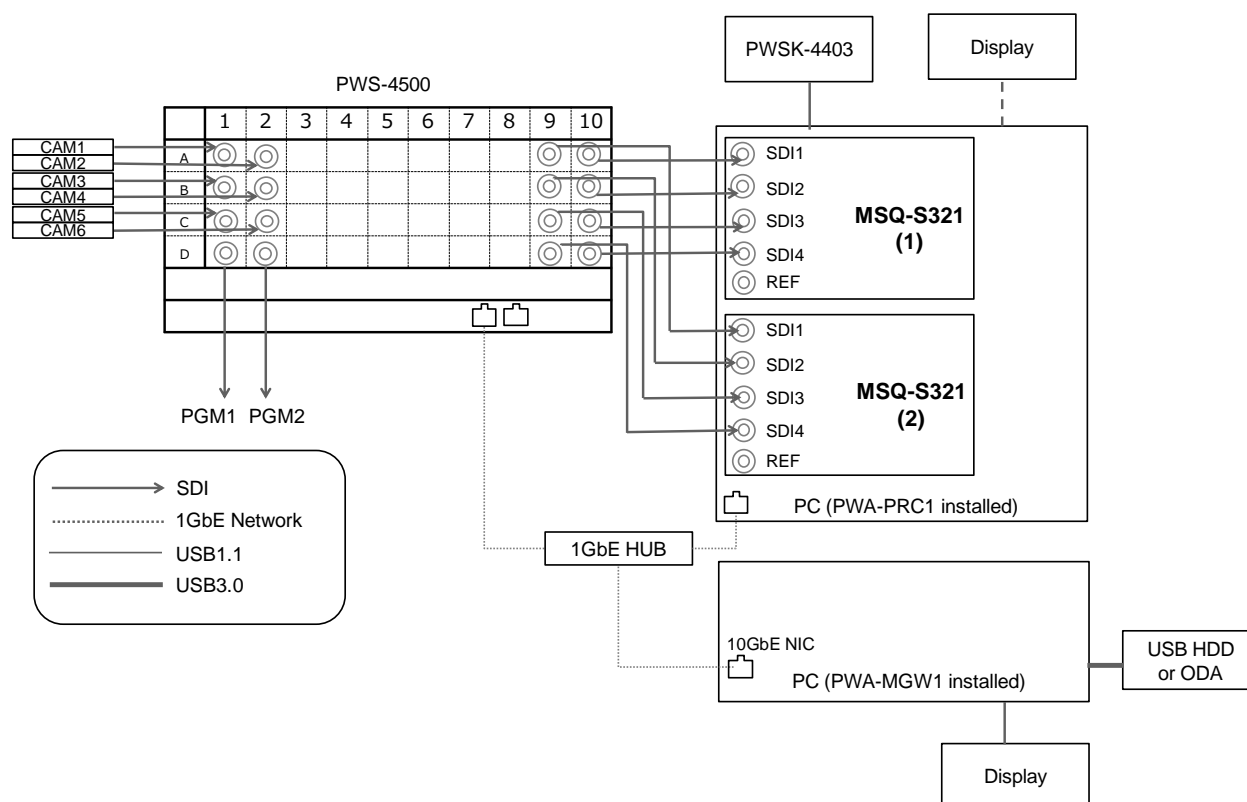
2IN/1OUT (HD) with 1GbE Network, without PWSK-4504



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

6IN/2OUT (HD) with 1GbE Network, without PWSK-4504



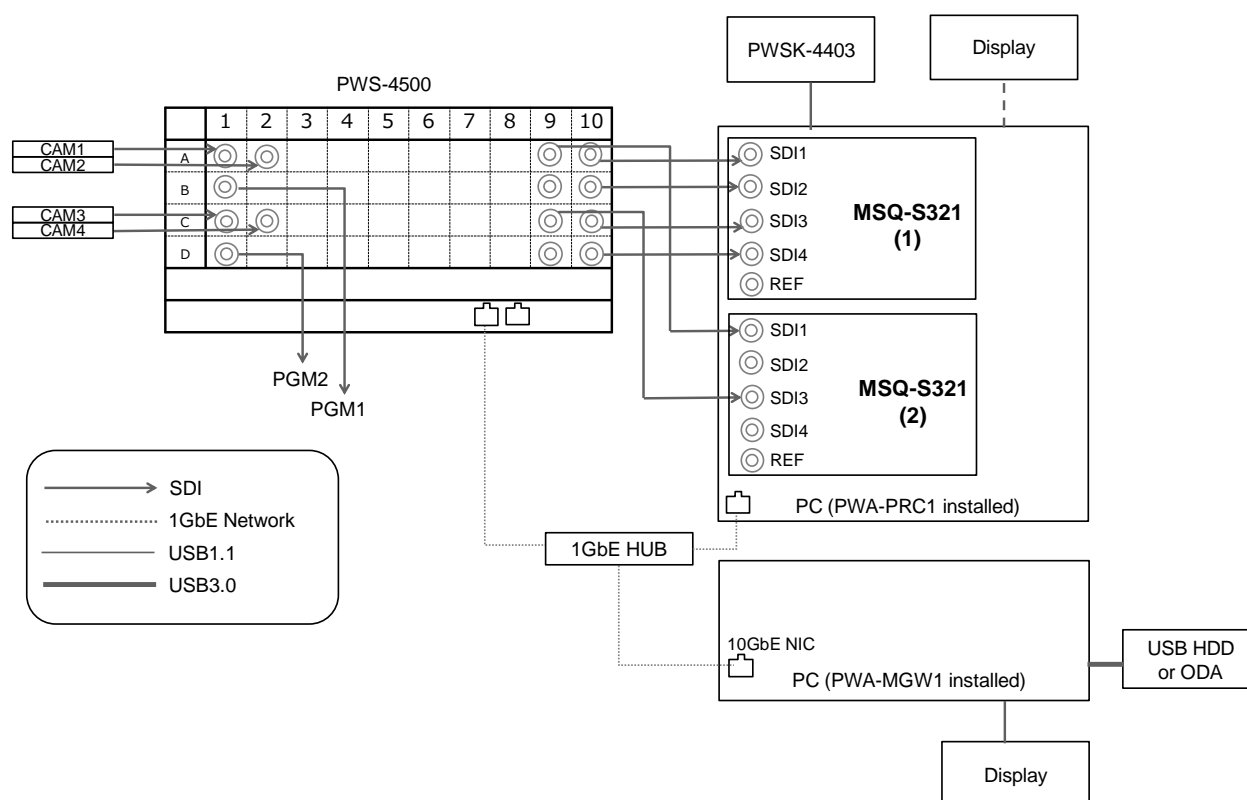
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

4IN/2OUT (HD) with 1GbE Network



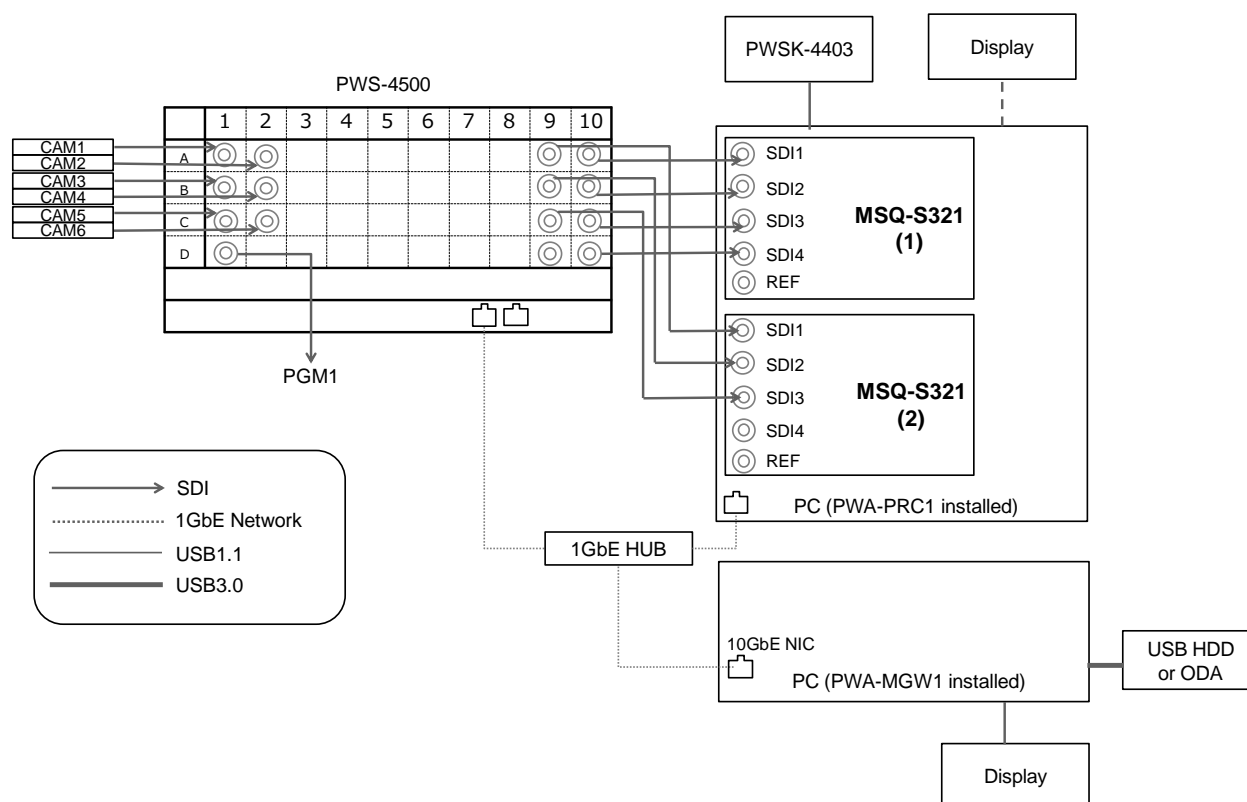
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

6IN/1OUT (HD) with 1GbE Network



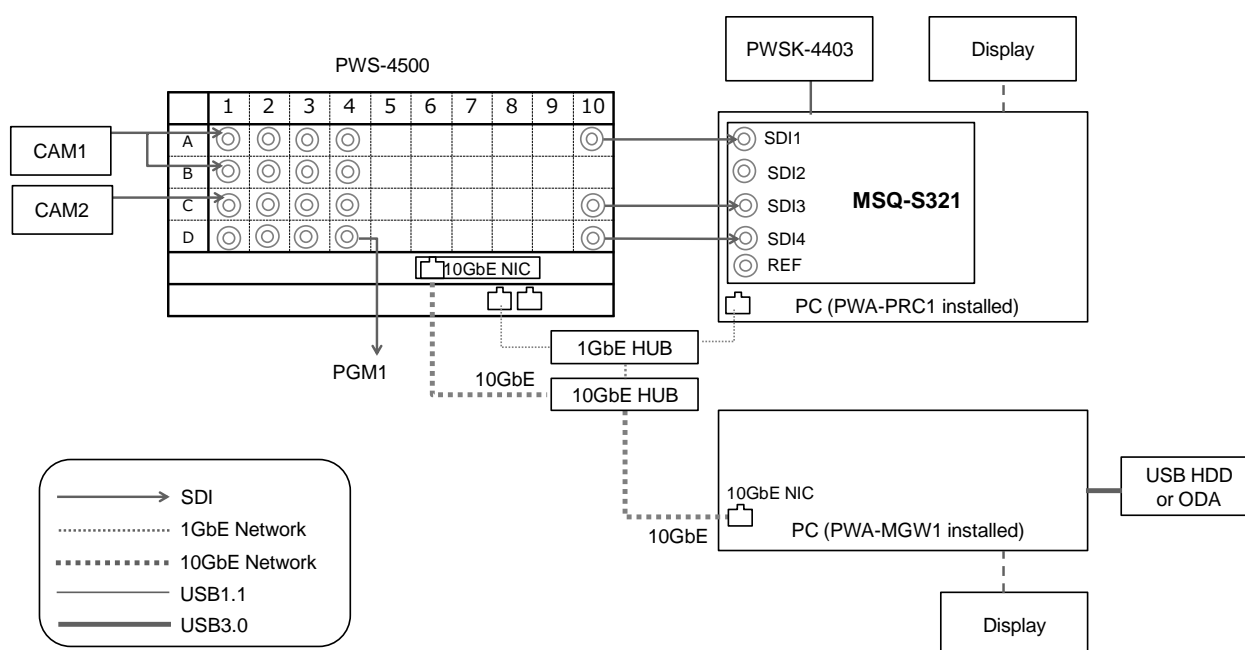
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

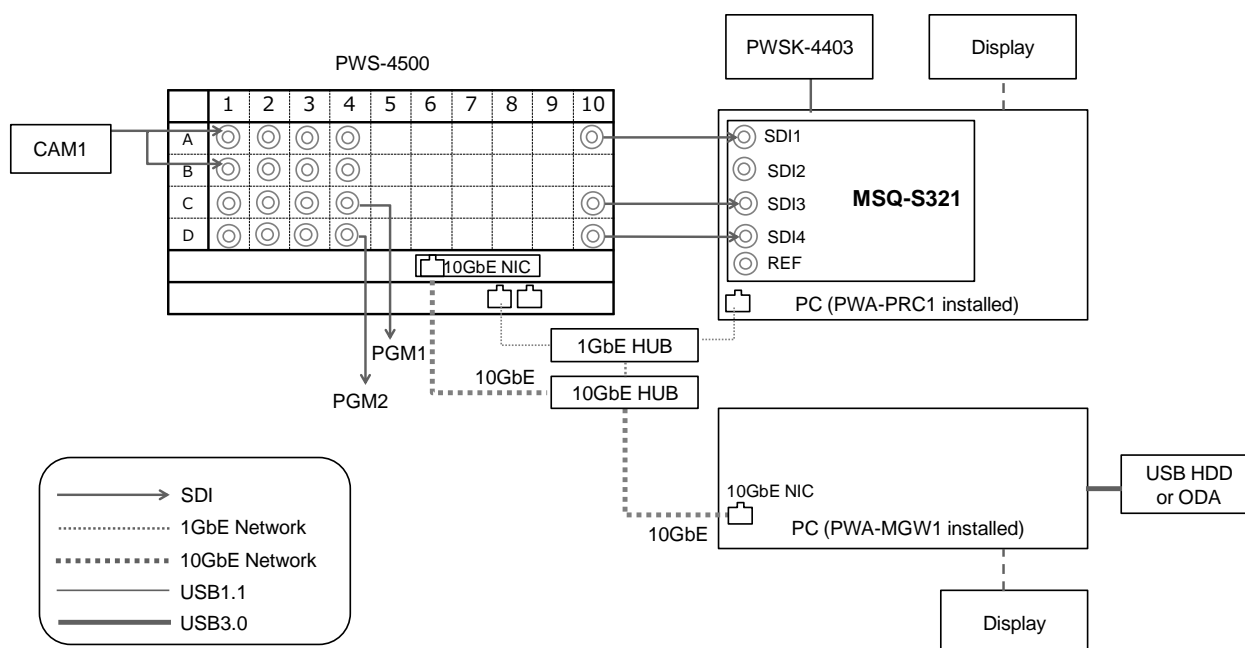
HFR 2IN/1OUT (4K 2x) with 10GbE Network



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

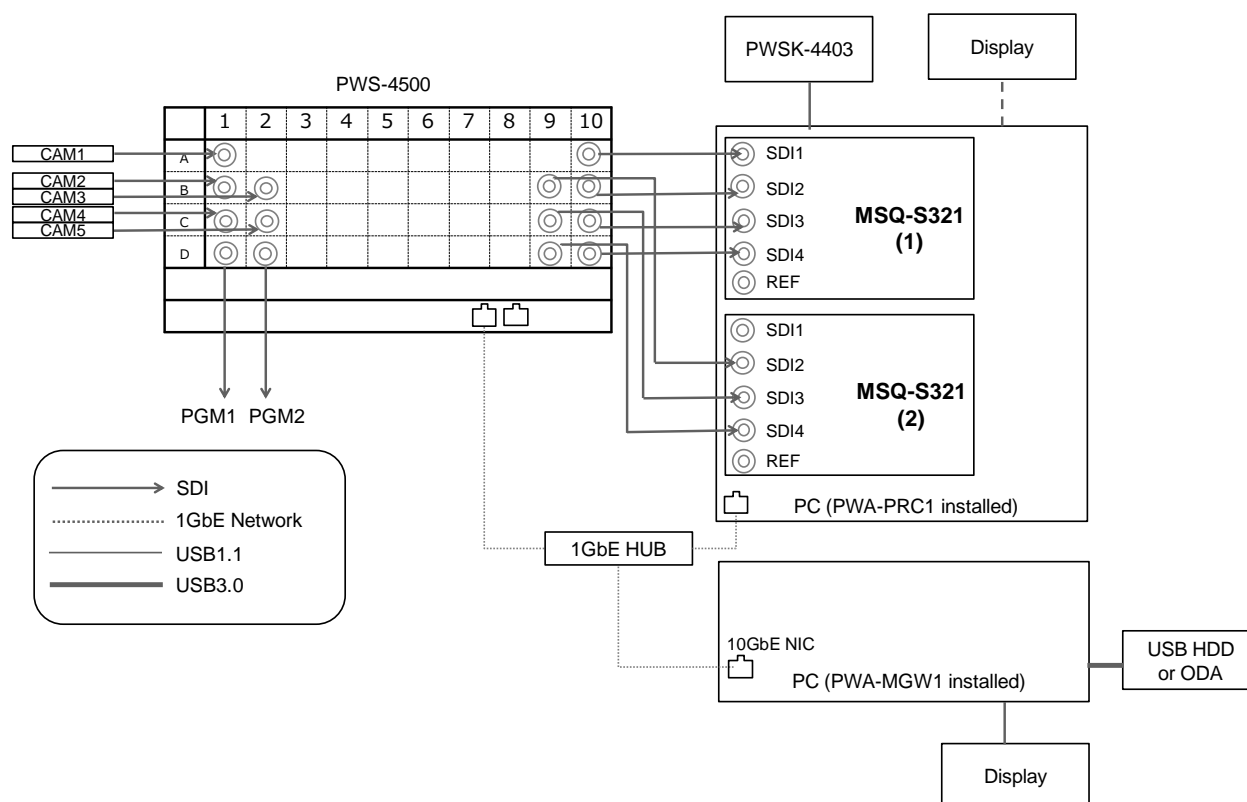
HFR 1IN/2OUT (4K 2x) with 10GbE Network



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

HFR 5IN/2OUT (HD 4x, 3x, 2x) with 1GbE Network



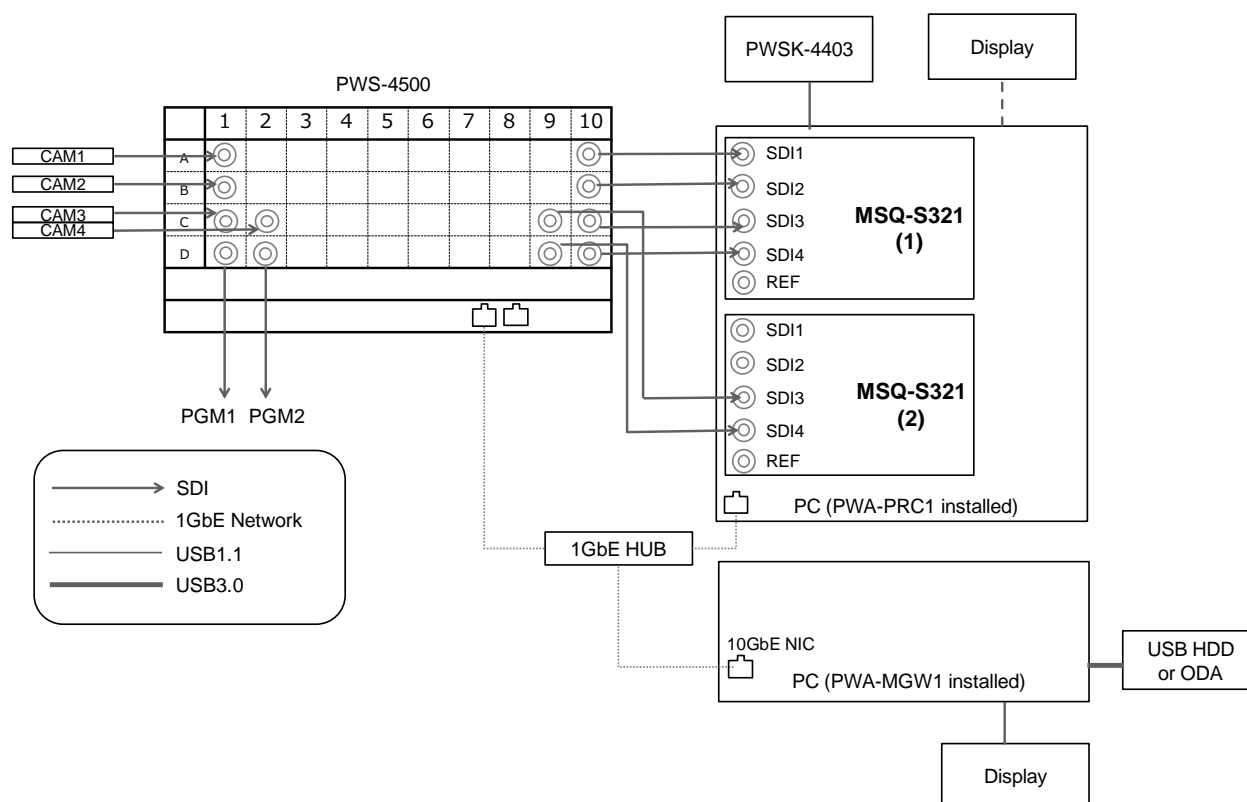
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

HFR 4IN/2OUT (HD 4x, 3x, 2x) with 1GbE Network



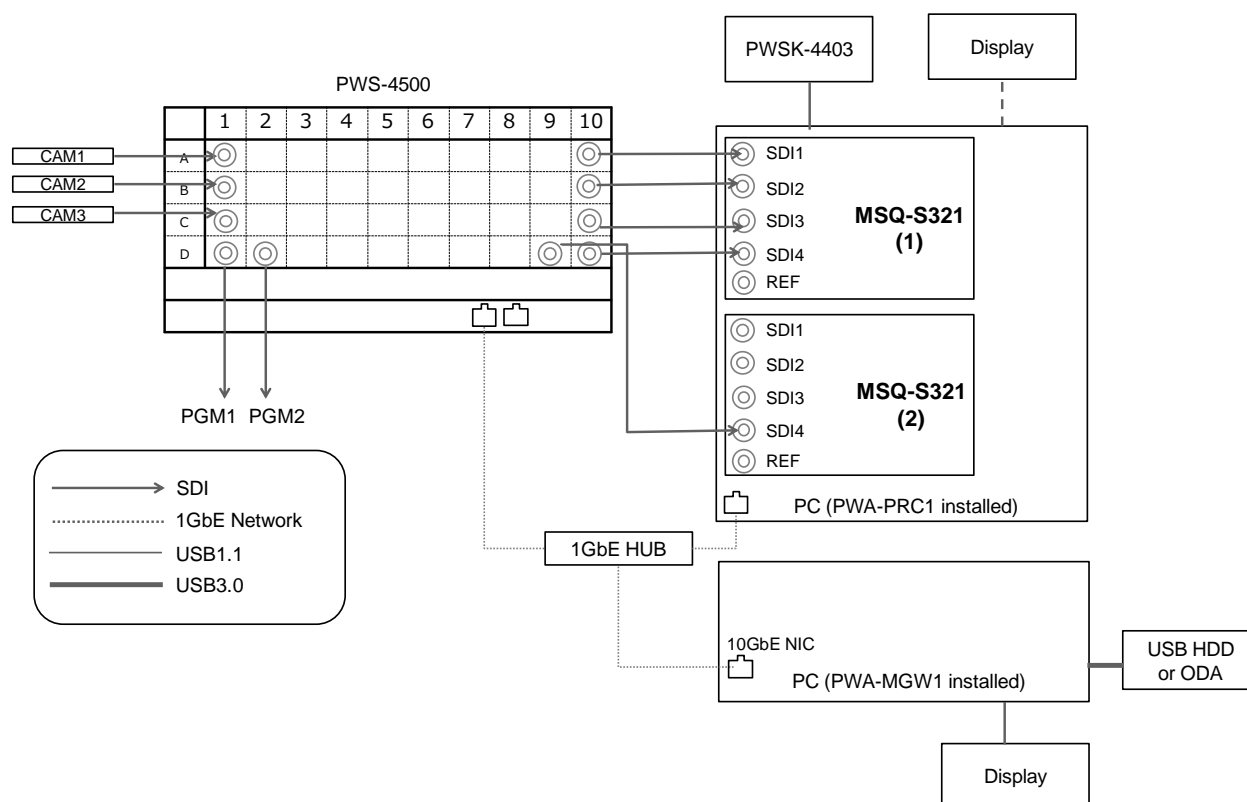
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

HFR 3IN/2OUT (HD 4x, 3x, 2x) with 1GbE Network



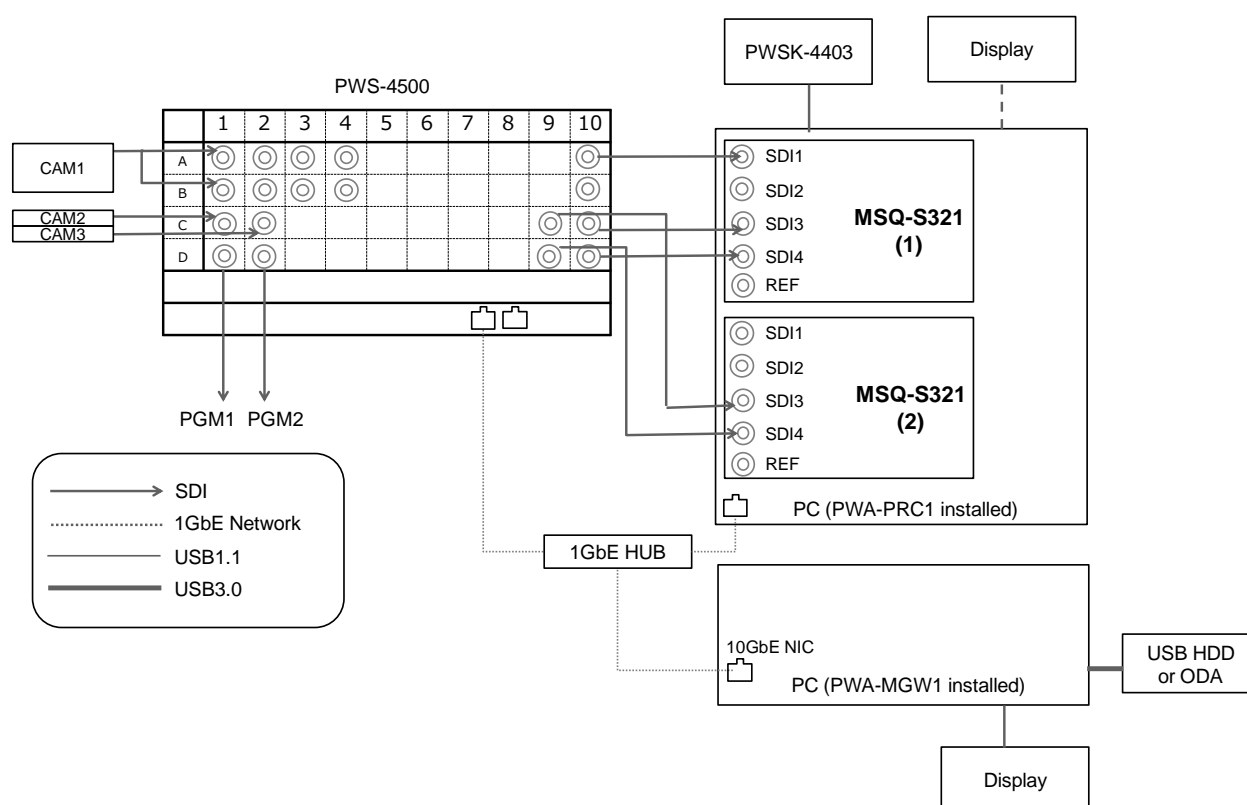
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

HFR 3IN/2OUT (HD 8x, 6x) with 1GbE Network



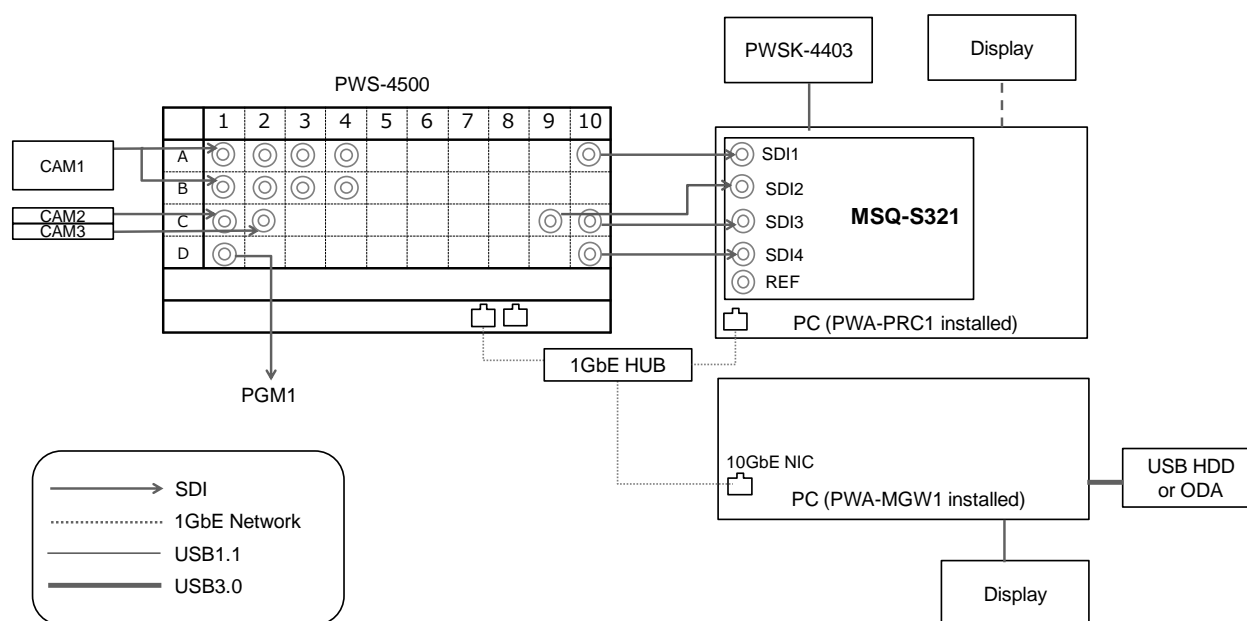
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

HFR 3IN/1OUT (HD 8x, 6x) with 1GbE Network



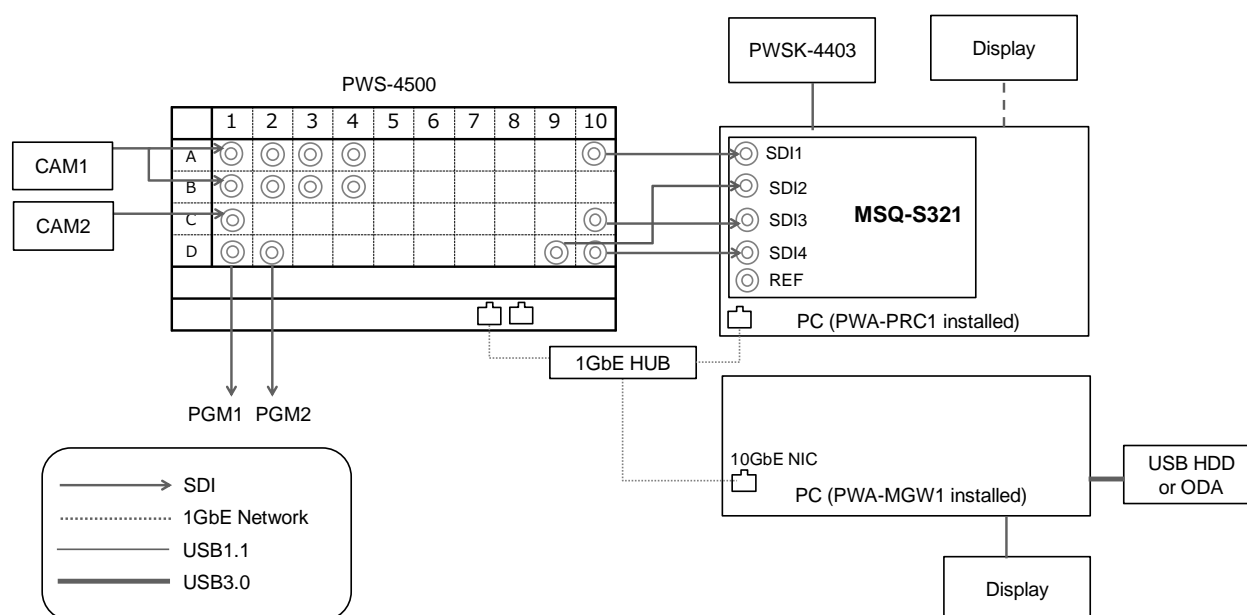
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

HFR 2IN/2OUT (HD 8x, 6x) with 1GbE Network



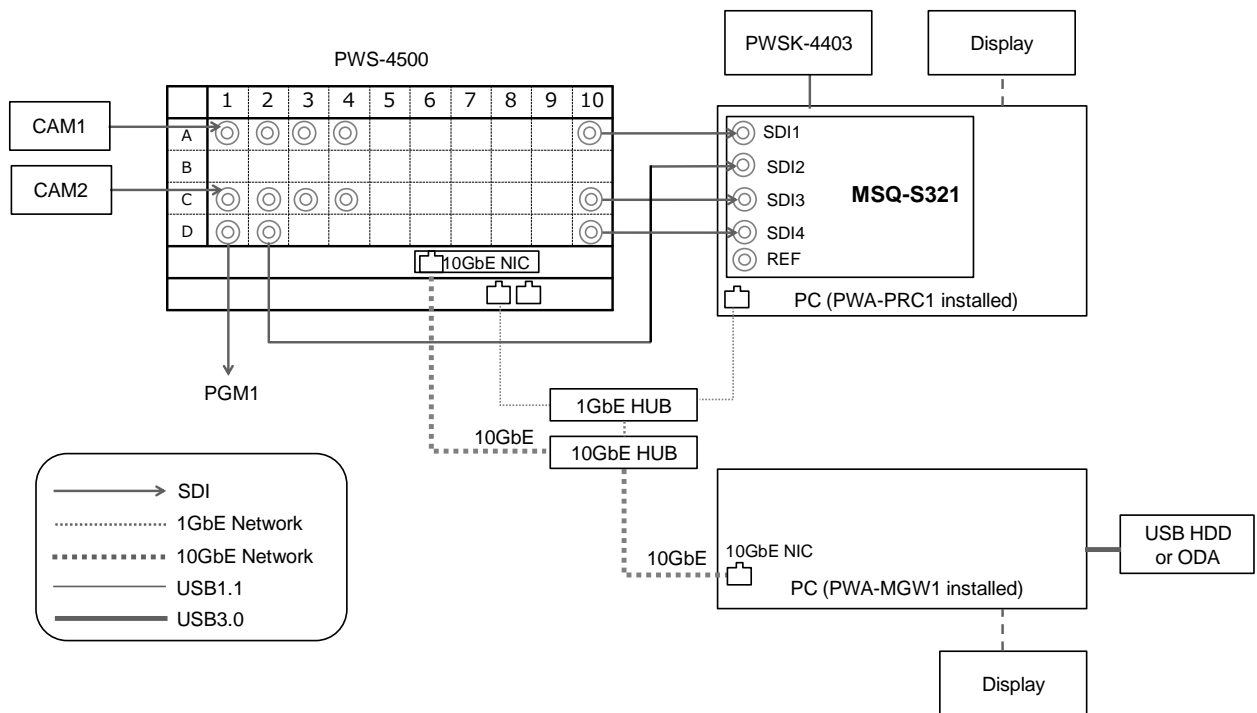
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 1GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Note

For faster high-speed transfer using ISO REC, for example, connect between the server and Media Gateway using a 10GbE network.

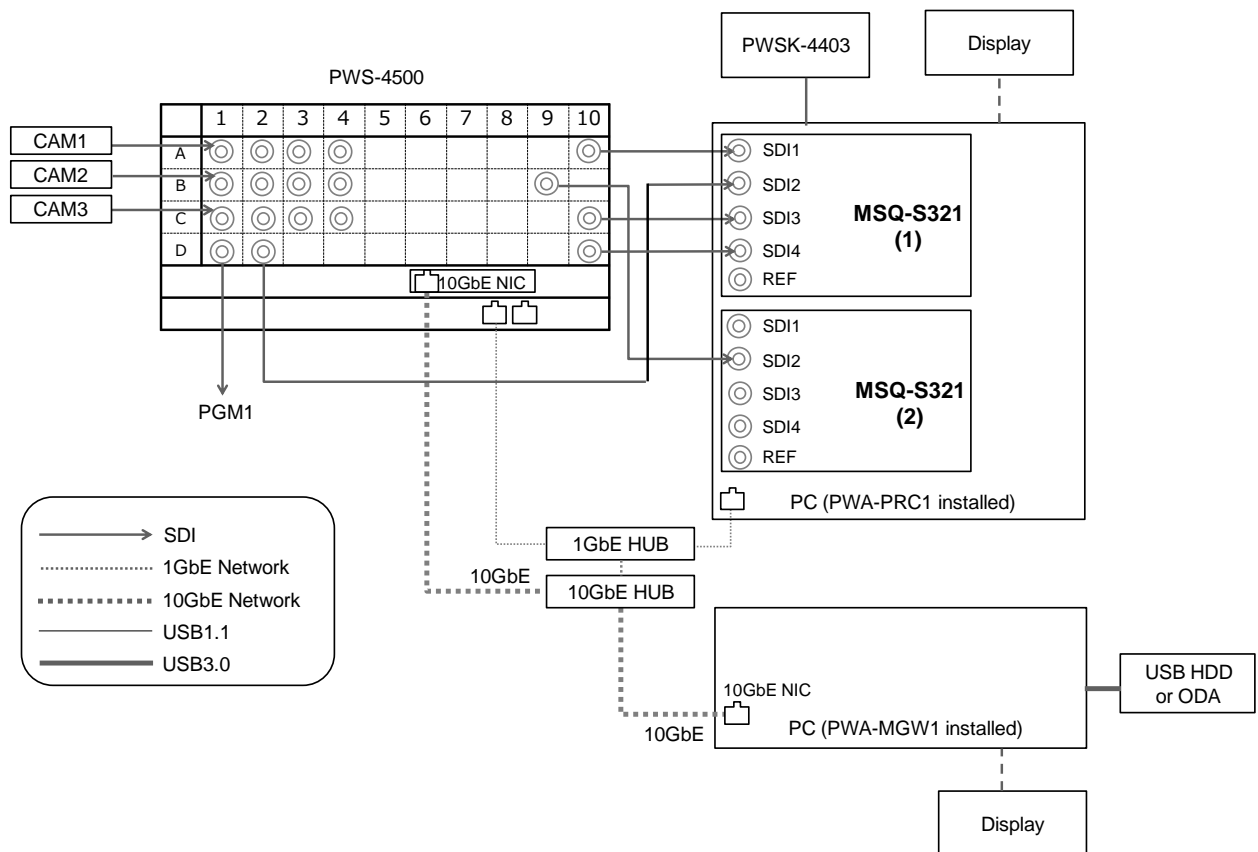
Cut Out with 10GbE Network (for MSQ-S321 1pc)



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

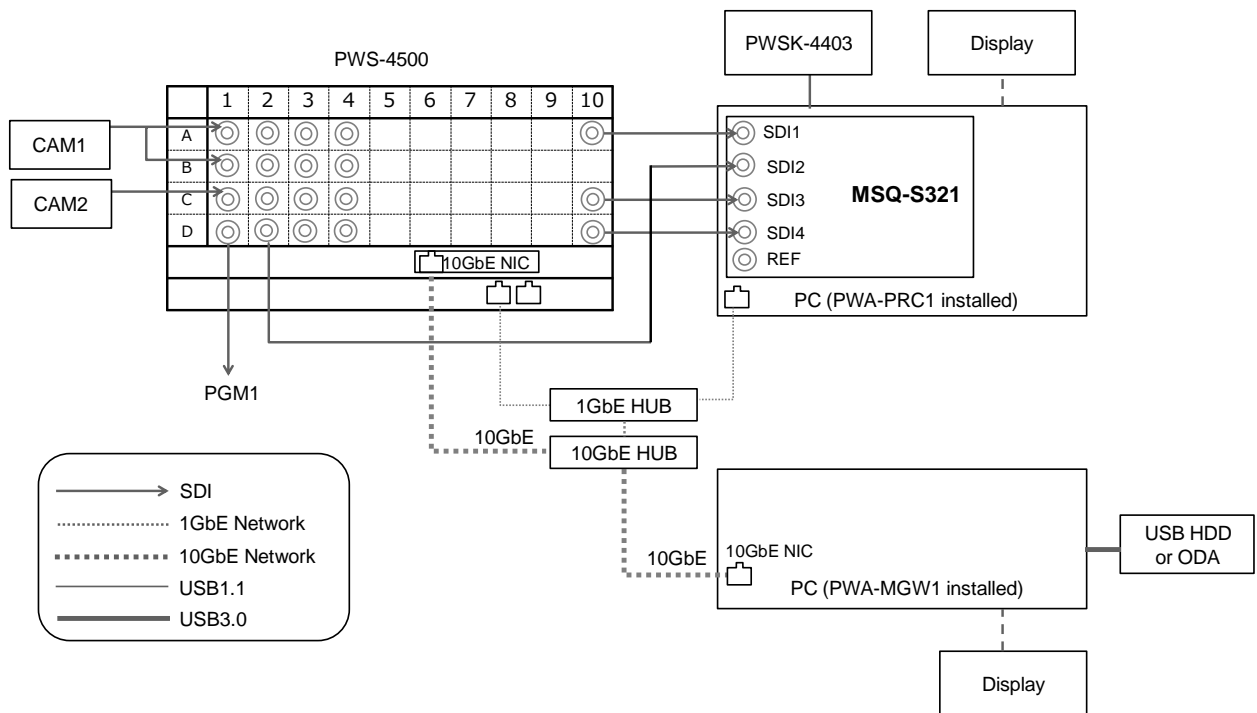
Cut Out with 10GbE Network (for MSQ-S321 2pcs)



PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

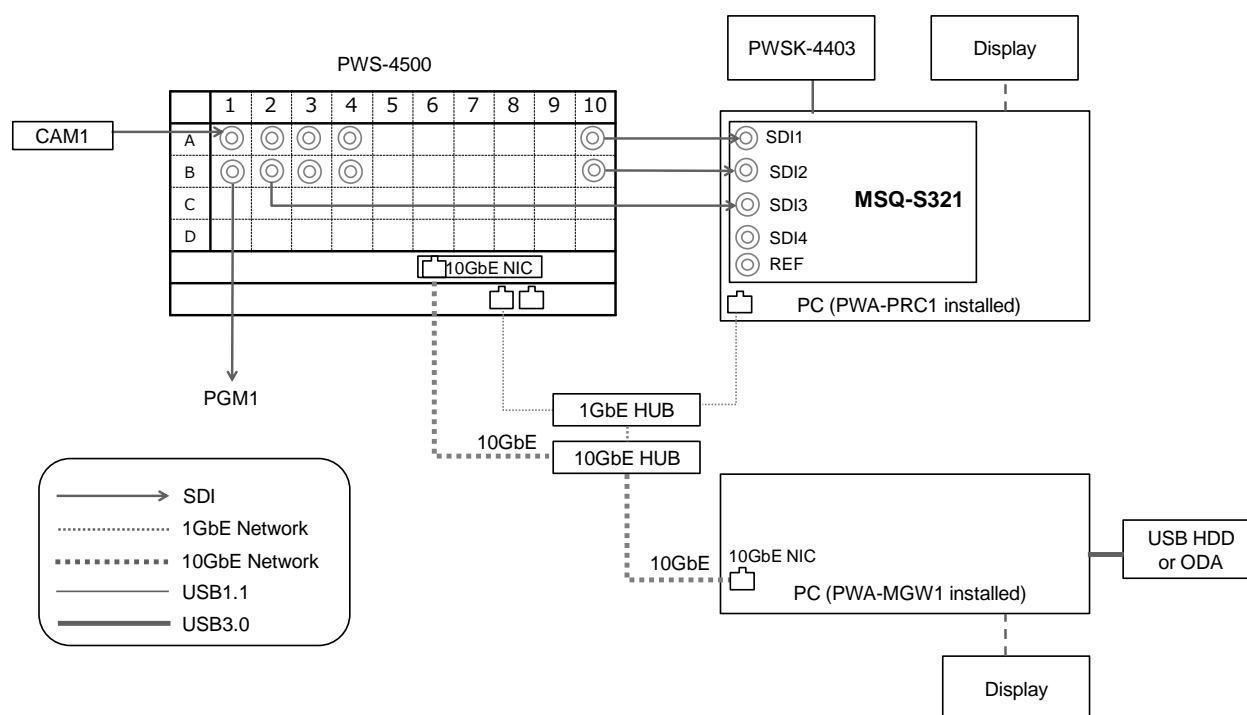
HFR + Cut Out with 10GbE Network (for MSQ-S321 1pc)



PWA-PRC1 settings

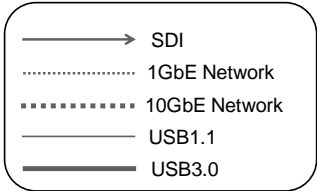
[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

Cut Out with 10GbE Network, without PWSK-4504



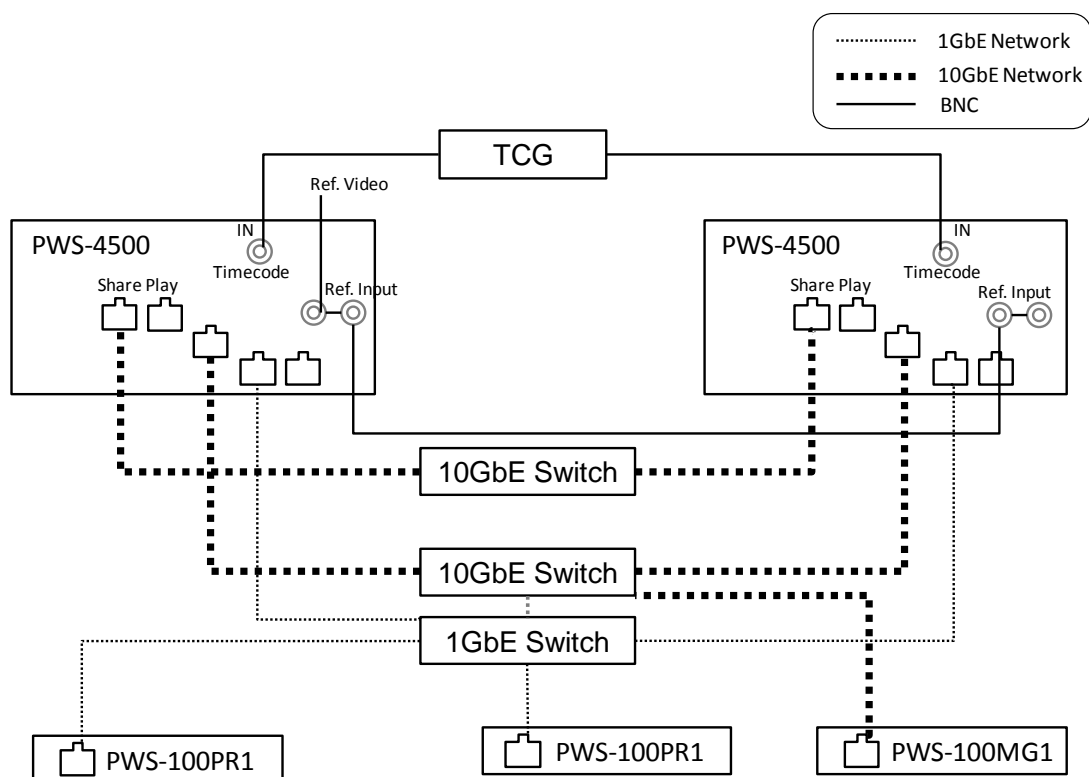
PWA-PRC1 settings

[System Config]	Item	Setting
PRC manager	Primary PRC manager IP/Port	PRC manager IP Address
4K server(s)	Transfer IP	Server 10GbE NIC IP Address
Media Gateway	IP Address	MGW 10GbE NIC IP Address

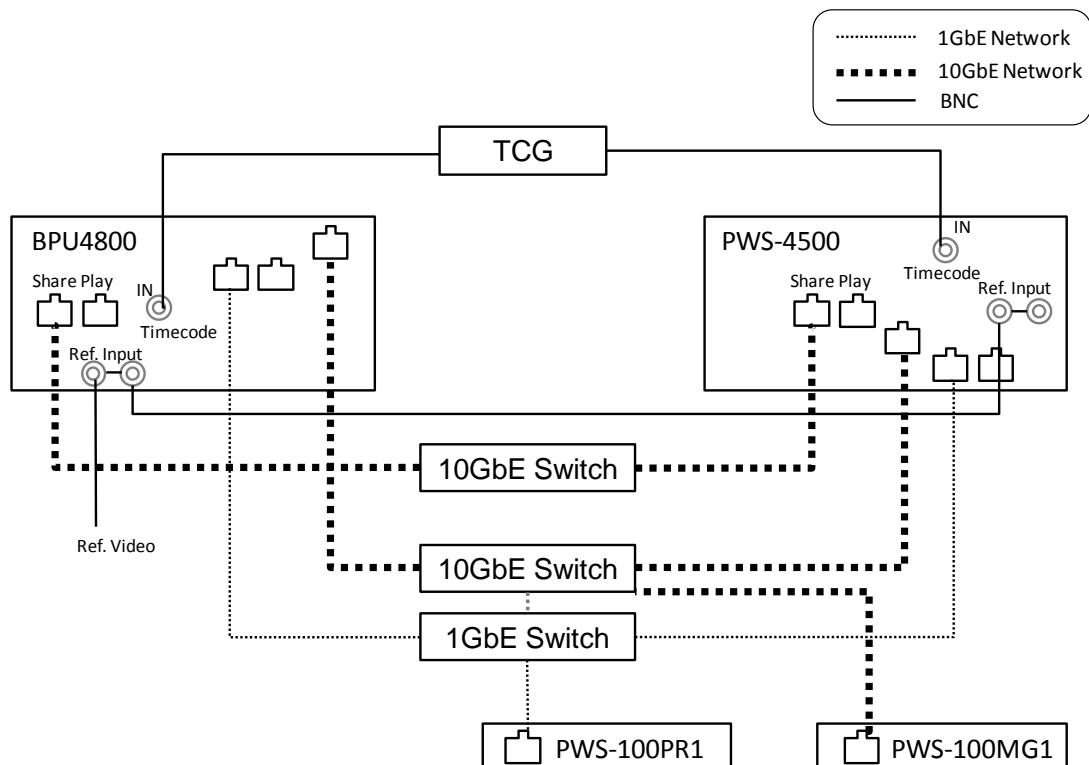


Connection for using Share Play Function

Configuration with PWS-4500



Configuration with BPU4800 and PWS-4500



Notes

- When using a Share Play connection, the reference signal for all PWS-4500/BPU4800 units must be synchronized. Connect an external reference signal input to all PWS-4500/BPU4800 units.
- When using a Share Play connection, one PWS-4500/BPU4800 unit managed by PRC Manager is assigned as the master to which the other units are synced. Share Play will terminate if the PWS-4500/BPU4800 master unit is turned off during Share Play. Accordingly, during Share Play use, do not turn off any of the PWS-4500/BPU4800 units managed by PRC Manager.
- For a Share Play redundancy, connect SHARE PLAY 1 and 2 connectors.

Recommended network switches

Manufacturer	Model	
Juniper	J-1) EX4550-32T	—
	J-2) EX4550-32F	
	J-3) QFX5100	
CISCO	C-1) CISCO Nexus 9332PQ	QSFP+ 32 port
	C-2) CISCO Nexus 9372PX	QSFP+ 6port, SFP+ 48 port
	C-3) CISCO Nexus 9372TX	QSFP+ 6port, 10G Copper 48 port

Network Cable

Connect an Ethernet cable between PWS-4500/BPU4800 Network Port 1 and the Network terminal on the PC on which this application software is installed.

Installation

This section describes the PWA-MGW1 installation procedure.

Refer to the PWA-MGW1 user's guide for the operation. The user's guide is available from Media Gateway application Web Help.

Notes

- Run the installer with administrator privileges.
- When upgrading, uninstall the previous version before installing the new version.

Installing Media Gateway

1. Uninstall PWA-MGW1 installed.
See "Uninstalling" (below) for the uninstall procedure. Do not delete the configuration information.
2. Copy the installer MediaGateway_(version).exe downloaded from the eCSite to an arbitrary folder on the PC. When installing PWA-MGW1, an install key is required for authentication, which is obtained from the eCSite.
3. Double-click the installer. Follow instructions that appear on the screen to complete installation.
A shortcut icon appears on the desktop.
Perform installation using an Administrator account.
4. Change the logon user of MediaGateway service.
Configure the two services in order for MediaGateway to stably connect with external NetworkDrives.
5. PWA-MGW1 is web application software.
Use Google Chrome as the web browser.

About Media Gateway Authentication

When installing PWA-MGW1, an install key is required for authentication, which is obtained from the eCSite.

Executing Authentication

The following are necessary for authentication.

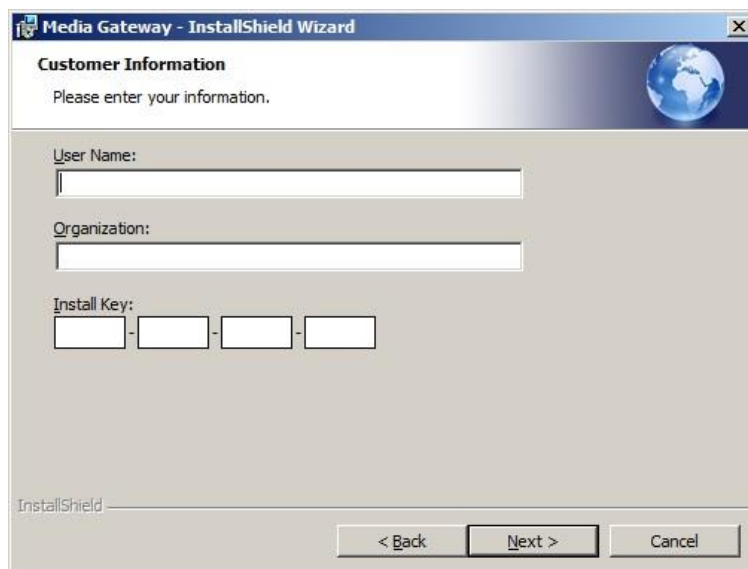
- MAC address of one of the network interfaces within the PC
- A software install key for PWA- MGW1 (Ask your sales contact for details.)

Notes

- A software install key is valid for one PC. If you use PWA- MGW1 on another PC, another software install key is required.
- Whenever a network card is changed, authentication is required. This is because authentication uses the MAC address of the network card.
- For the PWS-100MG1, the install key is saved with file name "Installkey.txt" in the C:\ProgramData\Sony\Media Gateway folder.

1. Start the PWA-MGW1 installer.

An authentication screen appears.

The image shows a screenshot of the 'Media Gateway - InstallShield Wizard' window. The title bar reads 'Media Gateway - InstallShield Wizard'. The main window has a header with a globe icon and the text 'Customer Information' and 'Please enter your information.' Below this, there are three input fields: 'User Name:' with a text box, 'Organization:' with a text box, and 'Install Key:' with four separate text boxes separated by hyphens. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted. The 'InstallShield' logo is visible in the bottom left corner.

2. Enter a software install key.

Uninstalling

1. Open [Programs and Features] in the Windows Control Panel.
2. Select [Media Gateway], and then click Uninstall.
3. Select [Apache Tomcat 7.0 Tomcat7 (remove only)], and then click Uninstall.
4. Select [Java7 Update 75 (64-bit)], and then click Uninstall.
5. Select [MySQL Server 5.6], and then click Uninstall.
6. Select [Intel(R) SDK for OpenCL - CPU Only Runtime Package], and then click Uninstall.

After uninstalling the program, delete the settings listed below, as necessary.

- C:\ProgramData\MySQL folder
- C:\ProgramData\Sony\Media Gateway folder
- C:\Program Files\MySQL folder
- C:\Program Files\Sony\Media Gateway folder

Note

When upgrading from v1.2 or later, it is not necessary to delete MySQL and delete the settings information. In that case, please ignore the step 5 and the setting information.

In v2.0 or later had installed the environment Java7 does not exist. In that case, step 4 please ignore.

The destination folder may be changed depending on user settings.

There are different versions of these software by the software update is performed.

There are the same correspondences that described different versions of software.

The C:\ProgramData folder is hidden by default.

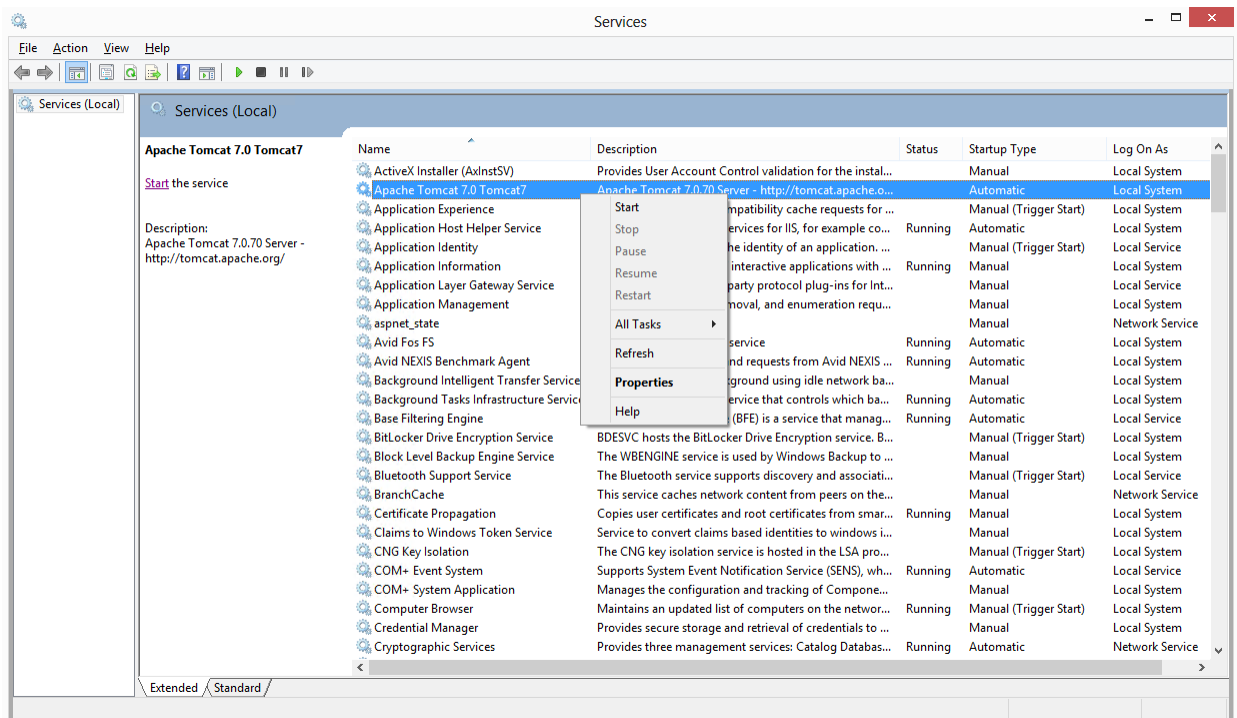
The C:\ProgramData\Sony\Media Gateway folder is included the Optionkeys information.

About Media Gateway services logon user

When PWA-MGW1 is installed, Local System is activated user for MediaGateway services.

Change the launching user of the two services to the logged-on user in order to stably connect to the external NetworkDrives.

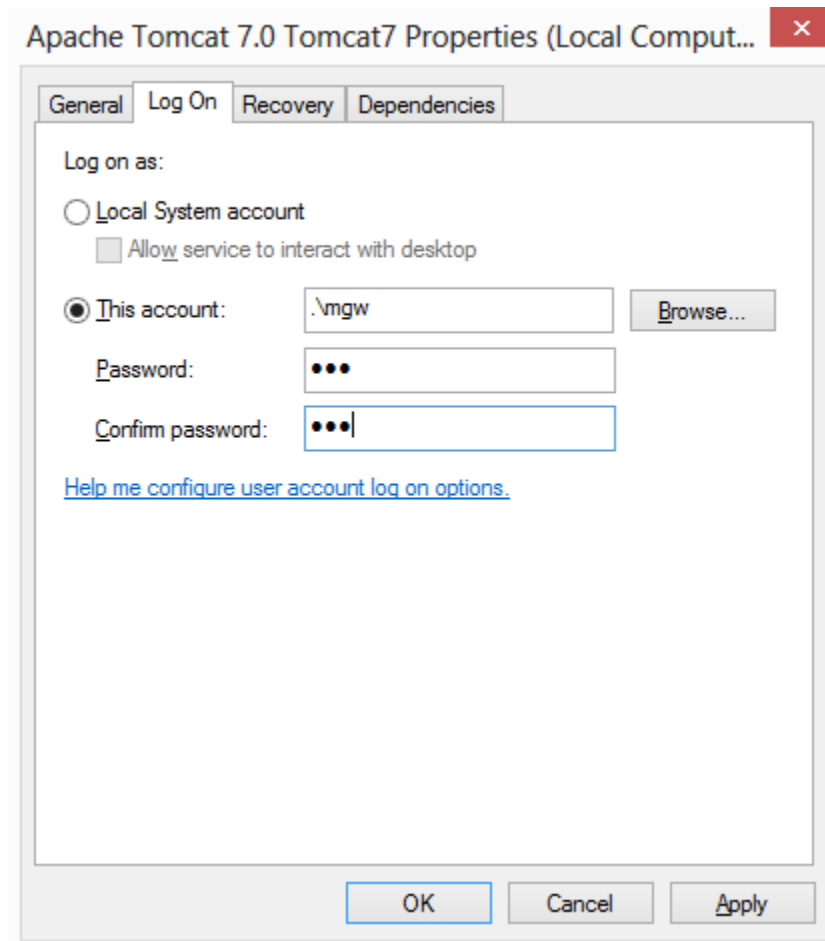
1. Open [Control Panel] - [Administrative Tools] - [Computer Management] - [Services and Applications] - [Services].
2. Stop Apache Tomcat7.0 Tomcat7 Service from the service list, and select [Properties] menu.



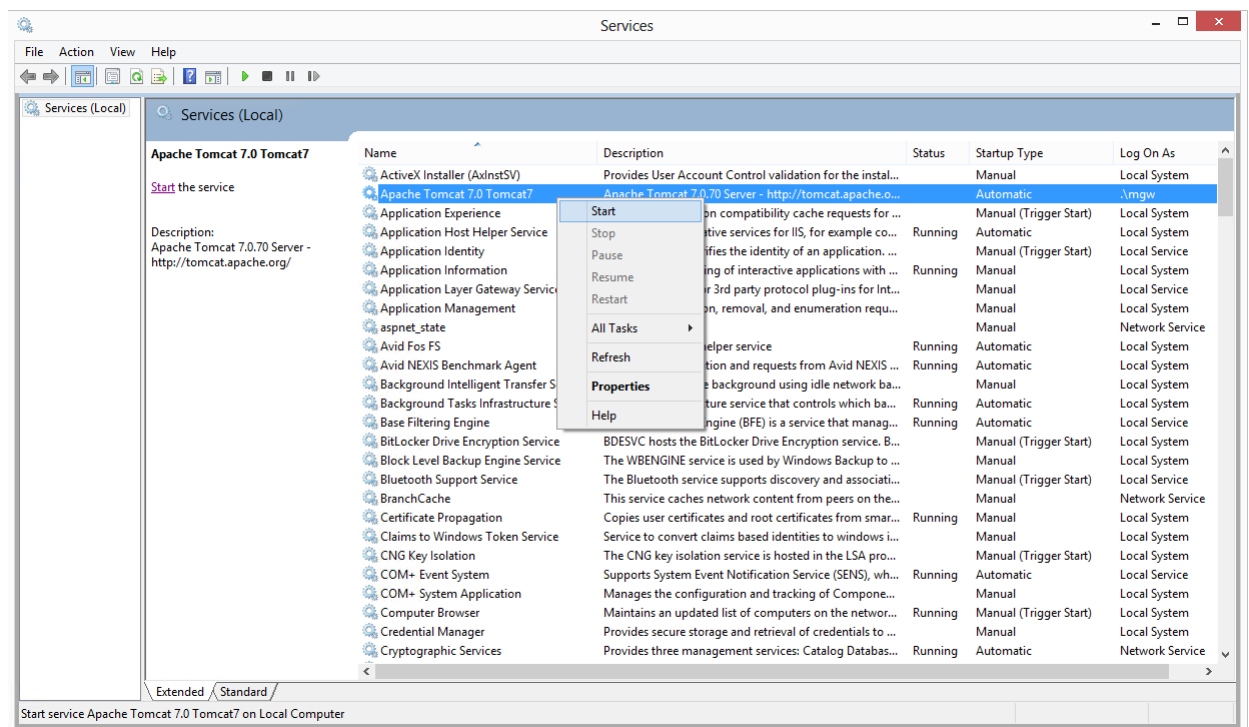
3. Click the [Log on] tab in the [Properties] dialog.
4. Check [This account] check box, enter the account name and password, and click [OK]

button.

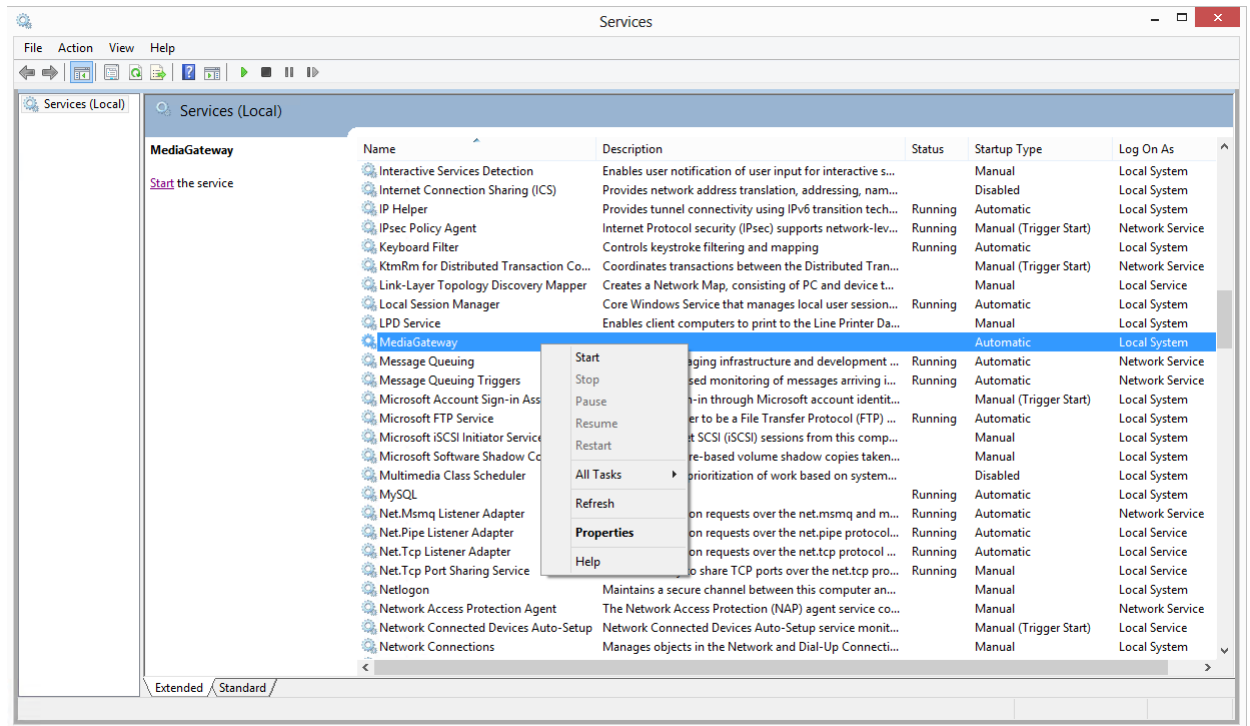
(The user name / password of PWS - 100MG1 / 110MG1 are ".¥mgw " / "mgw" at the time of shipment.)



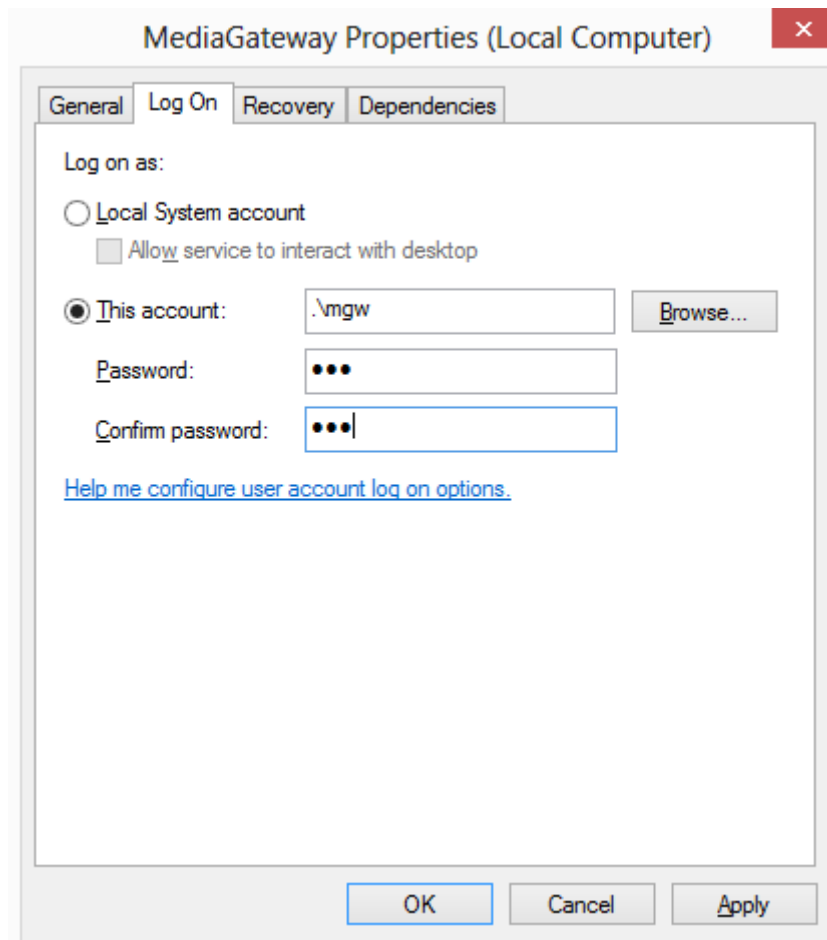
5. Start Apache Tomcat7.0 Tomcat7 Service.



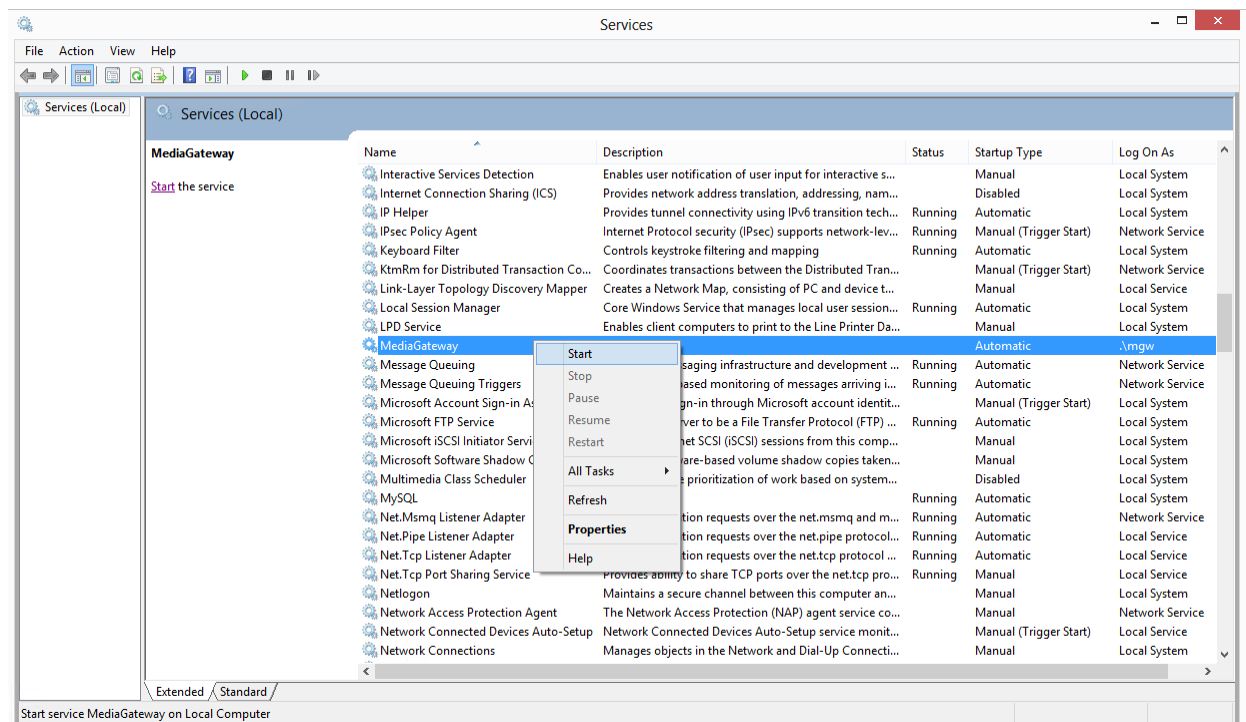
- Stop MediaGateway Service from the service list, and select [Properties] menu.



- Click the [Log on] tab in the [Properties] dialog.
- Check [This account] check box, enter the account name and password, and click [OK] button.
(The user name / password of PWS - 100MG1 / 110MG1 are ".¥mgw " / "mgw" at the time of shipment.)



9. Start MediaGateway Service.



Notes

- If you change the user name or password of the logged-on user, please set up the two services again.

Installing Catalyst Browse

10. Copy the installer CatalystBrowse_(version).exe downloaded from the eCSite to an arbitrary folder on the PC.
11. Double-click the installer, and follow the on-screen instructions to install the software. A shortcut icon is created on the desktop.
Perform installation using an Administrator account.

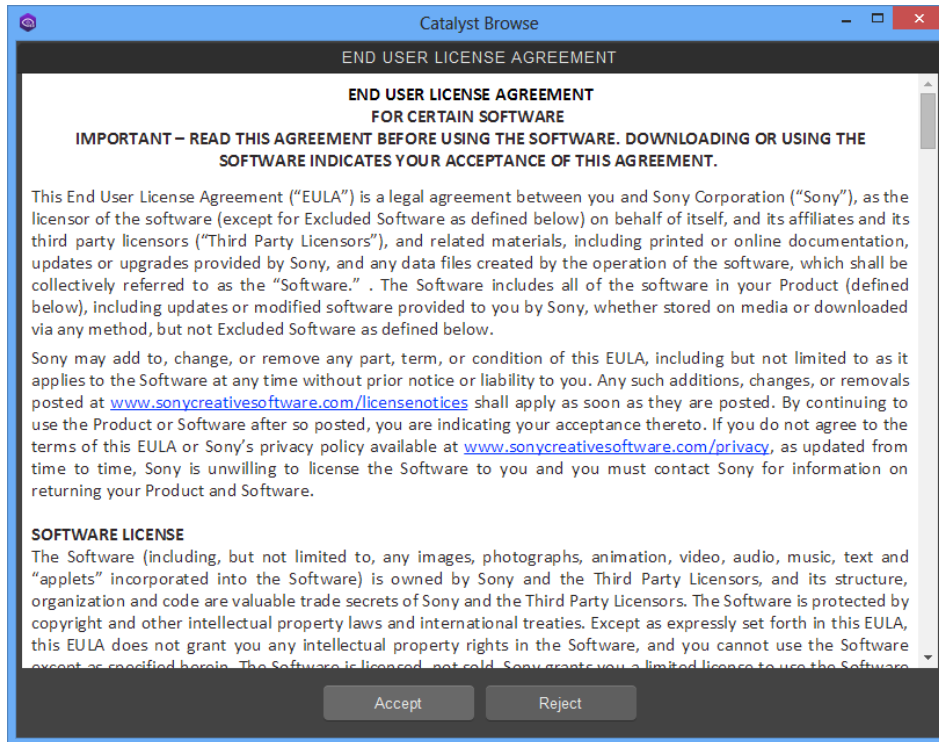
About Catalyst Browse Authentication

After installing Catalyst Browse, authentication is required the first time the software is started. Authenticate the software using the following procedure.

Executing Authentication

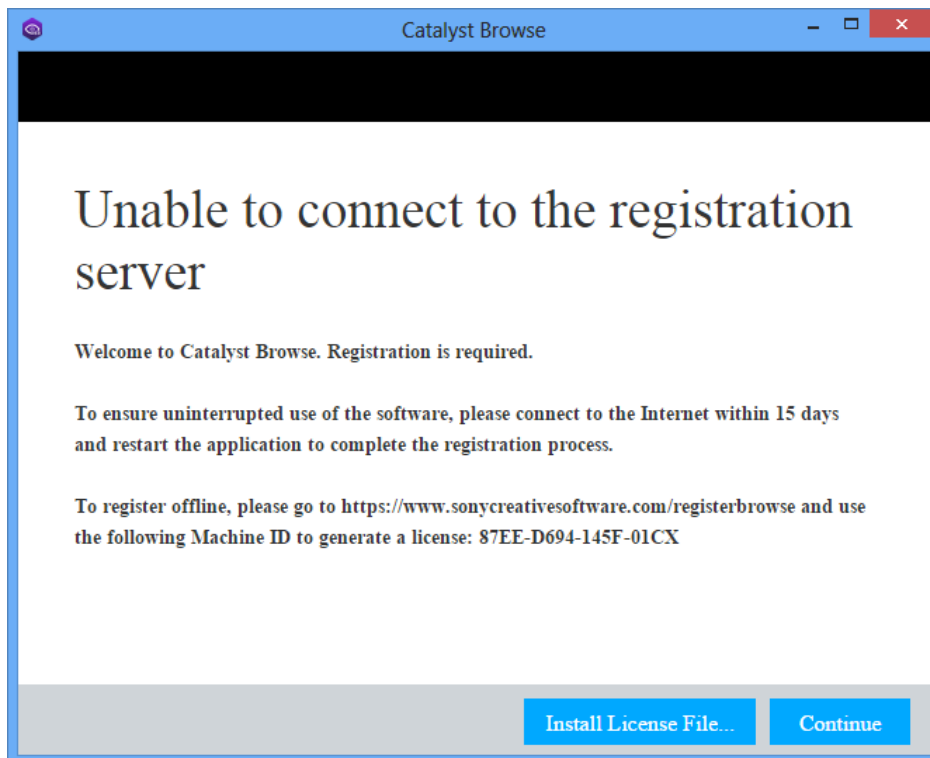
The following information is required for authentication. Prepare the following before proceeding.

- Another PC that can connect to the network
 - Mail address used for authentication (support mail address)
 - USB Memory
1. Start Catalyst Browse.
A confirmation dialog appears when launching for the first time. Click the [Accept] button to continue.



2. Make a memo of the machine ID.

The machine ID appears in the registration dialog.



3. Access the URL from a PC with access to the network.

Copy/click the following URL into a web browser.

<https://www.sonycreativesoftware.com/registerbrowse>

4. Run the activationizenn .

If you already completed the activation. Enter Email Address and Password. Click the [LOGIN] button to continue. (goto step 7)

If you not yet completed the activation. Enter First name, Last name, Email Address and Password. Click the [SUBMIT] button to continue. (goto step 5)

Activation

A My Account is required to activate Catalyst Browse.

Complete Activation

Please login to your My Account to complete activation of Catalyst Browse.

Email Address:

Password:

[LOGIN](#)

[Forgot Password](#)

Don't have a My Account?

Fill out the form below to create a new Sony Creative Software My Account

First name:

Last name:

Email Address:

Password:

Confirm Password:

By clicking the "Submit" button below, you acknowledge that your use of this site is subject to the Web site's [Terms & Conditions](#) and [Privacy Policy](#).

[SUBMIT](#)

5. Confirm the Email. If you enter the New Account.

Make sure because mail is delivered to the entered Email address.

Activation

Thank you for your information.

Please follow the instructions in the email sent to [redacted] to finish confirming your account.

6. Access the URL of the received mail body. If you enter the new Account.

Access the URL of those who need the registration process that is described in the mail body.

A Sony Creative Software registration request was received for this email address. To complete the registration process, click the link below.

<https://www.sonycreativesoftware.com/?s=7LSSM-0S8LNB63SVZQ3HQ326W7ZK4Q9E9NVVR9PNB9N3PY8GR8>

If this request was not made by you, you can cancel by clicking the link below.

<https://www.sonycreativesoftware.com/?c=1&s=7LSSM-0S8LNB63SVZQ3HQ326W7ZK4Q9E9NVVR9PNB9N3PY8GR8>

7. Enter the machine ID.

Enter the machine ID obtained in step 3.

Activation

You are logged in and ready to activate Catalyst Browse.

To complete your activation, simply log in when prompted on your next launch of the application.

If you are activating the application offline, please enter the Machine ID displayed on the application's "Offline Registration" window into the field below. The Machine ID will have a format similar to 1234-1234-1234-1234.

Machine ID:

You are logged in as XXXXXXXXXX. If that is not you, or to logout before continuing, [click here](#).

SUBMIT

8. Receive the authentication code.

Save "Catalyst Browse-License.txt" to the external media such as USB memory.

Activation

To complete your registration using a license file, download the following:

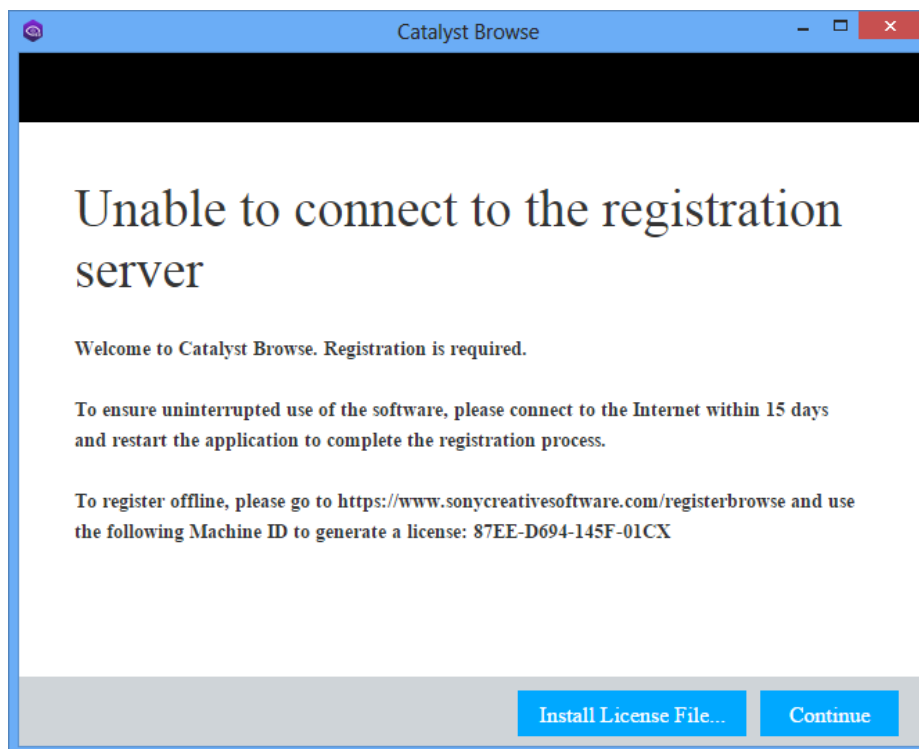
Save the text file below to a flash drive or other removable media device, and then select "Browse for file" in the registration wizard dialog, and select the location you saved the file to.

[Catalyst Browse-License.txt](#)

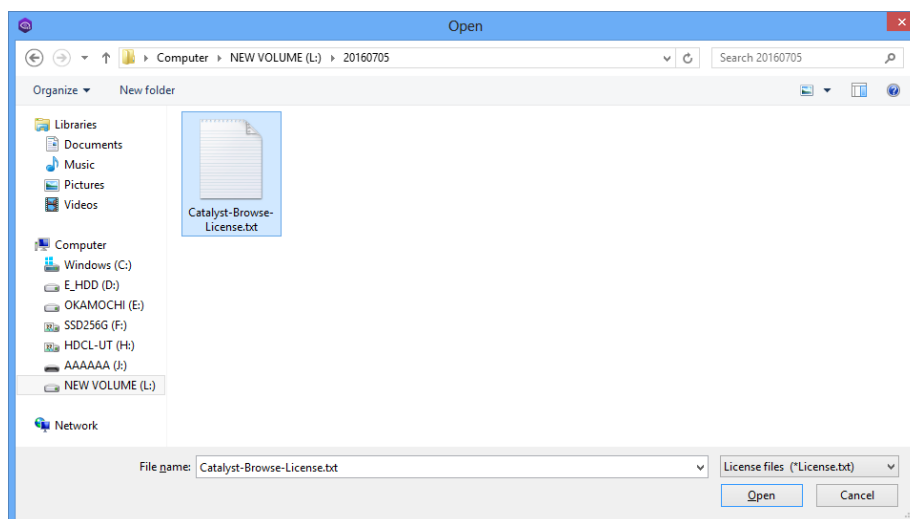
9. Enter the received authentication code.

Connect the media that has "Catalyst Browse-License.txt" to the PC installed Catalyst Browse.

Select the "Install License File .." button in the dialog, which is displayed in step 3.



Select the license file in the recording media when launches the file select dialog.



If the license is recognized, Catalyst Browse will start automatically.

Uninstalling

1. Open [Programs and Features] in the Windows control panel.
2. Select [Catalyst Browse x.x] and click Uninstall.

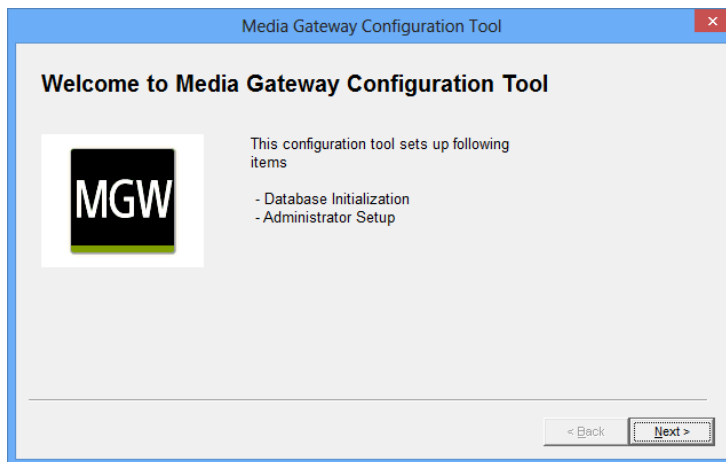
Starting and Exiting the Program

Performing Initialization using the Config Tool

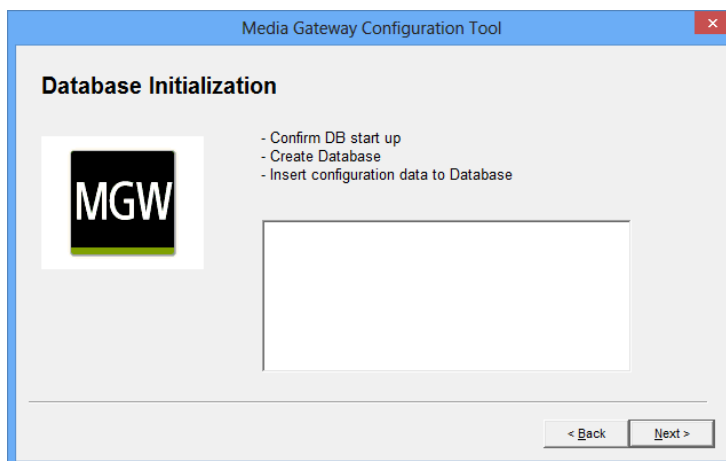
1. Turn on the PC on which PWA-MGW1 is installed.
2. Click [Config Tool] on the start screen.



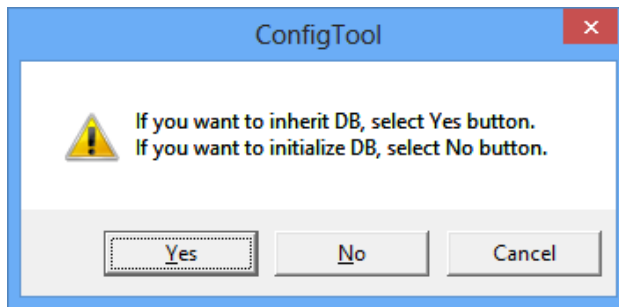
3. Config Tool opens.



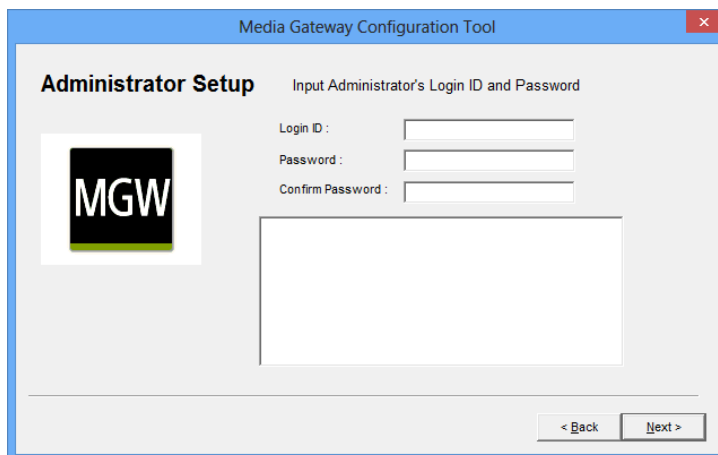
4. Click [Next].



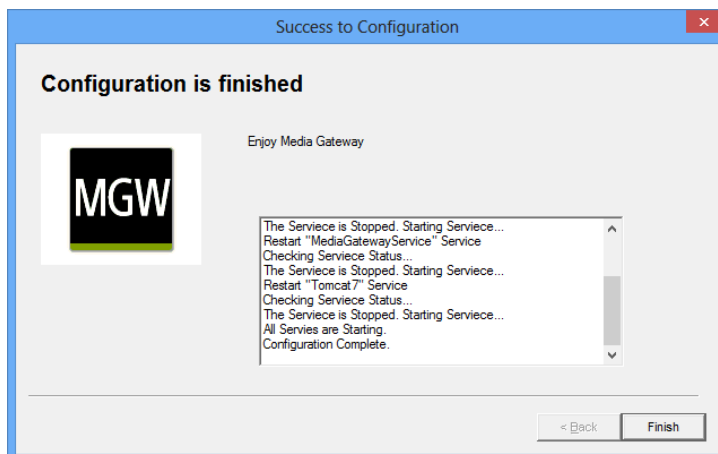
5. When upgrading, a dialog prompting you whether to inherit the Database appears.



6. To inherit the Database, click [Yes]. To continue without inheriting, click [No].



7. Enter Login ID and Password. Click [Next].



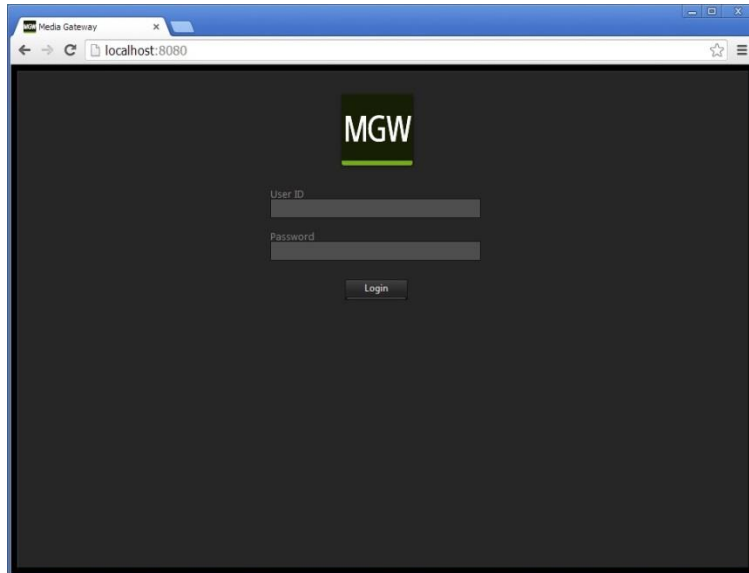
8. Click [Finish].

Notes

- To inherit Database succession is only an upgrade and execution in time from v2.0 or later.
- If the Database is inherited during upgrading, the following information is inherited:
PRC Manager settings, Server settings, Media settings, User settings, Maintenance settings, and Misc. settings
- If you want to inherit other data, such as job list information, run Backup DB using Media Gateway before running Config Tool, and then retrieve the information from the database after startup.

Starting PWA-MGW1

1. Turn on the PC on which PWA-MGW1 is installed.
2. Start Google Chrome.
3. Enter localhost:8080 in the URL bar to gain access.



If the login screen does not appear, go to Settings - Show Advanced Settings - Reset Browse Settings.

[illegible]

- Media Gateway does not support sleep mode of PCs. Do not let the PC go to sleep while operating Media Gateway.
- To switch language between English and Japanese, make changes in the Chrome settings.
Settings - Show Advanced Settings - Languages - Language and input settings
Give a higher priority to your preferred language (by Drag & Drop operation).

1. Exit Chrome.

Be aware Media Gateway does not stop when exiting Chrome.

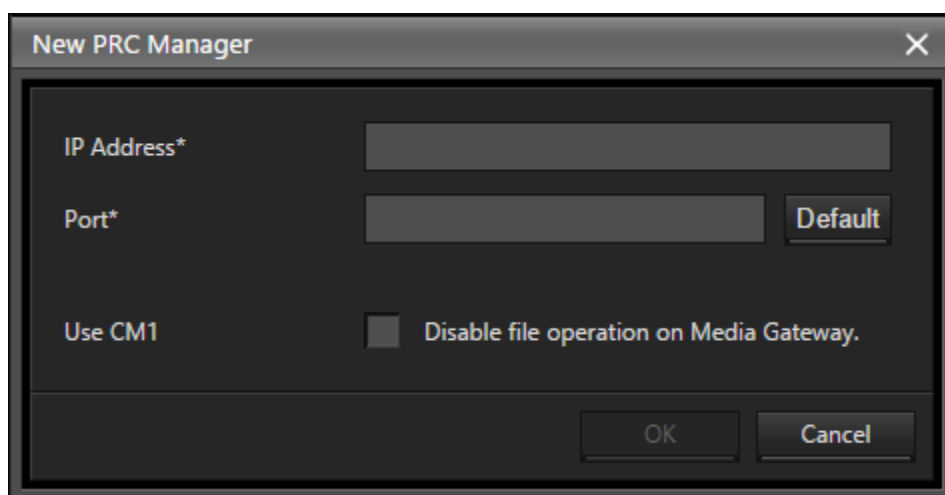
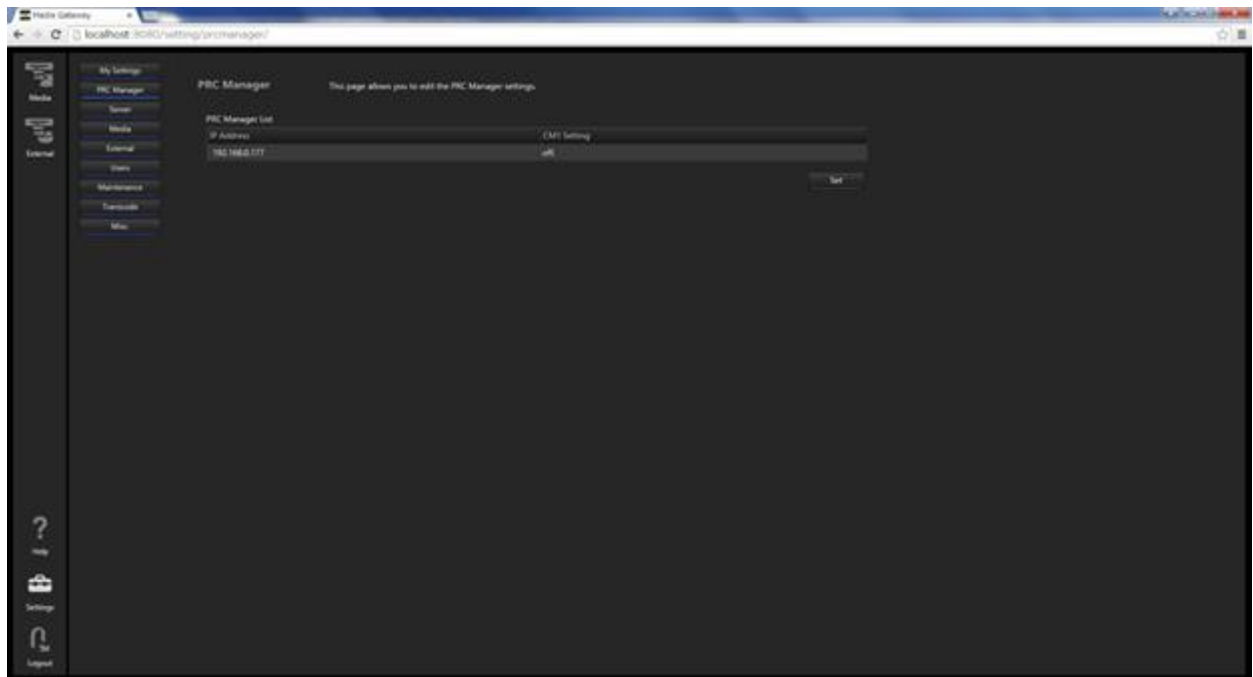
To stop Media Gateway, go to Setting - Maintenance - Terminate.

Settings

Start PWA-MGW1, and make the necessary settings.

Displaying the Settings Screen

1. Start PWA-MGW1.
2. Go to Settings - Maintenance - PRC Manager - Add to register the connected PRC Manager.



See the Help for details.

Usage Notes

- Precautions when using media as a network drive
 - Grant full access permission to the network driver folder used from Media Gateway.
 - When using as a Watched Folder

Windows PCs do not support stream chasing. Set [Enable Stream Chase] to "off" in Settings - Server - Watched Folder Setting.

Linux PCs (Samba3) support stream chasing, but the following setting should be added to the Samba configuration file (smb.conf).

"Share modes = no"

Appendix

Important Notice

- Installation should be performed by Sony Service or a qualified SIER.

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