

CMS-2200 Network Transfer Guide

Overview

The CMS-2200 supports several methods of content transfers over a data network (Data B Ethernet port). These include FTP Ingests, CMS to CMS transfers, and Network Attached Storage over NFS protocol.

Web Tool Setup

To configure your CMS-2200 for network transfer capability visit the Web Interface for each device and chose 'Edit System Configuration' from the dropdown menu.

In the *Network Configuration* and *System Settings* tabs that appear fill in the Data B Port Configuration and NAS Server Settings according the IP Scheme Table in this document.

Shown below is a typical System Configuration for the #1 screen in a multiplex equipped with a NAS server.





Mini-TMS Setup



When using a Windows machine as an FTP Server use <u>FileZilla Server software</u> to host content from the manager station. After launching the FileZilla server software use the following settings at the first menu. This will start an FTP server configuration connection to the FTP service on the computer.

Connect to Server	×		
Server Address:	Port:		
127.0.0.1	14147		
Administration password:			
Always connect to this server			
ОК Са	ancel		



Next you must choose the directory you would like to share on the network. This will be the same directory where content is dropped on the manager's computer. You may need to add a user profile first. The settings shown below are recommended.

Users				x
Page:	Shared folders			Users
General	Directories	Aliases	Read	ftp
Speed Limits	H C:\FTP Library	1	Vrite	
IP Filter			Delete	
			Append	
			Directories	
			Create	
			V Delete	
	4		V + Subdirs	Add Remove
		Remove Rename	Set as home dir	Rename Copy
	A directory alias will a	lso appear at the specif	ied location. Aliases mus	st contain the full virtual
	path. Separate multip	le aliases for one directo	ory with the pipe charact	ter ()
	It using aliases, pleas	e avoid cyclic directory	structures, it will only co	ntuse FTP clients.
ОК				
Createl				
Cancer				

Finally, we must configure the FTP sever Passive port range. Navigate to the FileZilla Server Options menu and enter the settings below. In the Settings menu of FileZilla Server set passive port range from 50,000 to 60,000. Your IP maybe be different based on your network setup. Refer to the Recommended IP Scheme portion of this document for more info.

General settings	Passive mode settings	FileZilla Serve		
Welcome message IP bindings IP Filter	Use custom port range: 50000 - 60	0000 (1-65535)		
Security settings Security settings Miscellaneous Admin Interface setting: Logging Speed Limits Filetransfer compression SSL/TLS settings Autoban	IPv4 specific External Server IP Address for passive mode transfers: Default Use the following IP: 10.209.48.10 You can also enter hostnames Retrieve external IP address from:	Use custom PASV settings if you are operating the server from behind a NAT router or a firewall. In that case, the IP address of the server is not accessible from outside of the router, so you should fill in the correct address here. Use the port range to limit the number of ports that will need to be forwarded through the		
OK Cancel	http://ip.filezilla-project.org/ip.php Information for users with dynamic IPs: If your external IP changes, it might take up to 5 minutes after the next failed transfer until FileZilla Server recognizes the changed IP. In most cases, the IP is updated within 30s after a failed transfer. ID on't use external IP for local connections			

The FTP server is now ready to be added in the Theater Overview pane of the Show Manager User interface.

USL, In Precision Sound • Light •	Color Sou		Ligh		
Theater Overview					
	Media Servers		Show M	lanager Settings	
Bill's Master Test			Langu	age Selection	
Features				Lock timeout: Short	
RIO-3D_FTR-107I_S_EN-EN-CCAP_US Duration:09:49:05 0%				Lock timeout: Off	
Lamp: Off Douser: Closed				Horizontal scroll: On	
	Colum Madia Ctavage Cover				
192.168.6.106	Setup media Storage Server				
Projector: Barco 23b	Screen Name NAS Server				
Colline Schedule	Server Type FTP	NFS			
	IP Addrose 10 200 /8 10		Media Servers View	v: Tile	
			Media	a Storage Servers	
	Port Number 21		Sanuar	· NAS Server	1
	User Name ftp		ETP Gerver	ress: 10.209.48.10	
	Password ***				
	Save	Close			
			Add	Setup Remove	D
Add Media Server Add Media Server Lis	Remove All Select Server To Rem	ove Remove		Login Setup	
Overview			Discover		

Once added and visible in the Media Storage Servers section of the UI, the Manager station server can be mounted like a drive within the settings for each CMS-2200.

In the System Tab -> Server subsection select the appropriate server in the External Server pane and turn the File Service option On. The Cloud icon at the top menu should light up bright green. Please allow up to 10 minutes for the CMS to catalog all external FTP assets and have them appear in the Content Tab. Ingests will now occur in the same manner as attached drives.

NFS Ingests

NFS setup steps are similar to those for the FTP servers covered in the previous section. Add an NFS type network location to the Media Storage Section in the Show Manager Overview screen.

In the System Tab -> Server subsection select the appropriate server in the External Server pane and turn the File Service option On. The Cloud icon at the top menu should light up bright green. Assets located on the NFS location will now appear in the Content Tab.

CMS to CMS Content Delivery

FTP 'Push' and 'Pull' functionality has been added to the CMS-2200 to allow content transfer between devices in a multiplex. In the Builder or Content select a playlists or clip you wish to send to another FTP server, then press the push to cloud button. A dialog will open identifying the content being sent and allow you to specify the network location to send it to.





Recommended IP Scheme

Below is a generic IP scheme for a theater Management and Media network. Depending on you equipment it may be tailored as needed.

USL Digital Cinema Network - Quick Start 1 to 20 Screens					
Management Net	vork Base Address: 10.208.48.0				
Management Network Subnet Mask: 255.255.254.0					
Media Network Ba	Media Network Base Address: 10.209.48.0				
Media Network Su	ıbnet Mask: 255.255.254.0				
	Management Network (x = auditorium number)	Screen 1	Screen 2	Screen 10	
10.208.48.1	Gateway / Router				
10.208.48.9	SMS/TMS NAS Device (single screen - no media network)				
10.208.48.10	Central SMS Workstation (Management Network NIC)				
10.208.48.3x	Automation Controller (Optional 3rd Party)	10.208.48.31	10.208.48.32	10.208.48.40	
10.208.48.9x	Digital Audio Converter (ECI-60, DAX-602, DAX-802)	10.208.48.91	10.208.48.92	10.208.48.100	
10.208.48.11x	Media Player (CMS-2200 AUX / Eth1 Port - Management Network)	10.208.48.111	10.208.48.112	10.208.48.120	
10.208.48.13x	Cinema Audio Processor (JSD-60, JSD-80, JSD-100)	10.208.48.131	10.208.48.132	10.208.48.140	
10.208.48.15x	Projector Head (Barco, NEC, Christie)	10.208.48.151	10.208.48.152	10.208.48.160	
10.208.48.17x	Projector Touch Panel	10.208.48.171	10.208.48.172	10.208.48.180	
10.208.48.19x	Auditorium Monitoring (LSS-100)	10.208.48.191	10.208.48.192	10.208.48.200	
10.208.48.251	Tech Laptop 1				
10.208.48.252	Tech Laptop 2				
10.208.48.255	Reserved Broadcast Address				
Media Network (x = auditorium number)		Screen 1	Screen 2	Screen 10	
10.209.48.10	Central SMS Workstation (Media Network NIC)				
10.209.48.11	NAS Device				
10.209.48.10x	CMS Media Network (Data B)	10.209.48.101	10.209.48.102	10.209.48.110	

Known Issues

- FTP transfers may cause issues during high bitrate (4K or HFR) playback.
- FTP transfer speeds may vary based on the capabilities of the data network supporting the CMS -2200(s) and manager stations.
- NFS file system transfers are supported on native NFS systems. Configuring NFS to work on Windows based network locations may not work.
- When External File Service is enables physically mounted USB and eSata drives will take longer to appear.
- Large feature transfers over FTP or between CMS devices may become corrupt.