NUUO Crystal [™] 2.2.x Server Replacing Procedure

Contents

1	The Us	ual Maintenance	3
	1.1	System Installation	3
	1.2	System Configuration	6
2	Replac	ing a Management Server	7
	2.1	Save Configuration	7
	2.2	Transfer License	7
	2.3	Shut Down Server	8
	2.4	Move Volumes	8
	2.5	Enable Management Server Service	9
	2.6	Restore Configuration	11
	2.7	Activate License	13
3	Replac	ing a Recording Server	14
	3.1	Save Configuration	14
	3.2	Move Volumes	14
	3.3	Enable Recording Server Service	15
	3.4	Restore Configuration	17
	3.5	Remove Out-of-order Recording Server	18
	3.6	Verify Volume Group Setting	19
	3.7	File Transformation	20
	3.8	File Migration	23
4	Replac	ing a Failover Server	25
	4.1	Save Configuration	25
	4.2	Move Volumes	25
	4.3	Enable Recording Server Service	26
	4.4	Restore Configuration	28
	4.5	Remove Out-of-order Failover Server	29
	4.6	Verify Volume Group Setting	30
	4.7	File Transformation	31
	4.8	File Migration	34
5	Replac	ing a Metadata Server	36
	5.1	Save Configuration	36
	5.2	Move Volumes	36
	5.3	Enable Metadata Server Service	37
	5.4	Remove Out-of-order Metadata Server	39
	5.5	Install Metadata Server Plug-ins	40
	5.6	Restore Configuration	41
	5.7	Setup Metadata Volume	42
6	Emerge	ency: Enable Management Server on-site	43
	6.1	Priority for Candidate	43
	6.2	Enable the Management Server	43
	6.3	Restart the stopped server	44
			1 /

Revision History

Date	Modified
2015 / Jan / 22	Topic 2.7: notice that enabling devices after activating license is required
	Topic 3.8: enhance figure 3.8.2
	Topic 4.8: initialize this topic
2014 / Sep / 25	Initial version

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1 The Usual Maintenance

1.1 System Installation

When installing NUUO Crystal[™], it is recommended that the deployment of drives is recorded. For example, a CT-8000R(P) server attaching 8 hard drives, 1 e-SATA storage and 2 iSCSI storages may have deployment as followed, and a deployment table can be kept for maintenance:

Server IP: xx.xxx.xxx (CT-8000R(P))				
Disk1	RAID-0	Volume1	Management Server	
Disk2	RAID-0	Volume2	Metadata Server	
Disk3	RAID-5	Volume3	Recording Server	
Disk4	RAID-5			
Disk5	RAID-5			
Disk6	RAID-5	Volume4	Recording Server	
Disk7	RAID-5			
Disk8	RAID-5			
Disk9	e-SATA	Volume 5	Recording Server	
Disk11	iSCSI	Volume 6	Recording Server	
Disk12	iSCSI			

This deployment information can be retrieved from server's web page and the Config tab of NUUO Crystal™ NuClient.



Figure 1.1.1: Positions of Disk1 to Disk8



Figure 1.1.2: Web page showing mapping between physical disks and logical volumes



Figure 1.1.3: Listings of how volumes are occupied by recording servers

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Before and after altering system configuration, it is recommended that total system configuration is exported and saved. It would be more convenient to recover system by importing a previous backup configuration.

Е	Export Configuration ×			
I		Configuration	Description	
ſ		Server configuration	Management server, Recording server, Matrix and Metadata server configuration	
		System configuration	User & User group, role profile, schedule profile, layout manager setting	
1		NuClient configuration	Client general setting, LiveView/ Playback general setting, user interface, snapshot, audio, event list and video display mode, and tour configuration	
L		Client application configuration	View profile, public and private view, E-map, and image fusion configuration	
E	Export path: C:\Users\jimmy-workdesktop\Desktop\Allconfiguration.cfgc			
			OK Cancel	
			Figure 1.2.1. Furscuting all configuretions	

Figure 1.2.1: Exporting all configurations

2 Replacing a Management Server

In the following procedure, an out-of-order management server is represented by Server A, and Server B is a new one to replace Server A.

2.1 Save Configuration

If Server A is still operational, export and save its total configuration.

If Server A is not operational, please prepare previous backup configuration. This configuration file will be applied in step 2.6.

2.2 Transfer License

If Server A is still operational, manually transfer its license.

If Server A is not operational, please contact NUUO Support Team for service about license. (www.nuuo.com/eHelpdesk.php)



Figure 2.2.1: How to transfer license

2.3 Shut Down Server

If Server A is still operational, shut down its power. If Server A is not operational, please go to step 2.4 directly.

Λυυο°		S 🖵 🖉
CT-8000R(P)	Options Options List Options Options	
 System Settings Upgrade Date / Time Reboot / Shut down 		
Firmware Version: 2.1.4 Free Capacity: 2423.5 GB		

Figure 2.3.1: How to shut down a server

2.4 Move Volumes

Move all volumes from Server A to Server B.

2.5 Enable Management Server Service

Power-on Server B first. Enable Management Service via Server B's web page or Install Wizard. It is strongly recommended that Server B is assigned with identical IP address of Server A.



Figure 2.5.1: How to enable management service in web page

nstallation Wizard - titan_4040_NR104 (10.0.130.175)	_ ×
NUUO Crystal [™]	Installation Wizard
Q (1)	
Management Server	
 Enable Management Server Login remote Management Server 	
Management Server IP/ domain name: 127.0.0.1	
Management Server command port: 5250	
Management Server username: admin	
Management Server password: •••••	
0	
	Cancel

Figure 2.5.2: How to enable management server in Install Wizard

2.6 Restore Configuration

By assigning volume of Management Server, one may encounter conditions described as followed:

(1) In most cases, a dialog showing message "Apply Target Volume Configuration" will appear, and the system is restored without problem.

			_ & X
€ •	<u>ि</u>	Live View Playback Config System Overview	
	● NVR Management Server ● Recording Server ● Recording Failover Server ● Metadata Server ● Matrix	Live View Playback Config System Overview Properties License Server Overview Recording Failover SMTP Address Book Event Action Main Name: Image:	_ ~ X
Data: 2014		addrees: 10.0.120.175-5950.1. OPI Lleading: 244.1. Memory usage: Tata 2071MP. Eren 022MP.1. Network: Displayed strasming bitrate0.00 kbpc	

Figure 2.6.1: Assigning previous volume to management server and applying its configuration

(2) If the configuration cannot be recovered from the volume assigned, please import configuration file previously prepared in step 2.1 to restore the system.

ł	Import Configuration X				
	Confi	guration: C:\Users\jimmy-work	cdesktop\Desktop\All_Configuration.cfgc		
	Serve	r configuration:			
		Target server	Source server		
		🗱 NVR Management Server	🗱 NVR Management Server 🔹		
		🖺 Crystal FS 179 old	🗊 Crystal FS 179 old 🔹 🗸		
		🖺 Crystal RS 195 old	🕵 Crystal RS 195 old 🔹		
	V	🖺 Crystal RS 178 old	🖺 Crystal RS 178 old 🔹		
		👫 Crystal MDS 91 old	🗱 Crystal MDS 91 old 🔹		
			Configuration		
	>	System configuration			
		NuClient configuration			
		Client application configuration	1		
			OK Cancel		

Figure 2.6.2: Importing previous saved configuration

(3) If configuration is not available, please setup the system manually.

2.7 Activate License

Login Server B via NuClient by default username and password (admin / admin). Activate license which was already transferred out in step 2.2. If the original license of Server A could not be transferred in step 2.2, please contact NUUO Support Team for service about license. (www.nuuo.com/eHelpdesk.php)

After license is activated, all devices should be enabled manually.

	et h	Live View Playback Config System Overview	- 8 X
	KVR Management Sever Recording Sever NVR Metadata Sever NVR Metadata Server Matrix	Live View Playback Config System Overview Properties License Server Overview Recording Failove SMTP Address Book Event Action License status License Type Total Quantity Valiable Quantity Available Quantity License Isla Select SN Type Channel Online (Offline: Online: Online: Online: Enter license: Introof license file: Introof license file: Enter license file: Total Quantity	- & X
Date: 2014/	+ - 2↓ ♀ つ	ddress: 10.0.130.175.5250 CPU loading: 0% Memory usage: Total 3071MB Free 1326MB Network: Displayed streamling bit rate 0.00 kbps	

Figure 2.7.1: How to activate license

3 Replacing a Recording Server

In the following procedure, an out-of-order recording server is represented by Server A, and Server B is a new one to replace Server A. If a Failover Server F is presented, Server F is doing recording failover for Server A.

3.1 Save Configuration

Login Management Server via NuClient and export configuration file of Server A. This configuration file will be used in step 3.4 and step 3.8.

Exp	xport Configuration X			
	Configuration	Description		
	Server configuration	Management server, Recording server, Matrix and Metadata server configuration		
	System configuration	User & User group, role profile, schedule profile, layout manager setting		
•	NuClient configuration	Client general setting, LiveView/ Playback general setting, user interface, snapshot, audio, event list and video display mode, and tour configuration		
	Client application configuration	View profile, public and private view, E-map, and image fusion configuration		
Exc	oort path: C:\Users\iimmy-w	orkdesktop\Desktop\All_Configuration_cfgc		
		OK Cancel	h	
			2	

Figure 3.1.1: Exporting all configuration of recording server

3.2 Move Volumes

Power off Server A and Server B. Move all volumes from Server A to Server B.

3.3 Enable Recording Server Service

Enable Recording Service via Server B's web page or Install Wizard. Login Server B to its Management Server.

Λυυο°		8
CT-4000(R) > RAID & File System V Network Setup	Network Service Management Service Recording Service Metadata Service Web Service	
> Network Setup	Recording Service	
Network Service	Recording Service 🖌 Enable	
> Management > System	💭 Login Management Server	
Firmware Version: 2.1.4	IP Address 10.0.130.175	
Free Capacity: 3555.1 GB	Command Port 5250	
	Username admin	
	Password	
	Recording Server LAN Settings	
	LAN Port 5251	
	C Recording Server WAN Settings	
	IP Address	
	Port 5251	
	Save Reset	

Figure 3.3.1: How to enable recording service in web page



Figure 3.3.2: How to enable recording server in Install Wizard

3.4 Restore Configuration

Login Management Server via NuClient. Import configuration of Server A to Server B.

Impor	Import Configuration X			
Configuration: C:\Users\jimmy-workdesktop\Desktop\Recording_server_repair.cfgc				
Serve	er configuration:		_	
	Target server	Source server	<u> </u>	
Β	🐞 NVR Management Server	🙀 NVR Management Server		
	Server B	🛃 Server A 195	-	
٥	🖺 Crystal RS 178 old	🖺 Crystal RS 178 old		
	🖺 Server A 195 old	🕵 Server A 195		
Θ	🗐 Î Server F 179	🗊 Server F 179		
	👫 NVR Metadata Server	Crystal MDS 91 old	- v	
		Configuration		
	System configuration			
	NuClient configuration			
	Client application configuration	I		
		ОК Са	ancel	

Figure 3.4.1: How to import configuration file to a recording server

3.5 Remove Out-of-order Recording Server

Remove Server A permanently via NuClient.



Figure 3.5.1: Removing a disconnected recording server

Verify volume group setting of Server B is identical to that of Server A. Manually adjust volume group setting of Server B when it is necessary. One dialog (Figure 3.7.1) may appear, please see step 3.7 for detail.



Figure 3.6.1: Verifying volume group settings

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3.7 File Transformation

When verifying volume group setting of Server B, a dialog noticing video data is not coherent will appear. Please choose "Transform" to continue. The transformation progress will be shown in the same page. The file transformation process is time-consuming, and it may take about 6 minutes to transform 1TB video files. Video recording on Server B is not functional during file transformation process. Do not interrupt this process by shutting down or powering off server.







Figure 3.7.2: Pressing "Repair" to continue file transformation

NUUO®

et to ∽ ⊙	Live View Playback Config System Overview	
Image: Server A 195 Image: Server F 179 Image: Server F	Live View Playback Config System Overview Properties Device Overview Volume Group Recording Schedule Auto Backup Event Action Local Display Progress of repairing recording database:	
+-21 P to	35% 972.5 GB / 2750.7 GB Arecont_AV5105_camera Arecont_AV5105_camera 4recont_AV5105_camera + − ✓	ŀ

Figure 3.7.3: After "Repair" is pressed, a progress bar is showing progress

NUUO®

6- [†] 0 🗸 🕲	Live View Playback Config System Overview
Image: Constant Server Image: Construe Server Image: Construe Serv	Auto Backup Event Action Local Display arceconding database: 2/6
+-2 $P = +- /$	
Date: 2014/08/15 Time: 18:16:11 Username: admin Server address: 10.0.130.175:	5250 CPU loading: 2% Memory usage: Total 3071MB Free 1050MB Network: Displayed streaming bit rate 0.00 kbps

Figure 3.7.4: A warning message box is popped up when doing file transformation

3.8 File Migration

If a Failover Server F is presented, it should have done recording failover for Server A. Server A's video files stored in Server F should be converted to be Server B's. Select from NuClient's menu item "Migrate Failover Files", and select configuration file of Server A exported in step 3.1. Choose Server A as source server and Server B as target server. Complete File Migration process without interception. Restart all NuClient when File Migration process is done.

If there is no Failover Server, it is not necessary to execute this step.

et 🐤 🗸 😪		Live View Playback Config System Overview
Commit Config		
Restore Config	ment Server	·
Log Export	g Server	Properties Device Overview Volume Group Recording Schedule Auto Backup Event Action Local Display
Design Test	rA195	
Васкир Гоог	al RS 178 old	
E-Map Editor	g Failover Server	Available Volume Group
Image Fusion Editor	r F 1/9	Volumes:
Client Configuration	Server	
Import / Export Configuration >	MDS 01 old	
Migrate Failover File	I MDS 91 010	
About	-	Available Volume
Lagout		Group
Logout		
Exit		
		56.8 GB / 1833.8 GB
		Default 🗖
		Volumes:
		973.59 GB / 2750.66 GB
		Default
		Cameras:
		video device (02) - 💦 video device -
		35% Arecont_AV5105_camera
		973.6 GB / 2750.7 GB
	0 🗢	
+ − _z		
Date: 2014/08/15 Time: 18:19:0	16 Ilsemame: admin Server ad	Hirass: 10.0.130.175:5250.1. CPI Uppding: 2% 1. Memory usage: Total 30.71MR. Free 100.4MR.1. Network: Displayed streaming bit rate 0.00 kbns

Figure 3.8.1: How to execute file migration

Migrate Failover F	ile		×
Configuration:	esktop\Deskto	op\Recording_server_repair.cfgc	
Select server t	o migrate file	s:	
Orginal from:	Server A	•	
Migrate to:	Server B	•	
		OK Canc	el

Figure 3.8.2: How to setup file migration

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4 Replacing a Failover Server

In the following procedure, an out-of-order failover server is represented by Server A, and Server B is a new one to replace Server A.

4.1 Save Configuration

Login Management Server via NuClient and export configuration file of Server A. This configuration file will be used in step 4.4.

Ex	port Configuration	×
Γ	Configuration	Description
	Server configuration	Management server, Recording server, Matrix and Metadata server configuration
	System configuration	User & User group, role profile, schedule profile, layout manager setting
	NuClient configuration	Client general setting, LiveView/ Playback general setting, user interface, snapshot, audio, event list and video display mode, and tour configuration
	Client application configuration	View profile, public and private view, E-map, and image fusion configuration
E	oport path: C:\Users\jimmy-w	orkdesktop\Desktop\All_Configuration.cfgc
		OK Cancel
	F :~	a 4.1.1. Expertise all configuration of follower conver

Figure 4.1.1: Exporting all configuration of failover server

4.2 Move Volumes

Power off Server A and Server B. Move all volumes from Server A to Server B.

4.3 Enable Recording Server Service

Enable Recording Service via Server B's web page or Install Wizard. Login Server B to its Management Server. Please be noted that a Failover Server also requires Recording Server Service to be enabled.

Λυυο°		S 🗆 🗶
CT-4000(R)	Network Service	
> RAID & File System	Management Service Recording Service Metadata Service Web Service	
V Network Setup	0 Recording Service	
Network Setup	Recording Service Resolution	
> Network Service		
> System	💭 Login Management Server	
y oyuun	IP Address 10.0.130.175	
Firmware Version: 2.1.4		
Thee capacity, 5555.1 db		
	Username admin	
	Password	
	Recording Server LAN Settings	
	LAN Port 5251	
	© Recording Server WAN Settings	
	Port 5251	
	Save Reset	

Figure 4.3.1: How to enable recording service in web page



Figure 4.3.2: How to enable recording server in Install Wizard

4.4 Restore Configuration

Login Management Server via NuClient. Import configuration of Server A to Server B.

Impor	t Configur	ation				\times
Confi	iguration:	C:\Users\jimmy-work	des	ktop\Desktop\test_123.cfgc		
Serve	er configur	ation:	_			
		Target server		Source server		
Ξ	🔅 NVR	Management Server	*	NVR Management Server		U
Ξ.	🏥 Crys	tal RS 195 old	1	Crystal RS 195 old		U
D	🏥 Crys	tal RS 178 old	1	Crystal RS 178 old		
	🏥 Serv	er B	₫Ñ	Server A 179	•	
D	an Serv	er A 179	1	Server A 179		
	R NVR	Metadata Server	f.	NVR Metadata Server		•
				Configuration		
	System o	configuration				
	VuClient configuration					
	Client ap	plication configuration				
				ОК Саг	ncel	

Figure 4.4.1: How to import configuration file to a failover server

4.5 Remove Out-of-order Failover Server

Remove Server A permanently via NuClient.



Figure 4.5.1: Removing a disconnected failover server

4.6 Verify Volume Group Setting

Verify volume group setting of Server B is identical to that of Server A. Manually adjust volume group setting of Server B when it is necessary. One dialog may appear, please see step 4.7 for detail.



Figure 4.6.1: Verifying volume group settings

4.7 File Transformation

When verifying volume group setting of Server B, a dialog noticing video data is not coherent will appear. Please choose "Transform" to continue. The transformation progress will be shown in the same page. The file transformation process is time-consuming, and it may take about 6 minutes to transform 1TB video files. Video recording on Server B is not functional during file transformation process. Do not interrupt this process by shutting down or powering off server.



Figure 4.7.1: Data stored in volumes should be transformed



Figure 4.7.2: Pressing "Repair" to continue file transformation

NUUO®

✓	et to	Live View Playback Config System Overview	
	● ● NVR Management Server ● ● Recording Server ● ● Crystal RS 198 old ● ● Recording Server ● ● Recording Server ● ● Server A 179 ● ● ● NR Metadata Server ● ● Crystal MDS 91 old ● ● Matrix	Live View Playback Config System Overview Properties Volume Group Auto Backup Event Action Pogress of repairing recording database: Available Volume Group Volumes: Volumes: Default Volumes: Volumes: Volumes: Volumes: Volumes: Volumes: Volumes: Volumes: Volumes: Volumes: Volumes:	
	+ - 21 2 to -	+ - /	ŧ
D-1 0044		40.0 420 425 5050 L ODULES VIEW ON L MERCENES THE 2024ND Free 4450ND L Metersky Displayed electrics bit ster 0.00 Mercenes	

Figure 4.7.3: After "Repair" is pressed, a progress bar is showing progress

NUUO®

Image: Solution of the solutio			-	
Image: Second Seco	🥪 🗸	et :9	Live View Playback Config System Overview	
		● ● NVR Management Server ● ● Recording Server ● ● Recording Server ● ● Poystal RS 178 old ● ● ● Recording Failover Server ● ● ● Recording Failover Server ● ● ● Metadata Server ● ● ● Metadata Server ● ● ● Crystal MDS 91 old ● ● Matrix	Live View Playback Config System Overview Properties Volume Group Auto Backup Event Action Progress of repairing recording database: 216 Image: 100% Image: 100% Available Volume Group Volumes: Image: 100% Image: 100% Default Volumes: Image: 100% Image: 100%	
$+ - 21 \qquad P \Rightarrow + - Z$			Volumes: Volume2 VoluME2 48.80 GB/ 458.45 GB Default 97.9 GB/ 2002 2 GB	
$ +-2i \qquad Piz + - N$			887.3 667.2292.2 68	
		의 · > >		

Figure 4.7.4: After "Repair" is pressed, a progress bar is showing progress

4.8 File Migration

Select from NuClient's menu item "Migrate Failover Files", and select configuration file of Server A exported in step 4.1. Choose Server A as source server and Server B as target server. Complete File Migration process without interception. Restart all NuClient when File Migration process is done.

			X
et 🏷		Live View Playback Config System Overview	
Commit Config			
Restore Config	ment Server	Depending Device Operation Melana Operation Depending Coloridate Anter Device Land Directory	
Log Export	r A 195	Properties Device Overview Volume Group Recording Schedule Auto Backup Event Action Local Display	
Backup Tool	al RS 178 old		
E-Map Editor	g Failover Server	Available Volume Group	
Image Fusion Editor	r F 179	Volumes:	
Client Configuration	Server Jetadata Server		
Import / Export Configuration 🕨	I MDS 91 old	56.82 GB / 1833.78 GB	
Migrate Failover File		Austichts Mahara	
About		Available volume	
Logout		Gloup	
Exit			
		56.8 CB / 1833.8 CB	
			r
		Default	
		973.59 GB / 2750.66 GB	
		Default	
		Cameras:	
		video device (02) video device -	
		35% Arecont_AV5105_camera	
		973.6 GB / 2750.7 GB	
+ − ⊉	- 🗟 🗸	- /	
Date: 2014/08/15 Time: 18:19:0	06 Username: admin Server ad	dress: 10.0.130.175:5250 CPU loading: 2% Memory usage: Total 3071MB Free 1004MB Network: Displayed streaming bit rate = 0.00 kbps	

Figure 4.8.1: How to execute file migration

Migrate Failover F	ile		×
Configuration:	esktop\Deskt	op\Recording_server_repair.cfgc]	
- Select server t	o migrate file	es:	
Orginal from:	Server A		
Migrate to:	Server B	·	
		ОК Са	ncel

Figure 4.8.2: How to setup file migration

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5 Replacing a Metadata Server

In the following procedure, an out-of-order metadata server is represented by Server A, and Server B is a new one to replace Server A.

5.1 Save Configuration

Login Management Server via NuClient and export configuration file of Server A.

Expo	ort Configuration	X
	Configuration	Description
	Server configuration	Management server, Recording server, Matrix and Metadata server configuration
	System configuration	User & User group, role profile, schedule profile, layout manager setting
	NuClient configuration	Client general setting, LiveView/ Playback general setting, user interface, snapshot, audio, event list and video display mode, and tour configuration
	Client application configuration	View profile, public and private view, E-map, and image fusion configuration
Exp	ort path: C:\Users\jimmy-w	orkdesktop\Desktop\All_Configuration.cfgc
		OK Cancel

Figure 5.1.1: Exporting all configuration of metadata server

5.2 Move Volumes

Power off Server A and Server B. Move all volumes from Server A to Server B.

5.3 Enable Metadata Server Service

Enable Metadata Service via Server B's web page or Install Wizard. Login Server B to its Management Server.

Λυυο°		8 🗆 🖉
CT-4000(R) > RAID & File System	Network Service Management Service Recording Service Metadata Service Web Service	
Network Setup Network Setup	🕲 Metadata Service	
Network Service Management	Metadata Service Carvier	
System	IP Address 10.0.130.175	
Free Capacity: 91.4 GB	Command Port 5250	
	Usemame admin	
	Password	
	LAN Port 5252	
	Port 5252	
	Save Reset	

Figure 5.3.1: How to enable metadata service in web page



Figure 5.3.2: How to enable metadata server in Install Wizard

5.4 Remove Out-of-order Metadata Server

Remove Server A permanently via NuClient.



Figure 5.4.1: Removing a disconnected metadata server

5.5 Install Metadata Server Plug-ins

Login Server B to its Management Server. Install all needed metadata plug-ins.



Figure 5.5.1: How to install metadata server plugins

5.6 Restore Configuration

Login Management Server via NuClient. Import configuration of Server A to Server B.

Import Configuration X					
Confi	Configuration: C:\Users\jimmy-workdesktop\Desktop\all_config_mds.cfgc				
Server configuration:					
	-	Target server		Source server	4
	NVR	Management Server	۵	NVR Management Server +	
Ξ.	🖺 Crys	tal RS 195 old	1	Crystal RS 195 old 🗸	
	🖺 Crys	tal RS 178 old	1	Crystal RS 178 old 🗸	
Ð	🗊 Crys	tal FS 179 old	₫Ŋ	Crystal FS 179 old 🗸	
	🖡 Serv	ver B	f.	Server A 91 🗸 🗸	
٦	Serv	ver A 91	f.	Server A 91 -	Ļ
				Configuration	
	System configuration				
	NuClient	configuration			
	Client ap	plication configuration			
				OK Cancel	

Figure 5.6.1: How to import configuration file to a metadata server

5.7 Setup Metadata Volume

Assign one available volume for metadata Server B

الا ي	ि के	Live	View Pla	yback Config Syste	em Overview	~
	□ 懿 NVR Management Server □ 龘 Recording Server : 回 颶 Crystal RS 195 old	Properties Plugin Overview	Source Ov	erview Event Action		
~	I III Crystal RS 178 old IIII IIII Crystal RS 178 old IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Metadata Server:	🛃 Enable			
	해 Crystal FS 179 old 曰 訴 Metadata Server	Name:	Server A 91]	
?⊂	⊞ Bay ServerA91 ⊡ R ServerA91 ⊡ I Matrix	Description:				
		Live View maximum connections:	64		(0-2048)	
		Address:	LAN / WAN	Address	1	
			LAN 1	10.0.6.3:5252		
			LAN 2	10.0.130.174:5252		
		Version:	2.1.4.5991			
		Storage volume:	VOLUME1	•		
		Free capacity:	100.76 GB			
		Total capacity:	916.89 GB			
		Time zone:	UTC + 08 : 0	0		
			Launch	Installation Wizard		
	+- 1					
Date: 2014/	18/15 Time: 21:08:30 sername: admin Serva	r address: 10.0.130.175:5250.1.CPU.U	ading: 1%	Memory usage: Total 3074MP. Cro	an 1079MB Network: Displayed streaming bit ra	te 0.00 kbps
Date: 2014/	on o Finne. 21.00.00 Fosemanie. autilit Foelve	1 dddress. 10.0.150.175.5250 CPU IC	ading. 170 1	memory usage. Iotal Sor TWD FIE	re for one pretwork, proprayed subarraining bit ra	te otoo kupa

Figure 5.7.1: Assigning a volume for metadata server

6 Emergency: Enable Management Server on-site

When a Management Server A is out-of-order and a replacement cannot be available immediately, one Server C can be chosen from current existing servers.

6.1 Priority for Candidate

A server with least significance has highest priority. An idle Failover Server is the first candidate. Otherwise, choose one Metadata Server or one Recording Server with least significant channels. The chosen server is Server C.

6.2 Enable the Management Server

Server C is a replacement Management Server for Server A. Services previous running by Server C are no longer running. Services previous running by Server A are now running by Server C.

1	Step 2.2	Prepare license of Server A
2		Shut down Server C
3		Remove all volumes of Server C. Keep these volumes in order. These volumes will be
		used in step 6.3
4		Power on Server C
5	Step 2.5	Enable Management Server Service of Server C. As recommended, the IP address of
		Server C is assigned with identical IP address of Server A
6		If there was a Recording Server running on Server A, enable Recording Server Service
		of Server C; otherwise disable Recording Server Service of Server C
7		If there was a Failover Server running on Server A, enable Recording Server Service of
		Server C; otherwise disable Recording Server Service of Server C
8		If there was a Metadata Server running on Server A, enable Metadata Server Service
		of Server C; otherwise disable Metadata Server Service of Server C
9		Shut down Server C
10	Step 2.4	Move all volumes from Server A to Server C
11		Power on Server C
12	Step 2.6	Activate license on Server C
13	Step 2.7.(1)	Apply configuration of Management Server onto Server C
14		If there was a Recording Server running on Server A, apply all steps from step 3.4 to
		3.8 on Server C
15		If there was a Failover Server running on Server A, apply all steps from step 4.4 to 4.7.
		Server C
16		If there was a Metadata Server running on Server A, apply all steps from 5.4 to 5.7 on
		Server C

Please apply following steps:

6.3 Restart the stopped server

Once the replacement Server B is arrived, services of Server C can be restarted on Server B.

Please apply following steps:

1	Install all volumes of Server C onto Server B
2	Power on Server B
3	If there was a Recording Server running on Server C, apply all steps from step 3.3 to 3.8
	on Server B
4	If there was a Failover Server running on Server C, apply all steps from step 4.3 to 4.7.
	Server B
5	If there was a Metadata Server running on Server C, apply all steps from 5.3 to 5.7 on
	Server B