AN_How to do hardware recovery on NVR2000 Application Notes

Version <1.0>



Preface

This document is used to educate customer how to deal with the case that the NVR2000 server encounter the hardware failure but the storage is alive. In this case, the storage data is safe and customer only needs to replace the broken one with new NVR2000 server.

Target Situation			
Equipment	NVR2000 Server	Storage	Network
Status	Dead	Alive	Alive

Customer can follow below steps to recovery the system.

- A. Regularly export the configurations (Optional)
- B. Replace the faulty NVR2000 with new NVR2000
- C. Check existed video is still available
- D. Import configurations(Optional)

The step A and step D is optional. We strongly suggest customer to export the configuration regularly to ensure if they encounter the server fatal failure, they can resume the system seamlessly. But if customer doesn't export the configuration, the system still can be recovered but the account/view/E-Map and camera information will be lost.

Procedures

1 Regularly export the configurations

In order to recovery the system setting seamlessly, we suggest customer to export the configuration periodically.

- 1.1 Export Server configuration
 - Click Server in the setup console.
 - Click Import/Export icon.
 - Select Server Configuration.
 - Click Export button.

General Tasks Genera
Image: Commendation of the set of t
SMRServer Global Schedule Global Schedule Storage
Digital I/O S Please Select Items to Import/Export Server Configuration 3 Joystick
Other Tasks
Reboot NVP
Audio Input
VI Panel 4 Export Import 2
Customize Logo

• Select the target folder on the USB drive and click **Save** button.

					21		
	Sa	ive					×
		Disk Partition	O:\		• 0	1	2
		Path: O:\					
I	I.	1	\frown	\geq	\sim	\bigcirc	
Т		Advance Configurat	AVL_patch	photo	WSDownl	debug_log	
		0	\bigcirc	\bigcirc		\bigcirc	
1		NVR2000 2.4.7 Upda	0711_0713 MPOP	FastStone Capture	VMS Remote	Russia	
,	2						
(c	File Name	Server Cor	nfiguration 1			Save
		File Type	Configurat	tion File (*.cfg) *.cfg	-	Cancel ///

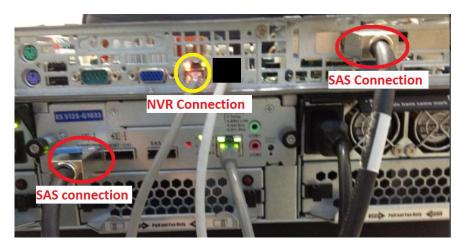
- 1.2 Export the Account List
 - Click Domain Server in the setup console.
 - Click Import/Export icon.
 - Select Account List.
 - Click Export button.

VMS Console P I Surve-LippmanNb Tasks	<u> </u>
Server Server Camera List Acto Scan NVR Add NVR Edit NVR Edit NVR Edit NVR	
Contension Server 1	
Account Manager DDNS Setting DDNS Setting C Help	
About Clear CMS Data	
NVR Status	
Name IP Disco Octable Street	Login Time
	2012-09-10 19:32:41
View Configuration	
E-map File	
4 Export Import	

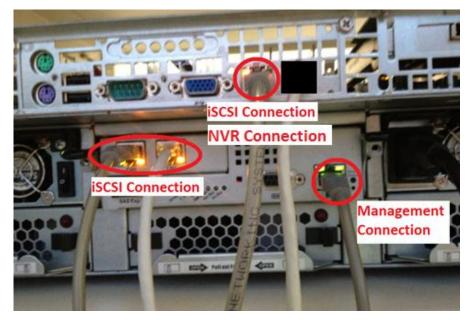
• Select the target folder on the USB drive and click **Save** button.

4	ōave					×
C	Disk Partition	O:\		• 0	۵ 🖽	1
	Path: O:\					
4		\sim	\sim		\bigcirc	
L	Advance Configurat	AVL_patch	photo	WSDownl	debug_log	
•		\bigcirc	\sim	\bigcirc	\bigcirc	
£	NVR2000 2.4.7 Upda	0711_0713 MPOP	FastStone Capture	VMS Remote	Russia	
	File Name	account 1				Save
	File Type	XML file (*	*.xml) *.xml		•	Cancel

- 1.3 Repeat step 1.2 to export View Configuration and E-map File.
- 2 Replace the faulty NVR2000 with new NVR2000
 - 2.1 Shutdown the SAS or iSCSI storage.
 - 2.2 Move the all the cable connection to from old NVR2000 to new NVR2000.
 - SAS



iscsi



- 2.3 Boot up the storage.
- 2.4 Boot up the NVR2000.
- 2.5 For SAS model, please follow below step
 - Login to the NVR2000.
 - Go to Server and click **Storage** button.
 - Click **Setting** button.
 - Click **Check** button to connect the storage to the NVR2000.

VMS Console		□×
Account Manager	non Server Tasks	
Others	Alarm Rule Settings View Log Global Schedule Storage E-map	
Storage Manager	Advanced Settings	
Storage Usage	General JP Storage RAID	
Used (38.92%) 726.3 Detail		
Disk Logic Type Drive ATA C	ARAD Level: Enable/Disab Status - Create Logical Drive Enable Normal	
ATA D SAS E	- Check Storage Enable Normal	
	SAS/ISCSIHEM, runtime unplug again brain, through check storage resumed, to avoid NVR Server restart description)	
	Check Edit Delete 1Kbps	
Advanced Settings Disk detection: Join	NVR Servel	
	Close Close hour	
Time	Log contents	
2012-12-2	2 13:42:27 User Login	
2012-12-2	2 13:37:50 User Login	
2012-12-2	2 13:19:49 User Login	

- After that, you will see the NVR2000 can recognize the storage.
- 2.6 For iSCSI model, customer needs to follow below steps.
 - Press Ctrl + Shift + Shift to launch the task manager.

Organize 👻 💽 Open)# · 🖬 🌘
🔆 Favorites	Name *	Date modified	Туре	Size
🥅 Desktop	Discomponent Services	7/5/2012 3:48 PM	Shortcut	2 KB
\rm Downloads	🛃 Computer Management	7/5/2012 3:43 PM	Shortout	2 KB
🔚 Recent Places	👸 Connection Manager Administration Kit	7/5/2012 3:43 PM	Shortout	2 KB
词 Libraries	Data Sources (ODBC)	7/5/2012 3:48 PM	Shortout	2 KB
Documents	Event Viewer	7/5/2012 3:48 PM	Shortout	2 KB
Music	🛐 Internet Information Services (IIS) 6.0 Mana	7/5/2012 3:45 PM	Shortout	2 KB
Pictures	Participation Services (IIS) Manager	7/5/2012 3:45 PM	Shortout	2 KB
Videos	🛃 (SCSI Initiator	7/5/2012 3:48 PM	Shortcut	2 KB
	Local Security Policy	7/5/2012 3:48 PM	Shortcut	2 KB
Computer	Performance Monitor	7/5/2012 3:43 PM	Shortout	2 KB
🕞 Local Disk (C:) 🔄 New Volume (D:)	Print Management	7/5/2012 3:43 PM	Shortcut	2 KB
New Volume (E:)	> Scan Management	7/5/2012 3:46 PM	Shortout	2 KB
-	F Services for Network File System (NFS)	7/5/2012 3:47 PM	Shortout	2 KB
📬 Network	Services	7/5/2012 3:43 PM	Shortcut	2 KB
	🔁 System Configuration	7/5/2012 3:48 PM	Shortcut	2 KB
	Task Scheduler	7/5/2012 3:48 PM	Shortcut	2 KB
	Windows Firewall with Advanced Security	7/5/2012 3:46 PM	Shortout	2 KB
	Windows Memory Diagnostic	7/5/2012 3:48 PM	Shortout	2 KB
	😹 Windows PowerShell Madules	7/6/2012 7:01 AM	Shortcut	3 KB
ISCS1 Initiator		7/6/2012 7:01 AM	shortout	3 KB

- Click **Discovery** tab and click **Discover Portal** button.
- Input the iSCSI storage IP address.

I Initiator Properties		× hce Nets	working Users		
rgets Discovery Favorite Targets Volumes and Devices R	ADIUS Configuration		Status Running		
Target portals	Refresh	1			
The system will look for Targets on following portals:					
Address Port Adapter	IP address	Discover Ta	rget Portal		
		Enter the IP want to add	address or DNS name and I.	port number of the	portal you
		To change the Advance	he default settings of the o of button. Storag		jet portal, click
To add a target portal, click Discover Portal.	Discover Portal	10 address o	or DNS name:		
To remove a target portal, select the address above and	Remove	D address o	a saus name:	Port: (Default	is 3260.)
then dick Remove.		- II		3260	
			1		
SNS servers		Advanced.		OK	Cancel
The system is registered on the following ISNS servers:	Refresh	Thanayer	770/2012 3:43771	Shorcos.	
Name			7/5/2012 3:48 PM	Shortcut	
			7/5/2012 3:48 PM	Shortout	
			7/5/2012 3:43 PM	Shortout	
			7/5/2012 3:43 PM	Shortout	
			7/5/2012 3:46 PM	Shortout	
To add an iSNS server, click Add Server.	Add Server	VFS)	7/5/2012 3:47 PM	Shortout	
To remove an ISNS server, select the server above and	Remove	1	7/5/2012 3:43 PM	Shortcut	
then click Remove.	110110710		7/5/2012 3:48 PM	Shortout	
			7/5/2012 3:48 PM	Shortout	
		ecurity	7/5/2012 3:46 PM	Shortout	
More about Discovery and ISNS			7/5/2012 3:48 PM	Shortout	
			7/6/2012 7:01 AM	Shortout	
ок	Cancel App	h/ Date crea	Red: 7/5/2012 3:48 PM		

• Customer will see the iSCSI portal has been found.

gets Discove	ry Favorite Targe	ts Volumes and Devices	RADIUS Configuratio
rget portals he system w	l look for <u>T</u> argets o	n following portals:	Refresh
Address	Port	Adapter	IP address
192.168.0.9	3260	Default	Default
add a targ	et portal, dick Disco	ver Portal.	Discover Portal
'o remove a t hen dick Rem		the address above and	Remove

• Click **Target** tab and click **Connect** button.

uck Connect	
o discover and log on to a target using a basic connect. NS name of the target and then click Quick Connect.	tion, type the IP address or
arget:	Quick Connect
scovered targets	
	<u>R</u> efresh
Name	Status
ign. 2002-10. com.infortrend:raid.sn8138571.001	Disconnect
o connect using advanced options, select a target an	d then Cognect
	cogreet
lick Connect. o completely disconnect a target, select the target an	nd <u>Disconnect</u>

• Select the Storage IP address.

General IPsec		
Connect using		n
Local adapter:	Default 👻	
Initiator IP:	Default 👻	
Target portal IP:	192.168.0.9 / 3260 👻	
CRC / Checksum	Storage IP	
Data digest	Header digest	

• After that, customer will see the iSCSI connection has been built-up.

arget:	Qu	ick Connect
iscovered targets		Refresh
Name	Status	Renost
iqn.2002-10.com.infortrend:raid.sn8138571	.001 Connecter	ł
o completely disconnect a target, select the hen dick Disconnect.	target and	Disconnect
or target properties, including configuration elect the target and click Properties.	of sessions,	Properties
	target, select	

- Login to the NVR2000.
- Go to Server and click **Storage** button.
- Click **Setting** button.
- Click **Check** button to connect the storage to the NVR2000.

VMS Console		
Common Tasks Common Tasks Common Tasks Common Tasks Common Tasks Common Server Oners Domain Server Account Manager Others Common Starser Storage		Global Schedule
Storage Manager	Advanced Settings	X
Storage Usage Used (38.92%) 726.33GB Detail Disk detection: Join NVR Serv	Ceneral IP Storage RAID Free Space: O(MB) RAID Level: Create Logical Drive Check Storage SAS/ISCSUHEAR, runtime unplug again brain, through check storage resumed, to avoid NVR Server restart_description) Check	Availble (61.08%) 1139.77CB Enable/Disab Status Enable Normal Enable Normal Eable Normal Eable Setting
		Close
Time	 Eog Contents 	
2012-12-22 13:42:27	User Login	
2012-12-22 13:37:50	User Login	
2012-12-22 13:19:49	User Login	

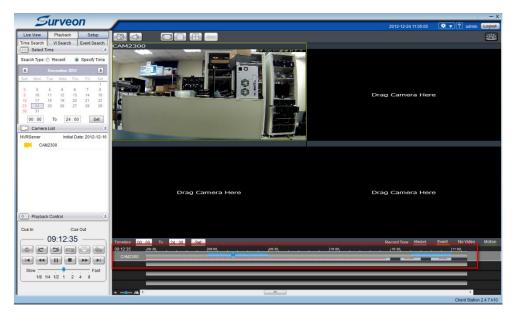
- After that, you will see the NVR2000 can recognize the storage.
- 3 Check existed video is still available
 - 3.1 Click "Playback" tab
 - 3.2 Select "Specify Time"

Used (38.92	%) 726.330	B					Availble (61.089	%) 1139.76
Detail								
Disk Type	Logical Drive	RAID Level	Drive Size(GB)	Available Size(GB)	Online	Data Type	Enable/Disab	Status
ATA			3.62			OS,APP	Enable	
ATA	D		0.09	0	YES	NO	Enable	Normal
SAS	E		1862.39	1139.76	YES			

- 3.3 Select a time slot which has recorded video.
- 3.4 Drag the camera from left to the View.

Surveon		— ×
Live View Playback Setup Time Search VI Search Event Search		2012-12-24 11:04:49 🛛 😿 💽 🤗 admin 🛛 Logout
Select Time 2 c Image: Complex Co	Drag Camera Here	Drag Camera Here
Cue In Cue Out	Drag Camera Here	Drag Camera Here
00:00:00	Timeline: 00:00 To 24:00 Set 00:00 (27.30 (24.30) (28.00)	Record Type: Always Event No Video Motion , , (09.00,,) , (09.30,,) , (10.00,,) ,
Slow Fast 1/8 1/4 1/2 1 2 4 8		

3.5 Move the time bar to a specific time and click **Play** button.



- 4 Import configurations
 - 4.1 Import the Server Configuration
 - Click "Server" in the setup console.
 - Click "Import/Export" icon.
 - Select "Server Configuration".
 - Click "Import" button.

VMS Console			□;
NVRServer 1	General Tasks		
Camera List	Alarm Rule Settings	View Log	E-map
Others	Global Schedule	Individual Schedule	Storage
Cthers	Pre/Post Alarm Recording Settings	Email	🥪 sms
	Import/Export Digital I/O Please Select Items to Server Configuration	Import/Export	Joystick
	Other Tasks		
			Schedule Reboot
	Audio Input		Auto Login
	VI Panel	4 Export	Import/Export
	Customize Logo	Port Mapping	

• Select exported "Server Configuration" file to import.

Open		×
Disk Partition	F:\ 💽 🚱 🗊 📂	
Path: F:\NVR T	iransfer\	
import configuration co	server onfiguration 1.cfg	
File Name	server configuration 1.cfg Open	
File Type	Configuration File (*.cfg) *.cfg Cancel	

• After importing the "Server Configuration" file, click "Yes "button to restart NVR.

Import/Export	JN
Please Select Items to Import/Export	
Server Configuration	
Confirm	X
NVR Server must restart before settings will take effect. Restand now?	rt
Yes No	
Export	

- 4.2 Import the Account List
 - Click "Domain Server" in the setup console.
 - Click "Import/Export" icon
 - Select "Account List".
 - Click "Import" button.

VMS Console	-		
WRServer Server	Tasks		
Camera List	Auto Scan NVR	Add NVR	Edit NVR
Account Manager	Delete NVR	2 Account Manager	VI Manager
Account Manager	DDNS Setting	Import/Export	Help
	About 3 Please Sel	rt ect Items to Import/Export	
	NVR Status E-map File	guration	-
	Name		sion Online Users Login Time
		4 Export Import	

• Select exported "Account List" file to import.

Open						×
Disk Partition	F:\		•	3 🔊	📴 📂	
Path: F:\NVR T	ransfer\					
1						
import configuration	account 1.xml	view configurati				
File Name	account	1.xml			Open	
File Type	XML file	(*.xml) *.xml		•	Cance	<u> </u>

4.3 Repeat step 4.2 to import View Configuration and E-map File.