How to Configure Storage

Expansion?

Key features:

VioStor NVR + Turbo NAS for Long-term Recording

1. Addressing user needs: Users can expand their storage capacity based on their needs.

- 2. Reducing expense: This is a cost-effective choice to expand storage.
- 3. Highly scalable for storage expansion in the future.

Note:

In order to ensure that Storage Expansion can be executed during the recording process, please be advised to estimate the limitation on network throughput for specific VioStor NVR series.

The following is suggested limitation of the network throughput for specific NVR models:

VS-8100 Pro+/8100U-RP Pro (+)/12100U-RP Pro (+) series: 360 Mbps.

VS-2100 Pro+/4100 Pro+/6100 Pro+ series: 160 Mbps.

VS-2000 Pro/4000 Pro/6000 Pro series: 90 Mbps.

Limitations and Restrictions:

- Currently, Storage Expansion is supported only by the VioStor Pro(+) series and QNAP Turbo NAS x69, x79, x70 series (with firmware version v3.8.3), and they are required to be set on the same LAN.
- 2. A gigabit switch is required for this application.
- 3. All NVR and NAS units are required to use only fixed IP addresses.
- 4. Modification on storage expansion related setting is not supported on local display.
- 5. The file moving process between the NVR and NAS will be completed even if it is suddenly interrupted (for example, the destination folder is deleted). For example, the cache count is set to six hours. The destination is changed to none in the middle of the processing. When this happens, the NVR will still move recording files to the NAS until the entire process is finished.

Step 1: Install the StorageExpansion App (QPKG) on the NAS Note: Please visit our download center to download the QPKG. Before installing the QPKG package, please make sure the QPKG is correct, read the instructions carefully, and back up all the important data on the NAS.

1. Download and unzip the StorageExpansion package.

To install the QPKG, please click "Browse" to select the correct QPKG file and click "INSTALL".

Home	Home>> Applications>> QPKG Center
Overview System Administration Sick Management	QPKG Center
Click Wallagement Coress Right Management Coress Right Management	INSTALLED AVAILABLE INSTALL MANUALLY
Applications Heb File Manager	Install a new QPKG plugin
MySQL Server	To install a package, please follow the steps below: 1. Click here to browse more QPKG add-ons including those newly developed ones from the QPKG lab. You can download and unzip the add-ons to
Syslog Server	your computer. QPKG Development: If you would like to develop QPKG add-ons, the QDK has the tools, documentation, and sample codes you need to create
 Antivirus TFTP Server VPN Service 	great applications. 2. Browse to the location where the unzipped file is, and then click [Install].
LDAP Server	瀏覽
External Device	INSTALL

2. After installation, click the link to connect to the webpage and configure the settings.

A +27-15879 Turbo N	iAS	admin 🕤 🌐
Norse 🖸	Home>> Applications>> (MIG Center	
Overriew		
Web File Manager MySOL Server GPKG Center Systog Server RADIUS Server ALATUS Server	Music Station 1.2 OrUP Dystems, Inc. Music Station is a web-based music player for users to enjoy their music collection on the NAS. The music can be player by retwork stearing or locally via a USB speaker or USB soundcard connected to the NAS. Music alarms can also be so for scheduled playing. Web Player High 700 st 14 515 800 music station/ Mape 190 st 14 515 800 music station/	• Enable • Remove
TFTP Server VPN Server LDAP Server Control Device	Photo Station 2.4 CHUP Dystems, Inc. Photo Station is a web album for you to organize and share photos and videos with your triends, turnity, and the world. Yo can also share the photos by email or publish them to popular social networking websites such as Facebook, Twitter, an MySpace. Web Page IMp/101111415180015photostation/	y - Enable d - Remove
Punctions Scarch Keywood: (gAg Applications(1) @ QPKG Center Manages QPKG plugins.	StorageExpansion No Description Available 1.0.0 UNAP Security, Inc. Web Page: http://10.11.14.151.000058xxprExpansion/torel	- Clisable Remove
C-ONAP, All Rights Reserved		

3. Check available NVRs on the list and their status on this page.

NV	/R List				
	NVR MAC Address	NVR IP Address	NVR Port	NVR Destination Folder	Status
	00089BDA00DE	192.168.7.29	80	12164SEREP	
	Dalata	2			1000 4
Í	Delete	ia ka Pag	e 1 of 1	>> >1 10 V	NVR 1 -
	Delete	ia da Pag	e 1 of 1	⊳ ⊳i 10 ∨	NVR 1 -
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	Delete Connection Success Failure of storage expans your setting on the storage	tet e Pag Descripti sion due to incorrect st ge expansion page.)	e 1 of 1	▶> ▶ 10 ▼ assignments (please check	NVR 1 -
	Delete Connection Success Failure of storage expans your setting on the storage Failure of storage expansion	Descripti Descripti sion due to incorrect st ge expansion page.) on because Subnet Mask	e 1 of 1 ion orage expansion	INVR should be the same.	NVR 1 -
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Note: The status of an NVR will become \bigvee after storage expansion assignment is completed.

Step2: Please make sure that the StorageExpansion App (QPKG) has been installed on the NAS and enable Storage Expansion.

 Go to "Camera Setting" → "Storage Expansion" to configure relevant settings on the page.

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iera Settings	 Storage Expansion Setting 	5				
mera Configuration						
cording Settings	Overview NAS List St	orage Expansion Assignment				
hedule Settings						
o w	NAS LIST					
arm Settings	Status IP Address	Destination Folder	Total Size	Free Size		
orage Expansion	0 10.11.14.151	1	1.80 TB	1.44 TB		
unneed Cottings	0 10.11.14.41	3	NA	NA		
wanceu betungs	192.168.5.26	5	NA	NA		
	Recording Storage Details 🛛 🎨					
	Recording Storage Details	Recording 1	Fime Period		Action	
	a 🛶 ch1: 1.3S N5071					
	Local Host	2013/07/21	- 2013/07/24		ETP 🔛	
	a 🖘 ch2: 2.3S N3071					
	Local Host	2013/07/21	- 2013/07/24		ETE 🔛	
	a 🔤 ch3: 3. 3S N9071					
	Local Host	2013/07/10	- 2013/07/10		ETP 🔛	
	a 🔤 ch4: 4.3S N8072					
	Local Host	2013/07/23	- 2013/07/24		ETP WEB	
	4 🔤 ch5; 5, 35 N8011					
	Local Host	2013/07/21	- 2013/07/25			
	Local Host	2013/07/21	- 2013/07/25			
	Local Host Local Host Local Host	2013/07/21 2013/07/10	- 2013/07/25			

2. Click "NAS List" then the "Add NAS" button.

-	Sto	rage E	xpansion Set	tings				
	Ove	rview	NAS List	Storage Expansion Ass	ignment			
	0,	Add NAS	🏟 Edit 🛛 🗙	Remove NAS				
		Status	IP Address	User Name	Destination Folder	Total Size	Free Size	
		0	10.11.14.151	admin	1	1.80 TB	1.43 TB	
		0	10.11.14.41	admin	3	NA	NA	
		0	192.168.5.26	admin	5	NA	NA	

3. Please enter the IP, port, username, password, destination, volume and cache count for the NAS.

Add NAS			×
NAS IP Address: Port: User Name: Password: Destination Folder: Volume:	8080		
Backup buffer:	Obtain NAS vol	ume details	
		Apply	Cancel

Note:

Destination Folder: The folder created on the NAS to save recording files. Obtain NAS volume details: The volume assigned for storage expansion. Backup buffer: The time it takes to move recording files to the NAS. The maximum value is 12.

4. You can enable a NAS and click Edit to modify NAS settings on this page.

Edit				×
IP Address:	10.11.14.151			
Port:	8080	~		
User Name:	admin			
Password:	•••••			
Destination Folder:	1			
Volume:	single Disk Volume: Drive 1	*		
Backup buffer:	6	~	Hours	
	Ap	oly	Cancel	

5. Click "Storage Expansion Assignment" to choose a NAS as the storage unit for each channel.

ve	rview NAS List	Storag	e Expansio	n Assignment					
	Camera Name					NAS IP Address		Destination Folder	
	1.35 N5071					Select NAS	~	Select a destination folder	
2	2.35 N3071		Apply	Update all	Cancel				
3	3. 35 N9071	L		J					_
ŧ	4.35 N8072								
5	5.35 N8011								
5	6.CP PLUS CP-ND20-R								
7	7.CP PLUS CP-ND10-R								
3	8.CP PLUS CP-NB20-R								
,	9.CP PLUS ND20VL2-R								
LO	10.CP PLUS NT20VL3-R								
1	11.35 N8031								
12	12. 3S N6033								
13	13.EverFocus EQN2200								
14									
15									
16	16.HUNT HLC-1NAD								
7	17 ULINIT ULC 01AC								

 Review all the configured settings and recording storage details under "Overview".

vervi	iew NAS List Stor	age Expansion Assignmer	it			
IAS Lis	st					
Status	IP Address	Destination Folder	Total Size	Free Size		
0	10.11.14.151	1	1.80 TB	1.44 TB		
0	10.11.14.41	3	NA	NA		
0	192.168.5.26	5	NA	NA		
Record	ling Storage Details 🛛 🅀	Re	cording Time Period		Action	
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Record Recordii 4 🗣 ch 4 🛸 ch	ling Storage Details 🔹 ing Storage Details h: 1.35 NS071 Local Host h: 2.25 NS071 Local Host	R4 26 26	scording Time Period 13/07/21 - 2013/07/24 13/07/21 - 2013/07/24		Action	
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Record Recordin Contraction Co	Ing Storage Details Image Storage Details hi: 1.35 N5071 Local Host b: 2.35 N3071 Local Host hb2: 3.35 N9071 Local Host b: 3.35 N9071 Local Host hb2: 3.35 N80971 Local Host hb3: 3.35 N80971 Local Host hb4: 4.36 N80972 Local Host	R4 20 20 20	13/07/21 - 2013/07/24 13/07/21 - 2013/07/24 13/07/21 - 2013/07/24 13/07/10 - 2013/07/10		Action	
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The page will automatically refresh the status every fifteen minutes.

The various QNAP Turbo NAS models are the solution that expands on the storage capacity of the NVR to save more recording files. Integration of both QNAP devices can help users to more flexibly and efficiently save recording files.