

CHR in NAS VM

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About:



- MTCNA, MTCIPv6E, MTCWE, MTCTCE, MTCRE
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Agenda

- CHR in General
- CHR setup in NAS
- Different methods to add CHR in NAS
- Connections
- Usage
- Q & A

CHR in a nutshell

Cloud Hosted Router (CHR) - RouterOS version intended for running as a virtual machine. It supports the x86 64-bit architecture and can be used on most of the popular hypervisors such as VMWare, Hyper-V, VirtualBox, KVM and others. CHR has full RouterOS features enabled by default but has a different licensing model than other RouterOS versions.

Licencing model for CHR:

License	Speed limit	Price
Free	1Mbit	FREE
P1	1Gbit	\$45
P10	10Gbit	\$95
P-Unlimited	Unlimited	\$250

Free – Speed limited to 1Mbit

P1 – Limited to 1Gbit upload per interface

All the rest of the features provided by CHR are available without restrictions.

P10 – Limited to 10Gbit upload per interface

P-Unlimited – Unlimited

Disk Images

RAW disk image (.img file) (import method)

VMWare disk image (.vmdk file)

Hyper-V disk image (.vhdx file)

VirtualBox disk image (.vdi file)

Installation of CHR in NAS

Synology®



Virtual Machine
Manager

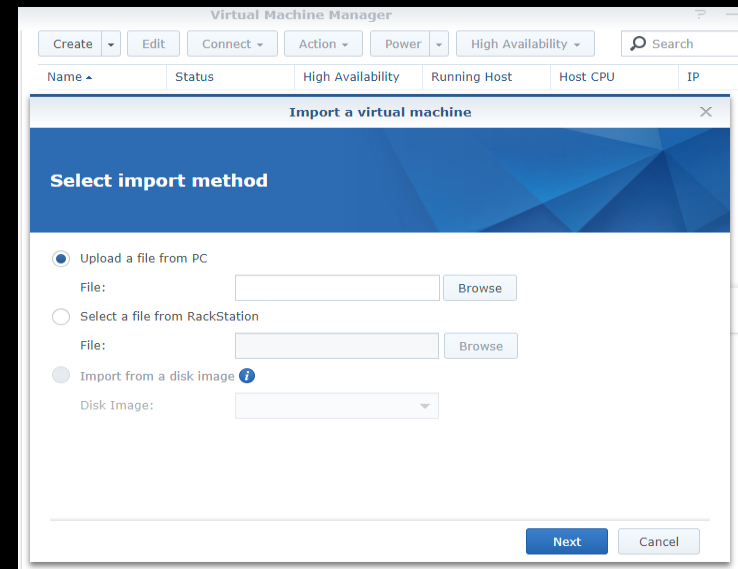
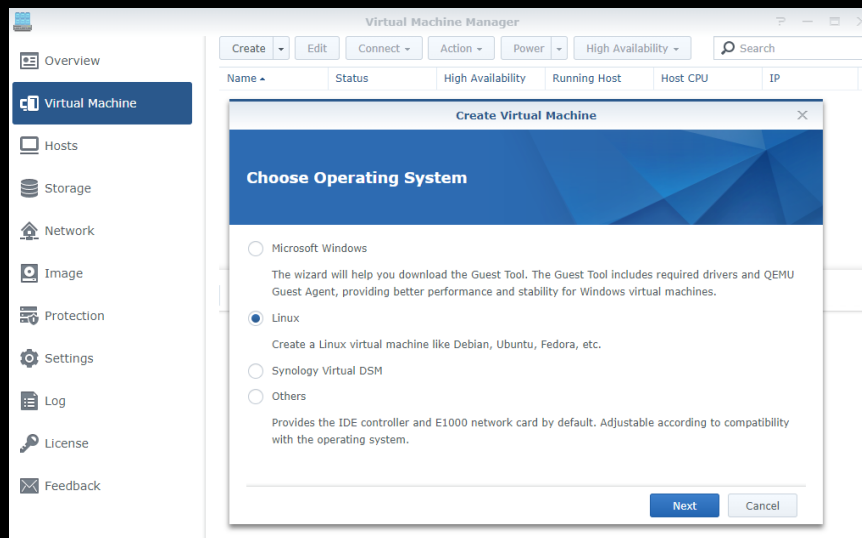
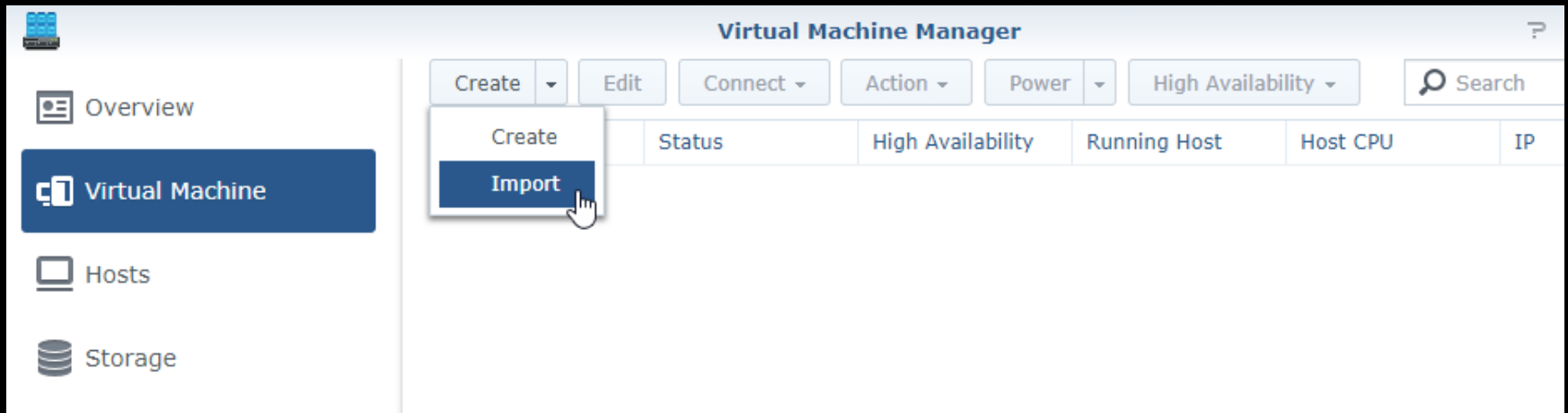


DS1618+

6 bays

Live
Demonstration

Methods to add CHR:



Creating CHR

Import a virtual machine

Select Storage

Select the storage where the virtual machine will be stored.

List All Storage

Host	Name	Status	Available stor...	RAID Type	Note
diskstation	diskstation - ...	Healthy	1.46 TB	Basic (Witho...	

Back

Import a virtual machine

Configure General Specifications

Specify the number of CPU cores, memory, display card and storage location for your virtual machine instance.

Name: MikroTik_RouterOS_CHR

CPU(s): 1

Memory: 128 MB

Video Card: vmvga

Description: (optional)

Next Cancel

Import a virtual machine

Storage

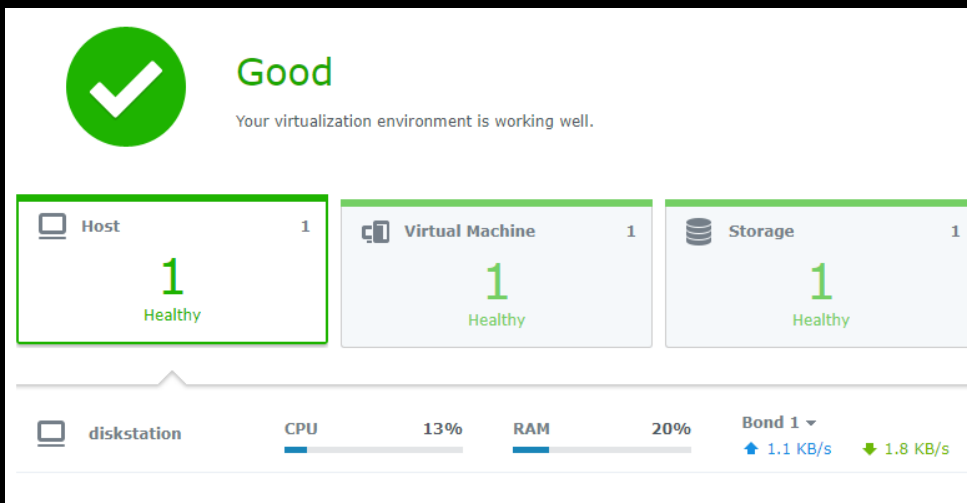
Specify the system image or ISO files, and the virtual disk configuration for your virtual machine.

ISO file for bootup: Unmounted

Additional ISO file: Unmounted

Virtual Disk: 10 GB

Completion



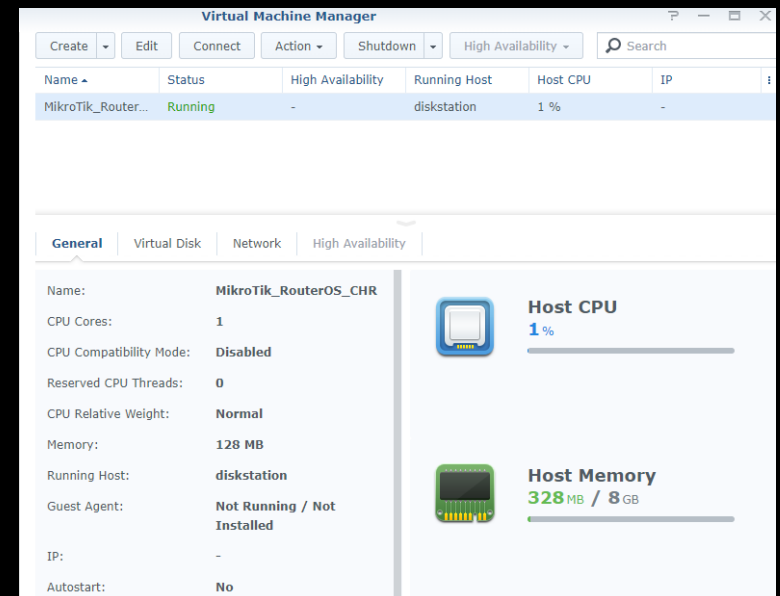
Good
Your virtualization environment is working well.

Host 1
1
Healthy

Virtual Machine 1
1
Healthy

Storage 1
1
Healthy

diskstation CPU 13% RAM 20% Bond 1
1.1 KB/s 1.8 KB/s



Virtual Machine Manager

Create Edit Connect Action Shutdown High Availability Search

Name	Status	High Availability	Running Host	Host CPU	IP
MikroTik_Router...	Running	-	diskstation	1 %	-

General Virtual Disk Network High Availability

Name: MikroTik_RouterOS_CHR

CPU Cores: 1

CPU Compatibility Mode: Disabled

Reserved CPU Threads: 0

CPU Relative Weight: Normal

Memory: 128 MB

Running Host: diskstation

Guest Agent: Not Running / Not Installed

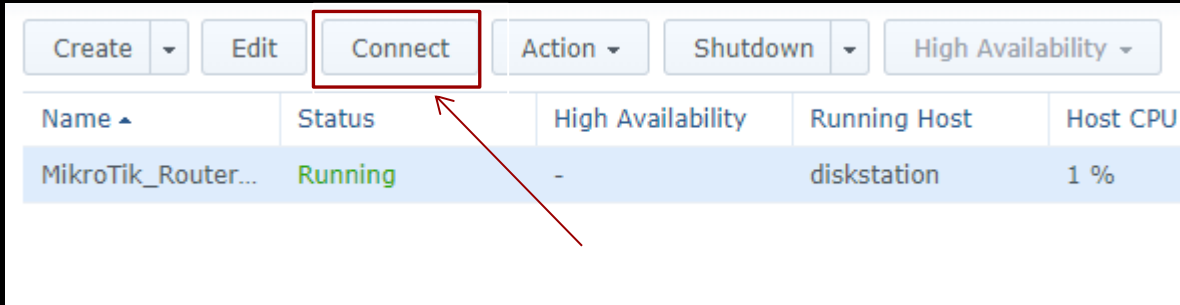
IP: -

Autostart: No

Host CPU
1%

Host Memory
328 MB / 8 GB

Connection



The screenshot shows the Mikrotik WinBox interface. At the top, there are several buttons: 'Create', 'Edit', 'Connect', 'Action', 'Shutdown', and 'High Availability'. The 'Connect' button is highlighted with a red box, and a red arrow points to it from the table below. The table has five columns: 'Name', 'Status', 'High Availability', 'Running Host', and 'Host CPU'. The first row of the table is highlighted in blue and contains the following data: 'MikroTik_Router...', 'Running', '-', 'diskstation', and '1 %'.

Name ▾	Status	High Availability	Running Host	Host CPU
MikroTik_Router...	Running	-	diskstation	1 %

```
MikroTik 6.43.8 (stable)
```

```
MikroTik Login:
```

```
[admin@MikroTik] > system
```

```
[admin@MikroTik] /system> license print
```

```
system-id: oHFMfJ1PZVA
```

```
level: free
```

```
[admin@MikroTik] /system>> _
```

```
[admin@MikroTik] > system
[admin@MikroTik] /system> resourc print
      uptime: 5m50s
      version: 6.43.8 (stable)
      build-time: Dec/21/2018 07:10:42
      free-memory: 77.8MiB
      total-memory: 96.0MiB
      cpu: Intel(R)
      cpu-count: 1
      cpu-frequency: 2394MHz
      cpu-load: 0%
      free-hdd-space: 9.9GiB
      total-hdd-space: 9.9GiB
      write-sect-since-reboot: 126264
      write-sect-total: 126265
      architecture-name: x86_64
      board-name: CHR
      platform: MikroTik
```

Usage

- Router with NAS storage and application functions
 - NAS functions:
 - Mail/video/storage/HA
- NAS with multiple routers setup via VM
- For conducting MikroTik Training lessons

Q & A

Thank you