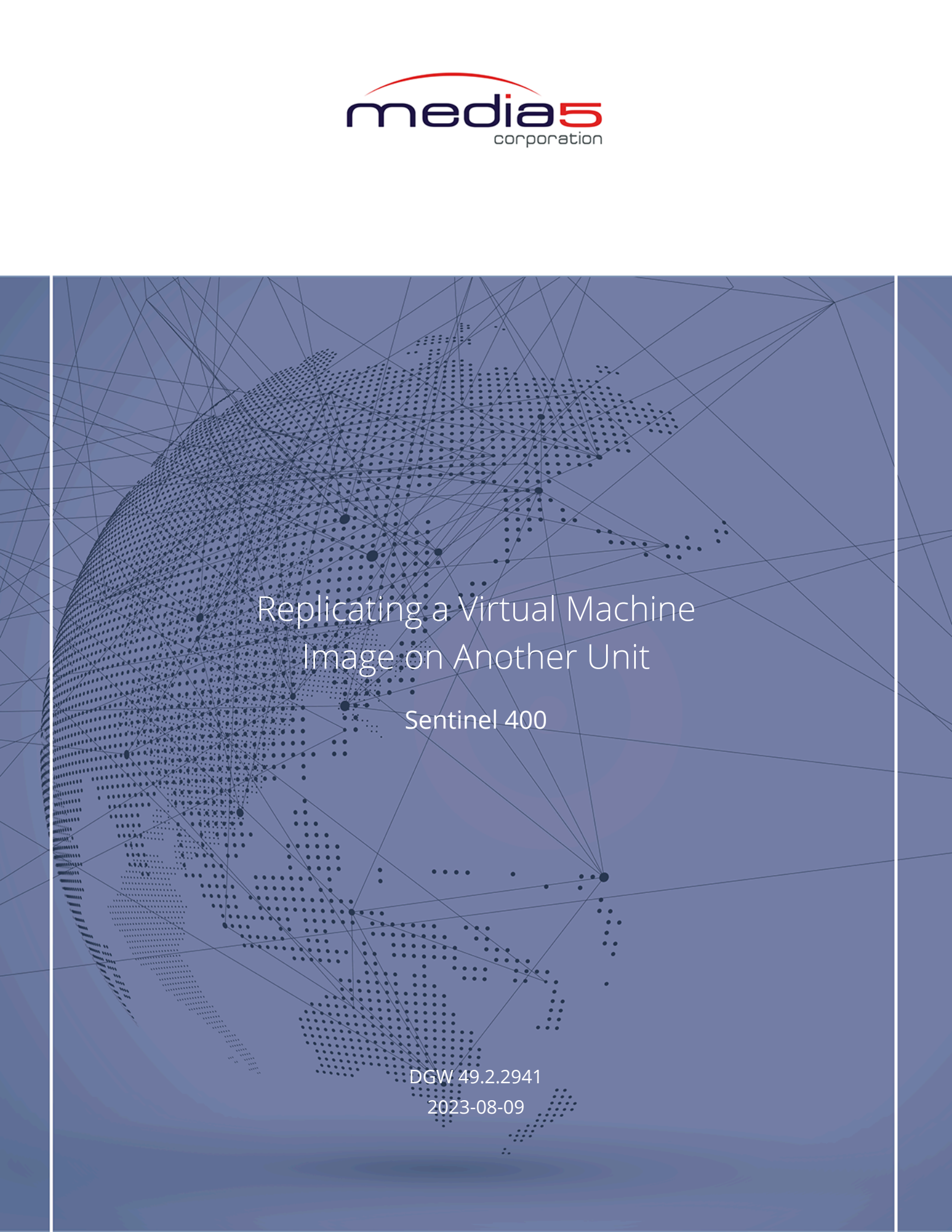


The background of the slide is a dark blue field filled with a complex network of thin, light blue lines connecting numerous small black dots. These dots are arranged in a way that suggests a globe or a large-scale data network, with some areas being more densely populated than others.

Replicating a Virtual Machine Image on Another Unit

Sentinel 400

DGW 49.2.2941

2023-08-09

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Exporting the Virtual Machine Image

Stopping the Virtual Machine

Steps

- 1) Go to **System/VM**.
- 2) In the **Virtual Machine Configuration** table, click  located on the same row as the **VM** you wish to stop.

Result

The virtual machine stops. In the **Virtual Machine Status** table, **Stopped** will be displayed under the **State** column.

Next Step

[Taking a Record of the Virtual Machine](#) (p.3)

Taking a Record of the Virtual Machine

Steps

- 1) Go to **System /VM**.
- 2) Take a screen shot of the **Virtual Machines** page.
- 3) Save the screen shot.
- 4) Go to **Network/Interfaces**
- 5) Take a screen shot of the **Ethernet Link Configuration** table.
- 6) Save the screen shot.

Result

You will need the information on RAM size, VM name, storage size, USB, number of CPU, and Ethernet link during the [Importing a Virtual Machine Image to the Unit File Management System](#) (p.6) and [Configuring a Link as a Virtual Switch](#) (p.7) steps when importing the Virtual Machine image

into a new unit. Furthermore, if anything goes wrong, you will have the configuration details to fall back to.

Next Step

[Taking a Backup of the Virtual Machine Image \(p.4\)](#)

Taking a Backup of the Virtual Machine Image

Steps

- 1) Go to **Management/File**.
- 2) In the **Internal files** table, click the file link located next to **Disk Image of the Virtual Machine**.

Result

The image file of the VM will be downloaded to your server.

Internal files			
Name	Description	Size	
conf/Gateway_Configuration.cfg	Configures the Sentinel with Gateway-style default settings.	10 KB	—
conf/PRI_China-DSS1.cfg	China DSS1	3 KB	—
conf/PRI_Default.cfg	PRI default configuration	3 KB	—
conf/PRI_NorthAmerica-NI1.cfg	North America NI1	3 KB	—
conf/PRI_NorthAmerica-NI2.cfg	North America NI2	3 KB	—
vm/images/virtual_machine.cfg	Virtual Machine Configuration	1 KB	
vm/images/virtual_machine.img	Disk Image of Virtual Machine	6.6 GB	
7 file(s)		Total: 6.6 GB / Max: 27 GB	

Importing a Virtual Machine Image to a Unit

Information to know before Importing the Virtual Machine Image

- Make sure you have a VM License on the new unit.
- Make sure the new unit has enough RAM and storage capacity to accommodate the Virtual Machine. Refer to the screen shots taken earlier. This information will be required at the [Adding a Virtual Machine](#) (p.5) step.
- Refer to the screen shots taken earlier to know which links are enabled as Virtual Switches. This information will be required at the [Configuring a Link as a Virtual Switch](#) (p.7) step.

Adding a Virtual Machine

Before you start

The **VirtualSwitch** parameter must be configured to enable the link you wish to use to contact the virtual machine. Refer to [Configuring a Link as a Virtual Switch](#) (p.7) .
You must have a virtual machine licence and the VM service must be started.



Caution: It is a best practice to create the Virtual Machine in a test environment. If not enough memory is allocated and swap is disabled, the Virtual Machine will stop, and the installation will need to be restarted from the beginning.

Steps

- 1) Go to **System/VM**.
- 2) In the **Virtual Machine Creation** table, complete the **Vm Name** field.

Note: Vm names must be unique.

- 3) In the **Ram(Mb)** field, enter the amount of RAM required to run the virtual machine.



Caution: To reduce the wear-and-tear of the Solid State Drive, make sure to allocate the maximum amount of RAM possible to the virtual machine.

Note: For instance, 87.5% of the actual available RAM, or 1.5 Gb for units with 2 Gb of RAM, 3.5 Gb with 4 Gb of RAM and for 7 Gb with 8 Gb of RAM.

- 4) Complete the **Storage(Gb)** field.

Note: 10 Gb is the maximum value one can allocate in a typical Sentinel equipped with a 16 Gb Solid State Drive.

- 5) From the **Image Format** selection list, choose the format of the image.

Note:

- Use QCOW2 for space efficiency and flexibility.
- Use RAW for improved performance

- 6) From the **Nb Cores** selection list, select the number of cores the virtual machine will be using.

IMPORTANT: It is not possible to modify the settings (RAM, name, etc.) once the virtual machine has been created. The only way to change the settings, is to delete the virtual machine and to create it once again.

- 7) Click **+**.

Note: A maximum of 2 virtual machines can be added.

Result

The virtual machine will be displayed in both the **Virtual Machine Configuration** and the **Virtual Machine Status** tables.

Virtual Machine Creation					
Vm Name	Ram (Mb)	Storage (Gb)	Image Format	Nb Cores	
unique_Vm_Name	xxx(Mb)	Storage(Gb)	raw	1	+

Next Step

Importing a Virtual Machine Image to the Unit File Management System (p.6)

Importing a Virtual Machine Image to the Unit File Management System

Steps

- 1) Go to **Management/File**.
- 2) If you are not using HTTPS, click **Activate unsecure file importation from the Web browser** located at the top of the page.
- 3) In the **Import File Through Web Browser** table, from the **Path** selection list, select **vm/images/**.
- 4) Browse to the location of the file containing the virtual machine image to install on the unit.

- 5) Click **Import**.

Note: A factory reset will not remove the vm files from the **Internal file**stable.

Result

The imported image file will appear in the **Internal files** table, under **Management/File**.

Next Step

[Configuring a Link as a Virtual Switch](#) (p.7)

Configuring a Link as a Virtual Switch

Steps

- 1) Go to **Network/Interfaces**.
- 2) In the **Ethernet Link Configuration** table, from the **Virtual Switch** selection list, select **Enable** located on the same row as the link you wish to enable for the virtual switch.
- 3) Click **Apply**.

Result

Ethernet Link Configuration						
Link	MTU	802.1x Authentication	EAP Username	EAP Certificate Validation	Virtual Switch	
eth1	1500	Disable		Trusted And Valid	Enable	
eth2-5	1500	Disable		Trusted And Valid	Disable	

Next Step

[Setting the Virtual Machine to Automatic Start](#) (p.7)

Setting the Virtual Machine to Automatic Start

Information

If the virtual machine you wish to start requires resources equivalent to the available resources on the unit, then it will not be possible to start another virtual machine. It is only possible to start a virtual if there are enough resources on the unit.

Steps

- 1) Go to **System/VM**.
- 2) In the **Virtual Machine Configuration** table, from the **Startup** dropdown list, select **Auto**.
- 3) Click **Apply**.

Result

When the Vm Service is started, the virtual machine will also be started.

Virtual Machine Configuration								
Vm Name	Iso Name	MAC Address	Vnc Id	Usb	Network Adapter	Startup	Actions	
VirtualMachine_1		12:d8:38:0a:9e:8d	0	None v	e1000 v	Auto v	▶ ■ ▶ ⏸ ⏹	

Online Help

If you are not familiar with the meaning of the fields and buttons, click **Show Help**, located at the upper right corner of the Web page. When activated, the fields and buttons that offer online help will change to green and if you hover over them, the description will be displayed.

DGW Documentation

Mediatrix devices are supplied with an exhaustive set of documentation.

Mediatrix user documentation is available on the [Media5 Documentation Portal](#).

Several types of documents were created to clearly present the information you are looking for. Our documentation includes:

- **Release notes:** Generated at each GA release, this document includes the known and solved issues of the software. It also outlines the changes and the new features the release includes.
- **Configuration notes:** These documents are created to facilitate the configuration of a specific use case. They address a configuration aspect we consider that most users will need to perform. However, in some cases, a configuration note is created after receiving a question from a customer. They provide standard step-by-step procedures detailing the values of the parameters to use. They provide a means of validation and present some conceptual information. The configuration notes are specifically created to guide the user through an aspect of the configuration.
- **Technical bulletins:** These documents are created to facilitate the configuration of a specific technical action, such as performing a firmware upgrade.
- **Hardware installation guide:** They provide the detailed procedure on how to safely and adequately install the unit. It provides information on card installation, cable connections, and how to access for the first time the Management interface.
- **User guide:** The user guide explains how to customise to your needs the configuration of the unit. Although this document is task oriented, it provides conceptual information to help the user understand the purpose and impact of each task. The User Guide will provide information such as where and how TR-069 can be configured in the Management Interface, how to set firewalls, or how to use the CLI to configure parameters that are not available in the Management Interface.
- **Reference guide:** This exhaustive document has been created for advanced users. It includes a description of all the parameters used by all the services of the Mediatrix units. You will find, for example, scripts to configure a specific parameter, notification messages sent by a service, or an action description used to create Rulesets. This document includes reference information such as a dictionary, and it does not include any step-by-step procedures.

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