

managing the topology

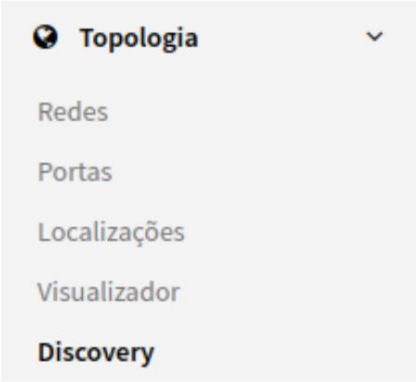
Meican provides some topology management tools. You can manage manually through forms or use the various synchronization options, which include manual and automatic solutions.

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Discovery

It is possible to register instances that provide topology data. Synchronization with these instances can occur automatically or manually.

In the system menu on the left, click **Discovery** under the **Topology** tab .




On the page there is a table listing the sync instances. This table displays the **Name**, the **Type**, whether it has an active **Recurrence** , whether it is set to **Receive Notifications**, whether it is set to Auto- **Apply Changes** , and when the **Last Sync** occurred .

Discovery [Home > Topology > Discovery](#)

Rules



Add

Delete


	Nome	Apply method	Scheduled	
<input type="checkbox"/>	 Topologia	Automatic	No	Start Discovery

Exibindo 1-1 de 1 item.

Last tasks

Started at	Rule	Status	Discovered changes
08/01/2021 09:42	Topologia	SUCCESS	 104
23/12/2020 21:14	Topologia	SUCCESS	 1748

Exibindo 1-2 de 2 itens.

- In addition, there are several management icons:
 - ☐ Selection: Selects the instances to remove.
 -  Edit: Allows you to edit the instance.
 - [Start Discovery](#) Start Discovery: Performs a synchronization with the instance.

Add Sync Instance

- To add a new synchronization instance, on the **Synchronizer page**, click the **Add instance** button located at the top of the table.
- The **Add Instance** page will be displayed.

Add Rule

Home > Topology > Discovery > Rule

Details

Name

Topology type

NSI Topology 2.0

Apply method

Manually

Protocol

HTTP

URL

Save

Schedule

OFF

Every

day

at


12

(hh:mm)

00

- Fill in the **Name** field.
- Select the **Topology Type**.
- Select whether the **AutoApply Changes** function should be active. It automatically applies topology changes when a synchronization is performed.
- On the right of the page, select whether to use **Recurrence** . It automatically performs syncs. If you enable it, configure the frequency at which updates will be made.
- Finally, to add the instance click on the **Save** button at the bottom of the page.
- A message will appear on the screen informing you that the operation was successful.

Edit Sync Instance

- To edit a synchronization instance, on the **Synchronizer page**, click the **Edit** page is similar  next to the desired instance.
- to the addition page.
- Change the instance.
- To save the changes made, click **Save**.
- A message will appear on the screen informing you that the operation was successful.

Remove Sync Instance

- To remove one or more sync instances, on the **Synchronizer page**, select the instances you want to remove and click the **Remove button**. This button is visible next to the **Add Instances** button while instances are selected.


Rules

Add

Delete

Nome

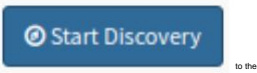
☒




RNP Agg Cipó

- Confirm the deletion of the selected instance(s) in the dialog box that will appear.
- After confirmation, a message will appear indicating the success of the operation.

manually sync



- To manually sync with a sync instance, on the **Sync page**, click the button next to the desired instance.
- Synchronization will be performed. And the discovery will appear in the list of **Last tasks**, along with the number of changes that have been provided. To preview the changes, click on the icon  .

Manually manage through forms

Meican allows the topology to be managed manually through forms.

Domains

In the system menu on the left, click **Domains** under the **Topologies** tab .














After clicking on **Domains** , you will be redirected to a screen where the domains that make up the topology known by Meican are listed.

Domains

Home > Topology > Domains

AddDelete

	Name	Default Policy
<input type="checkbox"/>	 1-ams-nl.gcs.geant.net	Accept All
<input type="checkbox"/>	 1-fra-de.gcs.geant.net	Accept All
<input type="checkbox"/>	 1-ham-de.gcs.geant.net	Accept All
<input type="checkbox"/>	 1-lon-uk.gcs.geant.net	Accept All
<input type="checkbox"/>	 1-pra-cz.gcs.geant.net	Accept All
<input type="checkbox"/>	 al2s.net.internet2.edu	Accept All
<input type="checkbox"/>	 ampath.net	Accept All
<input type="checkbox"/>	 calit2.optiputer.net	Accept All
<input type="checkbox"/>	 canarie.ca	Accept All
<input type="checkbox"/>	 cipo.rnp.br	Accept All
<input type="checkbox"/>	 cnsi.cesnet.cz	Accept All

add domain

- To add a **domain**, click the **Add** button on the **Domains** screen .

Add Domain

Name

Default Policy

Accept All


Color

Select color ...

Save

- Fill in the Domain **Name** . This information is for viewing only and is mandatory.
- Select **Default Policy**. This policy is used when there is no active authorization for the domain.
- Click the **Save** button to add the domain with the information provided.
- A message should appear on the **Flash box** confirming the success of the domain creation operation.

edit domain

- To edit a domain, on the **Domains page**, click the **Edit** page is  next to the desired domain.
- similar to the addition page.
- Change the domain.
- To save the changes made, click **Save**.
- A message will appear on the screen informing you that the operation was successful.

remove domain

- To remove one or more domains, on the **Domains page**, select the domains you want to remove and click the **Remove button**. This button is visible next to the **Add** button as long as domains are selected.

Add

Delete

Name

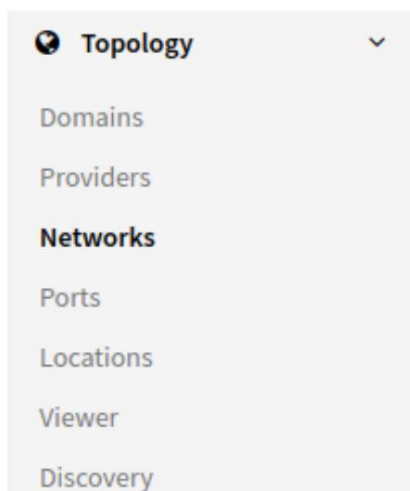
1-ams-nl.gcs.geant.net

1-fra-de.gcs.geant.net









- Confirm the deletion of the selected domain(s) in the dialog box that will appear.
- After confirmation, a message will appear indicating the success of the operation.

networks

In the system menu on the left, click **Networks** under the **Topologies** tab .



After clicking on **Networks** you will be redirected to a screen where the networks that make up the topology known by Meican are listed.

Redes <small>Home » Topologia » Networks</small>				
<div>Add Delete</div>				
Nome	Domínio	Latitude	Longitude	
<div>qualquer</div>				
<input type="checkbox"/>  ham.ccs.nsi.geant.net:2017:topology	ham.ccs.nsi.geant.net	53.5587	9.64764	
<input type="checkbox"/>  1-mil2-it.gcs.geant.net:2019:topology	1-mil2-it.gcs.geant.net	(não definido)	(não definido)	
<input type="checkbox"/>  jgn-x.jp	jgn-x.jp	(não definido)	(não definido)	
<input type="checkbox"/>  prg.ccs.nsi.geant.net:2017:topology	prg.ccs.nsi.geant.net	50.0598	14.3255	
<input type="checkbox"/>  openflow.netherlight.net:2016	openflow.netherlight.net	52.3567	4.95459	
<input type="checkbox"/>  lon.ccs.nsi.geant.net:2017:topology	lon.ccs.nsi.geant.net	51.5287	-0.381783	
<input type="checkbox"/>  aist.go.jp	aist.go.jp	(não definido)	(não definido)	
<input type="checkbox"/>  sinet.ac.jp	sinet.ac.jp	(não definido)	(não definido)	

add network

- To add a **network**, click the **Add** button on the **Networks** screen .

Adicionar Rede


URN	<input type="text"/>
Domínio	<input type="text" value="1-ams-nl.gcs.geant.net"/>
Nome	<input type="text"/>
Latitude	<input type="text"/>
Longitude	<input type="text"/>

Salvar

- Fill in the network **Urn** .
- Select which **domain** the network belongs to.

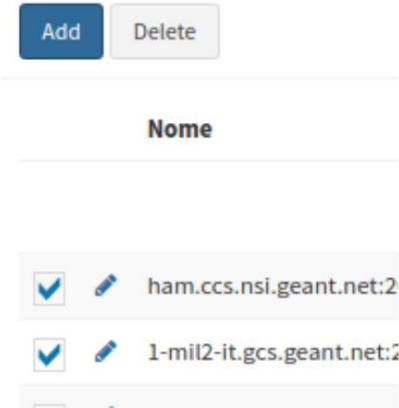
- Fill in the Domain **Name** .
- Enter **Latitude**. This information is used when displaying the topology on the map.
- Enter the **Longitude**. This information is used when displaying the topology on the map.
- Click the **Save** button to add the network with the information provided.
- A message should appear on the **Flash box** confirming the success of the operation.

edit network

- To edit a network, on the **Networks page**, click the **Edit** page is  next to the desired network.
- similar to the addition page.
- Change the network.
- To cancel editing, click the **Cancel button**.
- To save the changes made, click **Save**.
- A message will appear on the screen informing you that the operation was successful.

remove network

- To remove one or more networks, on the **Networks page**, select the networks you want to remove and click the **Remove button**. This button is visible next to the **Add** button while networks are selected.



- Confirm the deletion of the selected network(s) in the dialog box that appears.
- After confirmation, a message will appear indicating the success of the operation.

locations












In the system menu on the left, click **Locations** under the **Topologies** tab .



After clicking on **Locations** , you will be redirected to a screen where the locations that make up the topology known by Meican are listed.

Localizações [Home](#) > [Topologia](#) > [Locations](#)

AddDelete

	Nome	Latitude	Longitude	Domínio
				<div>qualquer</div>
<input type="checkbox"/>	 ALBQ-HUB	35.0849	-106.647	es.net
<input type="checkbox"/>	 AMST-HUB	52.3567	4.9525	es.net
<input type="checkbox"/>	 AOFA-HUB	40.72	-74.0046	es.net
<input type="checkbox"/>	 ATLA-HUB	33.7586	-84.388	es.net
<input type="checkbox"/>	 CHIC-HUB	41.8976	-87.6434	es.net
<input type="checkbox"/>	 DENV-HUB	39.7312	-104.983	es.net
<input type="checkbox"/>	 FNAL-Campus	41.8384	-88.3531	es.net
<input type="checkbox"/>	 LBNL-Campus	37.876	-122.25	es.net
<input type="checkbox"/>	 MXAC	-9.98633	-67.8311	cipo.mp.br
<input type="checkbox"/>	 MXAL	-9.59344	-35.6867	cipo.mp.br
<input type="checkbox"/>	 MYAM	-2.0887	-50.9648	cipo.mp.br

Adding a location

- To add a location, click the **Add** button on the Locations screen .

Adicionar Localização

Nome

Latitude

Longitude


Domínio

1-ams-nl.gcs.geant.net

Salvar

- Fill in the Location **Name** .
- Enter **Latitude**. This information is used when displaying the topology on the map.
- Enter the **Longitude**. This information is used when displaying the topology on the map.
- Select which **domain** the device belongs to.
- Click the **Save** button to add the device with the information provided.
- A message should appear on confirming the success of the operation.

Editing a location

- To edit a device, on the **Locations page**, click the **Edit** page is similar to  next to the desired device.
- the addition page.
- Change the location.
- To save the changes made, click **Save**.
- A message will appear on the **Flash box** stating that the operation was successful.

Removing a location

- To remove one or more devices, on the **Locations page**, select the networks you want to remove and click the **Remove button**. This button is visible next to the **Add** button while devices are selected.

Localizações

Home > Topologia > Locations

AddDelete

Nome

☒

ALBQ-HUB

☒

AMST-HUB

- Confirm the deletion of the selected device(s) in the dialog box that will appear.
- After confirmation, a message will appear indicating the success of the operation.

Flash box

doors

In the system menu on the left, click on **Ports** under the **Topologies** tab .

Topology

Domains

Providers

Networks

Ports

Locations

Viewer

Discovery

After clicking on **Ports** , you will be redirected to a screen where the ports that make up the topology known by Meican are listed. These ports are divided by domain. Click on icons and next to domain names to show and hide their ports, respectively.

Ports

Home > Topology > Ports

Domain - 1-ams-nl.gcs.geant.net

AddDelete

		Network	Location	Name	VLANs	Max Capacity (Mbps)	Min Capacity (Mbps)	Granularity (Mbps)
<input type="checkbox"/>		1-ams-nl.gcs.geant.net:2019:topology	(not set)	1-fra-de.gcs.geant.net	1-4000	(not set)	(not set)	(not set)
<input type="checkbox"/>		1-ams-nl.gcs.geant.net:2019:topology	(not set)	1-ham-de.gcs.geant.net	1-4000	(not set)	(not set)	(not set)
<input type="checkbox"/>		1-ams-	(not set)	1-lon-uk.gcs.geant.net	1-4000	(not set)	(not set)	(not set)

add port

- To add a **port**, click the **Add** button above the domain ports table on the **Ports** page.

Add Port ✕

URN

Network

1-ams-nl.gcs.geant.net:2019:topology ▾

Name

VLANs

Capacity (Mbps)

Max Reservable Capacity (Mbps)

Min Reservable Capacity (Mbps)

Granularity (Mbps)

Location

▾




Cancel

Save

- Inform the **URN**.
- Select which **network** the port belongs to.
- Select which **device** the port belongs to.
- Enter a **Name** for the port.
- Enter the **Vlans** or Vlan range.
- Enter the Port **Capacity** , in Mbps.
- Enter the **Maximum** Port Reservation Capacity, in Mbps.
- Enter the Port's **Minimum Reservation Capacity** , in Mbps.
- Enter the **Granularity**, in Mbps.
- Enter the Port **Location** .
- If you want to cancel the port addition, click the **Cancel** button.
- To save, click the **Save** button.

edit port

- To edit a port, click the button  next to the desired door.

		Network	Location	Name
<input type="checkbox"/>		1-ams-nl.gcs.geant.net:2019:topology	(not set)	1-fra-de.gcs.
<input type="checkbox"/>		1-ams-nl.gcs.geant.net:2019:topology	(not set)	1-ham-de.gc
<input type="checkbox"/>		1-ams-nl.gcs.geant.net:2019:topology	(not set)	1-lon-uk.gcs

- A form similar to the Creation one will appear.
- When edits are complete, click **Save**.

removing a port

- To remove one or more ports, on the **Ports page**, select the ports you want to remove and click the **Remove** button at the top of the page.
- Confirm the deletion of the selected port(s) in the dialog box that will appear.
- After confirmation, a message will appear on the **Flash box** indicating the success of the operation.

viewer

The **Topology Viewer** is a dynamic way to view the DCN network topology known to the application.

It shows geographically located devices or networks on a map along with their respective links (lines). By clicking on a link it is possible to know the elements connected by it. We can, for example, find out which domains a hypothetical circuit must pass through to be provisioned.

Click **Viewer** under the **Topology** tab .



Furthermore, by clicking on the right side of the screen, you can choose to change the view to "Graph" mode, in which you can more visually check which domains are interconnected.