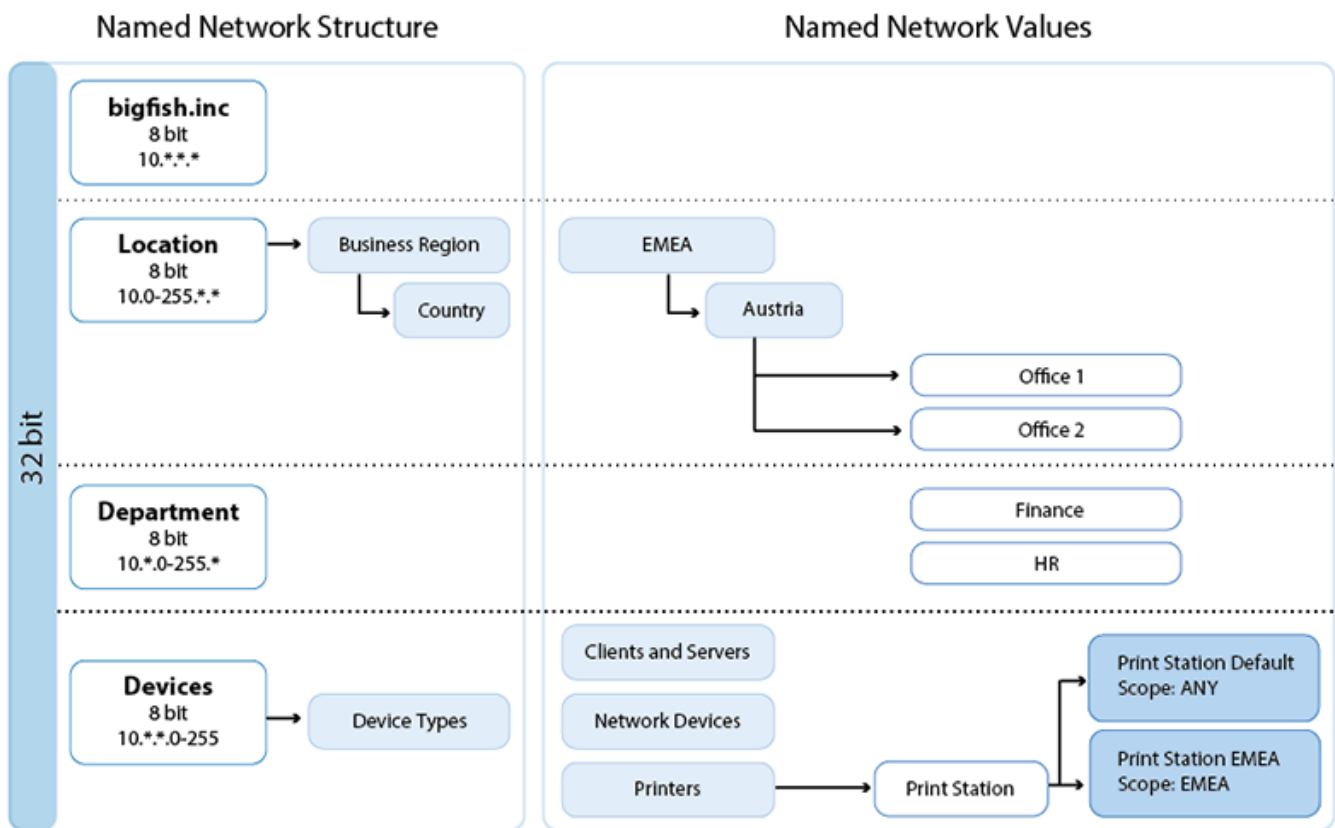


How to Configure Named Networks

<https://campus.barracuda.com/doc/73719300/>

To successfully create a Named Network object, you must carefully plan your Named Network structure because it cannot be edited after it has been created. Groups and values must then be added to the structure to properly represent your network. Values can represent single networks, multiple networks, sequential networks, or non-sequential networks. They can also be used as placeholders by creating empty containers.



Named Network Objects on the Firewall Control Center

Named Network objects can also be created in the **Global**, **Range**, and **Cluster Firewall Objects**. For cluster and range Named Network objects, the **Own Firewall Objects** must be enabled in the **Cluster** or **Range Properties**.

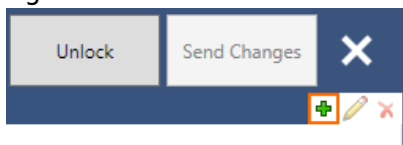
Before You Begin

- Verify that the feature level is 7.2. or above. For more information, see [How to Manage Ranges and Clusters](#).

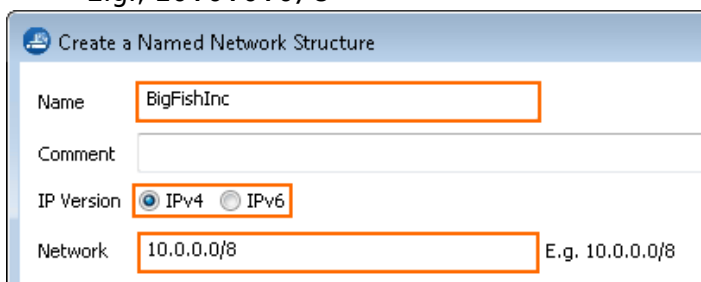
Step 1. Configure Named Network Structure

Enter the scope and value for the static bits. The scope always starts with the first bit of the 32-bit IPv4 address. E.g., 8 for 10.*.* or 16 for 192.168.*.* The Named Network structure cannot be changed after this window is closed.

1. Go to **CONFIGURATION > Configuration Tree > Box > your virtual server > Assigned Services > Firewall > Forwarding Rules**.
2. Click **Lock**.
3. In the left menu, click **Named Networks**.
4. Right-click in the main area and select **New Named Network Object**, or click + on the top right of the main area. The **Create Named Network** window opens.



5. Configure the root Named Network tree nodes to reserve the first X static bits:
 - **Name** - Enter the name for the Named Network.
 - **IP Version** - Select the IP version.
 - **Network** - Enter the network covered by this Named Network structure in CIDR format. E.g., 10.0.0.0/8



6. In the **Named Network Structure** table, click + to create a Named Network tree node. A new line section is added to the **Named Network Structure** table.

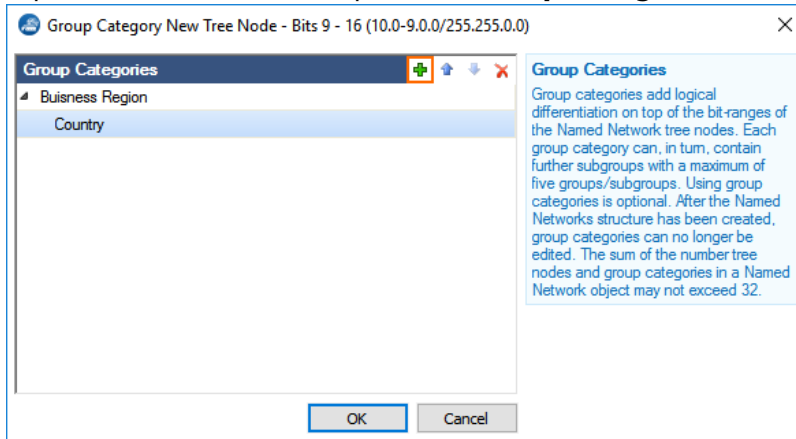


Group Catego...	Comment
XX	- N.A. -

7. Configure the Named Network tree node:
 - **Name** - Click the mouse-over edit button and enter the name for the Named Network tree node. Use category names, not values. E.g., "Location" not "EMEA".
 - **Bits** - Click the mouse-over edit button and enter the scope for this tree node.
8. (optional) Click the mouse-over edit button in the **Group Category** column. The **Group Category** window opens.

Name	Assigned ...	Value Mask	Bits	Assigned Bits	Group Categ...	Comment
BigFishInc (10...	8	10.0.0.0/255.0.0.0	1 - 8	XX . XX . XX . XX	- N.A. -	
New Tree Node	8	10.0-9.0.0/255.255.0.0	9 - 16	XX . XX . XX . XX		
16 unassigned bits	16					

9. (optional) Click + to add up to five **Group categories** and click **OK**.



10. Configure the next Named Network tree node until the full scope has been assigned.



- Verify that the number of tree nodes added to the number of group categories does not exceed 32.
- Double-check your Named Network structure. The structure cannot be changed after it is created.
- Click **Save**.
- Click **Send Changes** and **Activate**.

The Named Network structure is now displayed.

Named Networks Tree	Scope	Referen...	Description	Comment
BigFishInc	Used for Rule Evaluation only	0	10.*.* StaticBits=1-8	Barracuda Example Co
Location	Grouped Template: BusinessRegion/Cou...	0	DynBits=9-16	
Department	No Groups	0	DynBits=17-24	
Devices	Grouped Template: DeviceTypes	0	DynBits=25-32	

Step 2. Create Groups in Group Categories

Add groups to the group categories. Check the **Scope** column to see the group categories for a Named Network tree node.

- Go to **CONFIGURATION > Configuration Tree > Box > your virtual server > Assigned Services > Firewall > Forwarding Rules**.

2. Click **Lock**.
3. In the left menu, click **Named Networks**.
4. Right-click a Named Network tree node and select **Add new group_category_name to tree_node_name**. The **Create new Group** window opens.

Named Networks Tree	Scope	References	Description
BigFishInc		0 internal, 0 external	10.0.0.0/255.0.0.0 StaticBits=1-8
Location	Grouped Template: Region/Country/City	0 internal, 0 external	DynBits=9-16
Departments	No Groups		
Devices	Grouped Template: DeviceType		

5. Enter the name for the new group in this category.

Create new Group

Add new Region to Location

OK Cancel

6. Repeat for the other groups in this group category.

Named Networks Tree	Scope	References	Description
BigFishInc		0 internal, 0 external	10.0.0.0/255.0.0.0 StaticBits=1-8
Location	Grouped Template: Region/Country/City	0 internal, 0 external	DynBits=9-16
APAC	Region	0 internal, 0 external	APAC
EMEA	Region	0 internal, 0 external	EMEA
North America	Region	0 internal, 0 external	North America
Departments	No Groups	0 internal, 0 external	DynBits=17-24
Devices	Grouped Template: DeviceType	0 internal, 0 external	DynBits=25-32

7. If group subcategories exist, right-click a group and select **Add new group_subcategory to tree_node**.

Named Networks Tree	Scope	References	Description
BigFishInc		0 internal, 0 external	10.0.0.0/255.0.0.0 StaticBits=1-8
Location	Grouped Template: Region/Country/City	0 internal, 0 external	DynBits=9-16
APAC	Region	0 internal, 0 external	APAC
EMEA	Region	0 internal, 0 external	EMEA
North America	Region	0 internal, 0 external	North America
Departments	No Groups	0 internal, 0 external	DynBits=17-24
Devices	Grouped Template: DeviceType	0 internal, 0 external	DynBits=25-32

8. Enter the name for the group in the group sub-category.

Create new Group

Add new Country to EMEA

OK Cancel

9. Click **OK**.
10. Repeat for all subcategories and add groups to each group subcategory.

BigFishInc		0 internal, 0 external	10.0.0.0/255.0.0.0 StaticBits=1-8
Location	Grouped Template: Region/Country/City	0 internal, 0 external	DynBits=9-16
APAC	Region	0 internal, 0 external	APAC
EMEA	Region	0 internal, 0 external	EMEA
Austria	Country	0 internal, 0 external	Austria
Innsbruck	City	0 internal, 0 external	Innsbruck
Vienna	City	0 internal, 0 external	Vienna
Germany	Country	0 internal, 0 external	Germany
Frankfurt	City	0 internal, 0 external	Frankfurt
Munich	City	0 internal, 0 external	Munich
North America	Region	0 internal, 0 external	North America
Departments	No Groups	0 internal, 0 external	DynBits=17-24
Devices	Grouped Template: DeviceType	0 internal, 0 external	DynBits=25-32

11. Repeat for all Named Network tree nodes with group categories.

12. Click **Send Changes** and **Activate**.

The Named Network structure and all groups and subgroups are now filled in.

Named Networks Tree	Scope	Referen...	Description
BigFishInc	Used for Rule Evaluation only	0	10.*.*.* StaticBits=1-8
Location	Grouped Template: BuisnessRegion/Country/City	0	DynBits=9-16
APAC	BuisnessRegion	0	APAC
EMEA	BuisnessRegion	0	EMEA
NorthAmerica	BuisnessRegion	0	NorthAmerica
Department	No Groups	0	DynBits=17-24
Devices	Grouped Template: Device Types	0	DynBits=25-32
Clients and Servers	Device Types	0	Clients and Servers
NetworkDevices	Device Types	0	NetworkDevices
Printers	Device Types	0	Printers

Step 3. Add Values to Named Network Structure

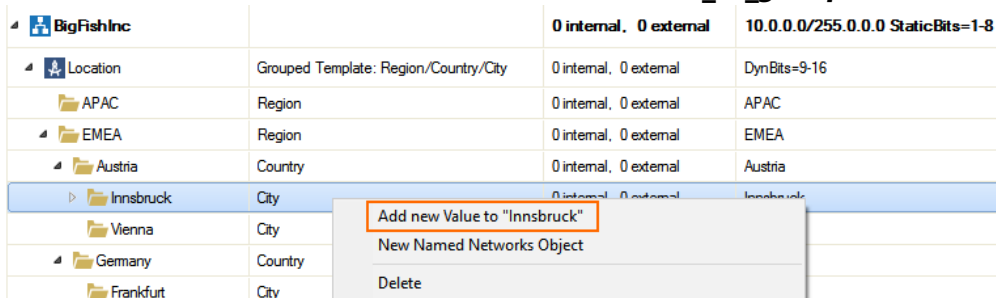
Named Network values can be used in varying ways:

- Named Network value for one or multiple sequential networks
- Named Network value containers for multiple non-sequential networks
- Named Network value containers with sub-values in different scopes

Named Network Value for One or Multiple Sequential Networks

Network values are added either to the Named Network tree node, or, if groups are configured, to the lowest group in the Named Network tree structure.

1. Go to **CONFIGURATION > Configuration Tree > Box > your virtual server > Assigned Services > Firewall > Forwarding Rules.**
2. Click **Lock.**
3. In the left menu, click **Named Networks.**
4. Right-click a Named Network tree node or Named Network group, whichever is the lowest in the tree structure, and select **Add new Value to name_of_group.**



5. Configure the Named Network value:
 - o **Value** - Select the value from the drop-down list. Only values matching the scope of the Named Network tree node are displayed.
 - o **Number of Addresses** - Enter the number of addresses to include in this network. Enter 1 if one network is assigned

Create Named Networks Value ✕

Name

Comment

Group EMEA Austria Innsbruck

Value Container

Value 10 10

Number of Addresses

Scope <ANY> Set Scope from Filter

Add Add and Close

6. Click **Add and Close.**
7. Click **Send Changes** and **Activate.**

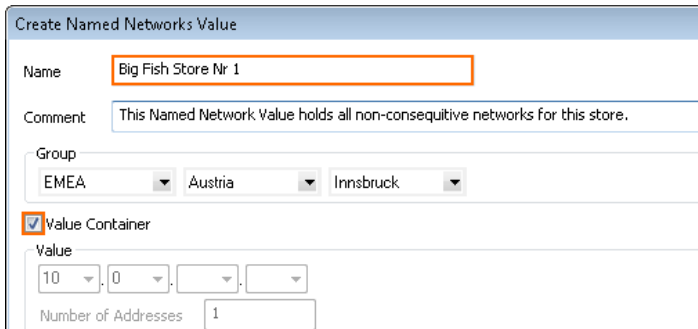
The value is now listed in the Named Network structure.

Named Networks Tree	Scope	References	Description
BigFishInc		0 internal, 0 external	10.0.0.0/255.0.0.0 StaticBits=1-8
Location	Grouped Template: Region/Country/City	0 internal, 0 external	DynBits=9-16
APAC	Region	0 internal, 0 external	APAC
EMEA	Region	0 internal, 0 external	EMEA
Austria	Country	0 internal, 0 external	Austria
Innsbruck	City	0 internal, 0 external	Innsbruck
# Small Fish Store Nr 1		0 internal, 0 external	10.10-12.0.0/255.255.0.0 offset=10 num=3
Vienna	City	0 internal, 0 external	Vienna

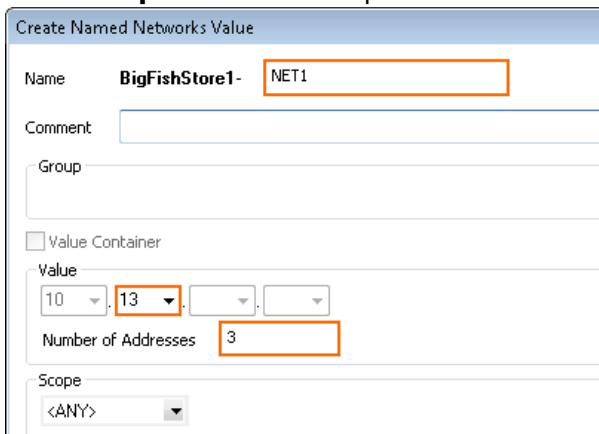
Named Network Value Containers for Multiple Non-Sequential Networks

Value containers form a group for multiple Named Network values with different scopes or multiple non-sequential networks. For example, one store location uses 10.13-16.*.* and 10.45-47.*.* as network. Since the networks are not sequential, two sub-values are needed to describe the Named Network value for this store.

1. Go to **CONFIGURATION > Configuration Tree > Box > your virtual server > Assigned Services > Firewall > Forwarding Rules**.
2. Click **Lock**.
3. In the left menu, click **Named Networks**.
4. Right-click a Named Network tree node or Named Network group, whichever is the lowest in the tree structure, and select **Add new Value to name_of_group**.
5. Enter a **Name**
6. Select the **Value Container** check box.



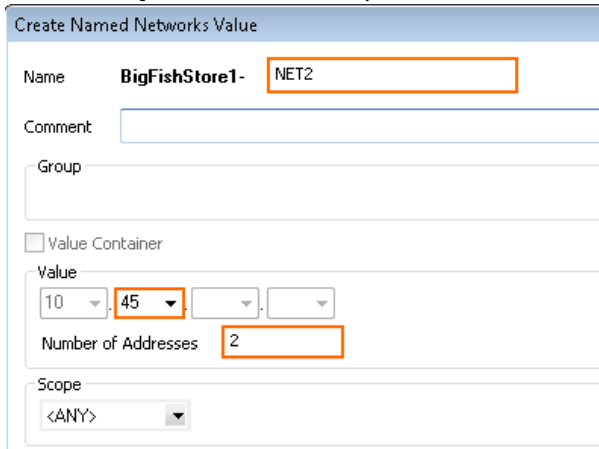
7. Click **Add and Close**.
8. Right-click the value container and select **Add Subvalue to name_of_value_container**.
9. Add additional sub-values to the tree node:
 - o **Value** – Select the value from the drop-down list. Values that are outside of the scope of the tree nodes are grayed out.
 - o **Number of Addresses** – Enter the number of addresses starting from the the selected value. Enter 1 to use only the selected value.
 - o **Scope** – Select a scope.



10. Click **Add**.
11. Configure the sub-value for the Named Network value container with scope of **Any**.
 - o **Value** – Select the value from the drop-down list. Values that are outside of the scope of

the tree nodes are grayed out.

- **Number of Addresses** – Enter the number of addresses starting from the the selected value. Enter 1 to use only the selected value.
- **Scope** – Select a scope.



12. Click **Add and Close**.

13. Click **Send Changes** and **Activate**.

The Named Network value with sub-values is now displayed in the Named Network tree.

Location	Grouped Template: Region/Country/City	0 internal, 0 e...	DynBits=9-16
APAC	Region	0 internal, 0 e...	APAC
EMEA	Region	0 internal, 0 e...	EMEA
Austria	Country	0 internal, 0 e...	Austria
Innsbruck	City	0 internal, 0 e...	Innsbruck
# BigFishStore1		0 internal, 0 e...	
# BigFishStore1-NET1		0 internal, 0 e...	10.13-15.0.0/255.255.0.0 offset=13 num=3
# BigFishStore1-NET2		0 internal, 0 e...	10.45-46.0.0/255.255.0.0 offset=45 num=2
# Small Fish Store Nr 1		0 internal, 0 e...	10.10-12.0.0/255.255.0.0 offset=10 num=3

Named Network Value Containers with Sub-Values in Different Scopes

In this example, a value container with two sub-values is created. One sub-value uses a more specific scope, the other a scope of ANY. Use, for example, to describe a setup in which the printer always uses the IP address *.*.*.100 except in one region where *.*.*.111 is used.

1. Go to **CONFIGURATION > Configuration Tree > Box > your virtual server > Assigned Services > Firewall > Forwarding Rules**.
2. Click **Lock**.
3. In the left menu, click **Named Networks**.
4. Right-click a Named Network tree node or Named Network group, whichever is the lowest in the tree structure, and select **Add new Value to name_of_group**.
5. Enter a **Name** and select the **Value Container** check box.

Create Named Networks Value

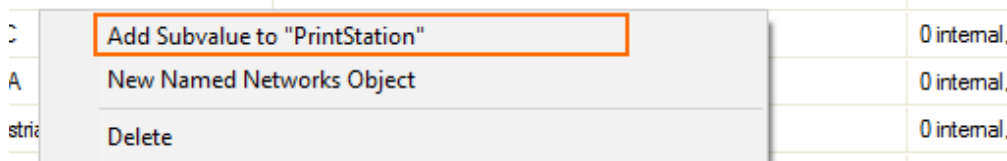
Name

Comment

Group

Value Container

6. Click **Add and Close**
7. Right-click the value container and select **Add Subvalue to name_of_value_container**.



8. Add additional sub-values to the tree node:
 - o **Value** - Select the value from the drop-down list. Values that are outside of the scope of the tree nodes are grayed out.
 - o **Number of Addresses** - Enter the number of addresses starting from the the selected value. Enter 1 to use only the selected value.
 - o **Scope** - Select .

Create Named Networks Value ×

Name **PrintStation-**

Comment

Group

Value Container

Value

Number of Addresses

Scope

9. Configure the sub-value for the Named Network value container with scope of **Any**.
 - o **Value** - Select the value from the drop-down list. Values that are outside of the scope of the tree nodes are grayed out.
 - o **Number of Addresses** - Enter the number of addresses starting from the the selected value. Enter 1 to use only the selected value.
 - o **Scope** - Select the groups and subgroups that this value is valid for.

Create Named Networks Value ✕

Name **PrintStation-**

Comment

Group

Value Container

Value

Number of Addresses

Scope Set Scope from Filter

Add
Add and Close

10. Click **Add and Close**.
11. Click **Send Changes** and **Activate**.

Devices	Grouped Template: DeviceType	0 internal, 0 external	DynBits=25-32	
Printers	DeviceType	0 internal, 0 external	Printers	
# Print-Station		0 internal, 0 external		
# Print-Station-Default		0 internal, 0 external	10.0.0.100/255.0.0.255 offset=100	
# Print-Station-EMEA	Location/EMEA	0 internal, 0 external	10.0.0.111/255.0.0.255 offset=111	EMEA uses 111 for the Printstation

Step 4. Set for Scope for Named Network Objects

Named Network objects can be used only for firewall ruleset evaluation or for ruleset evaluation and visualization on the **FIREWALL > Live** and **FIREWALL > History** pages. For Named Network objects created in the global, range, or cluster firewall objects, this has to be configured directly in the firewall service individually using the network objects.

1. Go to **CONFIGURATION > Configuration Tree > Box > your virtual server > Assigned Services > Firewall > Forwarding Rules**.
2. Click **Lock**.
3. In the left menu, click **Named Networks**.
4. Right-click the root tree element of the Named Network object and select **Used for Rule Evaluation and Visualization**.

Named Networks Tree	Scope	Referen...	Description
<ul style="list-style-type: none"> BigFishInc Location <ul style="list-style-type: none"> APAC EMEA Austria 	Used for Rule Evaluation only	0	10.*.*.* StaticBits=1-8
<div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <ul style="list-style-type: none"> New Named Networks Object <li style="border: 2px solid orange;">Use for Rule Evaluation and Visualisation Delete Referenced by </div>			DynBits=9-16
			APAC
			EMEA
			Austria

5. Click **Send Changes** and **Activate**.

You can now configure network objects to use Named Network objects and add the **Src and Dst Named Networks** columns to the **FIREWALL > Live** and **FIREWALL > History** pages.

Figures

1. named_networks_GUI_500.png
2. named_networks_02.png
3. named_networks_03.png
4. named_networks_02a.png
5. named_networks_04.png
6. named_networks_add_group_categories.png
7. named_networks_02a.png
8. named_networks_05.png
9. named_networks_06.png
10. named_networks_07.png
11. named_networks_08.png
12. named_networks_09.png
13. named_networks_10.png
14. named_networks_11.png
15. named_networks_12.png
16. named_networks_14.png
17. named_networks_13.png
18. named_networks_15.png
19. named_networks_22.png
20. named_networks_23.png
21. named_networks_24.png
22. named_networks_25.png
23. named_networks_16.png
24. named_networks_17.png
25. named_networks_19.png
26. named_networks_18.png
27. named_networks_20.png
28. named_networks_26.png

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