



Network maps



<https://pandorafms.com/manual/!current/>

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Network maps

Network Maps are a graphical representation of the network to be monitored. Network maps can be accessed through the menu on the left in the Operation → Topology Maps → Network Map.

Network map items

Network maps may contain:

Real nodes

They represent the Agents added on the map. These nodes have an icon representing the Agent's operating system and a halo of the Agent's status. The default shape is circular and other shapes can be chosen. The status represented in the node can be:

- *Green* : It is in the correct state.
- *Red* : One of your Modules is in critical condition.
- *Yellow* : You are in a warning status for one of your Modules.
- *Orange* : One of the alerts was triggered in the Agent.
- *Grey* : The Agent is in unknown status.

Fictitious nodes

They represent a link to another Network Map or just a point for personal use within the map. They may have any of the available shapes (circle, diamond, square), any size and label. If it is a link to another map, the color of the node follows the same rules as the real Nodes (colors can be customized).

Lines of kinship between nodes

Kinship lines can be of two types:

- *Simple kinship lines (parent-child relationship)*, which represent the hierarchy of the network map components.
- *Network interface relationship lines*, which represent the connection of the map components through their network interfaces. These lines are characterized because they end or start with round arrowheads, which represent by means of a color the state of the network interface. In order to establish this type of relationship, it is necessary for the agent represented by the node to have the `ifOperStatus` monitoring modules of its network interfaces, which, in addition, must have the nomenclature `ifname_ifOperStatus` (for example, `eth0_ifOperStatus`). This allows you to easily locate the interfaces of the network map elements by name.

Creation of a new Network Map

Empty network map

When using the Create empty network map option, a form emerges, in which you must indicate the name, group and description of the Network Map, along with the radius of the nodes in it. Clicking the Save network map button will create the new Network Map, in which you may start adding elements.

Non-empty network map

This form has the same options as above with a few additional ones:

- Group: Groups that will have access to the network map. Only a group to which the user creating the network map belongs can be assigned, unless that user explicitly belongs to the ALL group. (ALL).
- Position X: Shift applied to the default position on the map to display it always the same on the horizontal axis component.
- Position Y: Shift applied to the default position on the map to display it always the same on the vertical axis component.
- Zoom scale: Zoom applicable to the default view of the map to display it always with this same factor.
- Source: Filter or source of Agents from which the map will be generated or new nodes will be added to *holding area*. The options are:
 1. *Group*: Only agents that belong to that group or child groups appear in the *networkmap* (or *holding area*). Even if the user who is creating the network map does not explicitly belong to the ALL group. (ALL), you may still assign the ALL group as the source of Agents.
 2. *Recon task*: Only the agents that have been discovered by the recognition task chosen in the same form, which must be a level 2 discovery task, appear in the *network map* (or in the *holding area*).
 3. *CIDR IP mask*: Only agents whose primary IP address passes the IP mask filter appear in the *networkmap* (or in the *holding area*).
- Don't show subgroups: Option not to show secondary groups.
- Network map creation method: The method of distribution of the nodes that will form the network map.
 1. *Circular*: In which the nodes will be arranged in concentric circles.
 2. *Flat*: In which the nodes will be arranged in an arborescent form.
 3. *Radial, Radial dynamic*: In which all the nodes will be arranged around the fictitious node that symbolizes Pandora FMS.
 4. *Spring1, Spring2*: These are variations of Flat.
- Node separation: (Except for Radial dynamic) It sets the desired spacing between nodes for the Network Map.
- Min nodes distance: (Only Circular) It sets the desired minimum spacing between nodes for the Network Map.

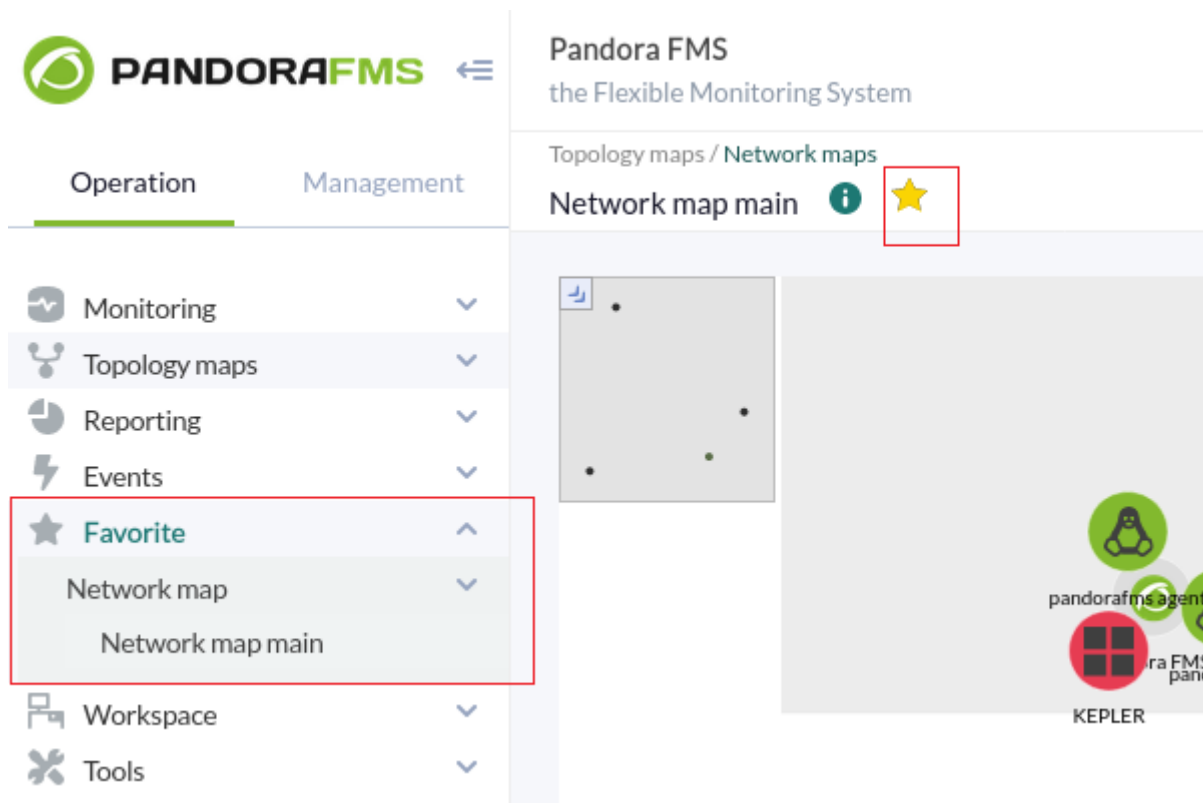
- Rank separation: (Only Flat and Radial) It sets the desired arrow spacing for the Network Map.
- Ideal default node separation: (Only Spring2) It sets the desired minimum spacing between nodes for the network map.

After defining the necessary options, click Save network map button to save. From that moment onwards Pandora FMS Web Console will start to generate the network map and redirect to it.

Network map as a favorite element

Version 770 or later.

After creating a network map, either empty or non-empty, in the main view of the network map you may check it as a favorite by clicking on the star icon next to the network map name.



To remove it from favorites, just uncheck it by clicking on the star icon again. All the network maps that are checked as favorites will be marked in section Network map from the menu Favorite (Operation section).

Editing a network map

To access the edition of a Network Map, click on the corresponding edit button. The network map

editing form is exactly the same as the creation form, except that some fields are disabled because the network map has already been generated. Once the changes have been made, click Update network map to save.

Duplication of a network map

From the list of Network Maps, it is possible to duplicate a Network Map with all its contents and all its settings. The new Network Map will be named as Copy of....

View of a network map

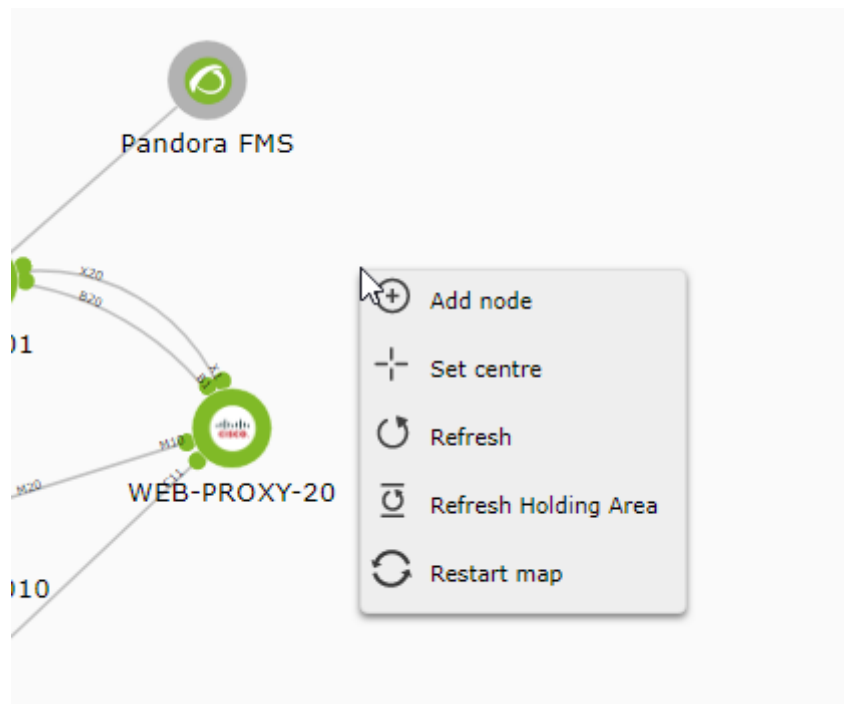
When viewing a created Network Map, its different fields are displayed and it is possible to configure its existing nodes.

Minimap

The Minimap provides a global, reduced view of the whole map extent. In addition, a red box representing the section of the map being displayed on the screen is shown in the upper left corner. It can be hidden by clicking on the arrow icon.

Context menu

From the context menu you may perform some tasks on the Network Map. It is possible to display it by right-clicking anywhere without map elements.



Holding area

New network nodes appear here, avoiding confusingly appearing new nodes in the middle of your network maps and reflecting the changes of the monitored architecture in a clear way.

New nodes appear only when refreshing through the context menu. In addition, the Network Map creation filter is applied to search for new nodes, e.g. by group, by netmask or other new nodes found by a network recognition task. The nodes remain there until they are dragged out.

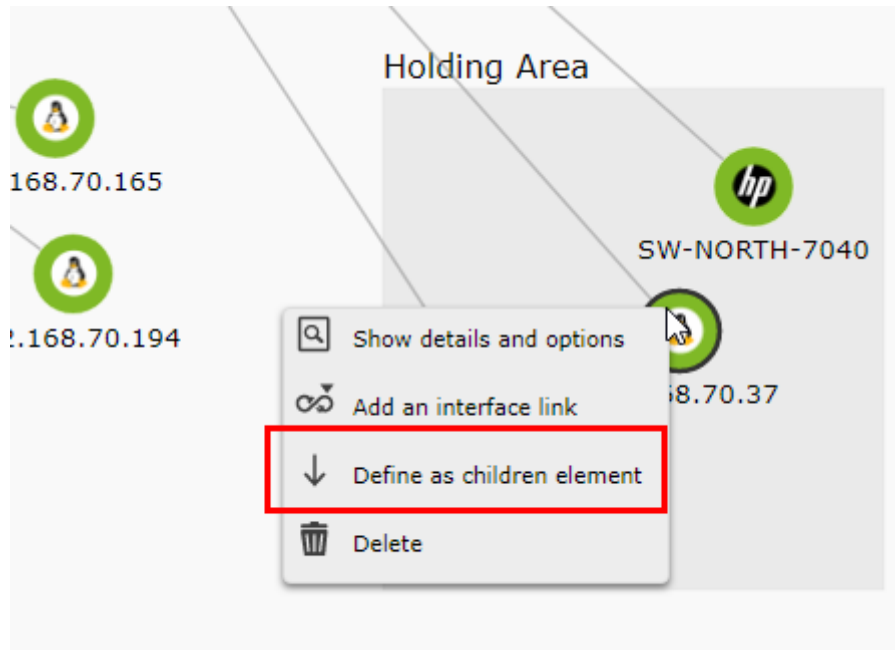
Editing nodes

Change position

To select, click on the node and then with another click, keeping the mouse pressed, drag the node to be moved on the map.

Relate one node to another

Clicking on a node with the right mouse button brings up a context menu. Choose the option Define as children element.



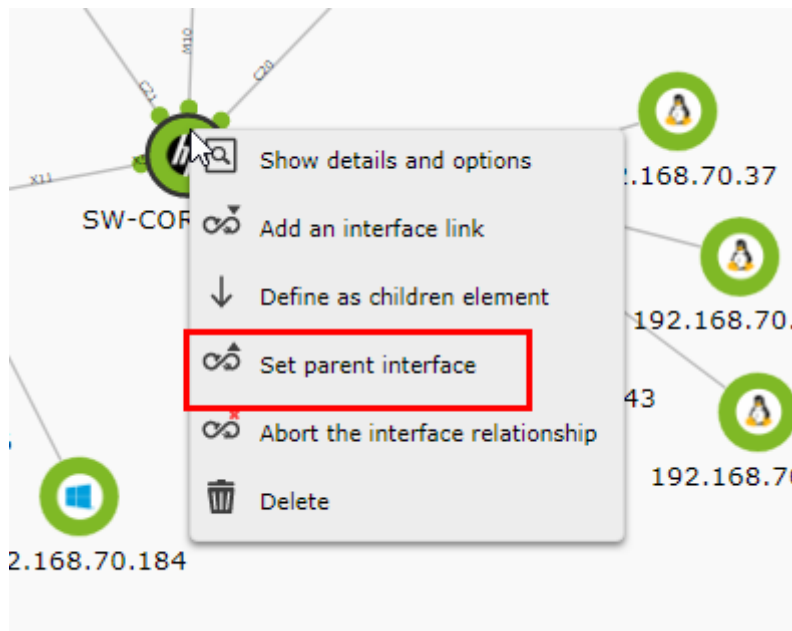
This starts the linking operation. To complete it, right-click on another node and in the context menu that appears, accept the option Define as parent element to finish linking or you may cancel the operation with the option Abort the action of set relationship.

At the end of the operation, both nodes will be linked.

It is also possible to define from the context menu a type of relationship by network interface, being able to select from which network interface the connection is made.

In the same way as in the previous case, the link can be made by primary clicking on the element that will be defined as a child and choosing the option Add an interface link.

Then right-click on the parent node and choose the Set parent interface option from the context menu (as in the previous case, you may cancel the relationship by clicking on Abort the interface relationship).



A window will then appear asking you to select the interface to be used on both nodes for the link.

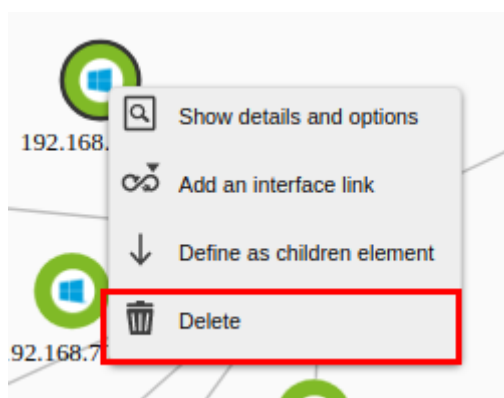
Once the interfaces are selected in both nodes, a circle will appear right at the ends of the link representing the status of these interfaces (status of the `ifOperStatus` Module of the interface).

View node information

Right-click on one of them and choose Show details and options from the menu.

Delete nodes

Right-click on the node to be deleted and choose the Delete option from the pop-up menu.



Change the shape of the state halo

Accessing the node information window, section Node Options, the desired figure is chosen (Circle, Rhombus, Square). Click on the Update node button to save the changes.

Delete relationships between nodes

Accessing the Agent information, section Relationships, select the interfaces in the Interface Source column for each node and delete the link.

Mass node editing

You may select multiple nodes in the following ways:

- Hold down the Ctrl key, clicking one at a time on the nodes to be edited.
- Right-click on an empty area and drag and drop to select a specific area containing the nodes.

Once several nodes have been selected, they will appear with a darker black border to differentiate them from those that are not selected, and with them you may perform the following mass operations:

- With the main mouse button, drag them all at the same time.
- With the right mouse button, display a menu in which you may perform actions such as linking by parentage to another node, adding a link to another interface, opening the details and options window, or *deleting nodes*.

If you open the details and options window, you will be able to see information about the node, the interface, the relationships with other nodes and also the option to change the shape of the status halo (in the case of a fictitious node, change the shape of the node).

Agent node creation

Click on a blank area of the generated Network Map and choose option Add node.

Unique creation of a node

In the context menu, in the add Agent section, there is an intelligent control that filters and displays the list of possible Agents according to the request. Once chosen, click Add Agent node to create the new node on the map.

Mass node creation

From the second section of the Add Agents menu, Add Agent Node (Filter by group), you may add multiple Agent nodes by filtering by a group. Select the desired agents from the Agents box and click Add Agent Node.

Creation of fictitious nodes

From the third section of the add agent menu, Add fictional point, you may add fictional nodes. Specify the name of the new fictional node, point to the Network Map it links to (if it links to one) and click Add Fictional Node.

Modify zoom level

With the mouse wheel you may change the zoom in or zoom out level on the network map to see a map section in more detail. In total there are 5 zoom levels.

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