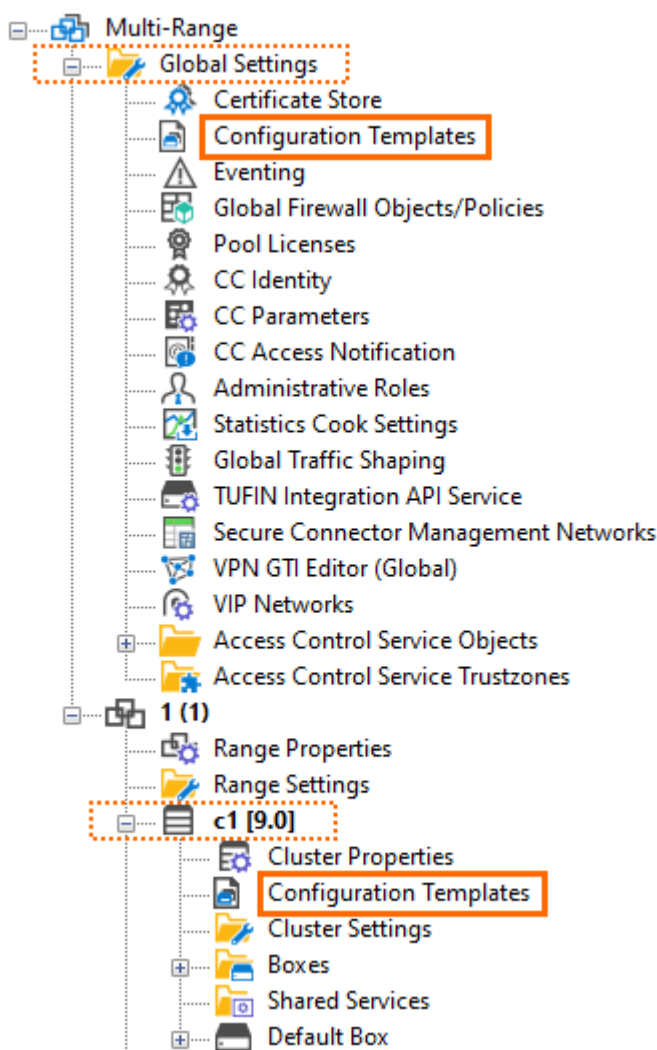


Configuration Template Manager

<https://campus.barracuda.com/doc/96771556/>

The **Configuration Template Manager** window is the central tool for creating **Configuration Templates** and handling box-specific instances that have been derived from a specific template. The tool orchestrates all the components and their relations in an overview window. The **Configuration Templates** are accessible below the **Global Settings** level and the level of a **Cluster** node, and its main window can be activated by double-clicking the node **Configuration Templates** in the CC configuration tree.



By having these two identical nodes, administrators with different administrative levels can handle configuration templates to a different degree. In this way, the templates can better conform to a company's specific policies. The same model also applies if a managed service provider must pre-configure certain setups for his customers so that the customer can not change settings that are under the control of the managed service provider.

Managing the Relation between Templates and Instances

Global and Cluster-specific Configuration Templates

Configuration templates can be created on a global, a range, and a cluster level. However, using ConfTemplates on a range level requires additional steps. For more information, see [How to Work with Configuration Templates on Different Levels in the Configuration Tree](#).

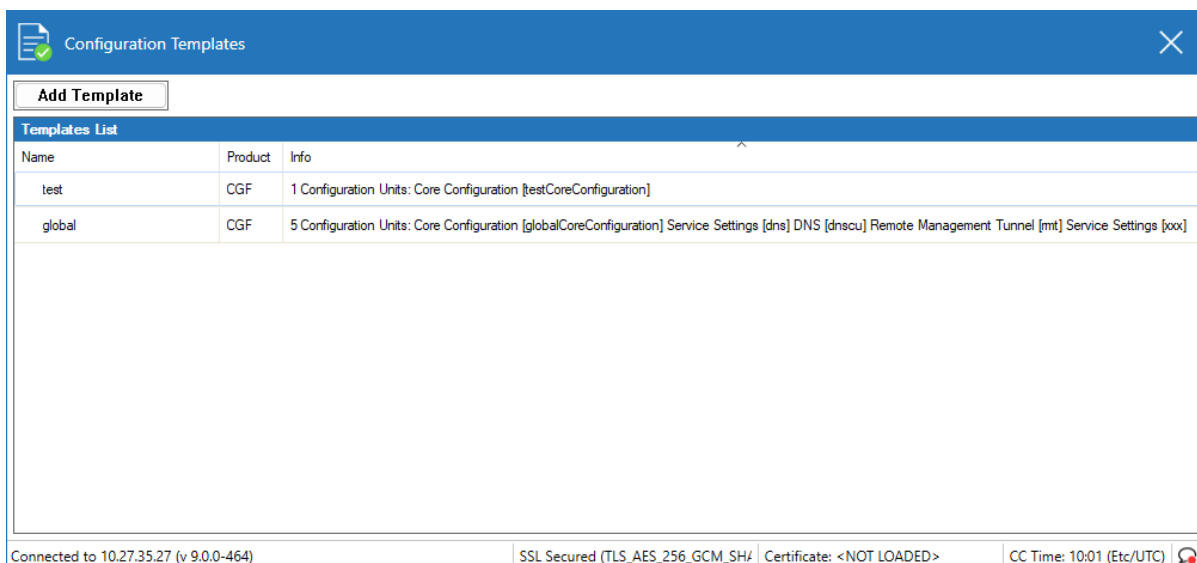
Creating, modifying, and accessing these configuration templates depends on the administrative rights that a Control Center administrator has been granted. This is important if **Configuration Templates** are planned to be simultaneously used by MSPs (Managed Service Providers) and their customers. While an MSP may be allowed to configure certain templates that apply to his own technical requirements, the customer can not modify these settings. However, the customer may have permission to create other templates on his own administrative cluster level that do not interfere with the global configurations from the provider.

This significant difference will be viewed in the Configuration Template Manager window which is described next.

The Configuration Template Manager Window

Opening the Configuration Template Manager Window on the Global Level

When opening the Configuration Template Manager window on the global level, the window displays a list of configuration templates created on the global level. Clicking the Add Templates button opens another window for creating a new configuration template.



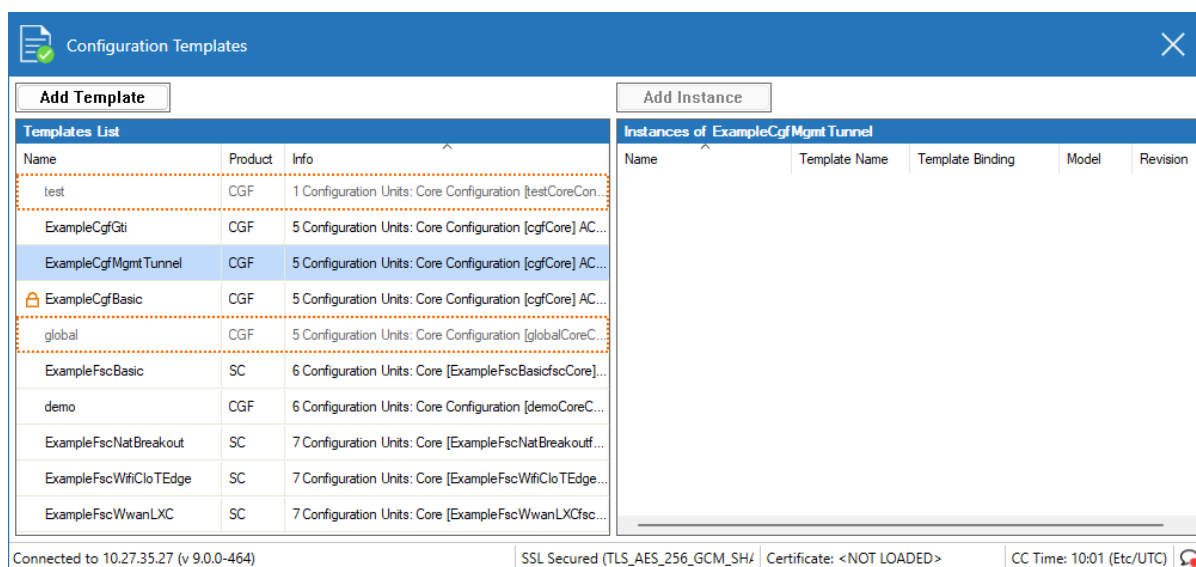
The screenshot shows the 'Configuration Templates' window. At the top is a blue header bar with a green checkmark icon and the text 'Configuration Templates'. Below the header is a white button labeled 'Add Template'. Underneath is a table titled 'Templates List' with three columns: 'Name', 'Product', and 'Info'. The table contains two rows: one for 'test' and one for 'global'. The 'global' row is highlighted. Below the table is a large empty white area. At the bottom of the window is a status bar with four sections: 'Connected to 10.27.35.27 (v 9.0.0-464)', 'SSL Secured (TLS_AES_256_GCM_SHA384)', 'Certificate: <NOT LOADED>', and 'CC Time: 10:01 (Etc/UTC)'.

Name	Product	Info
test	CGF	1 Configuration Units: Core Configuration [testCoreConfiguration]
global	CGF	5 Configuration Units: Core Configuration [globalCoreConfiguration] Service Settings [dns] DNS [dnscu] Remote Management Tunnel [mt] Service Settings [xxx]

Opening the Configuration Template Manager Window on the Cluster Level

The Configuration Template Manager window on the cluster level is visually divided into two areas. The area on the left side starts with the button **Add Template** followed below by an area for displaying all created templates in a list. The area to the right side begins with the button **Add Instance** followed below by an area for displaying all instances that have been derived from a specific template from the left side.

When opening the Configuration Template Manager window on the cluster level, the window displays a list of configuration templates created both on the global and cluster level.




Configuration Templates																																													
<div> <div>Add Template</div> <div> <table border="1"> <thead> <tr> <th>Name</th> <th>Product</th> <th>Info</th> </tr> </thead> <tbody> <tr> <td>test</td> <td>CGF</td> <td>1 Configuration Units: Core Configuration [testCoreCon...</td> </tr> <tr> <td>ExampleCgfGti</td> <td>CGF</td> <td>5 Configuration Units: Core Configuration [cgfCore] AC...</td> </tr> <tr> <td>ExampleCgfMgmt Tunnel</td> <td>CGF</td> <td>5 Configuration Units: Core Configuration [cgfCore] AC...</td> </tr> <tr> <td>ExampleCgfBasic</td> <td>CGF</td> <td>5 Configuration Units: Core Configuration [cgfCore] AC...</td> </tr> <tr> <td>global</td> <td>CGF</td> <td>5 Configuration Units: Core Configuration [globalCoreC...</td> </tr> <tr> <td>ExampleFscBasic</td> <td>SC</td> <td>6 Configuration Units: Core [ExampleFscBasicfscCore]...</td> </tr> <tr> <td>demo</td> <td>CGF</td> <td>6 Configuration Units: Core Configuration [demoCoreC...</td> </tr> <tr> <td>ExampleFscNatBreakout</td> <td>SC</td> <td>7 Configuration Units: Core [ExampleFscNatBreakoutf...</td> </tr> <tr> <td>ExampleFscWifiCloTEdge</td> <td>SC</td> <td>7 Configuration Units: Core [ExampleFscWifiCloTEdge...</td> </tr> <tr> <td>ExampleFscWwanLXC</td> <td>SC</td> <td>7 Configuration Units: Core [ExampleFscWwanLXCfsc...</td> </tr> </tbody> </table> </div> <div> <div>Add Instance</div> <div> <table border="1"> <thead> <tr> <th colspan="5">Instances of ExampleCgfMgmt Tunnel</th> </tr> <tr> <th>Name</th> <th>Template Name</th> <th>Template Binding</th> <th>Model</th> <th>Revision</th> </tr> </thead> <tbody> </tbody> </table> </div> </div> </div>			Name	Product	Info	test	CGF	1 Configuration Units: Core Configuration [testCoreCon...	ExampleCgfGti	CGF	5 Configuration Units: Core Configuration [cgfCore] AC...	ExampleCgfMgmt Tunnel	CGF	5 Configuration Units: Core Configuration [cgfCore] AC...	ExampleCgfBasic	CGF	5 Configuration Units: Core Configuration [cgfCore] AC...	global	CGF	5 Configuration Units: Core Configuration [globalCoreC...	ExampleFscBasic	SC	6 Configuration Units: Core [ExampleFscBasicfscCore]...	demo	CGF	6 Configuration Units: Core Configuration [demoCoreC...	ExampleFscNatBreakout	SC	7 Configuration Units: Core [ExampleFscNatBreakoutf...	ExampleFscWifiCloTEdge	SC	7 Configuration Units: Core [ExampleFscWifiCloTEdge...	ExampleFscWwanLXC	SC	7 Configuration Units: Core [ExampleFscWwanLXCfsc...	Instances of ExampleCgfMgmt Tunnel					Name	Template Name	Template Binding	Model	Revision
Name	Product	Info																																											
test	CGF	1 Configuration Units: Core Configuration [testCoreCon...																																											
ExampleCgfGti	CGF	5 Configuration Units: Core Configuration [cgfCore] AC...																																											
ExampleCgfMgmt Tunnel	CGF	5 Configuration Units: Core Configuration [cgfCore] AC...																																											
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global	CGF	5 Configuration Units: Core Configuration [globalCoreC...																																											
ExampleFscBasic	SC	6 Configuration Units: Core [ExampleFscBasicfscCore]...																																											
demo	CGF	6 Configuration Units: Core Configuration [demoCoreC...																																											
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ExampleFscWifiCloTEdge	SC	7 Configuration Units: Core [ExampleFscWifiCloTEdge...																																											
ExampleFscWwanLXC	SC	7 Configuration Units: Core [ExampleFscWwanLXCfsc...																																											
Instances of ExampleCgfMgmt Tunnel																																													
Name	Template Name	Template Binding	Model	Revision																																									

Note that some configuration templates are displayed with grey text indicating they have been created at the global level. All other rows containing an entry displayed in black text indicate that the configuration template has been created exclusively on the cluster level.

The following example templates are intended to help users understand how **Configuration Templates** work.

When opening the window for the first time, the left area displays a list of example templates. The right area for template instances is empty.


Configuration Templates
✕

Add Template

Templates List


Name	Product	Info
ExampleFscBasic	SC	6 Configuration Units: Core [ExampleFscBasicfscCore] VPN Tunne...
ExampleFscNatBreakout	SC	7 Configuration Units: Core [ExampleFscNatBreakoutfscCore] VPN...
ExampleFscWifiCloTEd...	SC	7 Configuration Units: Core [ExampleFscWifiCloTEdgefscCore] VP...
ExampleFscWwanLXC	SC	7 Configuration Units: Core [ExampleFscWwanLXCfscCore] WWA...

Add Instance

All Instances

Name	Template Name	Template Binding	Model	Revision
------	---------------	------------------	-------	----------

As soon as there are templates and instances present, they are all displayed in their corresponding area when the window is opened. Templates are listed in the left area, and instances are listed in the right area of the window.


Configuration Templates
✕

Add Template

Templates List

Name	Product	Info
cgfTemplate	CGF	1 Configuration Units: Core Configuration [cgfTemplatecgfCore]
	CGF	1 Configuration Units: Core Configuration [dfdfCoreConfUnit]
	CGF	1 Configuration Units: Core Configuration [sadsCoreConfUnit]
	CGF	1 Configuration Units: Core Configuration [sdsdCoreConfUnit]
	CGF	1 Configuration Units: Core Configuration [testuselisaCoreConfUnit]
	SC	11 Configuration Units: Core [testConfUnitsfscCore] VPN Tunnel [testConfUnitsfscVpn] Indi...
	SC	2 Configuration Units: Core [NewCoreConfUnit] VPN Tunnel [NewVPNConfUnit]
	SC	2 Configuration Units: Core [NewCoreConfUnit] VPN Tunnel [NewVPNConfUnit]
	SC	2 Configuration Units: Core [reerfscCore] VPN Tunnel [reerfscVpn]
	SC	2 Configuration Units: Core [TestTemplatefscCore] VPN Tunnel [TestTemplatefscVpn]
	SC	2 Configuration Units: Core [testVariablefscCore] VPN Tunnel [testVariablefscVpn]
		3 Configuration Units: Core [mycore] VPN Tunnel [myvpn] LAN Interface [mylan]
		3 Configuration Units: Core [mycore] VPN Tunnel [myvpn] LAN Interface [mylan]
	SC	3 Configuration Units: Core [testComposedArrayfscCore] VPN Tunnel [testComposedArrays...

Add Instance

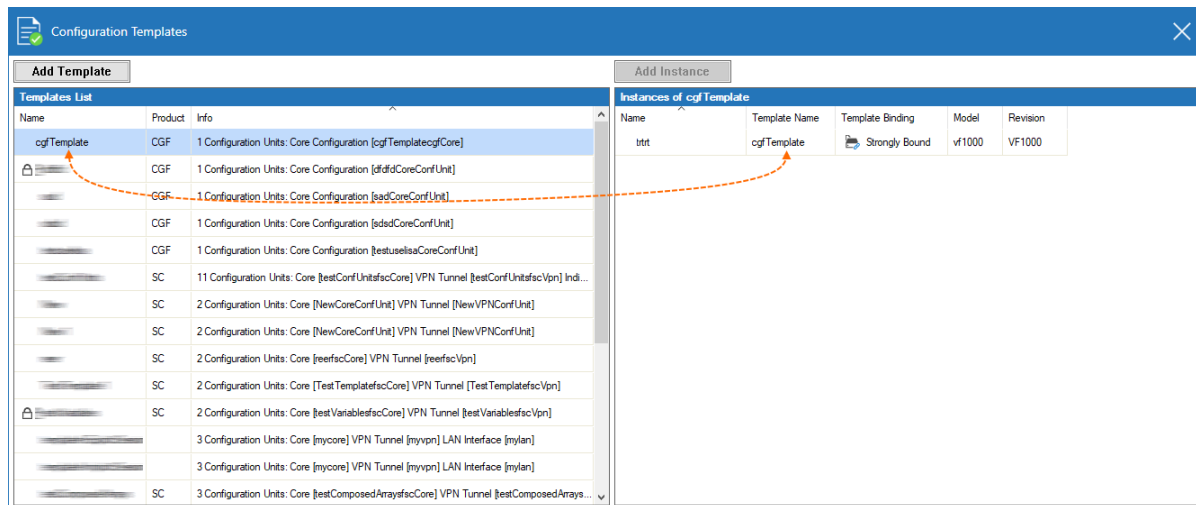
All Instances

Name	Template Name	Template Binding	Model	Revision
boxInExplicitSession	templateInExplicit...	Weakly Bound	fsc2.0	
boxInImplicitSession	templateInImplicit...	Weakly Bound	fsc2.0	
conditionalInstance	testConditional	Strongly Bound	fsc2.0	
demoInstance	testVariables	Strongly Bound	fsc2.0	
instanceWithVariables	testVariables	Strongly Bound	fsc2.0	
newConditionalInstance	testConditional	Strongly Bound	fsc2.0	
newInstanceWithVaria...	testVariables	Strongly Bound	fsc2.0	
sc3-olre	testOLRE	Strongly Bound	fsc3.5	
scConditional	testConditional	Strongly Bound	fsc2.0	
tttt	cgfTemplate	Strongly Bound	vf1000	VF1000

However, when clicking a specific template, only those instances will be displayed in the right window area that are associated with the selected template in the left window area.

Configuration Template Manager

4 / 12

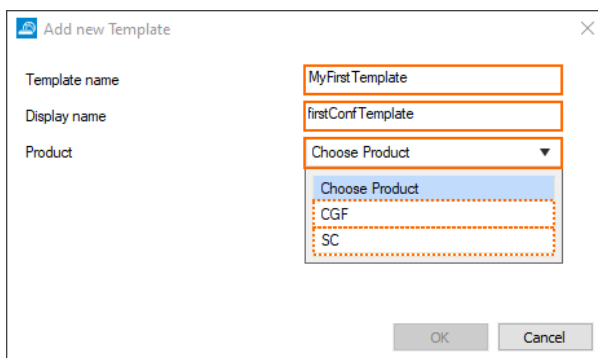


In order to see all instances again, you must clear your template in the left area. To do so, keep the CTRL button on your keyboard pressed and click the selected template again.

Creating/Adding a New Template

To add/create a new ConfTemplate, click the **Add Template** button. This opens the **Add new Template** window and requires the user to enter the following details:

- **Template name** – Enter the name for your new ConfTemplate.
Note that template names must be unique in a cluster!
- **Display name** – Enter the name that is displayed for your ConfTemplate.
- **Product** – Select from the list of possible products. Currently, CGFs and SCs are supported.



The 'Add new Template' dialog box contains the following fields and controls:

- Template name:** Text input field with the value 'MyFirst Template'.
- Display name:** Text input field with the value 'firstConfTemplate'.
- Product:** A dropdown menu currently showing 'Choose Product'. The dropdown list is open, showing 'CGF' and 'SC' as options.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

After confirming the dialog by clicking **OK**, the ConfTemplate Editor window opens.

The Configuration Template Editor

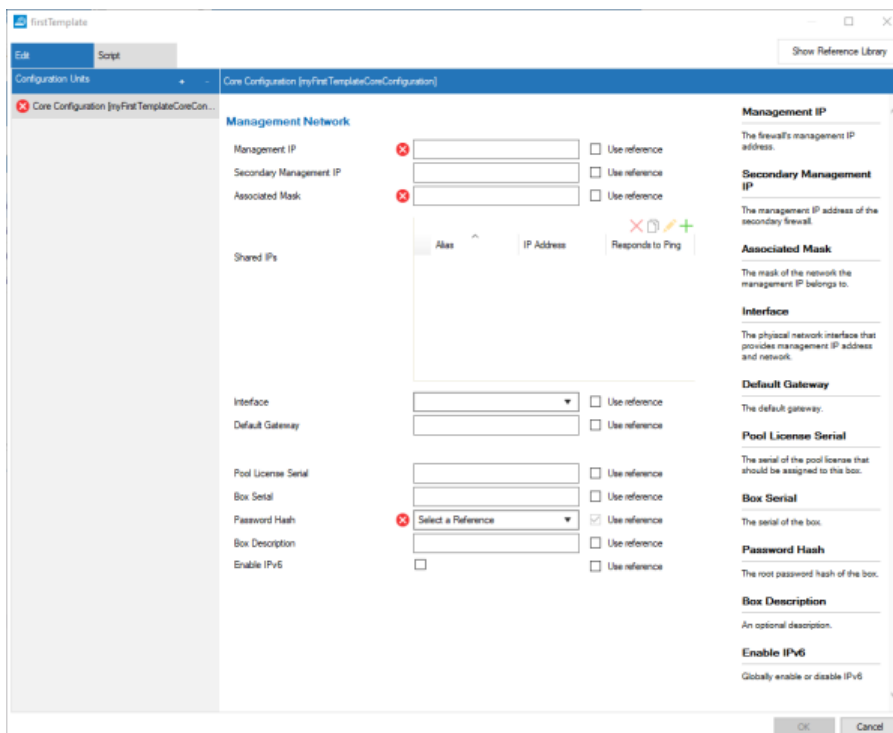
The window area of the ConfTemplate Editor contains the following buttons across the top:

- **Edit** – Clicking **Edit** foregrounds the editing area and allows you to configure the template.
- **Script** – Clicking **Script** foregrounds the script editor and allows you to configure the template in text mode.
- **Show Reference Library** – Clicking [Show Reference Library](#) opens the window for configuring parameters and variables.

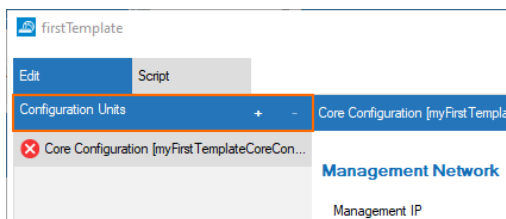


The Interactive Configuration Template Editor

The interactive **Configuration Template Editor** serves as a tool for creating a **Configuration Template** from one or multiple **Configuration Units**. Click **Edit** to see this editor in the window.



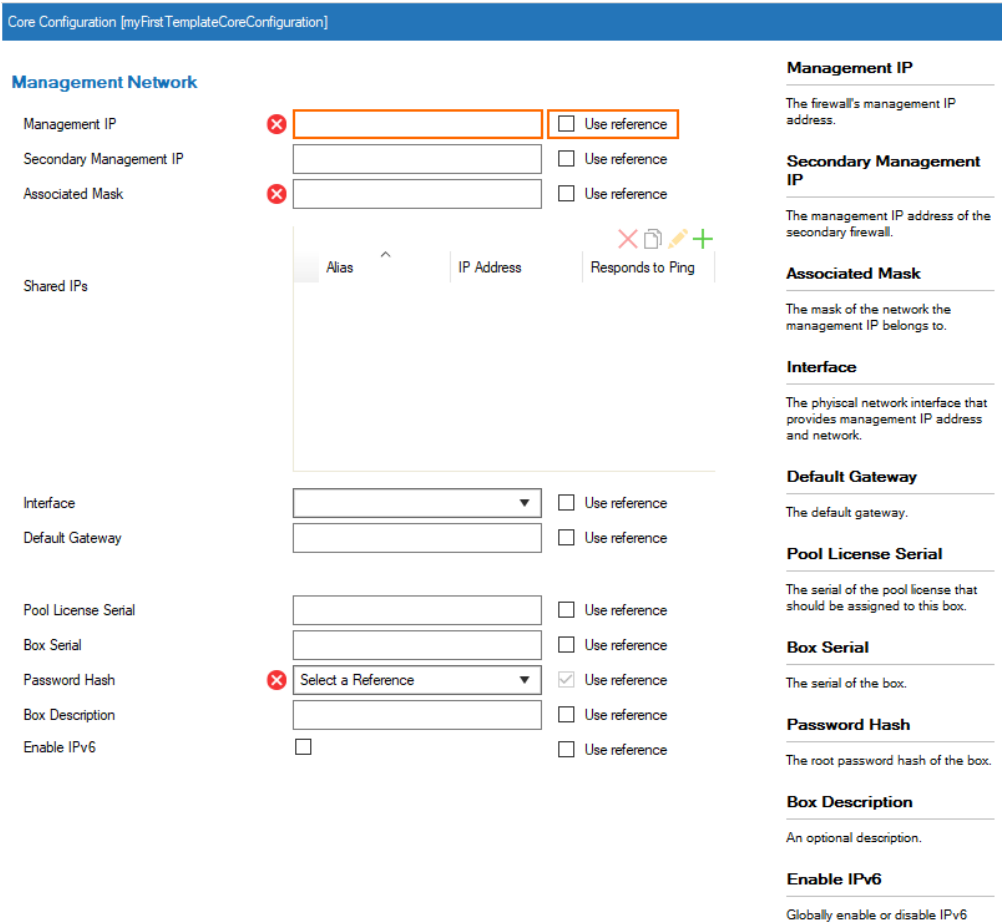
The interactive **Configuration Template** editing area contains a column on the left side that lists all **Configuration Units** that will commonly build the final **Configuration Template**. When creating a new **Configuration Template**, the core **Configuration Unit** will always remain visible for the corresponding product. Click '+' on top of the column in the area **Configuration Units** to add a new **Configuration Unit**, or click '-' to remove a **Configuration Unit** from the list.



In the middle area, the window displays all edit fields that belong to the **Configuration Unit**. Edit fields with a red bullet to the left side are mandatory and must be filled to create a valid **Configuration Template**.

The check box to the right side of an edit field has the name **Use reference** and can be selected to transfer a predefined value from the reference library. If the check box is selected, the edit field will be converted into a menu list that contains all available references, one of which must be selected.

The following screenshot shows the middle area of the window and contains an example of a core configuration unit (Management Network):



Core Configuration [myFirstTemplateCoreConfiguration]		
Management Network		
Management IP	<input type="text"/>	<input type="checkbox"/> Use reference
Secondary Management IP	<input type="text"/>	<input type="checkbox"/> Use reference
Associated Mask	<input type="text"/>	<input type="checkbox"/> Use reference
Shared IPs	<div>Alias ^ IP Address Responds to Ping</div>	
Interface	<input type="text"/>	<input type="checkbox"/> Use reference
Default Gateway	<input type="text"/>	<input type="checkbox"/> Use reference
Pool License Serial	<input type="text"/>	<input type="checkbox"/> Use reference
Box Serial	<input type="text"/>	<input type="checkbox"/> Use reference
Password Hash	<input type="text"/>	<input type="checkbox"/> Use reference
Box Description	<input type="text"/>	<input type="checkbox"/> Use reference
Enable IPv6	<input type="checkbox"/>	<input type="checkbox"/> Use reference

Management IP
The firewall's management IP address.

Secondary Management IP
The management IP address of the secondary firewall.

Associated Mask
The mask of the network the management IP belongs to.

Interface
The physical network interface that provides management IP address and network.

Default Gateway
The default gateway.

Pool License Serial
The serial of the pool license that should be assigned to this box.

Box Serial
The serial of the box.

Password Hash
The root password hash of the box.

Box Description
An optional description.

Enable IPv6
Globally enable or disable IPv6

The third column contains help comments that refer to the content of the displayed **Configuration**

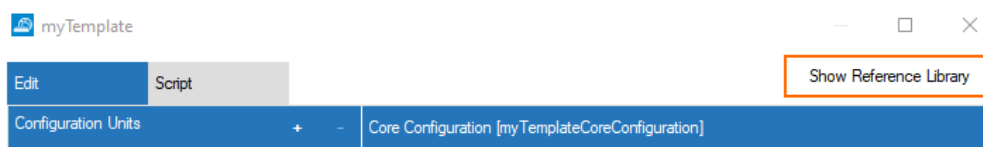
Unit.

Depending on the selected **Configuration Unit**, the content of the middle (configuration) and right (help) areas will display variable content that always relates to the selected **Configuration Unit**.

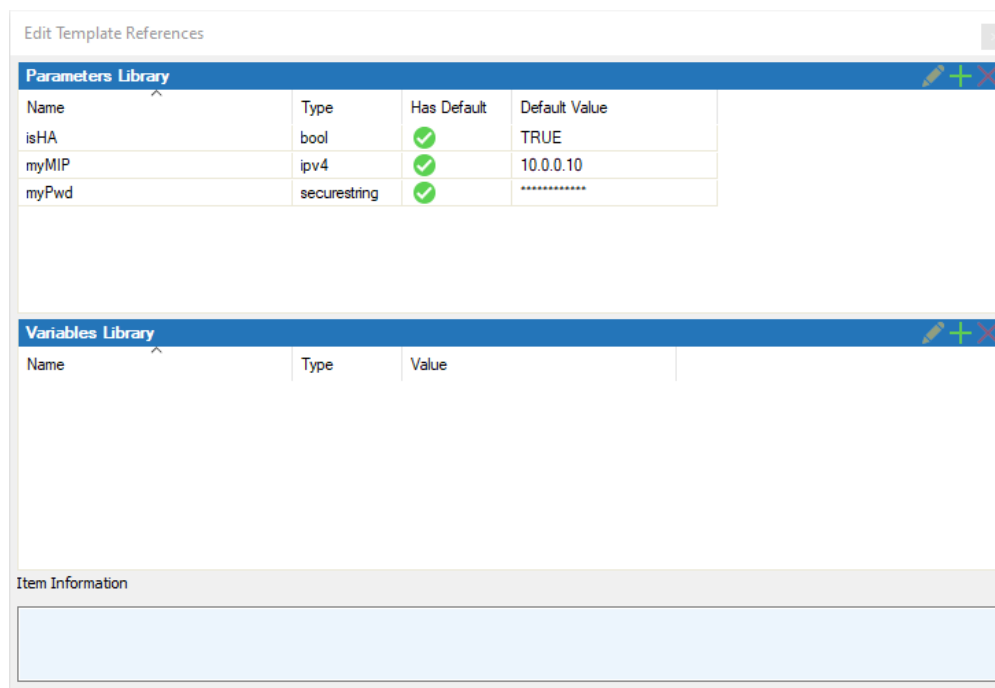
The Reference Library Window

The reference library is the location for centrally managing and storing important static information and values. References use parameters and variables as placeholders for values that are part of the template. Parameters are constants defined per instance, and a variable consists of an expression based on parameters and constants.

To access the **Reference Library** window, click **Show Reference Library** in the upper-right corner of the **Configuration Templates** editor window:



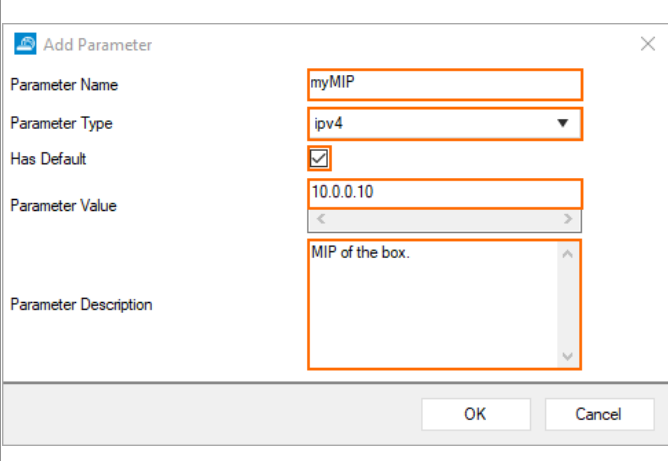
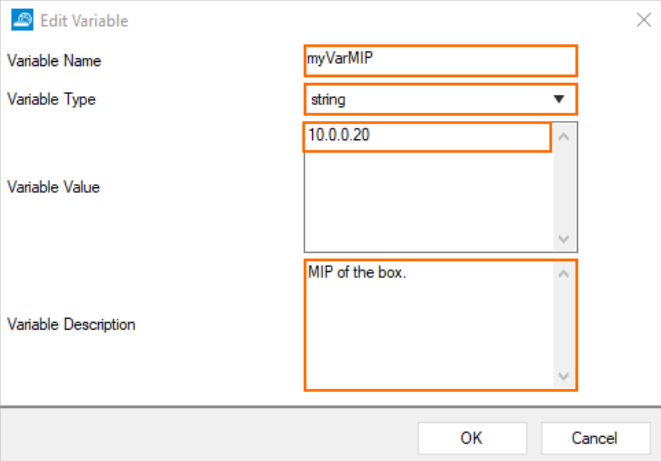
In the **Edit Template References** window, configured parameters and variables are displayed in their corresponding areas:



Parameters and variables can be managed in three ways:

- **Edit** – After selecting the line in question, click the pencil icon to edit the entry.
- **Add/create** – Click '+' to add/create a new parameter/variable.
- **Delete** – After selecting the line in question, click the red 'X' to remove the entry.

Clicking **Edit** or **Add** opens the window that displays the parameter/variable name, its type and assigned value, and its description:

Adding/Editing Parameter Window	Adding/Editing Variable Window
 <p>The 'Add Parameter' window contains the following fields:</p> <ul style="list-style-type: none">Parameter Name: myMIPParameter Type: ipv4Has Default: <input checked="" type="checkbox"/>Parameter Value: 10.0.0.10Parameter Description: MIP of the box.	 <p>The 'Edit Variable' window contains the following fields:</p> <ul style="list-style-type: none">Variable Name: myVarMIPVariable Type: stringVariable Value: 10.0.0.20Variable Description: MIP of the box.

For variables, the option **Has Default** is not provided, and the labels begin with **Variable** instead of **Parameter**, e.g., Variable Value.

Parameters, Data Types, and Variables

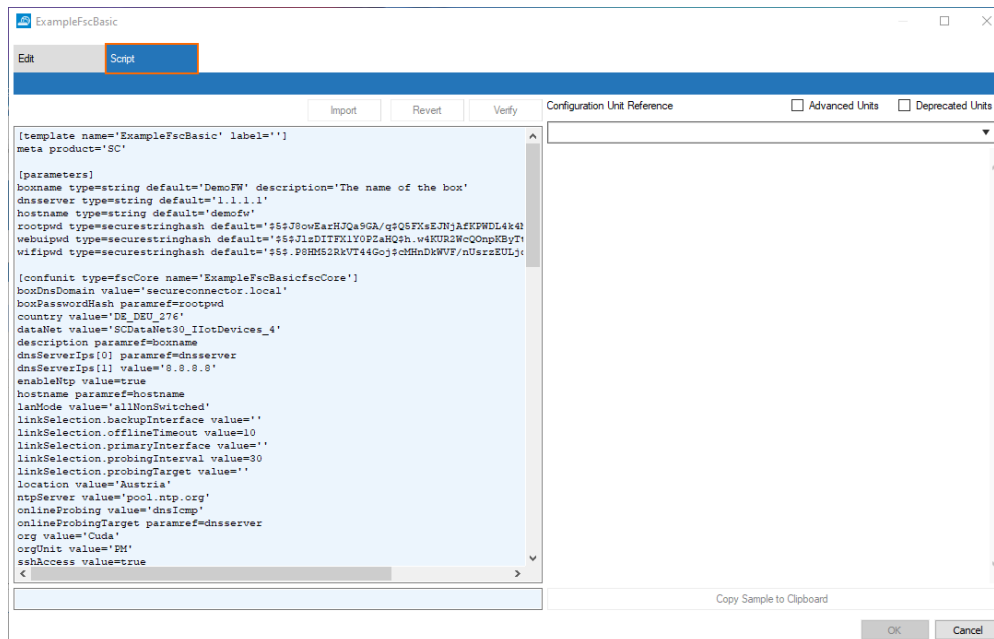
Working with configuration templates requires handling parameters, data types, and variables.

For more information, see [Template Definition Language - TDL](#).

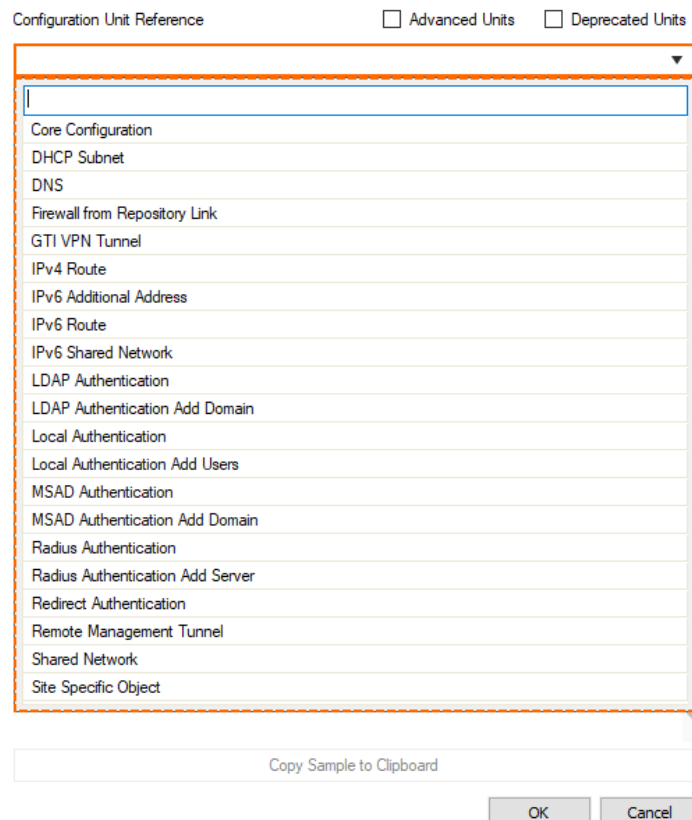
The Script Editor

When creating a Configuration Template in the interactive editor, the **Configuration Template Manager** window helps to assemble the content of the processed **Configuration Units** into a common script. These scripts are rendered in the **Template Definition Language (TDL)**. For more information on TDL, see [Template Definition Language - TDL](#).

Click **Script** to foreground the script editor.



The right side of the script editor has an area that provides help for configuration units. Click the rectangle below the label **Configuration Unit Reference** to display a menu list that shows all available **Configuration Units** by their corresponding names.



Click on a specific entry in the list to load the help content that refers to the selected **Configuration**

Unit.

Configuration Unit Reference ☐ Advanced Units ☐ Depreciated Units

DNS

DNS

Configures a DNS service

Requires Firmware 8.2 or greater

Implements Feature:

- dns

Properties

- **listener[].name value=<string>**
Listener Name: Denomiates the instance that is listening to incoming requests.
- **listener[].ip value=<ipv4>**
Listener IP: Specify the IP address on the firewall where a listener is waiting for DNS resolving requests.
- **listener[].classification value=<string>**
Classification: Classifies a local IP address or interface on the firewall to be used for requests from a private network (INTERNAL) or the internet (EXTERNAL). This applies to the split-horizon paradigm of a split-DNS configuration.
Valid values:
 - internal (internal)
 - external (external)
- **listener[].recursiveLookup value=<boolean>**
Recursive Lookup: Enables/Disables the recursive lookup for queries not in the Hosted Zone table.
- **forwarders[] value=<ipv4>**
DNS Forwarders: Specify one or more DNS forwarders.

Copy Sample to Clipboard

To use the associated example text of a ConfUnit, click **Copy Sample to Clipboard** and then paste it into the text view of the script editor.

Figures

1. confTemplates_nodes_in_configuration_tree.png
2. configuration_template_window_on_global_level.png
3. configuration_template_window_on_cluster_level.png
4. confTemplate_prime_time_window.png
5. confTemplate_templates_and_instances.png
6. confTemplate_template_selected.png
7. confTemplate_dialog_new_template.png
8. confTemplate_confTemplateEditor_buttons_on_top.png
9. confTemplate_editor.png
10. confTemplate_add_confUnits.png
11. confTemplate_example_coreUnit.png
12. confTemplate_show_reference_library.png
13. confTemplate_edit_template_references_window.png
14. confTemplate_add_edit_param_window.png
15. confTemplate_add_edit_var_window.png
16. confTemplate_example_scriptEditor.png
17. confTemplate_confUnitReference_content_listed.png
18. confTemplate_display_selected_help_reference.png

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