



Templates Version 1

The **Templates Version 1** article is applicable to the *Barracuda Web Application Firewall Version 7.8* and older versions.

A template is a collection of configuration components arranged serially in a file. Templates are used to save/import backups of object types like Services, URL profiles, URL Policies, etc., so configuration can be exported to other Barracuda Web Application Firewall boxes in the following scenarios:

- Migrate changes from the Barracuda Web Application Firewall in front of QA servers to the Barracuda Web Application Firewall in front of production servers.
- Import templates provided by Barracuda Web Application Firewall experts to refine policies on standard applications.
- Patch existing policies. For example, a new OWA template might need an additional **Allow Method** for a Global ACL. Or a new pattern, like sql-tautology-conditions, might require a refinement to an existing pattern-group. An existing service might require a new keep-alive timeout, already tested and found optimal in the QA network.
- Take a backup of an application configuration.

Saving Objects Using a Template

You can export objects from your configuration by creating a template which includes the objects from the existing configuration, which is saved on your file system.

Use **ADVANCED > Templates** and select **Generate Template** as the Template Operation. Select a suitable Template Type and specify the **Name** and **Description** for the template. Use **Exportable Objects** to select the parent nodes and child nodes to export using check boxes. **Generate** to see your template displayed under **Available Templates**.

Importing Objects

A saved template can be imported on the configuration tree using **Add** or **Modify**. In both cases key parameters are compared to existing objects before they are updated:

- Use the **Add** operation if the key parameters of the imported object do not match an existing object. Duplicate configurations cannot be added. Added objects are added to the selected parent nodes or child nodes of the configuration tree with the saved values.
- Use the **Modify** operation when the key parameters match an existing entry. If there is a match, the current values are blindly replaced with values from the imported object. If no object has matching key parameters, nothing is modified. This is considered an error.
- When a Service template is imported, you can specify an **IP address** and **port** for the service created from the template during the **Add** operation. Similarly, for a **Modify** operation, the template modifies an existing service on the box with the specified IP address and port, which makes sense if the source template is generated from a single service. This allows you to incrementally patch a service with template values.

Object Type	Key Parameters
Service	IP, Port
Server	IP, Port
URL Policies	Domain, URL, Header, Header Weight
URL Profile	URL, Extended Match, Extended Match
Allow/Deny Rules	URL, Host Match, Extended Match, Extended Match Sequence



Request Rewrite Rules	Request Rewrite Sequence
Response Rewrite Rules	Response Rewrite Sequence
Response Body Rewrite Rules	Response Body Rewrite Sequence
Security Policy	Web Firewall Policy Name
Global ACL	URL Match, Extended Match, Extended Match Sequence
Custom Parameter Class	Custom Parameter Class Name
Attack Types	Attack Type Name
Identity Theft Patterns	Identity Theft Pattern Name
Input Types	Input Type Name

Add

The **Add** operation adds the imported object to the selected parent nodes or child nodes, using values from the saved template. An add of an object with duplicate **Key Parameters** is not allowed. For example, an add of an object of type **Server** will not succeed if a **Server** object with a matching Server IP and Server Port already exists. The **Add** is disallowed.

To add a new template use **ADVANCED > Templates** and select **Import Template** as the Template Operation. Select a suitable Template Type and select the **Add** Operation. Select parent nodes and child nodes you want to add to and click **Add**. **Remove** deletes a selection. **Browse** to locate the Template file path and **Import** the template file to the selected destination box.

Modify

The **Modify** operation modifies the existing configuration of selected parent nodes or child nodes by using the values from the saved template. Modify only works if an object with matching **Key Parameters** already exists. If no matching object exists, the **Modify** is disallowed.

To modify an existing template, use **ADVANCED > Templates** to select **Import Template** as the Template Operation. Select a suitable Template Type, then specify the **Modify** Operation. Select the parent nodes and child nodes where you want to import the modified templates and click **Add**. **Remove** deletes a selection. **Browse** to locate the Template file path and **Import** to patch the existing template.

Points to Remember

1. When importing an SSL based service, note that the service is imported with **SSL Status** set to **On** for the front-end and set to **Off** for the back-end. You need to create relevant certificates, bind them, and set **SSL Status** to **On** to complete the service creation.
2. A **Modify** operation blindly replaces any value of the object's parameters with the values found in the template. However, for the parameters which have multi-valued inputs (for example, **Allowed Methods** in **SECURITY POLICIES > URL Protection**), the modify operation results in a union of the existing values and the template values.
3. Template generation does not recursively copy the objects. If you have a policy bound to a service, make sure the policy exists on the destination box before importing the service on the destination box. The most common cases of objects like these within a service are: Policy, Response Pages, Certificates, Parameter Classes, Rate Control pool, Trusted Hosts.

