

## How to Create an Application Rule

<https://campus.barracuda.com/doc/48202955/>

Configuring an application rule is similar to configuring an access rule. You can enable Application Control features on a per access rule basis. Application rules allow you to block or throttle traffic for detected applications. You can optionally combine the application rule with a URL filter policy objects. The application ruleset is evaluated every time an access rule matches that has enabled any of the Application Control options. Make sure the matching access rule allows all protocols needed for the applications you are creating policies for. The application ruleset can be created as a positive or negative list, depending on whether the default policy is set to allow or block undetected applications per default. In most cases setting the default policy to allow undetected applications and then creating application rules to block or throttle application traffic is the recommended setup.

### Before you Begin

- Verify that you have enabled Application Control and that you are using the latest feature level of the Firewall service. For more information, see [How to Enable Application Control](#).
- Create **Application Objects** and/or **Application Filters** necessary for your application policies. For more information, see [How to Create an Application Object](#) and [How to Create an Application Filter](#).

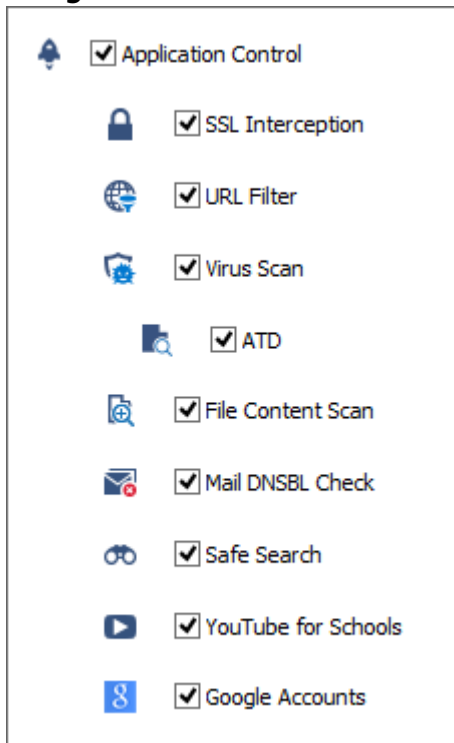
### Step 1. Enable Application Control Features in the Access Rule

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > Firewall > Forwarding Rules**.
2. Double-click to edit the access rule you want to enable application control for.
3. Click on the **Application Policy** link.

Authenticated User	Policy	Connection Method
Any	IPS Policy	Dynamic SNAT
	Default	Source-based NAT
	Application Policy	
	<b>No AppControl</b>	
	Schedule	
	Always	
	QoS Band (Fwd)	
	Internet (ID 4)	
	QoS Band (Reply)	
	Like-Fwd	

4. Select the Application Control features to be used for this access rule:
  - **Application Control**
  - **SSL Interception**
  - **URL Filter**

- **Virus Scan**
- **ATD**
- **File Content Scan**
- **Mail DNSBL Check**
- **Safe Search**
- **YouTube for Schools**
- **Google Accounts**

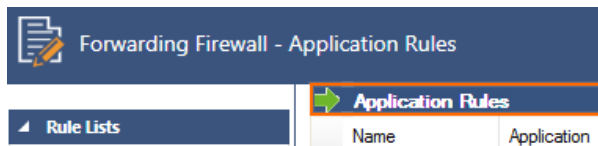


5. Click **OK**.
6. Click **Send Changes** and **Activate**.

## Step 2. Create an Application Rule

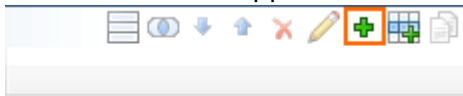
For each application policy create an application rule. Rules are evaluated from the top to bottom. The action set in the first matching rule is executed.

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > Firewall > Forwarding Rules**.
2. In the left menu, click **Application Rules**.
3. Click **Lock**.
4. (optional) Customize the application ruleset - To allow or deny all application traffic if none of the rules matches.
  1. Click **Application Rules** on top of the rule list.



2. Select one of the following options from the drop down list:
  - **Allow on No match (default)** - Application traffic is allowed if none of the application rules matches.
  - **Block on No match** - Application traffic is blocked if none of the application rules matches.

5. Click the green plus sign (+) in the top right of the page or right-click the rule set and select **New > Rule**. An application rule **New Rule** is added to the application ruleset.



6. Double click on the **New Rule** application rule you just created. The **Edit Rule** window opens.
7. Select **Pass** or **Deny** as the action.
8. Enter a **name** for the rule. For example, LAN-DMZ.
9. Specify the following settings that must be matched by the traffic to be handled by the access rule:
  - **Source** - The source addresses of the traffic. The source must be the same or a subset of the source of the matching access rule.
  - **Destination** - The destination addresses of the traffic. The destination must be the same or a subset of the destination of the matching access rule.
  - **Application** - Select the application object or application filter.

<input type="checkbox"/> Bi-Directional <input type="checkbox"/> Dynamic Rule <input type="checkbox"/> Deactivate Rule		
<b>Source</b>		
Trusted LAN Ref: Trusted LAN Networks Ref: Trusted Next-Hop Networks	<b>Application</b> FacebookAndGooglePlus Facebook Google+	<b>Destination</b> Internet Ref: Any NOT 10.0.0.0/8 NOT 172.16.0.0/12 NOT 192.168.0.0/16
<b>Authenticated User</b> Any	<b>Policy</b> URL Filter Policy: None Schedule: Always <input checked="" type="checkbox"/> Change QoS Band (Fwd): ThrottleSocialNetworks (ID 20) QoS Band (Reply): No-Shaping	
	<input type="checkbox"/> Change VPN TI Settings from access rule URL Filter Matching: Any Protocol: Any Content: Any	

For the example access rule displayed above, a network object named **FacebookAndGooglePlus** has been created. For more information, see [How to Create an Application Object](#) and [How to Create an Application Filter](#).

10. Set **Additional Matching Criteria** or change the **QoS Bands** as needed (see below).
11. Click **OK**.
12. Drag and drop the application rule so that it is the first rule that matches the traffic that you want it to forward. Ensure that the rule is located *above* the BLOCKALL rule; rules located below the BLOCKALL rule are never executed.
13. Click **Send Changes** and **Activate**.

## Additional Matching Criteria

- **Authenticated User** – Select a user object to apply this application policy only to a specific user group. For example, you can use this to allow social media access to specific employees, whereas an application policy below denies it for everybody else. For more information, see [User Objects](#).
- **Schedule Objects** – Applies time restrictions to the application policy. For example, you can use a schedule object to throttle social media during office hours. For more information, see

[Schedule Objects.](#)

<b>Policy</b>	
URL Filter Policy	None
Schedule	OfficeHours
<input checked="" type="checkbox"/> Change QoS Band (Fwd)	ThrottleSocialNetworks (ID 20)
	QoS Band (Reply)
	No-Shaping

- **Protocol** - Selecting a protocol object for a detected application allows to apply a policy that will deny an application the usage of this protocol, or alternatively apply a higher traffic shaping queue to the VOIP feature of an application. Protocols not allowed by the matching access rule cannot be allowed in the application rule. For more information, see [How to Create a Protocol Object](#).
- **Content** - To block specific file types, such as PDF, EXE or content category such as Audio or Video, select the Content ID from the list.

## URL Filter

You can combine URL filtering with application control. Use URL filter policy objects or URL Filter Match objects to block website categories.

- **URL Filter Policy** - URL Filter policies define the allow/block/warn/alert policy for every URL filter category. To apply that policy to the application rule select the URL filter policy object from the list. For more information, see [How to Create an URL Filter Policy Object](#).

<b>Policy</b>	
URL Filter Policy	<input type="checkbox"/> Change VPN TI Settings
BlockViolenceandTerrorism	from access rule
Schedule	URL Filter Matching
Always	BlockAdultContent
<input checked="" type="checkbox"/> Change QoS Band (Fwd)	Protocol
Internet (ID 4)	Any
	Content
	Any
No-Shaping	

- **URL Filter Matching** - URL Filter matching is used to assign additional policies such as traffic shaping or TI settings to web categories. For more information, see [How to Create a URL Filter Match Object](#).

**Policy**

URL Filter Policy  Change VPN TI Settings  
BlockViolenceandTerrorism from access rule ...

Schedule URL Filter Matching  
Always BlockAdultContent

Change QoS Band (Fwd) Protocol  
Internet (ID 4) Any

QoS Band (Reply) Content  
No-Shaping Any

## Applying Traffic Shaping to Detected Applications

Applications can not only be allowed or denied, you can also change the QoS Band assigned to the traffic matching this application rule. This allows you to throttle or prioritize applications as needed. By default the QoS Band of the matching access rule is used. For more information, see [Traffic Shaping](#).

- **Change the QoS Band** - Select this checkbox to use a different QoS band than the QoS band used by the matching access rule.
- **QoS Band (Fwd)** - Select the QoS Band to be applied to the outgoing application traffic matching this application rule.
- **QoS Band (Reply)** - Select the QoS Band to be applied to the incoming application traffic matching this application rule.

**Policy**

URL Filter Policy  
None

Schedule  
OfficeHours

Change QoS Band (Fwd)  
ThrottleSocialNetworks (ID 20)

QoS Band (Reply)  
No-Shaping

## Figures

1. app\_rule01.png
2. App\_Rule.png
3. rule\_custom.png
4. app\_rule03.png
5. app\_rule04.png
6. app\_rule06.png
7. app\_rule07.png
8. app\_rule08.png
9. app\_rule05.png

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