How to Configure Application Rules Matching SCADA Protocols

https://campus.barracuda.com/doc/72515754/

System Control and Data Acquisition (SCADA) is a wide family of protocols used in industrial processes. The CloudGen Firewall handles the most common ones. To allow the SCADA protocol to access a destination, a protocol object is required. SCADA protocols are handled via protocol objects in application rules. The following SCADA protocols are supported:

- S7
- IEC 60870-5-104
- IEC 6485
- MODBUS
- DNP3

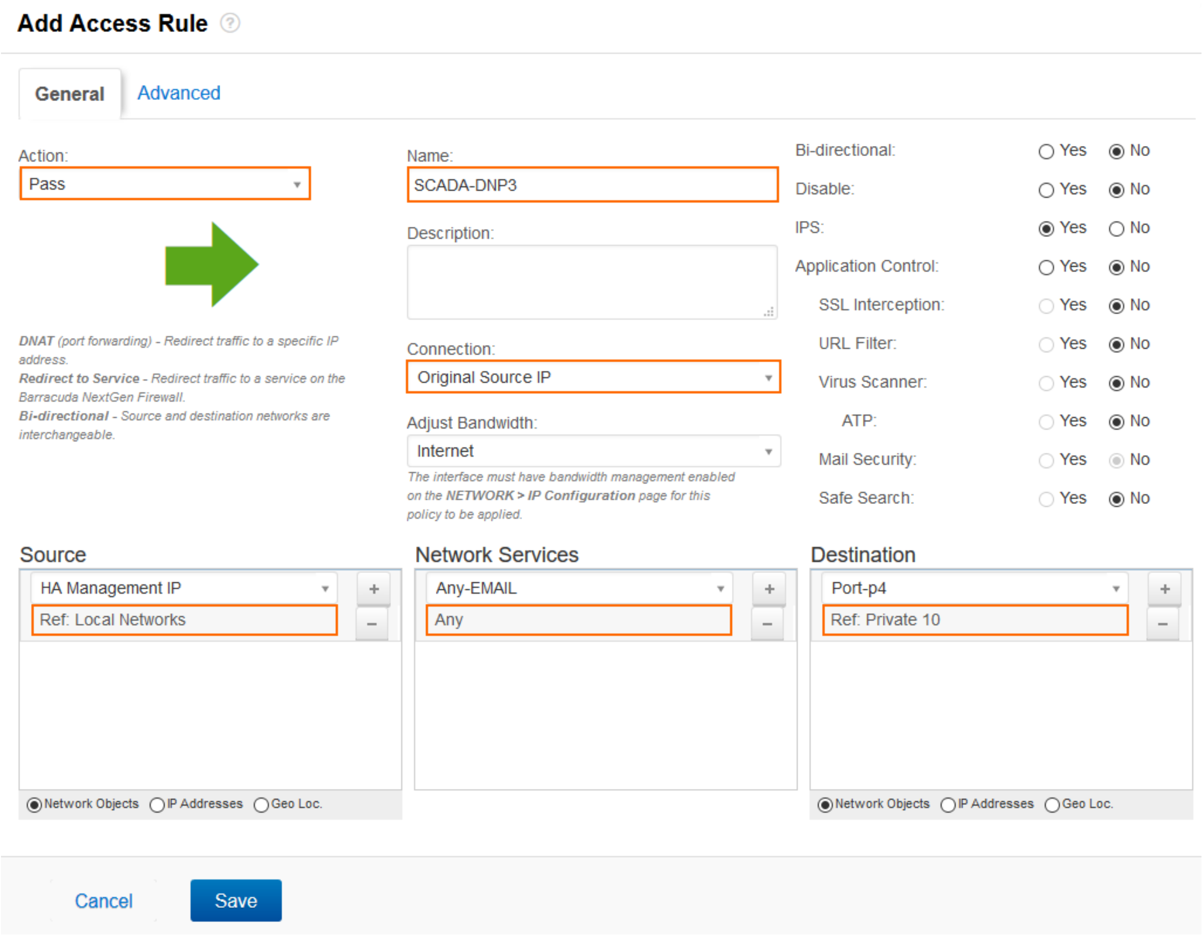
Before You Begin

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.

Step 1. Create an Access Rule

Create an access rule to allow traffic from the source to the destination network.

1. Go to **FIREWALL > Access Rules**.
2. Click **Add Access Rule**.
3. The **Add Access Rule** window opens.
4. Select **Pass** as the action.
5. Enter a name for the rule. For example, `SCADA-DNP3` .
6. 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.
   - **Destination** – The destination addresses of the traffic.
   - **Service** – Select a service object, or select **Any** for this rule to match for all services.
   - **Connection Method** – Select **Original Source IP** .



Add Access Rule

General | Advanced

Action: Pass

DNAT (port forwarding) - Redirect traffic to a specific IP address.
Redirect to Service - Redirect traffic to a service on the Barracuda NextGen Firewall.
Bi-directional - Source and destination networks are interchangeable.

Name: SCADA-DNP3

Description:

Connection: Original Source IP

Adjust Bandwidth: Internet

The interface must have bandwidth management enabled on the NETWORK > IP Configuration page for this policy to be applied.

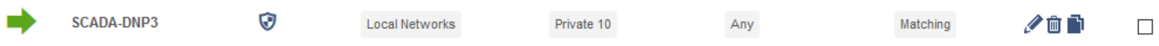
Bi-directional: ○ Yes ● No
Disable: ○ Yes ● No
IPS: ● Yes ○ No
Application Control: ○ Yes ● No
SSL Interception: ○ Yes ● No
URL Filter: ○ Yes ● No
Virus Scanner: ○ Yes ● No
ATP: ○ Yes ● No
Mail Security: ○ Yes ● No
Safe Search: ○ Yes ● No

Source: HA Management IP; Ref: Local Networks
● Network Objects ○ IP Addresses ○ Geo Loc.

Network Services: Any-EMAIL; Any

Destination: Port-p4; Ref: Private 10
● Network Objects ○ IP Addresses ○ Geo Loc.

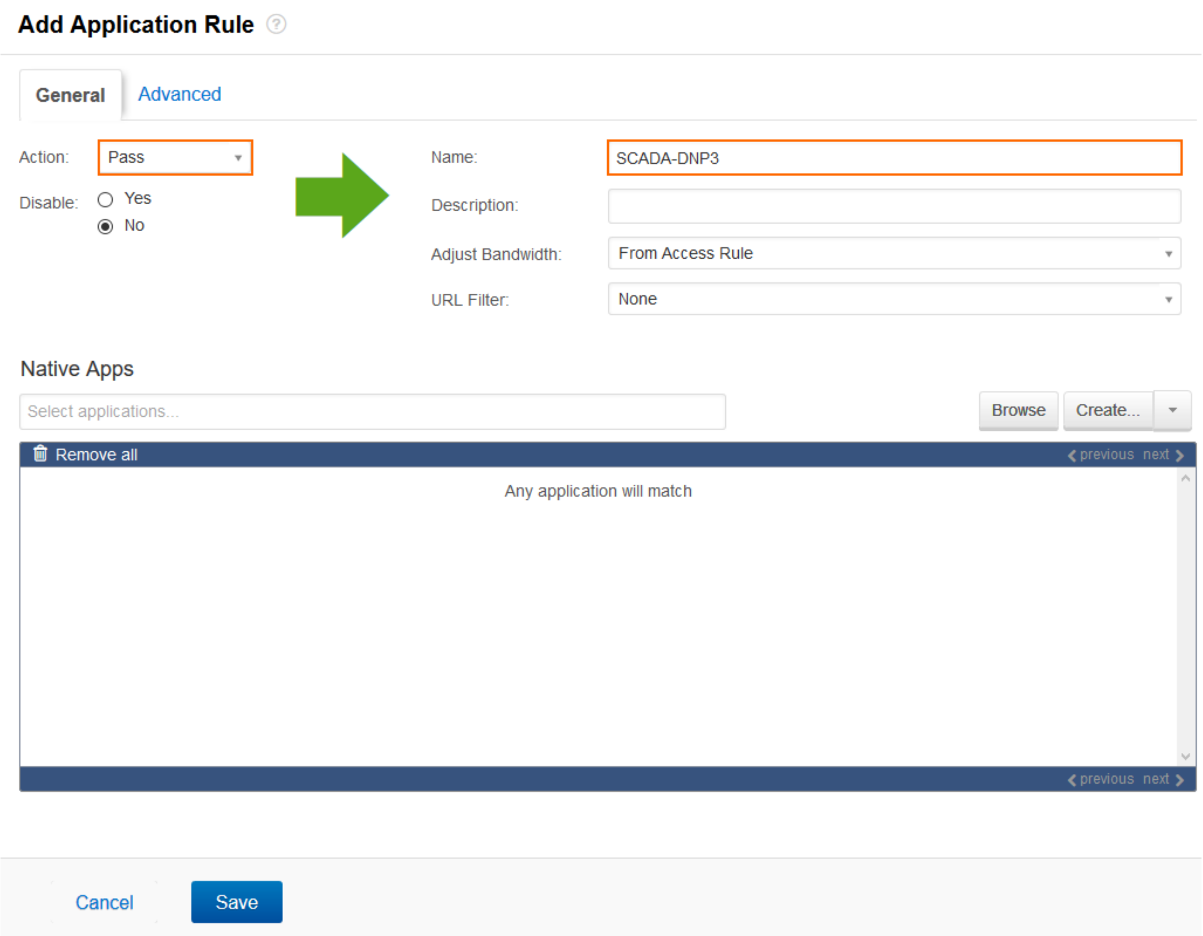
7. Click **Save**.
8. Drag and drop the access rule so that it is the first rule that matches the traffic that you want it to forward. Ensure that the rule is located above the BLOCKALL rule; rules located below the BLOCKALL rule are never executed.



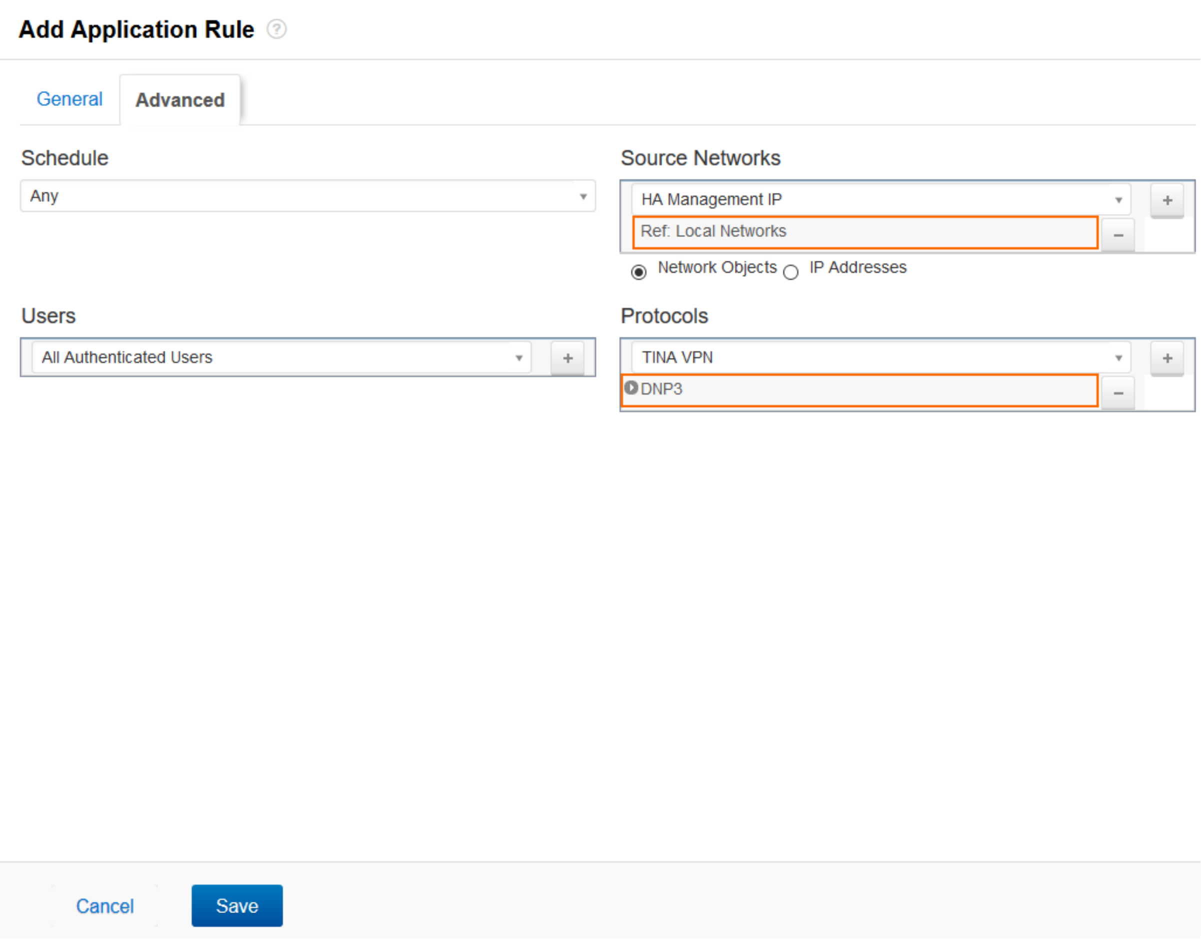
SCADA-DNP3 | Local Networks | Private 10 | Any | Matching

Step 2. Create an Application Rule

1. Go to **FIREWALL > Application Rule**.
2. Click **Add Application Rule**.
3. Select **Pass** as the action.
4. Enter a name for the rule. For example, `SCADA-DNP3` .



5. Click **Advanced**.
6. Specify the following settings:
    - **Source Networks** – The source addresses of the traffic, e.g., Local Networks.
    - **Protocols** – One of the above-mentioned SCADA-protocols, e.g., DNP3.



Add Application Rule

Schedule: Any

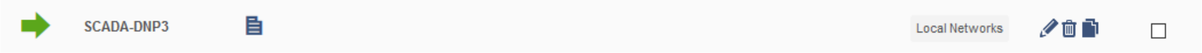
Source Networks: HA Management IP
Ref: Local Networks

● Network Objects ○ IP Addresses

Users: All Authenticated Users

Protocols: TINA VPN
DNP3

7. Click **Save**.
8. Drag and drop the access 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.



SCADA-DNP3 Local Networks ☐

Figures

1. scada_rule.png
2. scada_access_rule_added.png
3. scada_access_pg1.png
4. scada_access_pg2.png
5. scada_app_rule_added.png