How to Configure the Firewall as an IPv6 Router

https://campus.barracuda.com/doc/73719031/

The CloudGen Firewall can act as the router in the IPv6 stateless autoconfiguration process. Stateless autoconfiguration does not require a DHCPv6 server. It is mainly used either for networks that require fast connection times without intermediary services slowing down the process, or for small networks in order to save time and resources by not deploying DHCP or proxy servers for devices to be able to connect to other networks. When a client joins a IPv6 network, it sends a router solicitation message. The router responds with a router advertisement (RA) containing information on how the client should obtain its global unicast IPv6 address and the default gateway. Global unicast IPv6 addresses can be assigned by stateless or stateful autoconfiguration. Stateless autoconfiguration instructs the client to configure itself with a globally unique Internet address made up out of the prefix included in the RA and the second half of the address determined with the EUI-64 process.

Before You Begin

- Enable IPv6. For more information, see How to Enable IPv6.
- Configure either an IPv6 direct attached route, or add an **Additional IPv6 address**. For more information, see How to Configure IPv6 Gateway Routes and How to Add an IPv6 Management IP Address.

Configure IPv6 Stateless Autoconfiguration

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > Firewall > Forwarding Settings**.
2. In the left menu, click **IPv6 Autoconfig**.
3. In the left menu, expand **Configuration Mode** and click **Show Advanced View**.
4. Click **Lock**.
5. From the **IPv6 Client Autoconfiguration** list, select **Yes**.
6. Click **+** to add a prefix to the **IPv6 Prefixes**. The **IPv6 Prefixes** windows opens.
7. Enter a **Name** and click **OK**.
8. Configure the **IPv6 Prefix**:
   - **Used Prefix** – Select the IPv6 network.
   - **Autonomous** – Select **on** for the firewall to send router advertisements.
   - **DNS Servers** – Click **+** and enter the DNS server IP addresses.
   - **Domain Name** – Enter the domain name.

9. Click **OK**.
10. Click **+** to add an entry to the **Interface Options.** The **Interface Options** window opens.
11. Configure the IPv6 interface options:
    - **Interface** – Enter the interface. E.g., p5
    - **Default Preference** – Set the preferences to be higher than the other IPv6 routers in the network. Default: **Medium**.
    - **MaxRtrAdvInterval** – Enter the number of seconds allowed between unsolicited multicast router advertisements.
    - **OtherConfigFlag** – Set to **on** to retrieve settings not sent via the router advertisement from the DHCP server.
    - **ManagedFlag** – Set to **off**.

12. Click **OK**.
13. Click **Send Changes** and **Activate**.

Your IPv6 client now automatically assigns itself a unique global unicast IPv6 address from the IPv6 prefix in the router advertisement.

Figures

1. ipv6_stateless01.png
2. ipv6_stateless02.png