

# How to Configure Failover with Multiple xDSL or DHCP WAN Connections

https://campus.barracuda.com/doc/72515964/

If you are using a mix of static and dynamic connections, or WAN connections in Standby mode, see How to Configure Link Balancing and Failover for Multiple WAN Connections.

When using multiple DHCP or xDSL Internet connections from the same ISP, you must configure the connections to create the default route for each connection in a source-based route table. Use custom connection objects to determine which WAN connection is used. You can configure failover and load balancing settings in the connection object, depending on your needs.

To be able to also use failover for connections not using the custom connection object, each WAN connection is assigned a unique route metric. These routes are cloned into the default route table. Access rules using **Dynamic NAT** as the connection method now use the default route with the lowest metric. If that connection goes down, the route with the next higher metric is used. This is also useful as a fallback to retain connectivity even if the load-balancing access rules do not match.

#### **Before You Begin**

- Each Internet connection requires one free port.
- For xDSL connections, you need the connection settings provided by your provider.
- Configure DNS servers.

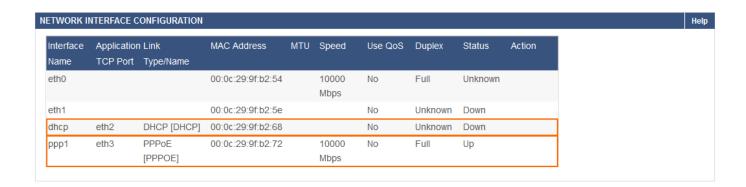
#### Step 1. Configure Multiple xDSL and/or DHCP WAN Connections

Configure multiple WAN and/or DHCP connections. A unique metric must be set for each connection. The connection with the lowest metric is used as the default connection by access rules using Dynamic NAT as the connection method.

For more information about how to configure an xDSL WAN connection, see <u>How to Configure a PPPoE xDSL WAN Connection with an External DSL Modem</u>.

For more information about how to configure a DHCP WAN connection, see <u>How to Configure an ISP with Dynamic IP Addresses (DHCP)</u>.





#### Step 2. Perform a Network Activation

After you create or change basic network configurations such as routing, you must activate your new network configurations.

- 1. Scroll to the top of the page
- 2. Click on the link in the warning message to activate the new network configuration.



#### Step 3. Create a Custom Connection Object

Create a connection object using network interfaces of the dynamic Internet connections to determine the translated IP address. xDSL connections use *ppp1* to *ppp4* as interface names. DHCP uses *dhcp* as the interface name. The following steps assume that you want the xDSL interface to be the standard interface to connect to your ISP and that the DHCP interface will serve as the failover interface.

- 1. Go to FIREWALL > Connection Objects.
- 2. In the Connection Objects section, click Add Connection Object.
- 3. The Add Connection Object window opens.
- 4. From the Translated Source IP list, select Network Interface.
- 5. From the Interface Name list, select ppp1.
- 6. From the Multilink Policy list, select Weighted Random.
- 7. From the **Alternate 1** list, select **Interface Name** and **ppp1**.
- 8. From the Alternate 2 list, select Interface Name and dhcp.
- 9. Click Save.



lame:	MultiplexDSL
escription:	
Connection Timeout:	Time in seconds to wait for a connection to be established. A low value means faster failover, use high values for congested connections to avoid unnecessary failovers.  Default: 30
ranslated Source IP:	Network Interface  Type and options for Network Address Translation. Further configuration depends on chosen type.
nterface Name:	ppp1 V
Explicit IP Address:	☐ Proxy ARP ☑ Use Same Port
Mojaht:	
Weight: Failover and Loa	Only used if the Multilink Policy for this object is Weighted Round Robin. The relative weight values indicate how much each interface is used.
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Failover and Loa	Only used if the Multilink Policy for this object is Weighted Round Robin. The relative weight values indicate how much each interface is used.  Id Balancing   Weighted Random  Failover - Use next link in sequence when link becomes unavailable. Weighted Round Robin - Weight specifies the relative load assigned to each link. Random -
Failover and Loa  Multilink Policy:	Only used if the Multilink Policy for this object is Weighted Round Robin. The relative weight values indicate how much each interface is used.  Independent of the Multilink Policy for this object is Weighted Round Robin. The relative weight values indicate how much each interface is used.  Weighted Random  Failover - Use next link in sequence when link becomes unavailable. Weighted Round Robin - Weight specifies the relative load assigned to each link. Random - All available links are used.  Interface Name
Failover and Loa  Multilink Policy:  Alternate 1	Only used if the Multilink Policy for this object is Weighted Round Robin. The relative weight values indicate how much each interface is used.  In the sequence when link becomes unavailable. Weighted Round Robin - Weight specifies the relative load assigned to each link. Random - All available links are used.  Interface Name
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For more information, see <u>How to Create a Custom Connection Object</u> and <u>How to Configure Failover</u> and <u>Load Balancing in Custom Connection Objects</u>.

## **Step 4. Change the Access Rule Connection Method**

To use the custom connection object, change the **Connection Method** for the access rules matching the traffic you want to load balance, or for which you want to use load balancing.



- 1. Go to FIREWALL > Access Rules.
- 2. Double-click the access rule that connects to your ISP, e.g., LAN-2-INTERNET.
- 3. The **Edit Access Rule** window opens.
- 4. Change the **Connection** method to the one configured before, e.g., MultiplexDSL.
- 5. Click Save.

#### Edit Access Rule ② General Advanced Bi-directional: Name: Action Pass LAN-2-INTERNET Disable: Yes No Yes O No Description: Allows Internet access from trusted LAN for Application Control: Yes $\bigcirc$ No typical applications No SSL Interception: Yes DNAT (port forwarding) - Redirect traffic to a specific IP URL Filter: Yes ○ No Connection Redirect to Service - Redirect traffic to a service on the MultiplexDSL Virus Scanner: No Yes Barracuda NextGen Firewall. Bi-directional - Source and destination networks are ATP: Adjust Bandwidth: Yes No interchangeable. Mail Security: Yes No The interface must have bandwidth management enabled on the NETWORK > IP Configuration page for this Safe Search: Yes No policy to be applied. **Network Services** Destination Source Any Any Any Ref: Trusted LAN Any Ref: Internet Save Cancel

#### Barracuda CloudGen Firewall



### **Figures**

- 1. multiple\_xdsl\_dhcp\_interfaces\_configured.png
- 2. network\_activation\_ip\_configuration.png
- 3. multi\_dyn\_wan.png
- 4. multi dyn wan access rule.png

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