

How to Configure an xDSL WAN Connection with an Internal DSL Modem in Advanced Mode

<https://campus.barracuda.com/doc/67175641/>

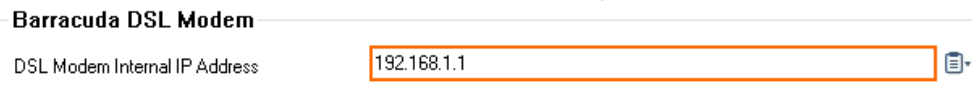
To set a static IP address for your internal DSL modem WAN interface, or to use two xDSL lines in active/passive mode, you must use the DSL modem advanced mode. It is not possible to configure two active xDSL lines using the internal DSL modem. In advanced mode, the DSL modem handles the xDSL connection to the provider and the firewall uses a transfer network on the ppp1 interface to connect to the Internet. The public IP address set or received by the provider is not visible on the firewall. The internal DSL modem can be configured for the following operation modes:

- **Active/Passive** - WAN2 in standby mode
- **WAN1 active** - WAN2 disabled
- **WAN2 active** - WAN1 disabled

Step 1. (optional) Change IP of the Internal DSL Modem

If the IP address 192.168.1.1 is already used in your internal network, change the IP address in the **Barracuda DSL Modem** table to an unused address.

1. In the **DSL Modem Internal IP Address** drop-down list, enter a different IP address.



Barracuda DSL Modem

DSL Modem Internal IP Address

2. Click **Send Changes** and **Activate**.

Step 2. Configure Additional IP

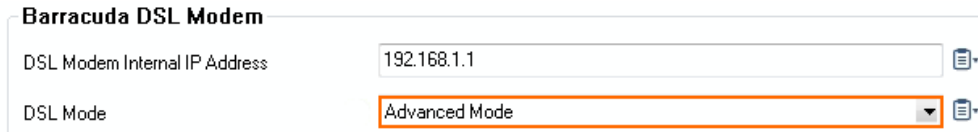
In advanced mode, a box level IP is required to communicate with the DSL modem. The additional IP address must be in the same network as the internal DSL modem.

1. Go to **CONFIGURATION > Configuration Tree > Box > Network**.
2. Click **Lock**.
3. In the **Additional IPv4 Addresses** table, click **+**.
4. Enter the **Name** and click **OK**. The **Additional IPv4 Addresses** window opens.
5. Configure the additional IP address:
 - **Interface Name** - Select **dsl1**.
 - **IP Address** - Enter the additional IP address. E.g., 192.168.1.2
 - **Associated Netmask** - Select **24-Bit**.
6. Click **OK**.

7. Click **Send Changes** and **Activate**.

Step 3. Configure DSL Mode

1. Go to **CONFIGURATION > Configuration Tree > Box > Network**.
2. In the left menu, select **xDSL/DHCP/ISDN**.
3. In the **Barracuda DSL Modem** table, from the **DSL Mode** drop-down list, select **Advanced Mode**.



Barracuda DSL Modem

DSL Modem Internal IP Address: 192.168.1.1

DSL Mode: Advanced Mode

4. Enable WAN1 and WAN2 interfaces according to the operations mode:
 - o **Active Passive**
 - From the **DSL DSL/WAN1 Interface** list, select **Enable**.
 - From the **DSL DSL/WAN2 Interface** list, select **Enable**.
 - o **WAN1 active**
 - From the **DSL DSL/WAN1 Interface** list, select **Enable**.
 - From the **DSL DSL/WAN2 Interface** list, select **Disable**.
 - o **WAN1 active**
 - From the **DSL DSL/WAN1 Interface** list, select **Disable**.
 - From the **DSL DSL/WAN2 Interface** list, select **Enable**.
5. Click **Send Changes** and **Activate**.

Step 4. (Active/Passive or WAN1 Active) Configure WAN1

WAN1 must be configured if you are using the DSL modem in active/passive or WAN1 active operation mode.

1. Next to the **DSL DSL/WAN1 Settings**, click **Set**.
2. Configure the **General Properties**.
3. From the **Connection Type** list, select **ADSL** or **VDSL**.
4. (optional) Configure **VLAN**.
 - o **VLAN** - Select **Enable**.
 - o **VLAN ID** - Enter the VLAN ID according to the connection settings of your DSL provider.
 - o **Priority** - Enter the priority according to the connection settings of your DSL provider.
 - o **MTU** - Enter the MTU value according to the connection settings of your DSL provider.
5. (ADSL only) Change settings in **xDSL Properties** section.
 - o **Protocol** - From the list, select **PPPoE** or **PPPoA** according to the connection settings of your DSL provider.
 - o **VCI** - Enter the value for VCI according to the connection settings of your DSL provider.

- **VPI** – Enter the value for VPI according to the connection settings of your DSL provider.
 - **Encapsulation** – Enter the value for Encapsulation according to the connection settings of your DSL provider.
 - **Modulation** – Enter the value for Modulation according to the connection settings of your DSL provider.
6. (optional) Configure **ISP Address Setting**.
 - **Fixed IP** – Select **Enable**.
 - **Fixed IP Address** – Enter the value for your static public IP.
 7. Click **OK**.
 8. Click **Send Changes** and **Activate**.

Step 5. (Active/Passive or WAN2 Active) Configure WAN2

WAN2 must be configured if you are using the DSL modem in active/passive or WAN2 active operation mode.

1. Next to the **DSL DSL/WAN2** Settings, click **Set**.
2. From the **Connection Type** list, select **PPPoE** or **Ethernet**.
3. (optional) Configure **VLAN**.
 - **VLAN** – Select **Enable**.
 - **Priority** – Enter the priority according to the connection settings of your DSL provider.
 - **MTU** – Enter the MTU value according to the connection settings of your DSL provider.
4. (PPPoE only) Change settings in **Authentication** table.
 - **Service Name** – Enter the service name according to the connection settings of your DSL provider.
 - **Username** – Enter the username.
 - **Password** – Next to **New**, enter your password.
 - **Password** – Next to **Confirm**, re-enter your password.
5. (Ethernet only) Change setting in **Ethernet setting**.
 - **IP address setting** – Select **static** or **dynamic** according to the connection settings of your DSL provider.
6. (PPPoE only) Configure **ISP Address Setting**.
 - **Fixed IP** – Select **Enable**.
 - **Fixed IP Address** – Enter the value for your static public IP.
7. (Static only)
 - **IP address** – Enter the value for the IP address according to the connection settings of your DSL provider.
 - **Subnet Mask** – Enter the value for the subnet mask according to the connection settings of your DSL provider.
 - **Gateway** – Enter the value for the gateway according to the connection settings of your DSL provider.
8. (Dynamic IP address only)
 - **Router name** (optional) – Enter the value for the router name according to the

connection settings of your DSL provider.

- **Domain name** (optional) - Enter the value for the domain name according to the connection settings of your DSL provider.

9. Click **OK**.
10. Click **Send Changes** and **Activate**.

Step 6. Network Activation

1. Go to **CONTROL > Box**.
2. In the left menu, expand the **Network** section and click **Activate new network configuration**.
3. Click **Failsafe**.

You are now connected to your xDSL ISP. Go to **CONTROL > Network** and verify that ppp1 is active.

Next Steps

Access rules for Internet access might have to be modified because the ppp1 uses a private IP address and the default network object for **Internet** includes exceptions for private IP address ranges, thereby causing rules with a destination **Internet** to never match.

Figures

1. scrn_shot 01.png
2. scrn_shot 02.png

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