

在RV系列路由器上配置虚拟局域网(VLAN)成员

目标

虚拟局域网(VLAN)是逻辑上独立的Internet协议(IP)子网，其端点与功能或其他共享特征相关联。这使不同部门可以拥有单独的网络，以便其成员对资源拥有独占访问权限。

通过启用VLAN间路由，VLAN还允许在VLAN之间共享资源。这等同于安全性，因为只有VLAN成员才能访问通过该VLAN的资源。这也意味着节省，因为部署VLAN意味着拥有单独的网络，但只需购买一台设备。默认情况下，RV系列路由器有一个默认VLAN，即VLAN1，该默认的VLAN无法删除、编辑或更改。根据设备型号，您最多可以创建6个VLAN。VLAN可以标记、无标记或排除到特定端口。

本文旨在展示如何在RV系列路由器上配置VLAN成员资格。

适用设备

- RV系列 — RV110W、RV130、RV130W、RV132W、RV134W

软件版本

- 1.2.0.10 — RV110W
- 1.0.3.16 — RV130、RV130W
- 1.0.0.17 — RV132W
- 1.0.0.21 — RV134W

配置VLAN成员资格

添加 VLAN

步骤1:登录路由器的基于Web的实用程序，然后选择Networking > LAN > VLAN Membership。

注意：本文中的图像来自RV132W路由器。选项和术语可能因设备型号而异。

Getting Started

Run Setup Wizard

▶ Status and Statistics

▼ Networking

▶ WAN

▼ LAN

LAN Configuration

VLAN Membership

Static DHCP

DHCP Leased Client

DMZ Host

Port Management

▶ Routing

第二步：单击Add Row。

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged

Add Row Edit Delete

Save Cancel

第三步：在VLAN ID字段中输入VLAN编号。VLAN ID必须在2到4094范围内。在本示例中，40用作VLAN ID。

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

You must save before you can edit or delete.

Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged	Tagged	Tagged

Add Row Edit Delete

Save Cancel

第四步：在说明字段中输入VLAN的说明。在本示例中，输入AfterSales。

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)
You must save before you can edit or delete.

Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged ▼	Tagged ▼	Tagged ▼

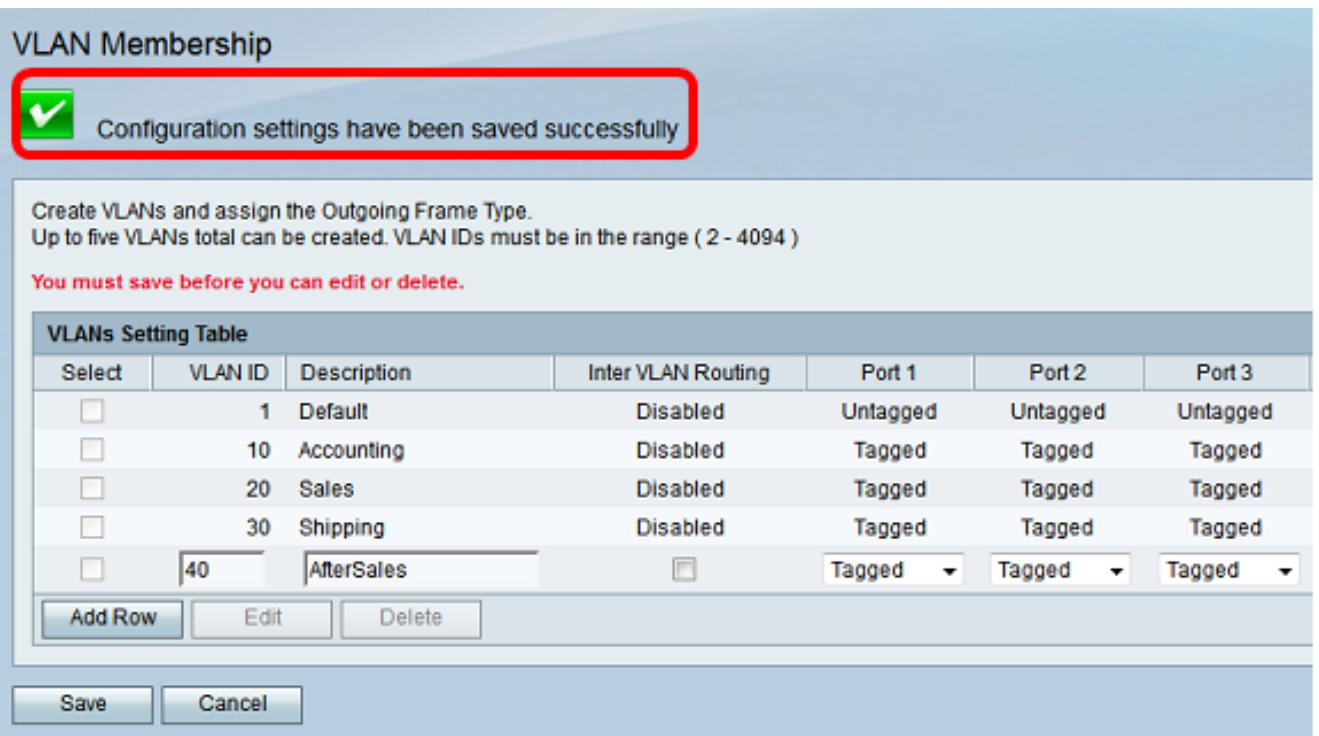
第五步：Click Save.

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)
You must save before you can edit or delete.

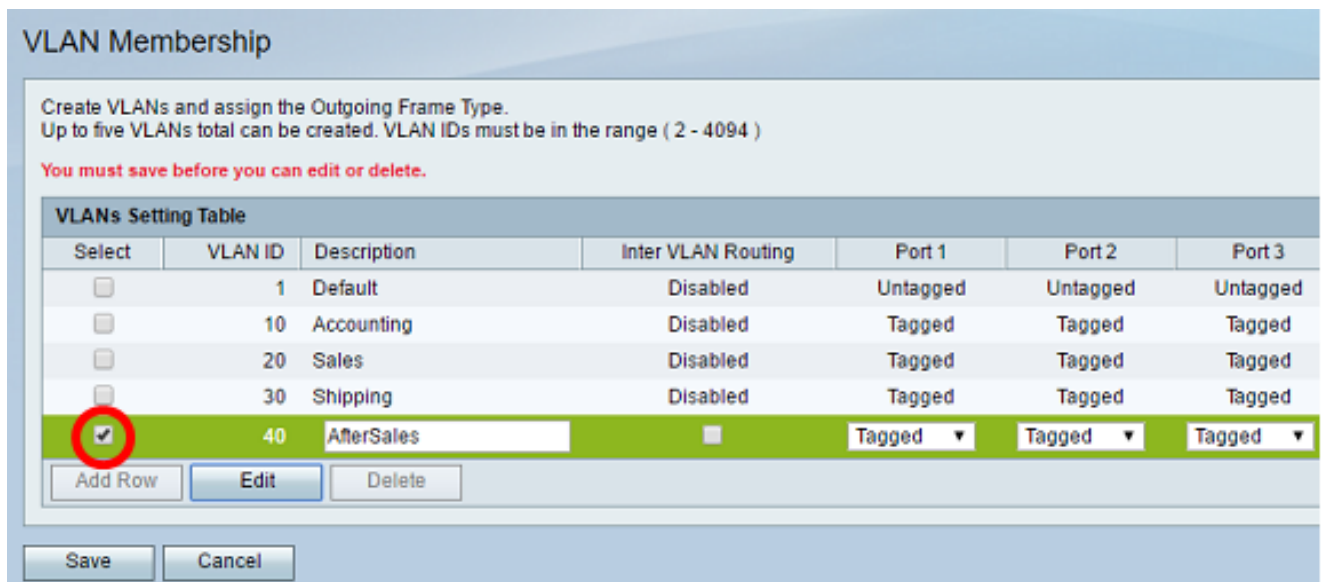
Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged ▼	Tagged ▼	Tagged ▼

现在，您应该已经成功地将VLAN添加到RV系列路由器。配置设置已成功保存的确认消息将显示在VLAN成员页面顶部。



添加成员

步骤1:要向VLAN添加成员，请选中相应VLAN的复选框。在本示例中，成员将添加到VLAN 40(AfterSales)。



第二步：单击 Edit。

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

You must save before you can edit or delete.

VLANs Setting Table						
Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input checked="" type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged ▼	Tagged ▼	Tagged ▼

Add Row **Edit** Delete

Save Cancel

步骤3. (可选) 选中此复选框以禁用VLAN间路由。如果启用了VLAN间，您需要为路由功能中包含的VLAN分配IP地址。

注意：在本示例中，VLAN间路由处于未选中状态或禁用状态。

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

You must save before you can edit or delete.

VLANs Setting Table						
Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input checked="" type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged ▼	Tagged ▼	Tagged ▼

Add Row Edit Delete

Save Cancel

第四步：在首选端口中选择VLAN标记。点击下拉箭头，然后选择Untagged、Tagged或Excluded。

- 未标记 — 接口是VLAN的无标记成员。VLAN的帧以无标记的方式发送到端口VLAN。
- Tagged — 接口是VLAN的已标记成员。VLAN的帧被标记到端口VLAN。
- 已排除 — 端口当前不是VLAN的成员。创建VLAN时，这是所有端口的默认设置。

注意：在本示例中，AfterSales VLAN被标记为端口1、端口2和端口3的成员。

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

You must save before you can edit or delete.

VLANs Setting Table

Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input checked="" type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged	Tagged	Tagged

Add Row Edit Delete

Save

Cancel

第五步：Click Save.

VLAN Membership

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

You must save before you can edit or delete.

VLANs Setting Table

Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input checked="" type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged	Tagged	Tagged

Add Row Edit Delete

Save

Cancel

现在，您应该已经成功地将成员添加到您的VLAN中。配置设置已成功保存的确认消息将显示在VLAN成员页面顶部。

VLAN Membership



Configuration settings have been saved successfully

Create VLANs and assign the Outgoing Frame Type.
Up to five VLANs total can be created. VLAN IDs must be in the range (2 - 4094)

You must save before you can edit or delete.

VLANs Setting Table

Select	VLAN ID	Description	Inter VLAN Routing	Port 1	Port 2	Port 3
<input type="checkbox"/>	1	Default	Disabled	Untagged	Untagged	Untagged
<input type="checkbox"/>	10	Accounting	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	20	Sales	Disabled	Tagged	Tagged	Tagged
<input type="checkbox"/>	30	Shipping	Disabled	Tagged	Tagged	Tagged
<input checked="" type="checkbox"/>	40	AfterSales	<input type="checkbox"/>	Tagged	Tagged	Tagged

Add Row

Edit

Delete

Save

Cancel

为VLAN分配IP地址

步骤1:单击LAN > LAN Configuration。

Getting Started

Run Setup Wizard

▶ Status and Statistics

▼ Networking

▶ WAN

▼ LAN

LAN Configuration

VLAN Membership

Static DHCP

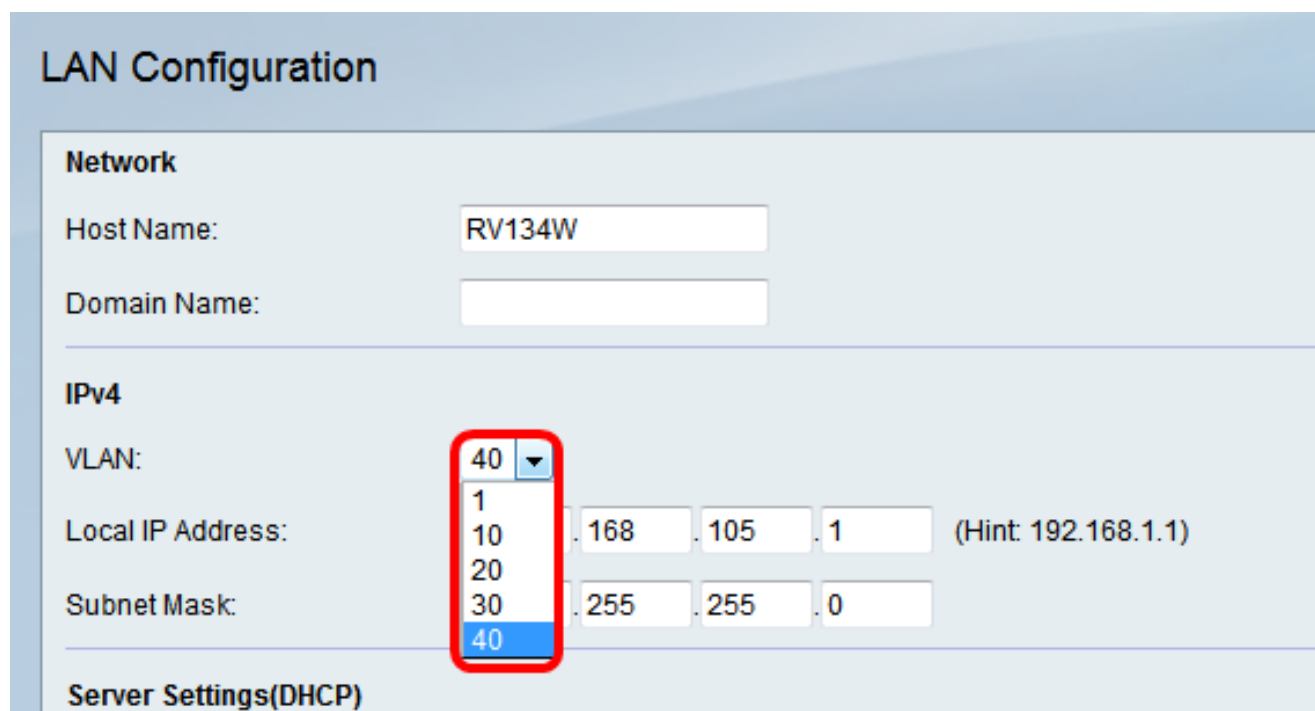
DHCP Leased Client

DMZ Host

Port Management

第二步：点击VLAN下拉箭头并选择需要分配IP地址的VLAN。

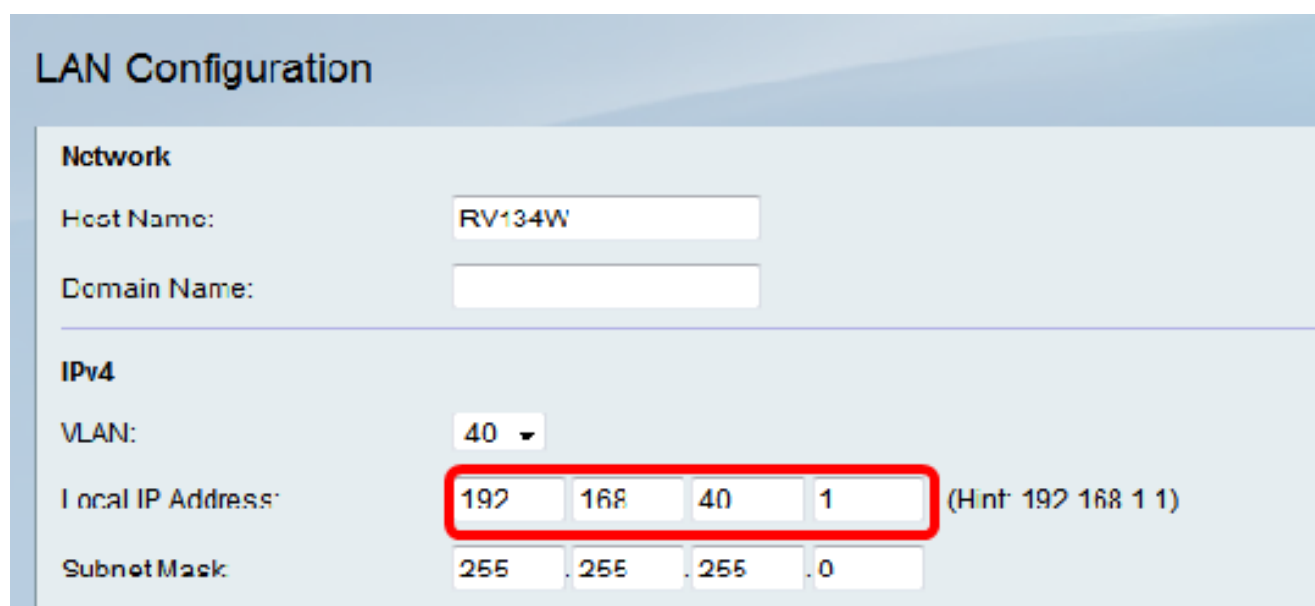
注意：在本例中，我们将向VLAN 40添加IP地址。



The screenshot shows the 'LAN Configuration' page. Under the 'IPv4' section, the 'VLAN' dropdown menu is open, showing options 1, 10, 20, 30, and 40. The option '40' is highlighted with a blue background and a red border. The 'Local IP Address' field is currently empty, and the 'Subnet Mask' is set to 255.255.0.

第三步：在本地IP地址字段下，输入需要为该VLAN分配的IP地址。

注意：在本示例中，我们将IP地址192.168.40.1分配给VLAN 40。



The screenshot shows the 'LAN Configuration' page. Under the 'IPv4' section, the 'VLAN' dropdown menu is set to '40'. The 'Local IP Address' field is now populated with the IP address '192.168.40.1', which is highlighted with a red border. The 'Subnet Mask' is set to 255.255.255.0.

第四步：在Subnet Mask字段中输入VLAN的子网掩码。

LAN Configuration

Network

Host Name:

Domain Name:

IPv4

VLAN:

Local IP Address: (Hint: 192 168 1 1)

Subnet Mask:

第五步：Click Save.

DHCP Option 66/150 & 67: Enable

TFTP Server Host Name:

TFTP Server IP:

Configuration Filename:

现在，您应该已经成功地为VLAN分配了IP地址。

关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

请注意：即使是最好的机器翻译，其准确度也不及专业翻译人员的水平。

Cisco Systems, Inc. 对于翻译的准确性不承担任何责任，并建议您总是参考英文原始文档（已提供链接）。