

Compatible Systems Tech Notes: DHCP and UDP Relays

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Introduction

Prerequisites

Requirements

Components Used

Conventions

DHCP and UDP Relays

Summary

Affected Products

Affected Versions

More Information

Related Information

Introduction

This document discusses DHCP and UDP relays.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

DHCP and UDP Relays

Summary

This document shows how to forward DHCP requests through a router by using UDP Relays to forward BOOTP requests from the client computer.

Affected Products

900i	2900i	3800R
1200i	2200R	3000E

1220i	2220R	4000S
1250i	2250R	VSR-2
1270i	2270R	VSR-8
2600i	3500R	

Affected Versions

All versions

More Information

DHCP servers are also able to support multiple subnets as long as it has a scope defined for each subnet it is set up to support. When a client computer broadcasts a DHCP query, it is only broadcast to its subnet using a BOOTP (UDP 67) packet. If the DHCP server is not on that subnet, then the router connected to that client subnet needs to have a UDP Relay installed for BOOTP. The target server address of that relay should point at the IP address of the DHCP server.

When the BOOTP packet is relayed to the DHCP server, it includes the subnet from which it originated so that the DHCP server knows which scope it should use when assigning an IP address to match this subnet. If the DHCP server does not have a scope for that subnet, then no IP address is assigned.

One user has also found that using TCP and UDP ports 546 and 547 have worked for them. These are labeled as DHCPv6 Client and Server Ports.

Refer to the *CompatiView Management Software Reference Guide* or to the *Text-Based Configuration and Command Line Management Reference Guide* for specific information regarding how to configure UDP relays.

Related Information

- [Technical Support & Documentation – Cisco Systems](#)

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