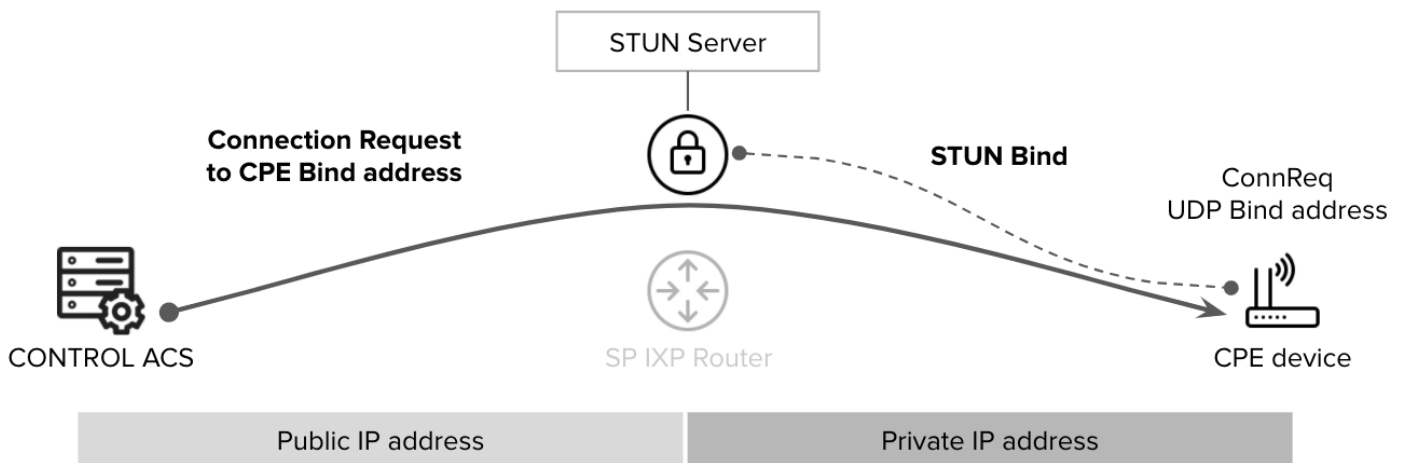


# Configuring STUN (UDP-based connection request)

## Overview

[STUN](#) (Session Traversal Utilities for NAT) is a [TR-069 connection-request](#) helper protocol that enables the ACS (Auto Configuration Server) to reach CPE (Customer Premises Equipment) devices that cannot be accessed via direct HTTP requests. STUN is typically required when the CPE is located behind a firewall or a [NAT](#) (Network Address Translation) process.



## Configuration Requirements

To enable STUN functionality, both the CONTROL ACS platform and the CPE must be properly configured.

## CPE Configuration

Configuring STUN on the CPE is straightforward and requires only two parameters:

- **STUN Server FQDN:** The [Fully Qualified Domain Name](#) of the STUN server
- **Port:** The UDP port number for STUN communication

# Development Environment Settings

For testing and development purposes, use the following configuration:

```
STUN Server: control-stun-dev.zequence.com
Port: 3478
```

## CONTROL ACS Configuration

On the CONTROL ACS platform, STUN-related variables must be added to the Device Profile. A typical configuration example:

Parameters							
Name	Variable name	Type	Default value	Active	Read-only	Check	Metric
<a href="#">STUN Enable</a>	<a href="#">Device.ManagementServer.STUNEnable</a>	Boolean	<i>empty</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">STUN Server Address</a>	<a href="#">Device.ManagementServer.STUNServerAddress</a>	String	<i>empty</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">STUN Server Port</a>	<a href="#">Device.ManagementServer.STUNServerPort</a>	Positive integer	3478	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">STUN Minimum Keep Alive Period</a>	<a href="#">Device.ManagementServer.STUNMinimumKeepAlivePeriod</a>	Positive integer	<i>empty</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">STUN Maximum Keep Alive Period</a>	<a href="#">Device.ManagementServer.STUNMaximumKeepAlivePeriod</a>	Positive integer	<i>empty</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">UDP connection request address</a>	<a href="#">Device.ManagementServer.UDPConnectionRequestAddress</a>	String	<i>empty</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<a href="#">NAT detected</a>	<a href="#">Device.ManagementServer.NATDetected</a>	Boolean	<i>empty</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## How STUN Connection Requests Work

Once STUN is configured on both the ACS and CPE:

1. The CPE establishes a UDP binding with the STUN server
2. The CPE reports this UDP binding address to the ACS using the TR-181 parameter:  
`Device.ManagementServer.UDPConnectionRequestAddress`
3. The ACS uses this reported address for all subsequent connection-request procedures

This mechanism allows the ACS to communicate with CPE devices even when they are not directly accessible via traditional HTTP connection requests.

Revision #2

Created 2026-02-13 22:39:03 UTC by ipena@zequence.com

Updated 2026-02-14 01:08:16 UTC by ipena@zequence.com