Gear up your PBX
Cut Costs, Boost Profits

# Remote IP Phone Extensions (STUN)

3CX

Goal of this Module

- Correctly Implement IP Phones in remote Locations using STUN
- Configuration of Remote Firewall
- Provision a remote STUN extension
- Usage of RPS

Prerequisites

- Covered Module 1.3 Configure the Firewall (Server Side)
- A Supported IP Phone → IP Phone Running Minimum Firmware Version
- Functioning Mail Server (SMTP) → End User Needs to have Welcome Email
- Access to Remote Firewall/Gateway

Supported STUN Phones

- Desktop IP Phones:
  - Fanvil
  - HTEK
  - snom
  - Yealink
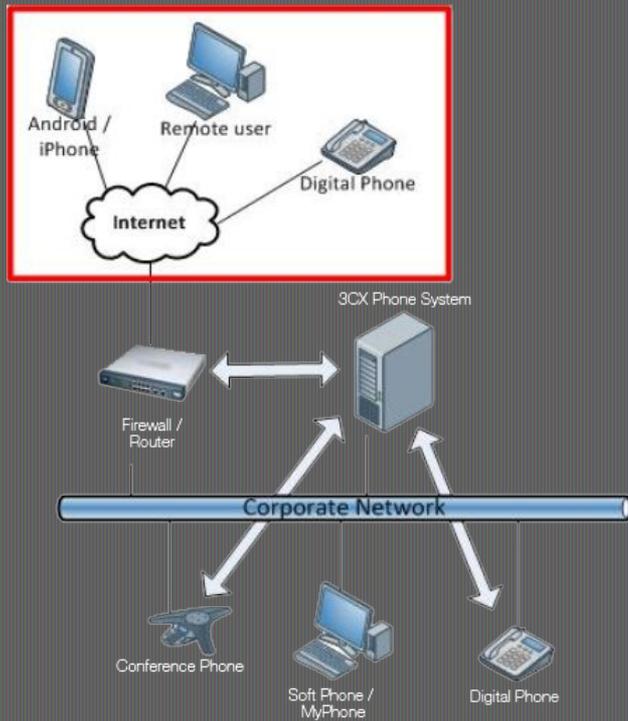
Benefits Using Teleworker (STUN)

- Internal Call Capabilities to Remote Users
- Dropship IP Phones
- No Additional Hardware Required
- Autodiscovery of your 3CX

Provisioning STUN Extensions - Admin

- Create/ Configure extension in 3CX
  - Make/Model
  - MAC Address
  - Remote Ports
- Increment SIP/RTP ports for each subsequent device
- Uncheck: Options → "Disallow use outside of LAN"
- Advice: Create NAT in remote Firewall → IP Phone
- Send Welcome Email

IP Phone

Provisioning Method

> Direct SIP (STUN - remote) ▾

Provisioning Link: **https://company.3cx.eu/provisioning/pc56bscs195k/cfg{mac}**

Mac Address

> 0004137040B4

Select Interface

> company.3cx.eu ▾

What is STUN?

- STUN (Session Traversal Utilities for NAT) is a Method to
  - Discover the Public IP Address (from a LAN)
  - Discover Firewall Port Mappings (from a LAN)
- STUN Server is your own PBX

Provisioning Remote Extensions - End User

- Reset Phone (if not a new device)
- Power Up Phone At Remote Location
- Phone Prompts for Login → From Welcome Email
  - Username: Extension Number
  - Password: Voicemail PIN
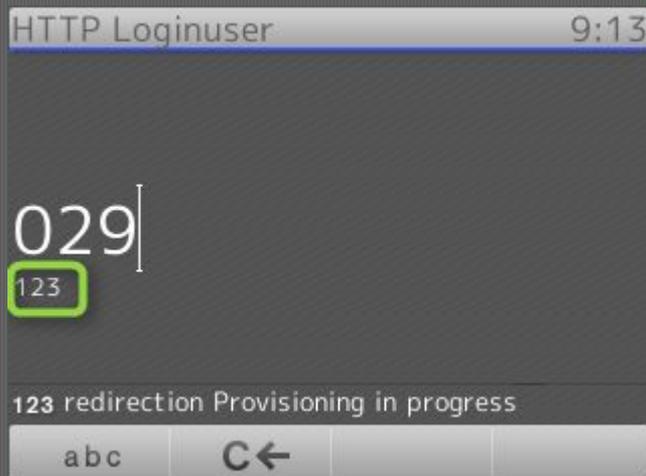
What is RPS?

- Automatically triggered when Provisioning Method is STUN
- Binds MAC Addresses to (Provisioning)-URL
- Phone boots and retrieves URL
- After 2 Weeks MAC/URL is unlisted
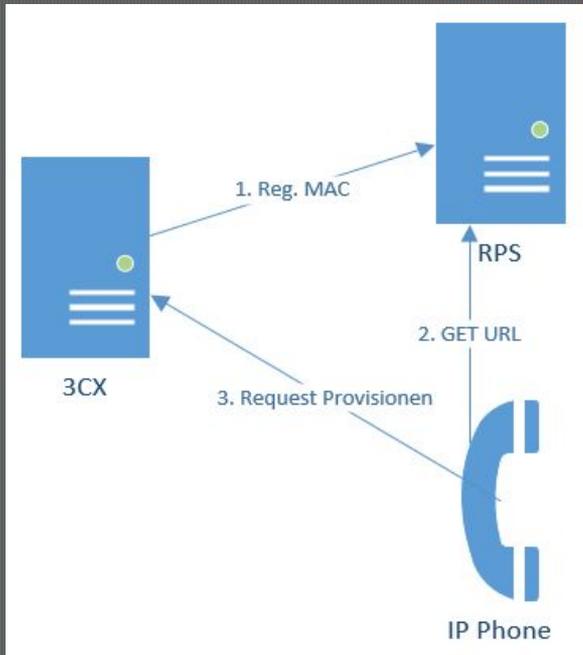
Validate

- If STUN Extension shows the following symptoms:
  - No connection to server
  - Audio issues
  - Cannot Transfer or Hold or Resume Calls
- Check Remote Firewall for
  - SIP ALG → Disable it - Always
  - Check that NAT is Implemented
- More than One Stun Phone behind one router?
  → PBX Delivers Audio

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