KEYYO

DE BOUYGUES TELECOM ENTREPRISES

SIP Parameters

&

VoIP Recommendations

Version 2.4

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Disclaimer

Cisco, Poly/Polycom, Spectralink, Obihai and beroNet VoIP devices, as well as Keyyo applications are automatically configured by Keyyo and don't require any manual configuration.

Keyyo communicates its SIP parameters only to VoIP experts.
Keyyo doesn't provide support for devices that have been manually configured and is not responsible for any issue on these devices.

SIP Parameters

Mandatory parameters

- ❏ **Authentication mechanism**: MD5 digest (based on username / password)
- ❏ **Codecs**: G.722 (HD), G.729, G.711 A-Law (negotiated)
- ❏ **SIP domain**: keyyo.net
- ❏ **SIP server port**: 5060
- ❏ **SIP realm**: keyyo.net (provided by the server)
- ❏ **Number format:** E.164 (with or without "+")[1]
- ❏ **DTMF Mode**: RFC 2833 (with Payload set to 101 in SDP)
- ❏ **SIP management on WAN router**: SIP ALG option disabled
- ❏ **NAT Keepalive**: Should be adjusted regarding the router (30 seconds is OK for most)

Optional parameters

- ❏ **STUN** (on/off): off
- ❏ **Outbound proxy server**: keyyo.net
- ❏ **Outbound proxy server port**: by default
- ❏ **Registrar server**: keyyo.net
- ❏ **Registrar server port**: 5060
- ❏ **Fax codecs**:
    - ❏ Initial call: G.711 (A-Law)
    - ❏ Carrier: T38 with G.711 (A-Law) fallback

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[1] *Number format in signalisation from/to proxies (for a 0ZABPQMCDU french number, that means 33ZABPQMCDU or +33ZABPQMCDU).*

Firewall

If you use a firewall, make sure the communications with the Keyyo platform are authorized.

DNS
- ❏ IP address ranges: 83.136.161.0/24, 83.136.162.0/24, 83.136.163.0/24 and 83.136.164.0/24
- ❏ UDP and TCP ports: 53

Router configuration
- ❏ IP address range: 83.136.160.64/26
- ❏ TCP ports: 80, 443 and 444

Keyyo Apps configuration
- ❏ IP address range: 83.136.160.64/26
- ❏ TCP ports: 80, 443 and 444
- ❏ URL: ssl.google-analytics.com (*Google Analytics is used only for audience analysis*)

Phone configuration

First boot
- ❏ URLs:
  - ❏ https://webapps.cisco.com for Cisco devices
  - ❏ https://srps.spectralink.com for Spectralink devices
  - ❏ https://berocloud.beronet.com for beroNet devices
  - ❏ check the detailed prerequisites for Poly/Polycom devices
- ❏ TCP ports (for Obihai phones): 5222, 5223 and 6800
- ❏ UDP ports (for Obihai phones): 5060, 5061, from 10000 to 11000, from 16600 to 16998, and 19305

Keyyo provisioning (except Keyyo Phone)
- ❏ IP address range: 83.136.160.64/26
- ❏ TCP ports: 80, 443 and 444

Keyyo Phone provisioning
- ❏ URLs:
  - ❏ https://secure.counterpath.com
  - ❏ https://secure-east.softphone.com
  - ❏ https://secure-west.counterpath.com
- ❏ IP addresses: 216.93.246.170, 69.90.51.170, 40.78.10.175, 52.183.45.217, 52.250.216.127, 198.204.63.15 and 173.244.45.15

Voice services
- ❏ IP address ranges: 83.136.161.0/24, 83.136.162.0/24, 83.136.163.0/24 and 83.136.164.0/24
- ❏ UDP ports: 5060, 8060, and from 35000 to 64999

Fax emission
❏ IP address ranges: 83.136.161.0/24 and 83.136.162.0/24
❏ TCP port: 21

Access to Manager & Keyyo Mail, Keyyo Unify & OpenCTI services, and APIs
❏ IP address range: 83.136.160.64/26
❏ TCP port: 443

Access to LDAP
❏ TCP port: 389

Access to FTP server
❏ IP address range: 83.136.160.64/26
❏ TCP ports: 21, from 40000 to 40999, and from 42900 to 42999

Access to e-mail server
❏ IP address range: 83.136.160.64/26
❏ TCP ports: 25, 110, 143 and 587

Network Devices

Router/Switch
If you use devices not provided by Keyyo, make sure the following points are OK:
❏ IP fragmentation.
❏ Only one device doing NAT.
❏ Private IP addresses allocation (RFC 1918).

VLAN
For enterprise deployments, it is recommended to use a VLAN (Virtual LAN) that will prioritize VoIP packets for optimal use.

CDP / LLDP
CDP (Cisco Discovery Protocol) and LLDP (Link Layer Discovery Protocol) features are not supported.

Internet Access

Bandwidth
❏ Standard audio quality (G.729 codec): 45 kbit/s ATM i.e. 30 kbit/s IP (symmetrical).
❏ Premium audio quality (G.711 codec) and HD (G.722 codec): 110 kbit/s ATM i.e. 90 kbit/s IP (symmetrical).

Misc.
Using a proxy is not supported: The access to the Internet must be direct.
Internet access aggregation and load balancing are not supported.