

N720 - Connection based on IP address instead of using SIP registration (Beta feature)

Introduction



Important

This feature is under investigation and is only allowed to be used with support from Gigaset, please contact your local Technical Sales if you would like to use this feature.

With this new feature, the N720 is connected with other platforms via IP address instead of using the SIP registration method. This feature allows:

- Connection to Cisco platform using the Cisco Call manager
- Providers that connect via IP address and not using SIP registration
- SIP trunks provided by PBX systems or Internet Service Providers

After successful trial period, this feature will be official released.

N720 Software version

This feature can be used with the N720 Release 89 and higher.

N720 configuration

In this **example** we have the following set-up

- PBX has IP address 192.168.0.50
- All numbers starting with "2" are routed to the N720
- N720 has IP address 192.168.0.123
- SIP accounts are configured using the internal numbers of the PBX.
 - Number 200 has username 200 and Password 200
 - Number 201 has username 201 and Password 201
 -
- The internal number is in the Invite header, the PBX dials 200 and the Invite with number 200 is send. Device/handset with number 200 will ring.

Provider configuration

Parameter	Setting
Domain	IP address of Platform
Proxy server address	IP address of Platform
Registration server	localhost
Outbound server address	localhost
Outbound proxy mode	Never

Network and Connections
VoIP Providers
Mobile Devices
Telephony
Info Services
Online Directories
Management

VoIP Provider 1

Profile Download

Provider
Profile version d_sipgateteam_de.bin 1386664920

Select VoIP provider

General Data of your Service Provider

Domain
Proxy server address
Proxy server port
Registration server
Registration server port
Registration refresh time sec

Network Data of your Service Provider

STUN enabled ☐ Yes ☒ No
STUN server address
STUN server port
STUN refresh time sec
NAT refresh time sec
Outbound proxy mode ☐ Always ☒ Automatic ☐ Never
Outbound server address
Outbound proxy port

User/device configuration

Gigaset
N720-DM-PRO

Authentication Password N.A.
Username
Network and Connections
Display name
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Management

Settings

Status

Internal phone number
Mobile device 3
Mobile device registered
Device type R630H PRO
DECT user identity (IPUI/IPEI) 02 60 06 D7 57
Software version 28
Deregister mobile device for this SIP connection

Deregister

Personal Provider Data

A separate SIP connection must be assigned to each handset.

Authentication name
Authentication password
Username
Display name
Select VoIP provider

PBX configuration

We used the Gigaset T640/T440 in this example.

SIP Gateway configuration

Parameter	Description
Registrar	IP address of N720
Register	No (No SIP registration)
Group	Gateway group

Gateway Group

gateway group

le	<input type="text" value="N720"/>
mit inbound calls	<input type="checkbox" value="ON"/>
bound caller ID	Search/replace pattern for outbound caller ID (1) s/ <input type="text" value="^(.*)"/> / <input type="text" value="\$1"/> /
ound DIDs	Search/replace pattern to cut prefixes (2) s/ <input type="text" value="^(.*)"/> / <input type="text" value="\$1"/> /
ound caller ID	Search/replace pattern for inbound caller ID (3) s/ <input type="text"/> / <input type="text"/> /

Create a new gateway group with these settings.

Outbound routes

nd Routes

ed options	<input type="checkbox" value="ON"/>
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	Active	Weekdays	Time	Pattern	Group	Gateway group	Add prefix
0	<input type="checkbox" value="ON"/>	M T W T F S S ☑ ☑ ☑ ☑ ☑ ☑ ☑	00:00 to 24:00	*2	[all]	N720 - -	

All numbers starting with 2 will be send to N720

The Cisco configuration is the same when you connect to an Asterisk PBX.

<http://www.uccollabing.com/2014/05/16/cucm-asterisk-trunk-integration/>

- Cisco CUCM does not like multiple “extensions” to REGISTER the same contact address (IP:port)

- For multiple extensions (numbers) at the same transport destination Cisco CUCM prefers to configure a “trunk” down to N720/N510
Trunk means in this case:
 - CUCM learns the transport destination of such “trunked” extensions (numbers) just by a local configuration inside CUCM
 - CUCM does not need and does not like to receive REGISTER requests from such “trunked” extensions

We have trick available in N510/N720 to achieve such behavior: “localhost REGISTRAR simulation”

Field name	example for CUCM trunk	comment
Domain	<domain name or IP-address of the CUCM SIP service>	this is host part that our device uses to build an Address of Record (SIP-UIR) for this domain
SIP server (proxy)	<FQDN or IP-address of the CUCM SIP service>	<ul style="list-style-type: none"> - all outgoing requests except INVITE will be send to this destination - all incoming request are expected from this destination
SIP registrar	localhost	- all REGISTER requests will not leave the device but will be sent to the device it self
outbound proxy	localhost	- incoming REGISTER requests will automatically be replied internally with 200 OK
outbound proxy mode	never	- do not use the outbound proxy field as transport destination for all SIP requests

This way all REGISTER requests stay internal of N510/N720 and are internally confirmed with 200 OK.

The MMI is happy about being successfully registered.

Any initial outgoing request (e.g. INVITE) are sent to the configured “SIP server” , e.g. the CUCM.
With the record-route header the CUCM can install any other proxy in the route set.

As we have used the outbound proxy server field to indicate activation of a local registrar simulation, we don't have it available to configure any other outbound proxy overruling the “recorded” routes of the CUCM network.

If N510/N720 and CUCM are in different subnets, N510/N720 would usually send UDP packet { CRLF, CRLF }.

To disable that you can set NAT refresh time to 0.

If you need periodical SIP traffic to use the SIP trunk,
you could consider to use one account in the regular manner to register an extension at the CUCM but all the other accounts to do registration just with the “localhost REGISTRAR simulation” mentioned above.

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