IP Softphone V4.3 / Communication Assistant V5.1 - Summary -

Rev1.1 SEP. 2020
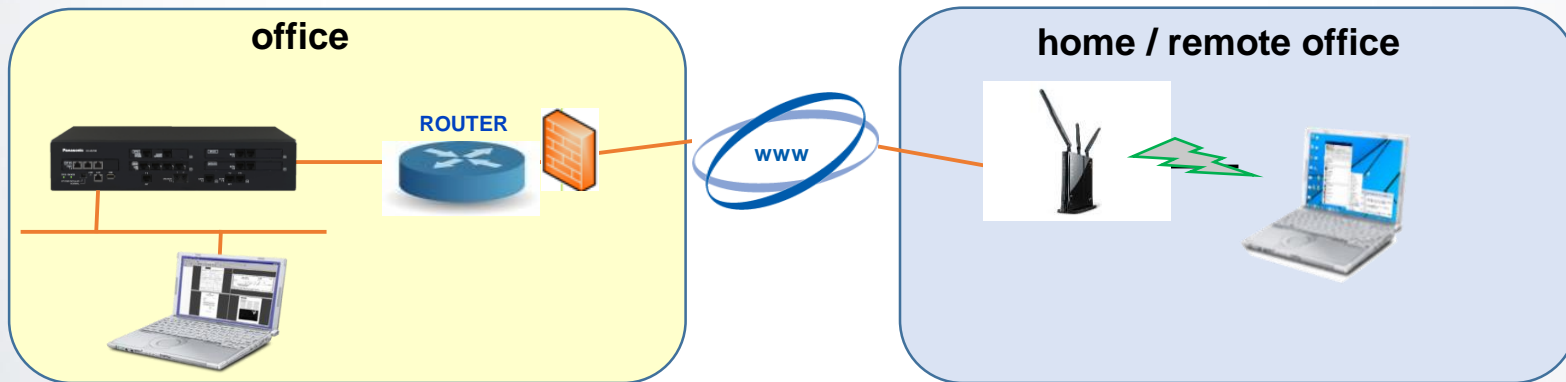
Contents

Panasonic BUSINESS

Improvements to support home/remote working.

**Remote workers using CA* client or IP Softphone in both office and remote location.
Previously, remote workers were unable to simply move between office and remote locations.**

office

ROUTER

www

home / remote office

IP Softphone V4.3 / Communication Assistant V5.1

NOTE: Without using VPN, CA v5.1 security will be dependent on the PBX CA User password – in NS Series this password is set by the CA user on first connection so for security, all CA Users must be set with a secure CA password before making the CA available remotely. Also, <u>disable</u> CA from all extensions that do not need it.

*CA Client v5.1 used without VPN does not support CHAT

In addition, the following improvements are planned / expected within 2020.

- **Communication Assistant v6.0**

Built in Encryption of Communication	Text Chat from Remote
TLS	Via PBX

- **IP Softphone v5.0**

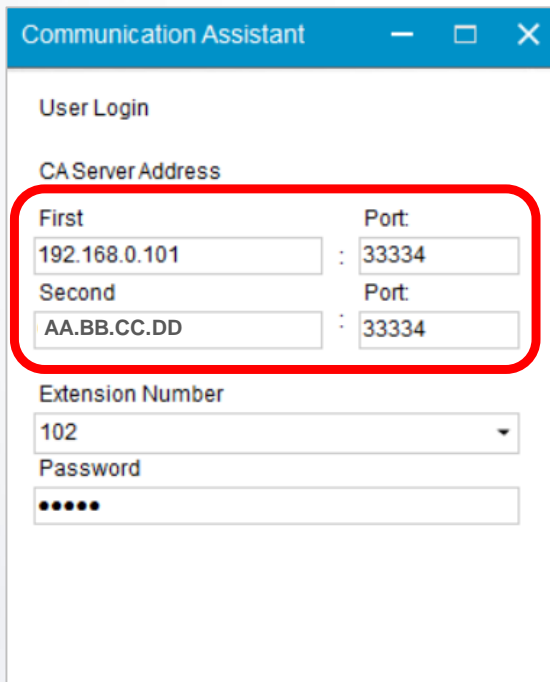| Built in Encryption of registration	Built in Encryption of speech
MGCP-TLS	SRTP

- **PBX Requirement**
  - **NS - v8.3**
  - **NSX - v5.3**
  - **NSV - tbc**

PBX IP Address settings

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Client supports First/Second or Local/Remote PBX IP Address.
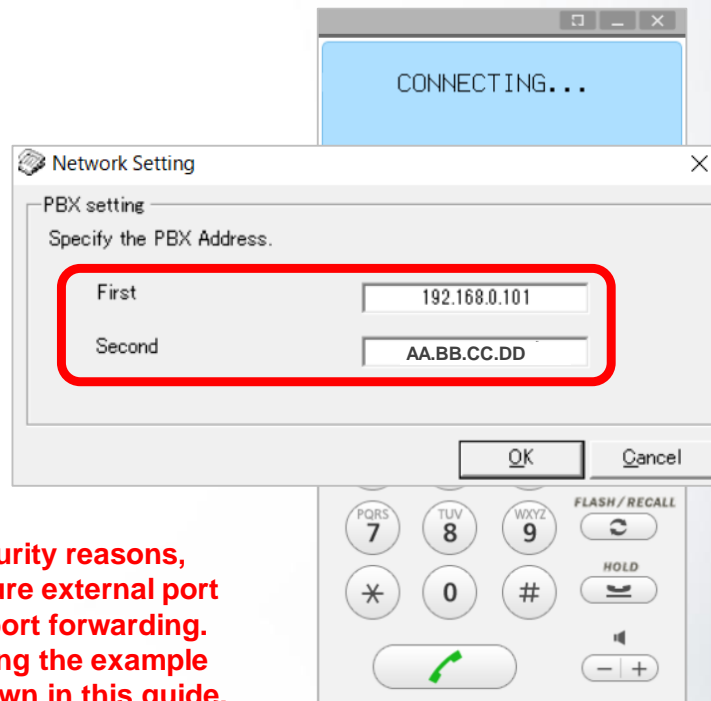
Communication Assistant

User Login

CA Server Address

First	Port:
192.168.0.101	33334

Second	Port:
AA.BB.CC.DD	33334

Extension Number

102

Password

•••••

Network Setting

PBX setting

Specify the PBX Address.

First	192.168.0.101
Second	AA.BB.CC.DD

OK   Cancel

CONNECTING...

NOTE: For security reasons, always use obscure external port numbers when port forwarding. Please avoid using the example port numbers shown in this guide.

Communication Assistant

IP Softphone

PBX IP Address Settings

CA client connection behaviour

Status	Communication Assistant
Starting up	First -> Second
Re-connecting	

If client fails to connect to "First" address after retry 3 times (4, 8, 15 sec after first attempt) then client attempts connection to "Second" address.
If both "First" and "Second" connection fails, error message is displayed:
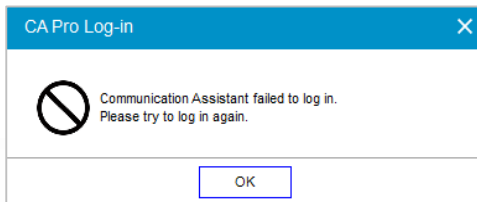
Number of retry attempts and retry interval are fixed.
"First -> Second" process occurs only once, it is not repeated.

PBX IP Address Settings

IP Softphone connection behaviour

Status	IP Softphone
Starting up	First -> Second
Re-connecting	

If client fails to connect to "First" address after retries then client attempts connection to "Second" address.
If both "First" and "Second" fail, error message displayed:

Number of retry attempt can be changed by parameter setting "parameters.txt" file in installation folder.
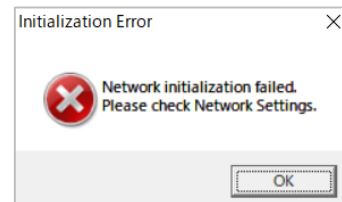
```
01
:
:
:
22    6      - Quantity of packet resend messages to First IP address
23    6      - Quantity of packet resend messages to Second IP address
```

Values can be changed

Initialization Error ✕
Network initialization failed.
Please check Network Settings.
OK

Resend message interval is preset to: 0.5s → 1s → 2s → 4s → 8s → 8s (repeated 8s interval)
E.g. if "quantity of packets" is set to "4" then resend message occurs at 0.5s → 1s → 2s → 4s before "fail to connect".

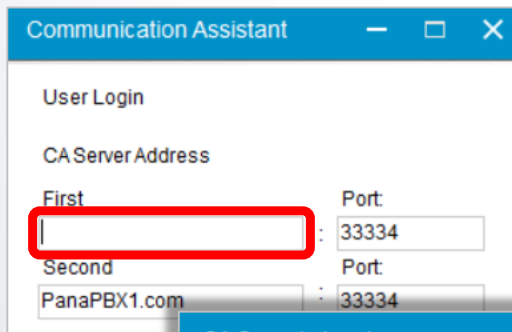Retry interval is pre-defined and not possible to change.
"First -> Second" process occurs only once, it is not repeated.

Programming tip

First address field cannot be empty

If the "First" address is empty:
- CA - Login button can be pressed, but error message is shown
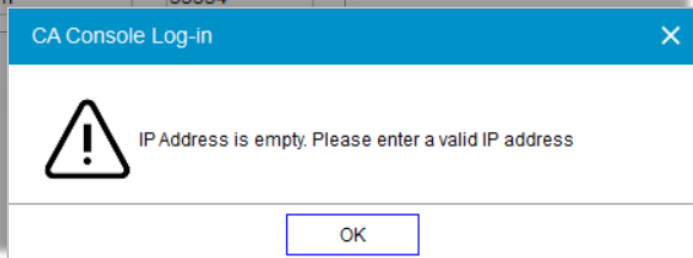- IP Softphone - OK button is greyed-out/disabled.

"Login"

"OK" button disabled

Connection behavior is applied to application launching (starting up) and re-connecting.

Re-connection occurs in the following situations:
- "PBX connection is disconnected"
- "Return from PC sleep mode"
- "Change from Wired LAN to Wi-Fi", etc.

CA / IP Softphone client will always attempt to connect to "First" IP address if available, so recommended IP address settings are:
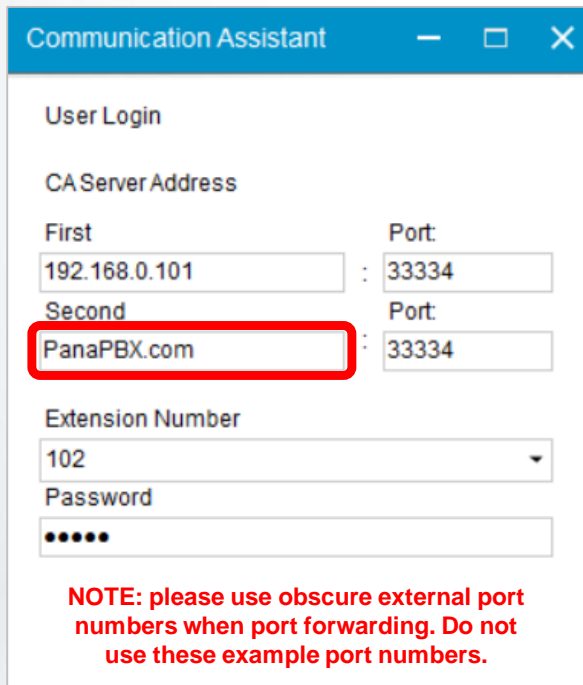- For office workers: First: Local PBX address   Second: Router WAN address
- For remote workers: First: Router WAN address   Second: Local PBX address

NOTE: For security reasons, always use obscure external port numbers when port forwarding. Please avoid using the example port numbers shown in this guide.
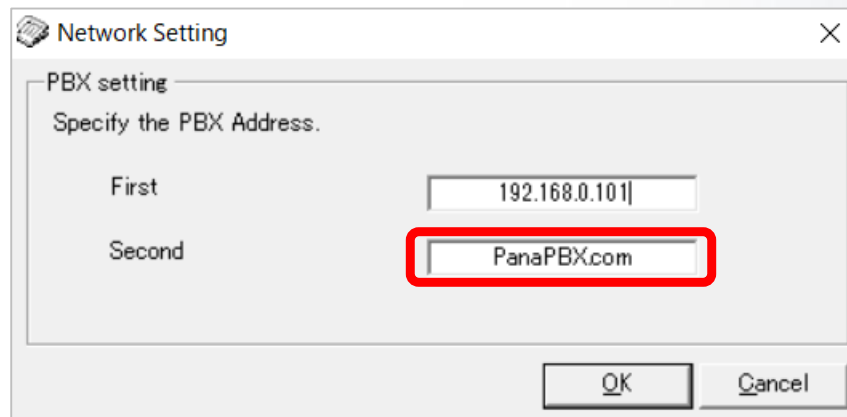
FQDN Support

FQDN Support

FQDN (Fully Qualified Domain Name) is supported for PBX address setting.
Domain name should be registered in public and valid DNS setting is required for address resolution.

FQDN can be used for both First and Second.

Communication Assistant

User Login

CA Server Address

First — 192.168.0.101   Port: 33334

Second — **PanaPBX.com**   Port: 33334

Extension Number — 102

Password — •••••

NOTE: please use obscure external port numbers when port forwarding. Do not use these example port numbers.

Communication Assistant

Network Setting

PBX setting
Specify the PBX Address.

First — 192.168.0.101

Second — **PanaPBX.com**

OK   Cancel

IP Softphone

FQDN Support - Conditions

When "FQDN" is entered, client application will attempt to resolve the domain name to IP address. If the DNS lookup fails, an error message is displayed and client returns to login screen (CA) / connection screen (IP Softphone), even if correct IP address or domain name is set in the other address field.
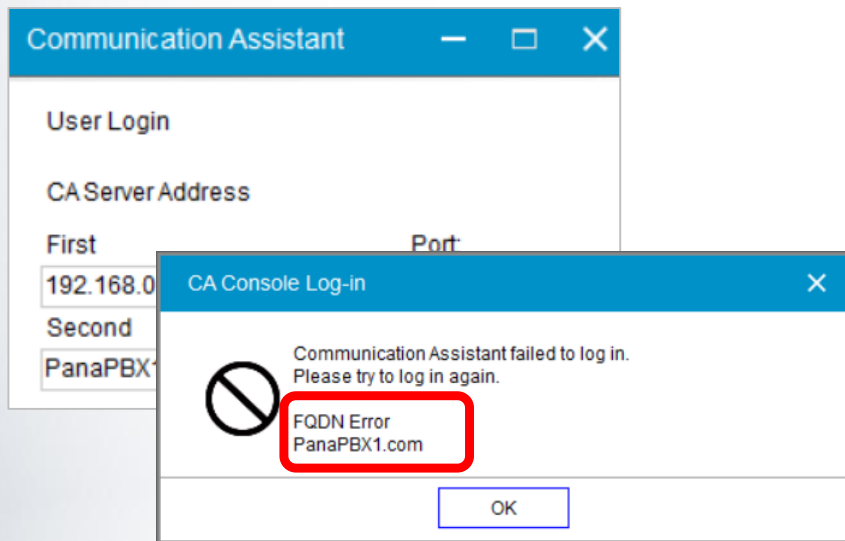
Communication Assistant
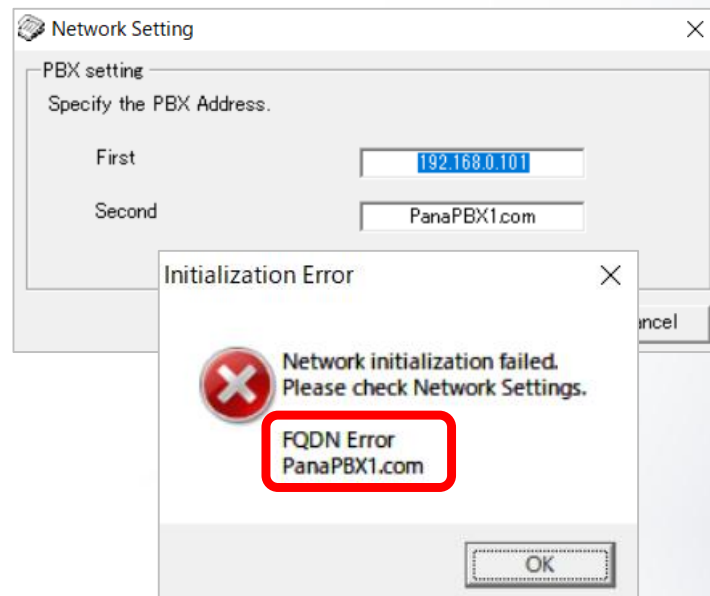
IP Softphone

Appendix

Fixing known issue (IP Softphone)

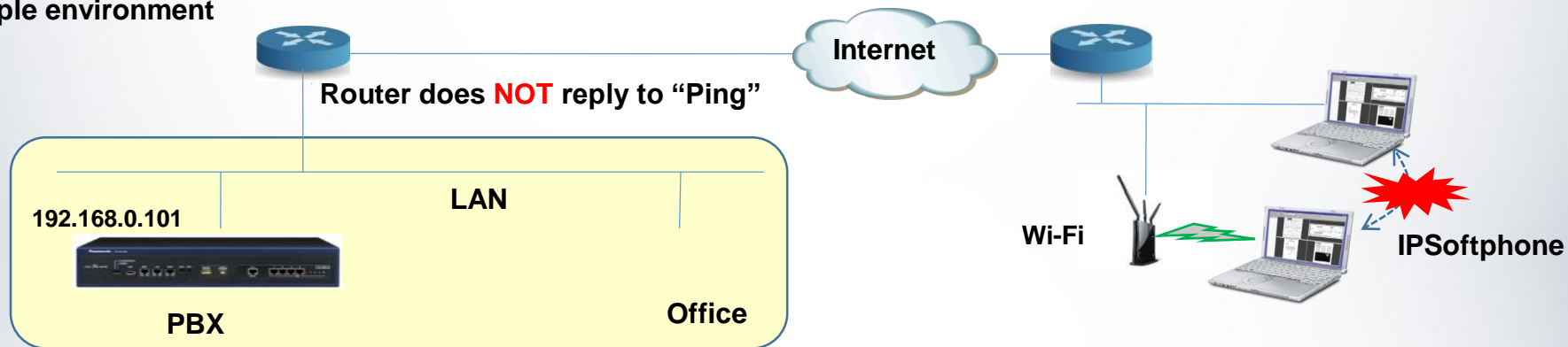This version of IP Softphone fixes following known issue.

IP Softphone is connected through MRG and edge router at PBX side doesn't reply to PING, then in some cases (e.g. initiating / disconnecting call) Softphone doesn't respond/freezes for a certain period (PING response timeout: about 20sec).
IP Softphone use PING response as quality indication of communication with PBX (this indication is only used in PT GUI mode. PING is also used to check communication recovery after disconnection.

Countermeasure:
- PING not used for communication recovery check - application layer protocol used instead.
- Disable PING in IP Softphone client as default setting.
- Change PING timeout from 20sec to 1 sec.

Sample environment

Router does NOT reply to "Ping"

Internet

LAN

192.168.0.101

PBX

Office

Wi-Fi

IPSoftphone

END