



NORCO Communications Inc.
Complete VoIP Solution Provider

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Prepared by Sam Wong

About NORCO

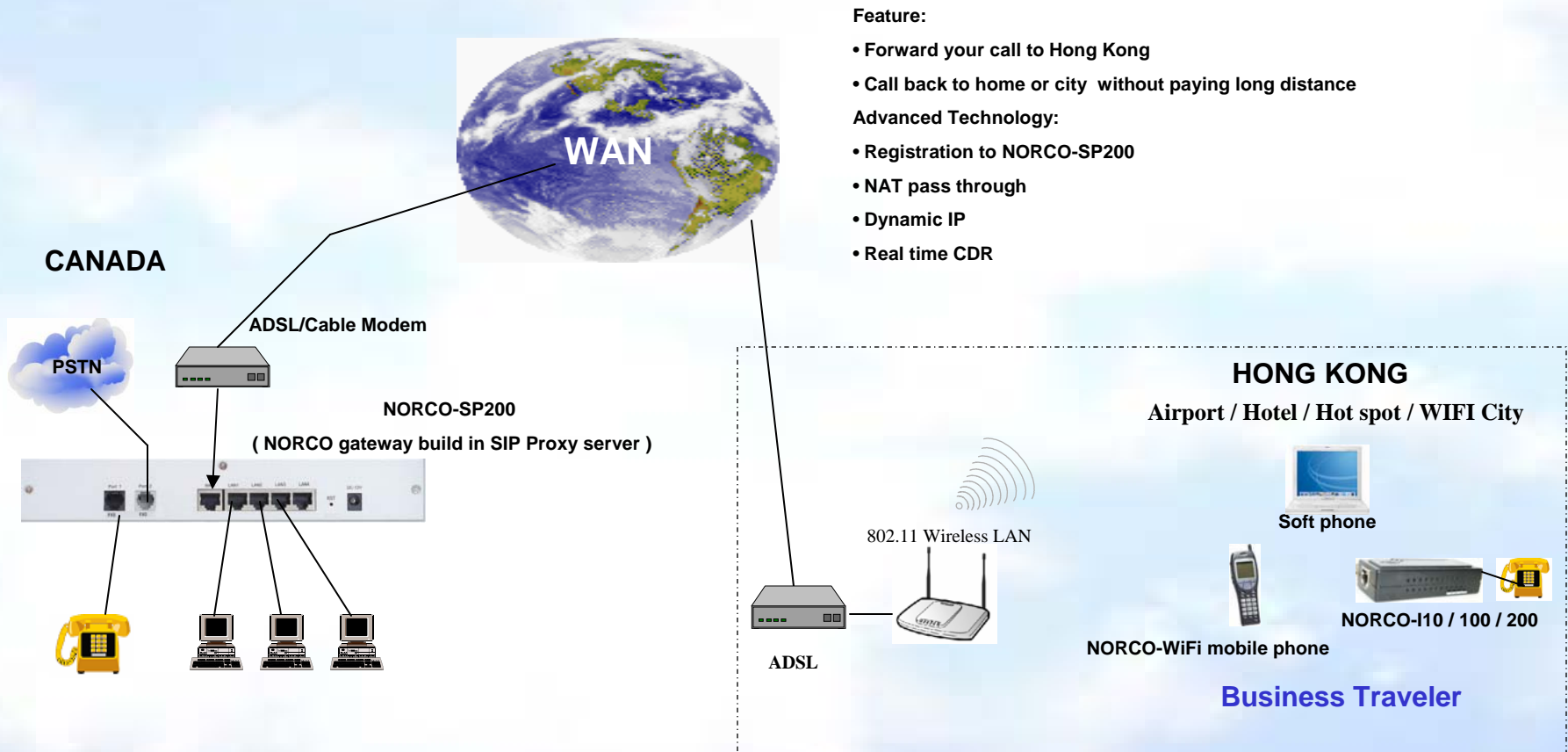


- ***Founded*** : August 2001
- ***Founders*** : Sam Wong >> Canada Regional Director
Over 20 years of experiences in Telecommunication Network
- ***Product Line:*** ***NORCO-200/400/800 VoIP Gateway (H.323 or SIP)***
NORCO-S200/400/800/1600 VoIP Gateway (H323 + SIP)
NORCO-SP200/400/800/1600 SIP Proxy VoIP Gateway
NORCO-T100 (SIP Version only)
NORCO-ATA Series (SIP Version only)
- ***Strategy:*** NORCO VoIP Products enable Internet service providers and system integration customers to rapidly deploy and profit from lower telephony costs and reliable VoIP network system.
- ***Goal:*** *Solving your communications needs with affordable solutions that unleash your profit potential is our mission!*

NORCO SIP Version Scenario I

Personal User Application

- No minute charge long distance call with your own network Gateway
- Plug in to Router & make a Long Distance Call Immediately
- Call from your Cell phone or call to your Cell phone



Feature:

- Forward your call to Hong Kong
- Call back to home or city without paying long distance

Advanced Technology:

- Registration to NORCO-SP200
- NAT pass through
- Dynamic IP
- Real time CDR

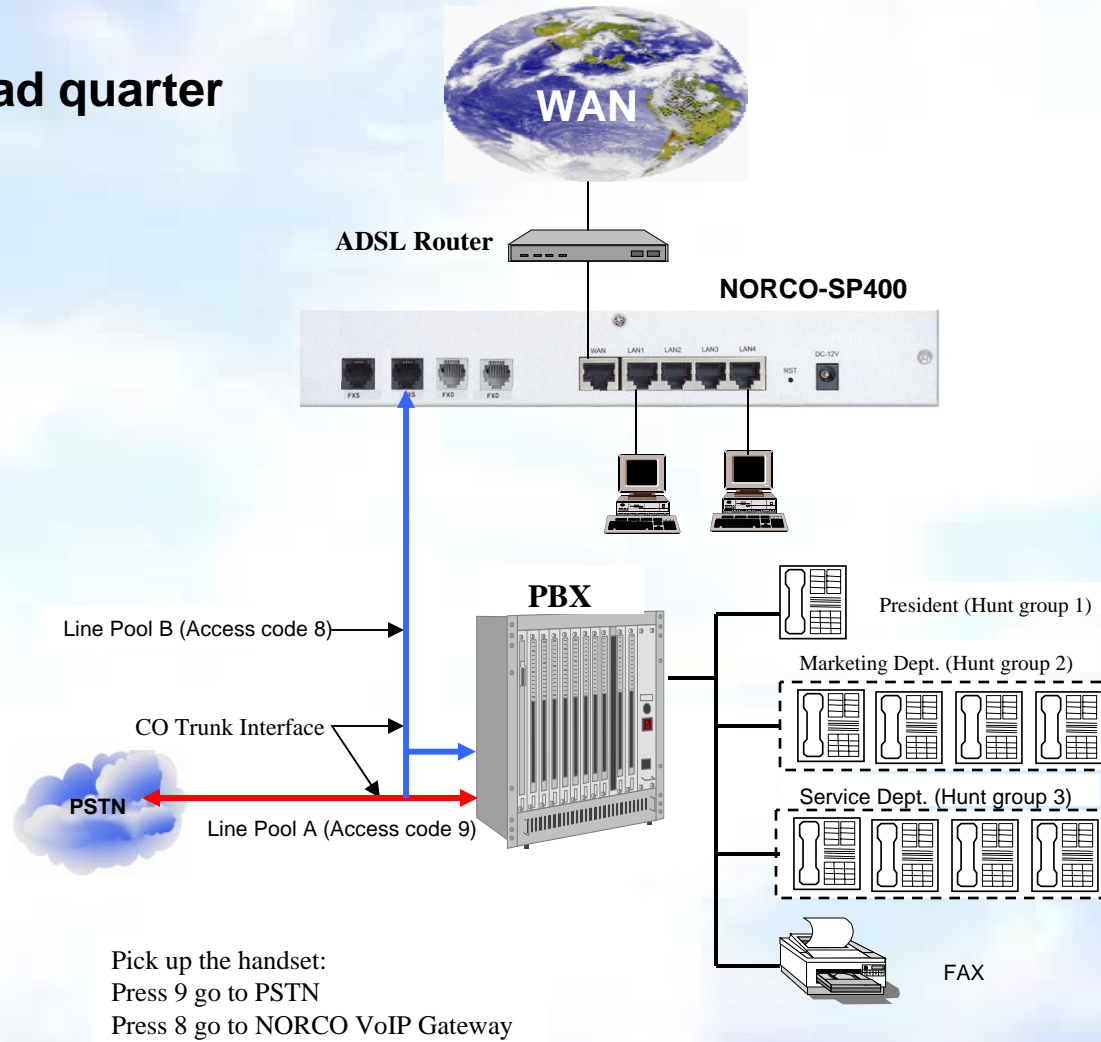
NORCO SIP Version Scenario II

Enterprise Application



Typical Head Quarter Office Setup

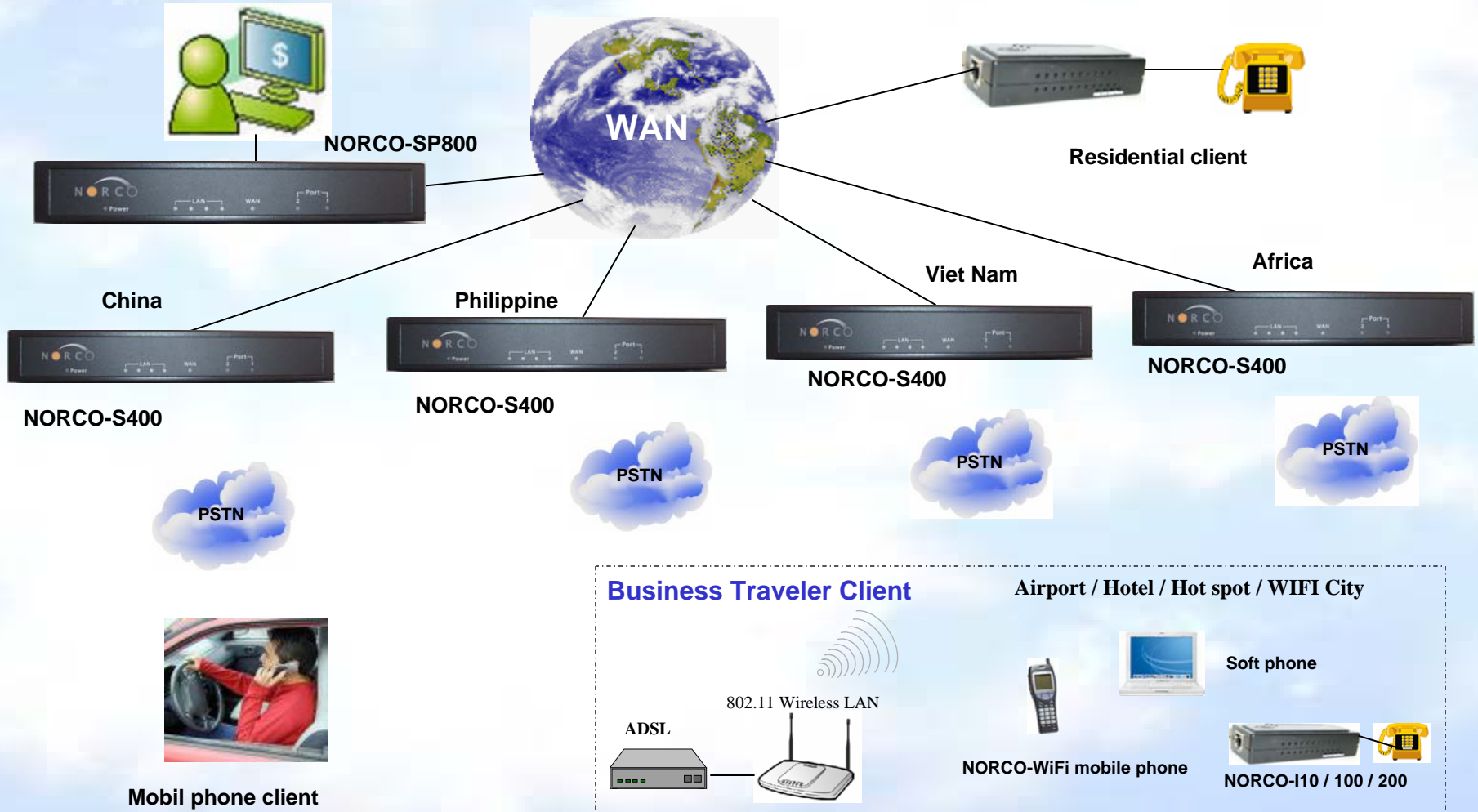
Head quarter



NORCO SIP Version Scenario III

NORCO VoIP Gateway Billing Solution:

- Retail call long distance service (calling card solutions)
- Hotel application



NORCO-S200/400/800



NORCO-S Series Feature

Hardware Specification

1 WAN Ethernet Port

4 LAN Ethernet Ports

VoIP Signal Protocols

H.323 v2/v3/v4 and SIP (RFC3261)

FAX over IP support T.30 and T.38

Voice compression

G.723.1 MP-MLQ @ 6.3 Kbps,

ACELP @ 5.3 Kbps,

G. 729A CS-ACELP @ 8 Kbps,

G. 711 PCM @ 64 Kbps μ -law/A-law

Echo cancellation

Meets G.168 (with 32 ms echo tail) specification requirements.

E.164 Dial Plan (peer-to-peer call)

Support Outgoing and Incoming Dialing Plan

Register Gatekeeper Mode support (Primary and Secondary GK)

Gatekeeper backup mechanism: Register to Secondary GK after failing register to Primary GK

Autodial support

User can call specific number automatically without dialing when off hook.

Voice Channel Status monitor:

Display Port Type, caller number, callee number, call duration.

Traffic Monitor:

Display traffic bandwidth about the call bandwidth using or data traffic status.

NORCO-SB800/1600/2400

8 Port expandable to 24 port with Patch panel



Feature

Hardware Specification

1 WAN Ethernet Port

1 LAN Ethernet Ports

16/24 voice channels (FXS/FXO)

VoIP Signal Protocols

H.323 v2/v3/v4 and SIP (RFC3261)

FAX over IP support T.30 and T.38

Voice compression

G.723.1 MP-MLQ @ 6.3 Kbps,

ACELP @ 5.3 Kbps,

G. 729A CS-ACELP @ 8 Kbps,

G. 711 PCM @ 64 Kbps u-law/A-law,

Echo cancellation

Meets requirements G.168 (with 32 ms echo tail) specifications

E.164 Dial Plan (pear –to –pear call)

Support Outgoing and Incoming Dialing Plan

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Traffic Monitor:

Display traffic bandwidth about the call bandwidth using or data traffic status.

NORCO-SP200/400/800



NORCO SIP Proxy Feature

- **250 SIP endpoints scale:** NORCO-SP400 providing 250 SIP endpoints to register.
- **Registered Security Policy:** NORCO-SP400 providing security setting on your VoIP network. This provides protection for VoIP calls and insures proper endpoint identification.
- **Pre-Granted Endpoints:** letting other gateways or SIP endpoints which were not register to this build in SIP proxy server. And the registered VoIP Gateways can make a call to these pre-granted endpoints.
- **Real time Call Detail Record and Post Call Detail Record Report :** Support Real Time CDR to monitor VoIP calls, including caller ip, callee ip, call date, call duration and other information. Also providing a CDR report to look up VoIP call record.
- **Top 20 list:** NORCO-SP400 can list top 20 calls by call duration, caller number, calling number, caller IP or callee IP address.
- **System log:** NORCO-SP400 sends syslog information to Syslog server.

NORCO-S102 IP Phone



Feature

- SIP (RFC 2543/3261) , SDP (RFC 2327), Symmetric RTP, STUN (RFC3489), ENUM (RFC 2916)
- LAN: NAT, virtual, DHCP Server
- WAN: PPPoE client, DHCP client, Fix IP Address, DDNS client
- Network Address Translation: Providing build-in NAT router function.
- Smart QoS: Guarantee the voice bandwidth

Special Feature:

- Answer PSTN call: Also can answer the PSTN call when using VoIP call.
- Manual Select Route: User can select call by VoIP or PSTN route.
- Voice Mail: User can play the message from caller in the IP Phone.
- Call history (Incoming calls/Outgoing calls/Missed calls)

NORCO-T100



NORCO-T Series Feature

Hardware Specification

One RJ-45 for WAN Ethernet port
1 RJ-11 for an analog phone set

VoIP Signal Protocols

SIP v2 (RFC3261, 3262, 3263, 3264)
FAX over IP support T.30

Voice compression

G.711 a/u
G.723.1
G.726
G.729 a/b

NAT Traversal

Outbound Proxy
STUN
UPnP

Voice Processing

VAD (Voice Activity Detection)
CNG (Comfort Noise Generation)
Echo Cancellation
User Programmable Gain Control
Frame Loss Concealment
Full Duplex Audio

Security

Password protected Admin and User Access
Provisioning, Configuration via HTTPS

Provisioning / Administration

Web Browser administration and configuration
Automated provisioning and update via HTTP
Report Generation and Event Logging
Syslog and Debug records

NORCO-ATA Series



NORCO-ATA Series Feature

- Support SIP protocols
- Smart VoIP call Dialing Book
- NAT traversal
- Smart-QoS Guaranteed
- Voice channels status display
- Destination rates managements
- Call intervals
- NORCO-ATA110: 1FXS+1PSTN
- NORCO-ATA200:2FXS
- NORCO-ATA210: 2FXS+1PSTN
- NORCO-ATA201: 1FXS+1FXO

Order Information

Model #	Description
	Enterprise Solutions
NORCO-S102	1 WAN, 1 LAN, 1 FXO (IP Phone, SIP version only)
NORCO-S200	1 WAN, 4 LAN, 2 FXS (SIP & H323)
NORCO-S201	1 WAN/ 4 LAN, 1 FXS & 1 FXO (SIP & H323)
NORCO-S400	1 WAN, 4 LAN, 4 FXS (SIP & H323)
NORCO-S401	1 WAN, 4 LAN, 3 FXS + 1 FXO (SIP & H323)
NORCO-S402	1 WAN, 4 LAN, 2 FXS + 2 FXO (SIP & H323)
NORCO-S404	1 WAN, 4 LAN, 4 FXO (SIP & H323)
NORCO-S800	1 WAN, 4 LAN, 8 FXS (SIP & H323)
NORCO-S802	1 WAN, 4 LAN, 6 FXS + 2 FXO (SIP & H323)
NORCO-S804	1 WAN, 4 LAN, 4 FXS + 4 FXO (SIP & H323)
NORCO-S808	1 WAN, 4 LAN, 8 FXO (SIP & H323)
NORCO-SP200	1 WAN, 4 LAN, 2 FXS (SIP & H323) Built in Proxy Server
NORCO-SP201	1 WAN, 4 LAN, 1 FXS & 1 FXO (SIP & H323) Proxy Server
NORCO-SP402	1 WAN, 4 LAN, 2 FXS & 2 FXO (SIP & H323) Proxy Server
NORCO-SP400	1 WAN, 4 LAN, 4 FXS (SIP & H323) Proxy Server
NORCO-SP404	1 WAN, 4 LAN, 4 FXO (SIP & H323) Proxy Server
NORCO-SP800	1 WAN, 4 LAN, 8 FXS (SIP & H323) Proxy Server
NORCO-SP802	1 WAN, 4 LAN, 6 FXS + 2 FXO (SIP & H323) Proxy Server
NORCO-SP804	1 WAN, 4 LAN, 4 FXS & 4 FXO (SIP & H323) Proxy Server
NORCO-SP808	1 WAN, 4 LAN, 8 FXO (SIP & H323) Proxy Server
NORCO-SB800/804/808	2 WAN, 4 LAN, 8 FXS/4FXS & 4FXO/8FXO (SIP & H323)
build in 24 ports case	Expandable to 24 port (with Patch panel)
NORCO-SBM800/804/808	NORCO-SB line module 8 FXS / 4 FXS + FXO / 8 FXO
NORCO-T100	1 WAN / LAN, 1 FXS (SIP)
NORCO-ATA201	1 WAN / LAN, 1 FXS & 1 FXO (SIP) end of 3rd quarter
NORCO-ATA200	1 WAN / LAN, 2 FXS (SIP)
NORCO-400	2 FXS & 2 FXO (H323)
NORCO-404	4 port FXO (H323)
NORCO-404S	4 port FXS (H323)
NORCO-804S	4 port FXS Gateway (H323 Version)
NORCO-804	4 port FXO Gateway (H323 Version)
NORCO-808	8 port FXO Gateway (H323 Version)
NORCO-808S	8 port FXS (H323 version)
NORCO-800	4 port FXS & 4 port FXO Gateway
NORCO-FXS	4 port FXS Line Module
NORCO-FXO	4 port FXO Line Module