

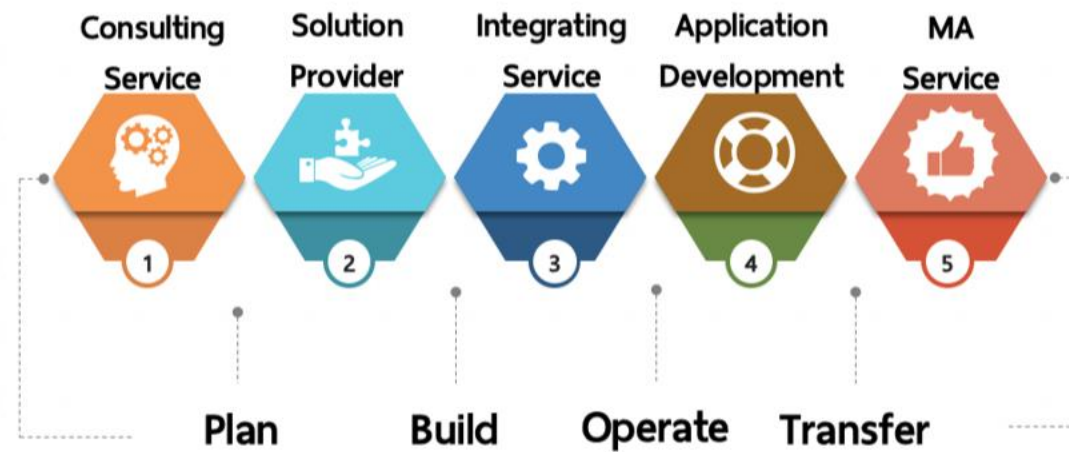


BIGBOX

TECHNOLOGY

บริษัท บิ๊กบอก เทคโนโลยี จำกัด

จดทะเบียน พ.ศ. 2558 ให้บริการระบบ VOIP ครบวงจร แก่ลูกค้าหน่วยงานรัฐ และเอกชน

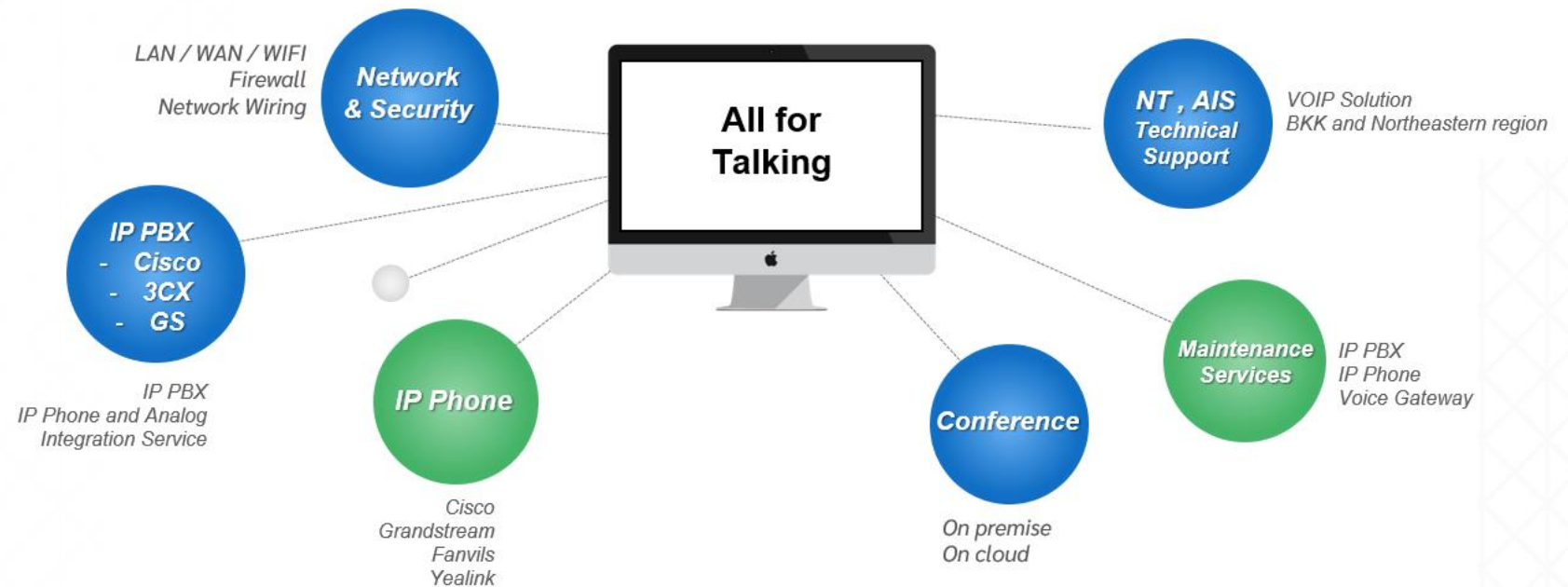


บริษัท บิ๊กบอก เทคโนโลยี จำกัด

จดทะเบียน พ.ศ. 2558 ให้บริการระบบ VOIP ครบวงจร แก่ลูกค้าหน่วยงานรัฐ และเอกชน

บริษัทบิ๊กบอก เทคโนโลยี จำกัด ดำเนินธุรกิจเกี่ยวกับการติดตั้งระบบโทรศัพท์ให้กับทางที่โอที จำกัดมหาชน และบริการเกี่ยวกับระบบสื่อสารข้อมูลทั้งหมด ไม่ว่าจะเป็นระบบ ไอพีโฟน ระบบห้องประชุม ระบบเน็ตเวิร์คในรูปแบบต่างๆ รวมไปถึงระบบกล้องวงจรปิดแบบขั้นสูง

นโยบายหลักจะเน้นเรื่องการให้บริการและคำมั่นสัญญาเป็นสำคัญ โดยมุ่งเน้นที่ข้อมูลเชิงเทคนิคที่ถูกต้อง คำแนะนำที่ใช้ งานได้จริง จากประสบการณ์การทำงานต่างๆที่ผ่านมา เพื่อให้ลูกค้าได้รับประสบการณ์การทำงานที่ดีที่สุดจากเรา



Why BIGBOX Technology?

บริษัท บิ๊กบ็อก เทคโนโลยีแตกต่างจากบริษัทอื่นอย่างไร

Focus Technical more than Sale

เราให้ความสำคัญเรื่องงานเทคนิค เพราะเราเชื่อว่า การนำเสนอข้อมูลเทคนิคที่ถูกต้องและชัดเจน จะนำไปสู่การขายได้



ข้อมูลชัดเจน จริงใจ

เราให้คำแนะนำและออกแบบระบบให้กับลูกค้าแบบตรงไปตรงมา จริงใจ ไม่มีปกปิดข้อมูล อยู่บนพื้นฐานความเป็นไปได้เป็นสำคัญ หากภาพรวมของลูกค้าไม่พร้อม เรายินดีให้คำปรึกษาฟรี เพื่อเตรียมตัวรองรับระบบใหม่ที่จะเกิดขึ้น



การวางแผนที่ดี

เราเน้นคุณภาพของงานติดตั้งและการบริการหลังการขายเป็นหลัก หากเราสามารถควบคุมมาตรฐานการติดตั้งได้ตั้งแต่ครั้งแรก มาตรฐานนั้นจะเป็นปัจจัยทำให้ระบบมีความเสถียรภาพ ซึ่งนำไปสู่ความคุ้มค่าในการลงทุน



เน้นความคุ้มค่าของลูกค้าเป็นสำคัญ

ระบบที่เราออกแบบนั้น สามารถรองรับการขยายระบบของลูกค้าได้ โดยเน้นที่ความต้องการปัจจุบันเป็นหลัก แต่ก็ยังสามารถต่อยอดในอนาคตได้ ในราคาประเมินที่ลูกค้าพึงพอใจ

Reference site หน่วยงานราชการ และเอกชน



Product Highlight



WHO IS GRANDSTREAM

- Company founded in 2002 in Boston, MA.
- **+600** employees in 14 countries (+50% R&D Engineers)
- More than **100 direct distributors** and thousands of authorized resellers around the world.
- **Global presence** with offices in the U.S. (Boston, Los Angeles, Dallas), Venezuela, Morocco, China (Shenzhen and Hangzhou) and Malaysia
- **4 Research and Development Centers** (Dallas, Los Angeles, Shenzhen, and Hangzhou)



PORTFOLIO AND INNOVATION

The History of Grandstream





TOTAL GRANDSTREAM SOLUTION

One stop for all your communication needs



IP Telephony

IP Phones
IP Video Phones
ATAs & Gateways
IP PBXs



Conferencing

Video Conferencing
Systems
Audio Conferencing
Devices



Networking

Wi-Fi Access Points
Gigabit Router VPN



Security

Facility Access
Surveillance Cameras
Management Systems

IP PBXs: UCM Series

Enterprise Grade Features, Powerful Communication

The UCM series provides a high-end unified communications solution with an ecosystem of mobility, security, video, and collaboration tools.





UCM6300 SERIES – UC APPLIANCES

Unified Communications and Collaboration Solution

The UCM6300 series is composed of **4 different models**, to adjust to the requirements of each organization.

UCM6300 SERIES



UCM6302-

A



UCM6302



UCM6304



UCM6308

UCM6300 ECOSYSTEM – MOBILIZE YOUR BUSINESS

Remote Work and Collaboration Made Easy



Cloud-based
Management for UCMs



Seamless
Remote Extensions

REMOTECONNECT

Collaborate from
any device



UCM6300/A Series

Voice and UC
Appliances



PRODUCT OVERVIEW


Asterisk
Version 16



UCM6302-A

[Touch screen menu]



UCM6302

Memory : 1GB RAM + 32 GB Flash
Max users : 500 Users
Concurrent calls : 75 (50 with SRTP)
Voice conference : 75 Participants

Memory : 1GB RAM + 32 GB Flash
Max users : 1000 Users
Concurrent calls : 150 (100 with SRTP)
Voice conference : 100 Participants
Video conference : 20 Participants & 3 Rooms
(up to 4 1080p feeds + 1 SC)

PRODUCT OVERVIEW


Asterisk
Version 16


Gigabit




PoE



UCM6304



UCM6308

Memory : 4GB RAM + 120GB Flash
Max users : 2000 Users
Concurrent calls : 300 (200 with SRTP)
Voice conference : 200 Participants
Video conference : 40 Participants & 4 Rooms
(up to 4 1080p feeds + 1 SC)

Memory : 4GB RAM + 120GB Flash
Max users : 3000 Users
Concurrent calls : 450 (300 with SRTP)
Voice conference : 300 Participants
Video conference : 60 Participants & 8 Rooms
(up to 4 1080p feeds + 1 SC)

UCM6510 – IP PBX

IP PBX Appliance

- E1/T1/J1 Interface
- 2 PSTN trunk FXO ports, 2 FXS ports with lifeline capability
- Up to 2000 SIP endpoints and up to 50 SIP trunk accounts
- Dual Gigabit network ports, integrated PoE, USB and SD ports
- Integrated NAT router
- Zero Config endpoint provisioning and no licensing fees



HA100

High-Availability Controller for UCM6510

- Connects and constantly monitors 2 UCM6510s for high availability
- 14 LED indicators showing real-time status of telecom lines, network lines, auxiliary devices etc.
- Gratuitous ARP
- 10-50 Second System Switching
- Connect the HA100 to PSTN, FXS ports and UCM6510



GRP Series IP Phones

Carrier-Grade IP Phones

Next-generation IP Phones designed for mass deployment. This series features a sleek new design, a reimagined user experience, and many other advanced features.



GRP2602/P/W- Essential IP Phone

2-Line Essential IP Phone

- 2 lines, 4 SIP accounts
- Supported by GDMS which provides a centralized interface to configure, provision, manage, and monitor Grandstream devices
- EHS support
- Full-duplex speakerphone with HD audio
- Noise shield technology to minimize background noise
- GRP2602P includes built-in PoE to power the device and provide a network connection
- WiFi For GRP2602W



GRP2604/P – Essential IP Phone

3-Line Essential IP Phone

- 3 lines, 6 SIP accounts, up to 3 call appearances
- Supported by GDMS
- EHS Support
- Full-duplex speakerphone with HD audio
- Noise shield technology
- Dual switched auto-sensing 10/100/1000 Mbps Gigabit Ethernet ports with integrated PoE (GRP2604P only)
- Supports 5-way audio conferencing



GRP2612/W/P

Carrier-Grade IP Phone

- 2.4" TFT color LCD
- 2 SIP accounts and 4 multi-purpose line keys
- Up to 16 virtual multi-purpose keys
- Dual switched auto-sensing 10/100 Mbps Ethernet ports
- HD audio and OPUS support
- Enterprise-level protection including secure boot, dual firmware images, and encrypted data storage
- Wi-Fi option with GRP2612W
- PoE option with GRP2612P



GRP2613

Carrier-Grade IP Phone

- 2.8" TFT color LCD
- 3 SIP accounts and 6 multi-purpose line keys
- Up to 24 virtual multi-purpose keys
- Dual switched auto-sensing 10/100/1000 Mbps Gigabit ethernet ports with PoE
- HD audio and OPUS support
- Enterprise-level protection including secure boot, dual firmware images, and encrypted data storage



GRP2615

Carrier-Grade IP Phone

- 4.3" TFT color LCD
- 5 SIP accounts and 10 multi-purpose line keys
- Up to 40 virtual multi-purpose keys
- Dual switched auto-sensing 10/100/1000 Mbps Gigabit ethernet ports with PoE
- HD audio and OPUS support
- Integrated dual-band Wi-Fi
- Extension module support
- Enterprise-level protection including secure boot, dual firmware images, and encrypted data storage



GRP2616

Carrier-Grade IP Phone

- 4.3" (480 x 272) color LCD, 2.4" (240 x 320) secondary LCD
- 6 SIP accounts and 6 lines
- 48 multi-purpose keys
- Dual switched auto-sensing 10/100/1000 Mbps Gigabit ethernet ports with PoE
- HD audio
- Integrated dual-band Wi-Fi
- Extension module support
- Enterprise-level protection including secure boot, dual firmware images, and encrypted data storage



EXTENSION MODULES

***Take your IP Phones to
the next level***

With Grandstream expansion modules, you can monitor up to 160 extensions per BLF and configure speed dialing on supported models.



GBX20

Extension Module

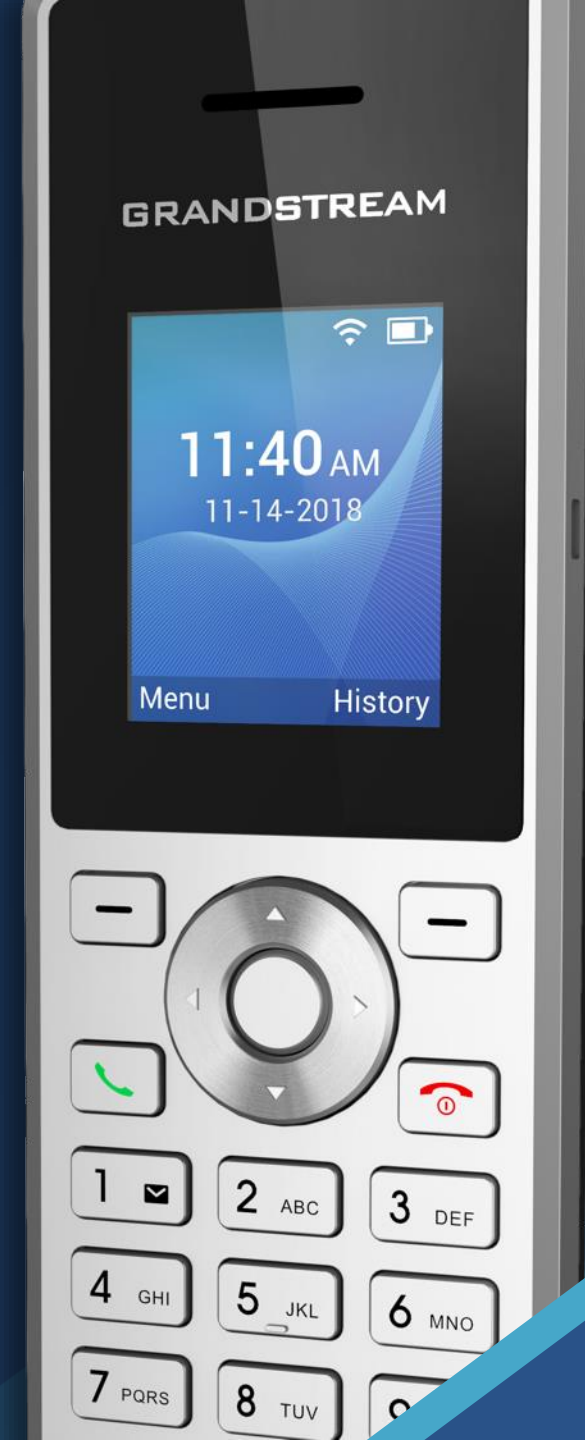
- Used with the GRP2615 and GXV3350
- 20 per page (each module contains 2 pages, for up to 40 lines per module, up to 160 with 4 daisy-chained modules)
- 4.3 inch (272x480) TFT color LCD
- Powered by host phone; when 2 or more GBX20 are connected, the included 12V/1A PSU will power them



WIRELESS IP PHONES

Mobility and Advanced Features for All

Mobilize your network with wireless phone solutions from Grandstream. These phones are an excellent option for companies, warehouses, retail stores, and more!



WP820

Enterprise Portable Wi-Fi Phone

- Dual-band Wi-Fi with advanced roaming support
- HD Voice and dual MIC design with AEC and noise shield technology
- 2 SIP Accounts, 2 Lines
- Android 7.0 operating system allows customized android apps for the WP820's screen/keyboard
- Built in accelerometer, panic button, push-to-talk
- 7.5 hour talk time, 150 hour standby time



WP810

Cordless Wi-Fi IP Phone

- Dual-band Wi-Fi with advanced roaming support
- HD Voice and dual MIC design with AEC and noise shield technology
- 2 SIP Accounts, 2 Lines
- Rechargeable 1500mAh battery, 6-hour talk time, 120-hour standby
- Configurable button for push-to-talk
- Micro USB port and 3.5mm headset jack



VoIP GATEWAYS

Mixed Network Integration

The GXW IP Analog Gateway series enables businesses to create seamless office environments and integrate traditional phone systems into a VoIP network. Manage and cut down your communication costs and create a streamlined network with these gateways.



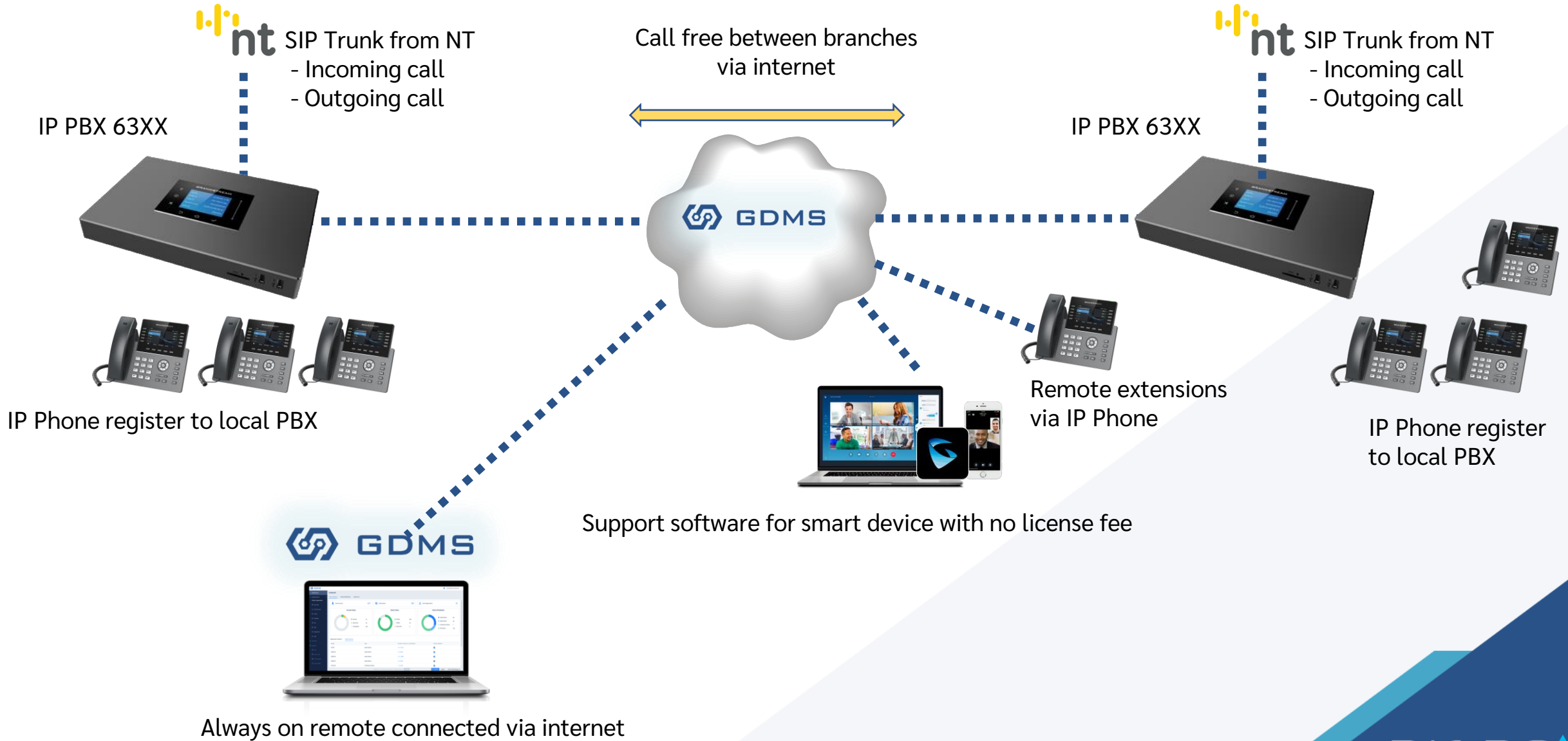
GXW4200 Series

16/24/32/48 Port FXS Gateway
(Foreign Exchange Subscriber Gateway)

- High density 16/24/32/48 port models
- Multiple SIP profiles
- Auto provisioning
- Gigabit network port
- Rack mountable



When we connected 2 IP PBX via GDMS / Internet



Product Highlight



3CX

ข้อมูลเกี่ยวกับ 3CX Phone System

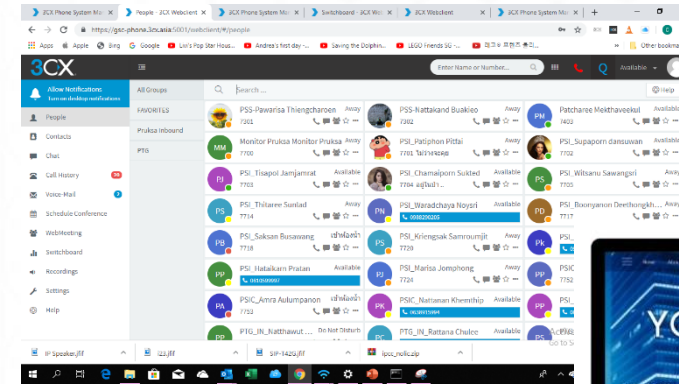
- Open Software based on the SIP Standard
- Installed at more than 30,000 companies worldwide
- Runs on standard server hardware
- Runs on Windows & Linux OS
- 3CX Phone System certified on Windows Server
- Easier to manage & Scales better
- Run on existing Windows machine or virtualize it
- Backup PBX to disk – Quick restore to another PC
- More features, Better integration
- Increase Productivity





ข้อมูลเกี่ยวกับ 3CX Phone System

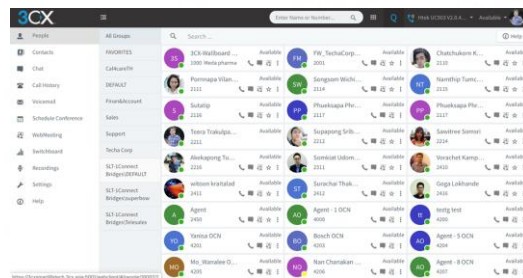
- 3CX is Basic IP PBX Phone System
- 3CX is Call Center Phone System
- 3CX support Voice & Video Conference
- 3CX support remote staff with mobile application
- 3CX built in IVR System (Inter Active Voice Response)
- 3CX built in Call Center Report and Billing Report
- 3CX support Web Meeting, Share present
- 3CX support Intercom and Paging System
- 3CX support Developer Tools for R&D
- 3CX support CRM Integration with 3rd party software





3CX

ข้อมูลเกี่ยวกับ 3CX Phone System



User

3CX Phone

IP Phone/ Softphone For Windows , MacOS , iPhone and Android

CRM

API

Web Meeting

Price/Plan

Annual Pricing

Simultaneous Calls

4SC , 8SC , 16SC , 24SC , 32SC , 48SC , 64SC , 96SC , 128SC , 192SC , 256SC , 512SC , 1024SC

Edition

PRO Edition

Enterprise Edition

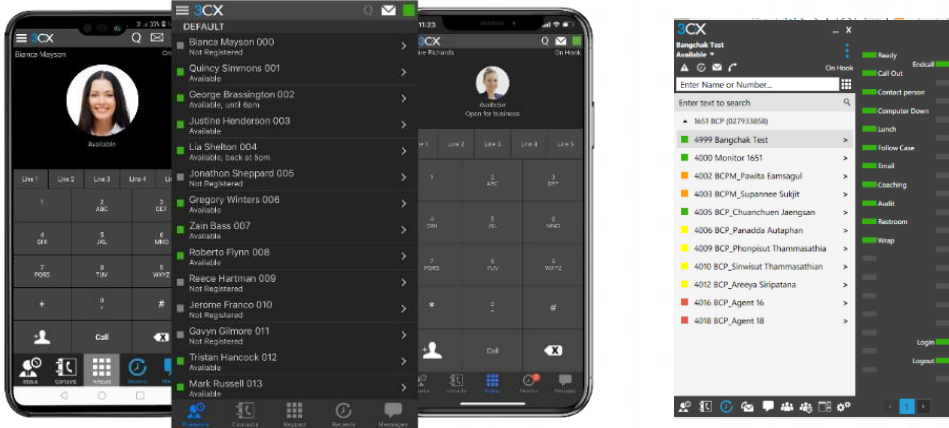


Basic Features



3CX Basic Features

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System



- Call Transfer (Blind and Attendant Transfer)
- Chat, Web Chat
- Call Conference
- Call Hold with Customizable Music On Hold
- Do Not Disturb
- Company Directory, Phonebook, Active Directory
- Call Status and Profiles
- Office Day Night and Holiday
- Built in DISA and Digital Receptionist
- Support Multi Vendor IP Phone
 - Yealink
 - Grandstream
 - Fanvil
 - Cisco



3CX Basic Features – Dashboard Monitor

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System

- Just another Windows Server application
- Manage from anywhere in the network – web-based

The screenshot displays the 3CX dashboard interface. At the top, there is a navigation bar with the 3CX logo, a menu icon, and options for Support, Updates, and Language (English (US)). A sidebar on the left lists various system components like Dashboard, Phones, Extensions, Groups, SIP Trunks, Inbound Rules, Outbound Rules, Messaging, Digital Receptionists, Ring Groups, Call Queues, Recordings, Backup and Restore, Call Log, Reports, Security, Advanced, and Settings.

The main dashboard area is divided into three primary sections:

- System Status:** Features a line graph showing system performance over time (from 11:40:25 AM to 11:40:50 AM). Below the graph are three circular gauges: Disk Usage (60% used, 15.7 GB free), Memory Usage (50% used, 2.0 GB free), and CPU Usage (0/100%).
- PBX Status:** A list of system metrics with status indicators: Trunks Up (3/5), Extensions Up (2/25), Number of calls in use (0/4), Blacklisted IPs (9), Event log (Purge), Call history (Purge 514 calls), Chat logs (Enabled, Purge 7 messages), Automatic Backups (ON, 07/16/2021 12:00:18 AM), and Recording (158.8 MB / 5.0 GB). A summary row shows Firewall (checked), Trunks (1 error), Phones (checked), Services (checked), and System Extensions (checked).
- Information:** A list of system configuration details: FQDN (bigbox.my3cx.sg), IP (27.254.204.98 Static), PUSH Account (3CX Account), Webmeeting FQDN (bigbox-mysg.3cx.net), Webmeeting Synchronization (OK), License (Enterprise Annual 16.0.8.9), Expiry Date (10/16/2021 Active), Reseller (Voicetel Unlink), Sim Calls (4), Sim Meeting Participants (250), and Outbound Rules (2).

At the bottom of the dashboard, there are six blue buttons with icons and labels: Trunks, Phones, IP Blacklist, Events, Activity Log, and Updates.



3CX Basic Features – Phone Management

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System

- Automatically configure popular SIP phones
- Includes phone book, MWI, BLF, Intercom and paging, remotely reboot and re-provision phones

The screenshot displays the 3CX Phone Management interface. On the left is a navigation sidebar with options: Phones, Extensions, Groups, Contacts, SIP Trunks, Inbound Rules, Outbound Rules, Digital Receptionist, Ring Groups, Call Queues, Bridges, FAX Extensions, and FXS/DECT. The main area is titled 'Phones' and includes a toolbar with buttons: '+ Add Phone', 'Edit Ext', 'Add Ext', 'Assign Ext', 'Reject', 'Firmware', 'Reboot', 'Reprovision', 'Phone UI', 'Password', and '+ Config'. Below the toolbar is a search bar and a table of phone configurations.

EXT	Vendor	Model	Fw. Version	Name	User ID	Password	Phone pwd	PIN	IP	MAC
New		C58	2.5.314.66	New	New	New	New	New	192.168.99.106	0C383E068CAE
500	Fanvil	X4	2.0.4.3496	Rachaneekorn	500	*****	*****	6851	192.168.99.100	0C383E14BB1A
505	Htek	UC803	1.0.4.2.22	Chalatphot Rua...	505	*****	*****	9276	192.168.99.112	001FC11AA9C0
505	3CX	Phone for Windows	15.5.3849.1	Chalatphot Rua...	505	*****	*****	9276	192.168.99.116	PROVISIONED
506	C	2.5.314.66	2.5.314.66	Nopnoogul Boo...	506	*****	*****	8136	192.168.99.106	UNPROVISIONED
507	Htek	UC802	1.0.4.2.22	Sittisak Hanjan...	507	*****	*****	2314	192.168.99.101	001FC11AA9C1
509	Fanvil	C600	13.306.238.28.B	Living Room	509	*****	*****	2978	192.168.99.108	0C383E12328F
510	Fanvil	I20	2.3.628.324	Door Phone	510	*****	*****	4939	192.168.99.107	0C383E10C9AB

3CX Basic Features – Mobile App

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System

- Presence of other extensions
- **Push Technology**
- IOS and Android supported

The screenshot displays the 3CX mobile application interface. At the top, there's a 'View: Manager' dropdown and a settings icon. Below this is a table with columns for 'Caller', 'Callee', 'Duration', and 'Details'. The main content area is divided into two sections. The left section shows a list of extensions with their presence status (green square for available, grey for not registered):

- 505 Chalaphot Ruangp...
- 500 Rachaneekom
- 504 Monchaya
- 506 Nopnoogul Boonph...
- 507 Sittisak Hanjangsit
- 508 2nd Floor
- 509 Living Room
- 515 ASUS
- 516 Nop_Samsung

The right section shows a queue management interface with a header bar containing 'All Queues', 'Help Desk Day', 'Help Desk Night', 'GSC QUEUE Thai', 'PTG 1614 Backup', and Thai text 'เข้าห้องน้ำ พักเที่ยง ติดต่อ'. Below the header, it displays queue statistics: 'Waiting: 0 Serviced: 0 Abandoned: 2 Longest waiting: 00:01 Average waiting: 00:00 Average talking: 00:00'. A table below shows queues logged in to:

Ext	Name	Queues logged in to
505	Chalaphot Ruangphumphong	Help Desk Day, Help Desk Night, GSC QUEUE Thai, PTG 1614 Backup, เข้าห้องน้ำ, พักเที่ยง...
506	Nopnoogul Boonphoem	Help Desk Day
508	2nd Floor	Help Desk Night
515	ASUS	PTG 1614 Backup

3CX Basic Features – Web Client

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System

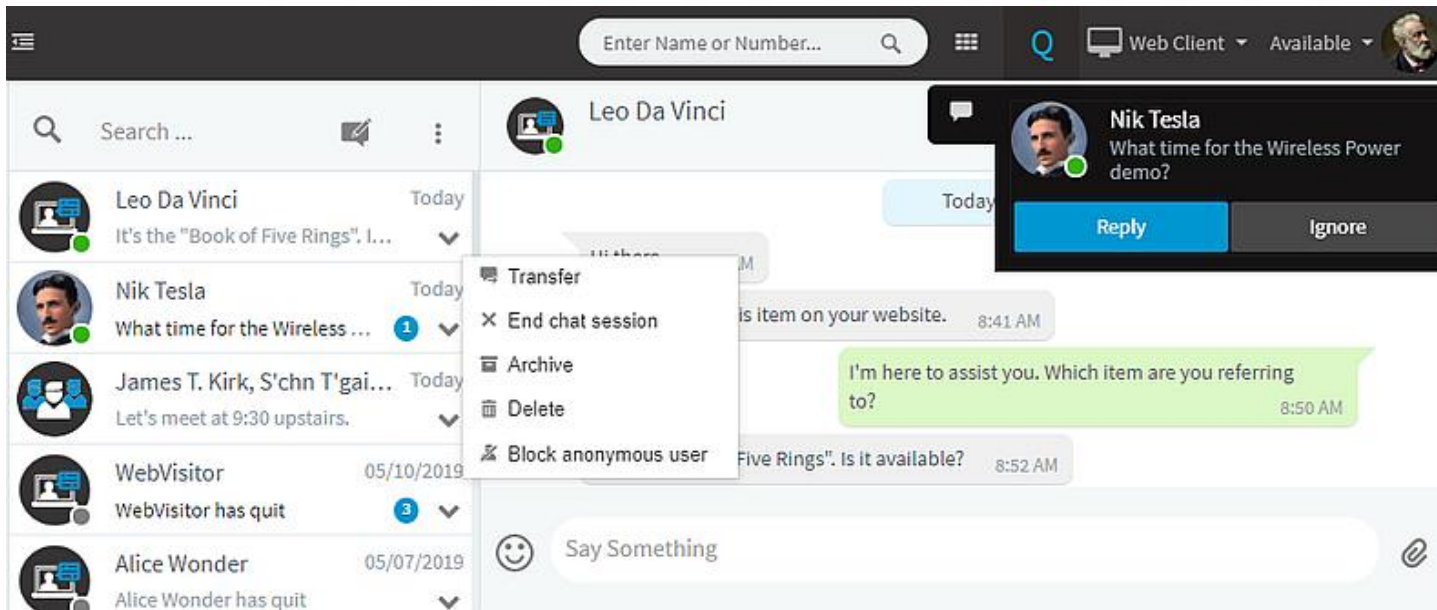
The screenshot displays the 3CX Web Client interface in a browser window. The address bar shows the URL: <https://gsc-phone.3cx.asia:5001/webclient/#/people>. The interface features a dark header with the 3CX logo, a search bar, and navigation icons. A left sidebar contains a menu with options: Allow Notifications, People, Contacts, Chat, Call History (20), Voice-Mail (2), Schedule Conference, WebMeeting, Switchboard, Recordings, Settings, and Help. The main area shows a list of contacts organized into groups: FAVORITES, Pruksa Inbound, and PTG. Each contact entry includes a profile picture, name, extension number, and status (e.g., Away, Available, Do Not Disturb). Some contacts have blue bars indicating active calls or messages. The bottom of the screen shows a Windows taskbar with various application icons and a system tray displaying the time (4:41 PM) and date (5/13/2019).

Group	Name	Extension	Status
FAVORITES	PSS-Pawarisa Thiengcharoen	7301	Away
FAVORITES	PSS-Nattakand Buakieo	7302	Away
FAVORITES	Patcharee Mekthaveekul	7403	Available
Pruksa Inbound	Monitor Pruksa Monitor Pruksa	7700	Away
PTG	PSI_Tisapol Jamjamrat	7703	Available
PTG	PSI_Chamaiporn Sukted	7704	Available
PTG	PSI_Witsanu Sawangsri	7705	Away
PTG	PSI_Thitaree Sunlad	7714	Away
PTG	PSI_Waradchaya Noysri	7717	Available
PTG	PSI_Saowalak kanhawong	7718	Available
PTG	PSI_Kriengsak Samroumjit	7720	Away
PTG	PSI_Marisa Jomphong	7724	Away
PTG	PSI_Saksan Busawang	7718	เข้าห้องน้ำ
PTG	PSI_Kriengsak Samroumjit	7720	Away
PTG	PSI_Marisa Jomphong	7724	Away
PTG	PSI_Nattanan Khemthip	7753	Available
PTG	PSI_Thongtong Phongno...	7752	Available
PTG	PTG_IN_Natthawut ...		Do Not Disturb
PTG	PTG_IN_Rattana Chulee		Available
PTG	PTG_IN_Duanchais...		Do Not Disturb

3CX Basic Features – Web Chat

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System

- Send text messages, link and more at no additional cost
- Available on web, Mac, Windows, IOS & Android apps
- Check in with colleagues working remotely and keep connected



3CX Basic Features – IVR

ข้อมูลเกี่ยวกับฟังก์ชันพื้นฐาน 3CX Phone System

- Built in IVR with unlimited Channels and with 3CX CFD, Customer can built own voice Applications

The screenshot displays the 3CX Call Flow Designer interface for a project named "GSC Survey for 4274". The main workspace shows a call flow diagram with two parallel paths. The left path starts with a "Call_To_PTG_7933400" node, followed by a "Loop2" (highlighted in green), then a "PTG_Survey_Input" node. This node branches into "Valid Input" and "Invalid Input". The "Valid Input" path includes an "Insert_PTG_SCOR E" node and a "ThankyouPTG" node. The "Invalid Input" path contains a "Drag and drop components here" placeholder. The right path starts with a "Call_To_Purksa_793" node, followed by a "Loop3" (highlighted in green), then a "Purksa_Survey_I" node. This node branches into "Valid Input" and "Invalid Input". The "Valid Input" path includes an "Insert_Purksa_Sco re" node and a "ThankyouPurksa" node. The "Invalid Input" path contains a "Drag and drop components here" placeholder. The interface includes a "Components" pane on the left with categories like "Call Options", "Flow Control", and "3CX Control". A "Project Explorer" on the right shows the project structure, and a "Properties Window" at the bottom right shows details for the "Main.flow" file. The Windows taskbar at the bottom indicates the system time as 12:42 PM on 5/14/2019.

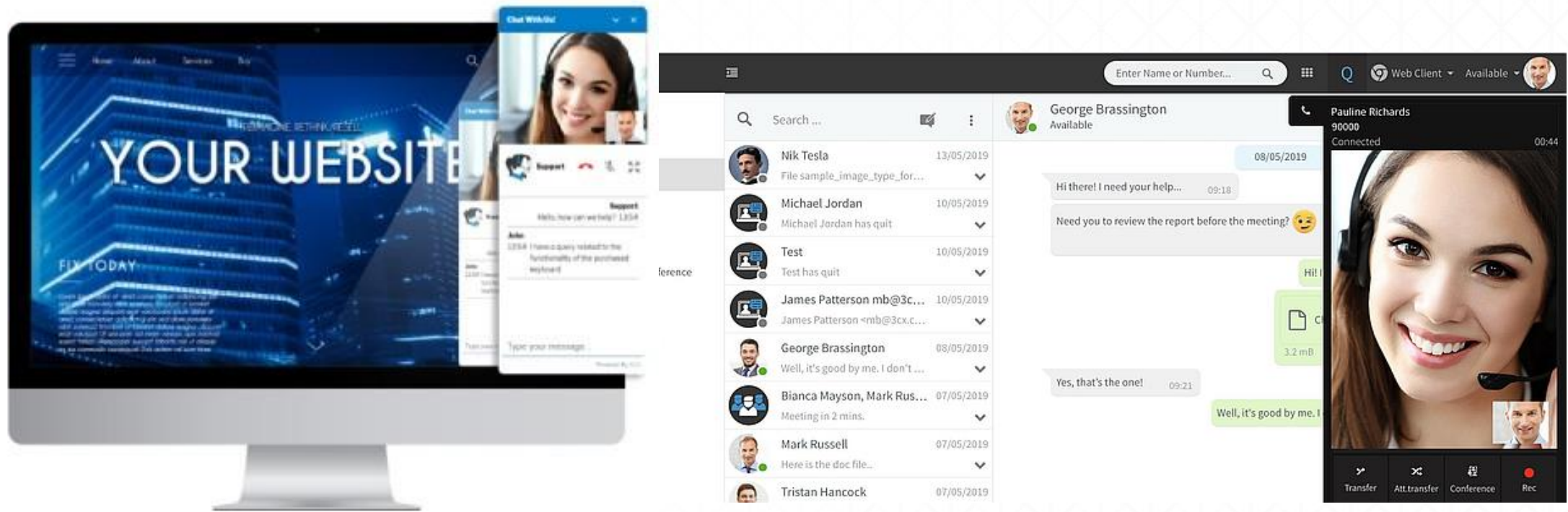


Advance Features

3CX Advance Features – Live chat & Talk

ข้อมูลเกี่ยวกับฟังก์ชันขั้นสูง 3CX Phone System

- Easy external communications for those unable to call
- Agents use their web client, on need for additional software



➤ 3CX Advance Features – Facebook Messaging

ข้อมูลเกี่ยวกับฟังก์ชันขั้นสูง 3CX Phone System

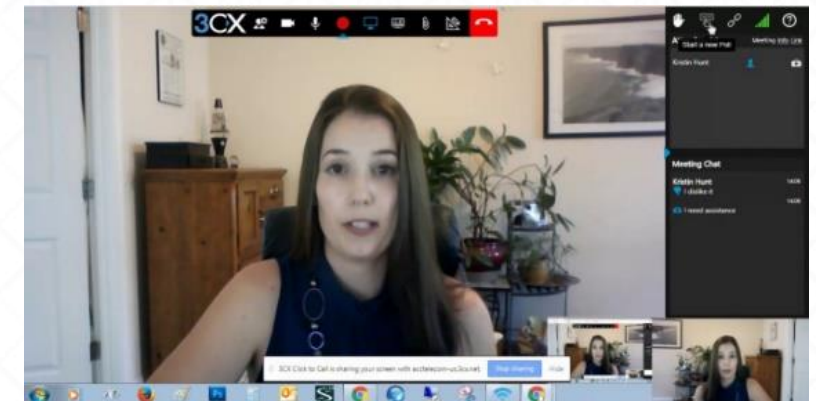
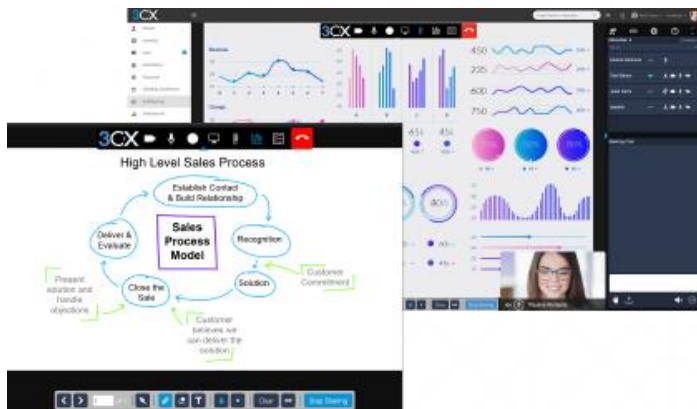
- Answer new Facebook leads faster.
- Transfer chats to qualified team members.
- Assist customers across multiple channels from one interface.



3CX Advance Features – Web Video Conference

ข้อมูลเกี่ยวกับฟังก์ชันขั้นสูง 3CX Phone System

- Video Conference via Browser
- Data Collaboration
- Screen and Application Sharing & Chat
- Meeting Recoding
- Share your screen for presentations & online classrooms.
- Liven up information with an on-screen whiteboard.
- Interactive meetings using document sharing, chat & polling.





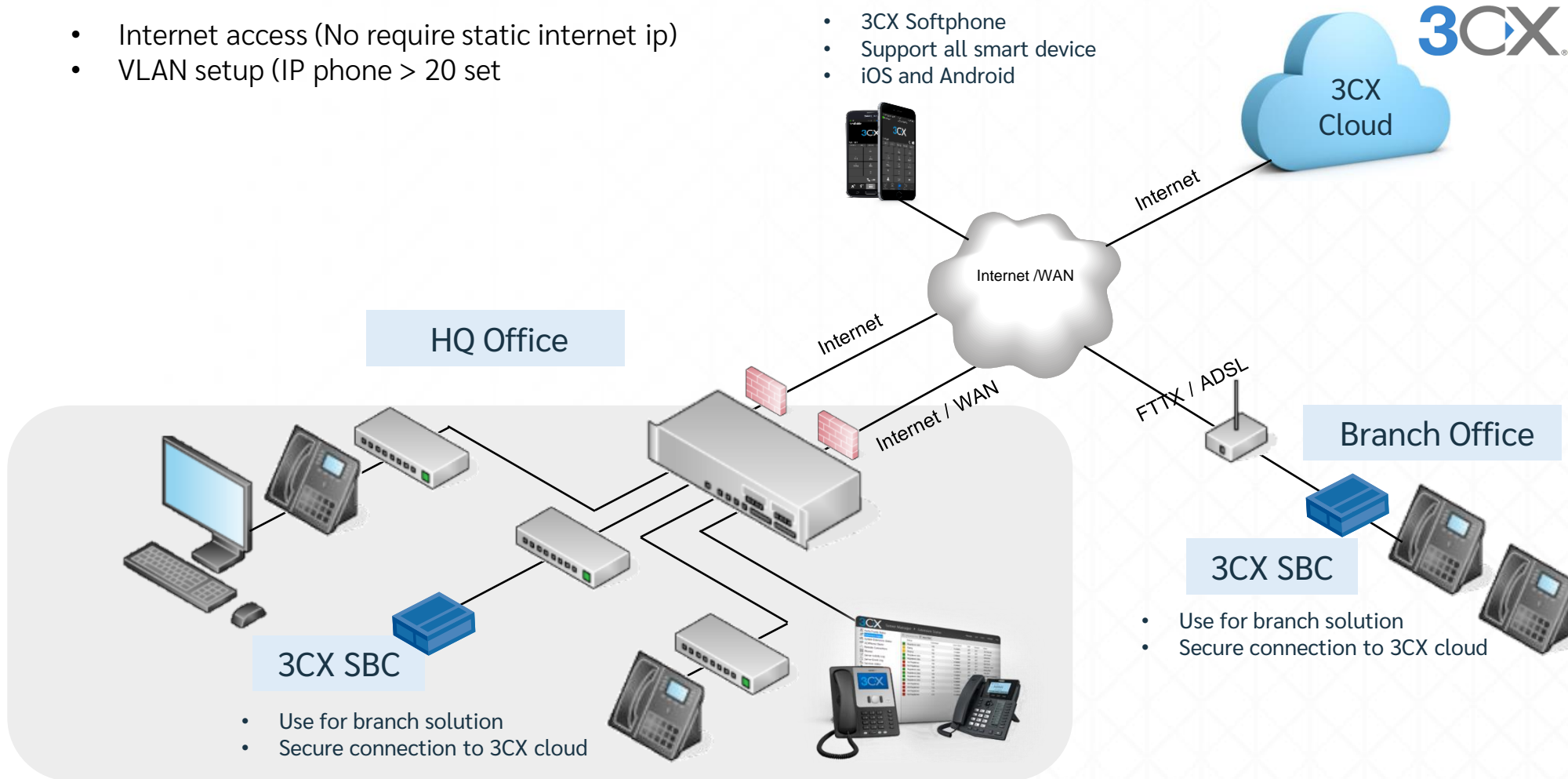
Security Management

3CX on cloud

System requirements

- Internet access (No require static internet ip)
- VLAN setup (IP phone > 20 set)

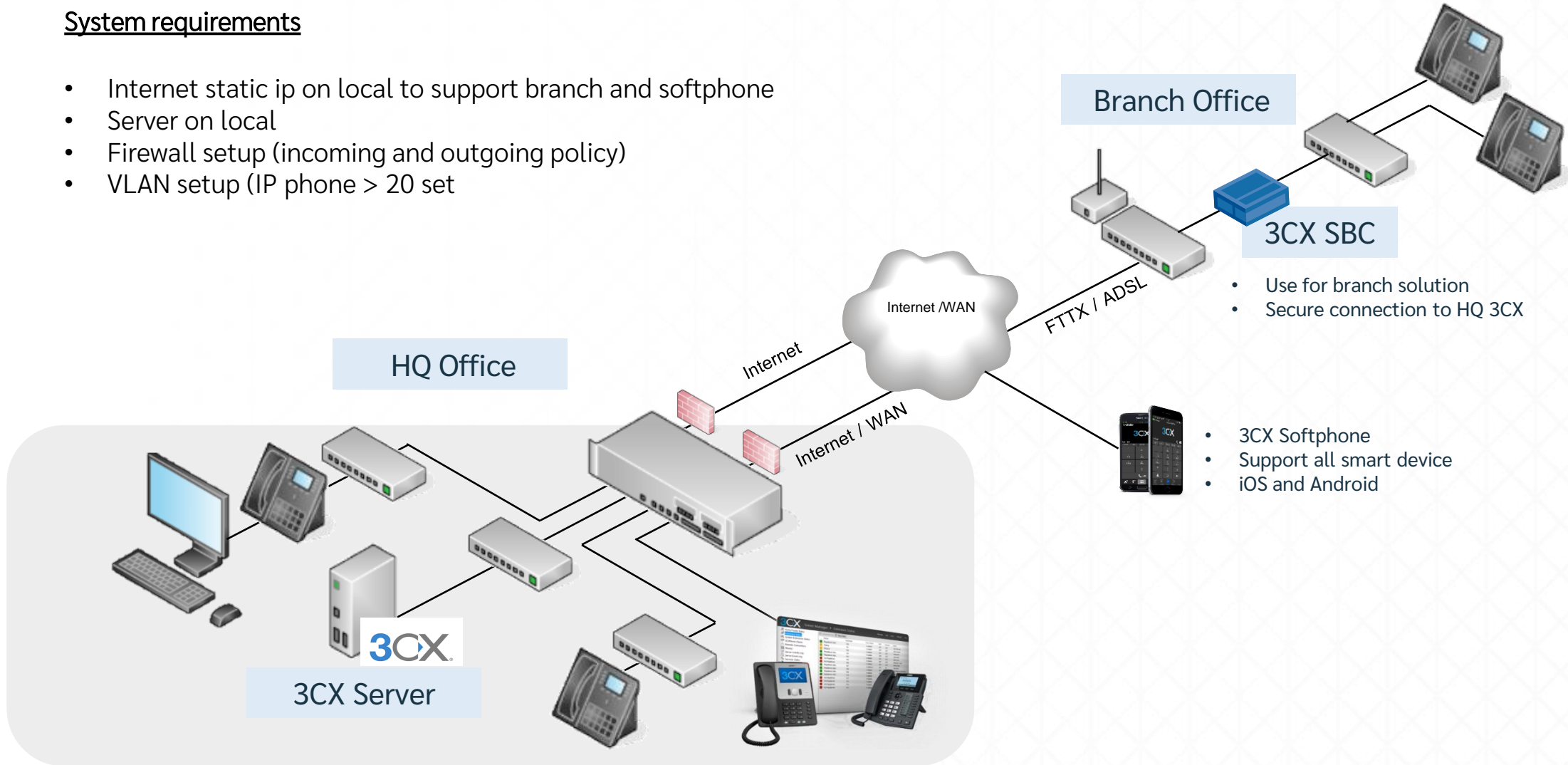
- 3CX Softphone
- Support all smart device
- iOS and Android



3CX on premise

System requirements

- Internet static ip on local to support branch and softphone
- Server on local
- Firewall setup (incoming and outgoing policy)
- VLAN setup (IP phone > 20 set)



3CX Security

Anti-Hacking



Security Settings

OK

Cancel

Anti-Hacking

Secure SIP

Allowed Country Codes

3CX Tunnel

Admin Credentials

Console Restrictions

Configure the security parameters of 3CX Phone System that define what 3CX will see as a hacking attempt

SSL/SecureSIP Transport and Ciphers

Enable PCI compliance SSL/SecureSIP Transport and Ciphers (This will leave only TLSv1.2 enabled and may prevent old legacy phones and old 3CX Apps to connect remotely to your system)

Anti-Hacking

Security Settings OK Cancel

Anti-Hacking Secure SIP Allowed Country Codes 3CX Tunnel Admin Credentials Console Restrictions

Configure the security parameters of 3CX Phone System that define what 3CX will see as a hacking attempt

Automatic Global 3CX IP Blacklist

Allow 3CX to collect any IP's that are blacklisted from this instance, and in exchange for this contribution, the global 3CX Anti Hacking Defense Program list of blacklisted IP's will be downloaded and enabled on this installation.

Failed Authentication Protection

Configure the amount of failed authentications that 3CX Phone System will accept. If this value is exceeded the source IP address is put in the Blacklist

Failed Challenge Requests (407)

DOS attacks can send REGISTER requests but do not reply to Challenge (407). Configure the amount of "fake" requests that 3CX will accept per IP Address before blacklisting the IP

Blacklist time interval

This is the time interval in seconds that an abusive IP Address remains in the blacklist

Security Barrier (Green)

Secure SIP and 3CX Tunnel

Anti-Hacking | **Secure SIP** | Allowed Country Codes | 3CX Tunnel | Admin Credentials

Secure SIP/TLS

To use Secure SIP you need to create a key and certificate for each network interface. Not all phones are supported.

Certificate

```
-----BEGIN CERTIFICATE-----
MIIFizCCBAugAwIBAgISAy+5Y1MXYX0Z13n4O4n44hwYMA0GCSqGSIb3DQEBCwUA
MDIx CzAJBgNVBAYTAiVMTMRyYwFAYD VQK Ew1MZXQncyBFbmNyeXB0MQswCQYD VQ
EwJSMzAeFw0yMTA2MDExOTE1NDZaFw0yMTA4MzAxOTE1NDZaMBoxGDAWBGNVBA
MTA2MDExOTE1NDZaFw0yMTA4MzAxOTE1NDZaMBoxGDAWBGNVBA
D2JpZ2JveC5teTNjeC5zZzCCASlwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEB
ALY1ChBuxbiNI6WCIH8P7HURZNSzhAc6NFCVW8M1rT3kxzR34e99L8KvL3fKhcRB
9wExle2D+W6zwoMY2dQK009FpVNIGzkVoc2hH4HRyMsj8n5sH/o7f6BEp0gII9/3
BAQDDepuKeWC2gzZcl2/+sA7dG9Jko1CpZsWTPYLMKpGAW/EHlxyt03XjzDlvGSyU
hldFr+bOM1JCEPDq1k7O1BXY6kCgoiilsMQf28DsWWU2+3Fx+ztHJ25paEuHnO2P
wBGInNyrCUDZ8/wZ1BeAh0rJIR0UWe9GtfsFzjB3ow2kdkQ/yQtC5GWBGqEtW3cO
-----
```

Private Key

```
-----BEGIN RSA PRIVATE KEY-----
MIIEowIBAAKCAQEAtjUKEG7Ful2XpYKUfw/sdRFk1LOEBzo0UJVbwzWtPeTHNHfh730vwq8vd8qF
xEH3ATEh7YP5brPCgxjZ1ArQ70WU0gbORWhzaEfgdHlyyPyfwmw+jt/oESnScUj3/cEBAN6m4p5
YLaDNlwjB/6wDt0b0mSjUKlmxZM9gswqkYBb8QeXHK3TdePMOW8ZLJSGV0Wv5s4zUklQ8OrWTS7U
FdjQKCiKliwxB/bwOxZZTb7cXH7O0cnbml0S4ec7Y/AEYic3KsJQNnz/BnUF4CHSsmVHRRZ70a1
+wXOMHejDaR2RD/JC0LkZYEaoS1bdw7/QGqBIBMCXplk2sZBbdQwIDAQABAoIBAFkYpXO0nVvo
M1uo9xEMyczS9RG3OFvKX9N5vXW+trH7WtdyuaXAes7BmD4E55U4xl4sVtFMQ/eYaght6flwWctu
rHGFZF5tEAI7g+sYml2Q5d5g4+AalQXPHFeAZcl6CFooE1ekhka+6HI345I7oX6bKyQdtuhV9Z2u
KplfWX9szw0wfhxw9Y5swshdbfga/MN784A6vMH2Dlju04xl5jsZYXjO4gbv9o8liwyvaUX7vfx
EmJVBefVU+23glj78XZ/ATOD0vJfvLKLTTBCrdZlm088f+H/Kvl/umhDe/k36LGYI081gyg/QhXW
-----
```

Security Settings OK Cancel

Anti-Hacking | Secure SIP | Allowed Country Codes | **3CX Tunnel**

3CX Tunnel

3CX Tunnel connections are secured with a password as an additional layer of security.

Tunnel Password

.....

Console Restrictions

Security Settings OK Cancel

Anti-Hacking Secure SIP Allowed Country Codes 3CX Tunnel Admin Credentials **Console Restrictions**

Console Restrictions

This allows you to restrict which IP addresses can connect to the 3CX Management Console. By default the MC is allowed from everywhere.

Allow Access from everywhere

Allow Access from specific IP Addresses

Your current IP address is allowed:
171.7.3.191 (unicast)

Click Add below to enter the allowed IP Addresses. IP's added here will be automatically added into the IP Blacklist as Allowed. The Link-local IPv4, Link-local IPv6, and Private IPv4 addresses are pre-populated already and cannot be deleted.

+ Add

IP/mask

10.0.0.0/8

172.16.0.0/12

192.168.0.0/16

IP Blacklist

IP Blacklist						
<input type="button" value="+ Add"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Import"/> <input type="button" value="Export"/>						
Search ...						
<input type="checkbox"/>	IP Address	Subnet Mask	Action	Expiration Date	IP address range	Description
<input type="checkbox"/>	185.147.215.13		Deny	10/01/2024 10:47:00 PM	185.147.215.13 - 185.147.215.13	PBX: blocked for too many failed authentications; User-Agent: Avaya IP Phone 1120E
<input type="checkbox"/>	45.143.220.31		Deny	09/10/2024 10:22:00 AM	45.143.220.31 - 45.143.220.31	PBX: blocked for too many failed authentications; User-Agent: Cisco/SPA504G-7.4.9c
<input type="checkbox"/>	5.62.58.137		Deny	05/09/2025 1:58:00 PM	5.62.58.137 - 5.62.58.137	PBX: blocked for too many failed authentications; User-Agent: Avaya
<input type="checkbox"/>	176.67.81.4		Deny	10/24/2024 7:47:00 AM	176.67.81.4 - 176.67.81.4	PBX: blocked for too many failed authentications; User-Agent: Avaya IP Phone

3CX App

[+ Add](#)

Your phones

3CX App



[✕ Delete](#)

Authentication

Authentication details used by phones & apps. Reprovision after a change

ID

u6bh8HFSEI

Password

.....



Network

Network interface for registration and provisioning

10.1.1.101



SIP Transport

TLS



RTP Mode

Only secure



Phone Provisioning

Phone Provisioning

[+ Add](#)

Your phones

GrandStream GRP-2612W



[✕ Delete](#)

For info on how to provision this phone click [here](#).

Authentication

Authentication details used by phones & apps. Reprovision after a change

ID

u6bh8HFSEI

Password

.....





Call Report



3CX Call Log

ข้อมูลการโทรของระบบ 3CX Phone System

Call Log

Call Log

Filter

Export

Search ...

Search

Date/Time	From	To	Talking
07/16/2021 10:10:58 AM	HQ - Warut 1555 (1555)	HQ - Jeab 1514 (1514)	00:00:25
07/16/2021 10:00:49 AM	HQ - Aew 1544 (1544)	0988965555	00:01:10
07/16/2021 10:00:30 AM	HQ - Aew 1544 (1544)	0922506709	00:00:05
07/16/2021 9:59:29 AM	HQ - Warut 1555 (1555)	HQ - Chu 1567 (1567)	00:10:00
07/16/2021 9:56:35 AM	HQ - Na 1587 (1587)	020934848	00:00:12
07/16/2021 9:47:03 AM	KTB - Konthong - 5111 (5111)	0816152029	Not Answered
07/16/2021 9:46:06 AM	HQ - Air 1537 (1537)	0854806015	00:01:27
07/16/2021 9:41:30 AM	HQ - O 1533 (1533)	HQ - Sornchai 1559 (1559)	00:01:16
07/16/2021 9:41:09 AM	HQ - Air 1537 (1537)	IVR (8000)	00:00:11
07/16/2021 9:41:08 AM	HQ - Air 1537 (1537)	HQ - Plaifon 1580 (1580)	Not Answered



3CX Call Report

ข้อมูลการโทรของระบบ 3CX Phone System

Call Reports

Type: Call Reports

All Calls: From 2/13/2019 12:00:00 AM To 2/13/2019 11:59:59 PM

Caller ID: Any number

Destination: Any number

Call Time	Caller ID	Destination	Status	Ringing	Talking	Totals	Cost	Reason	Play
2/13/2019 8:46:41 AM	0954617788:SLT (0954617788)	IVR (8000)	answered	00:00:00	00:00:40			IVR (8000) replaced by Q CallCenter_Q (7004)	
	0954617788:SLT (0954617788)	Q CallCenter_Q (7004)	answered	00:00:01	00:00:04			Q CallCenter_Q (7004) replaced by Customer Service # 1 (5000)	
	0954617788:SLT (0954617788)	Customer Service # 1 (5000)	answered	00:00:04	00:00:28			Customer Service # 1 (5000) replaced by Somkiat Udomsuk (2311)	▶ ▶
	Customer Service # 1 (5000)	Somkiat Udomsuk (2311)	answered	00:00:08	00:00:06			Somkiat Udomsuk (2311) was joined	▶ ▶
	0954617788:SLT (0954617788)	Somkiat Udomsuk (2311)	answered	00:00:00	00:00:36	00:02:07	0.00	Terminated by 0954617788:SLT (0954617788)	▶ ▶
2/13/2019 8:48:29 AM	Customer Service # 1 (5000)	Akekapong Tunpang (2216)	answered	00:00:04	00:00:24	00:00:28	0.00	Terminated by Customer Service # 1 (5000)	▶ ▶
2/13/2019 8:52:34 AM	Surachai Thakoengsuk (2412)	Krittakorn Pukbhasuk (2417)	answered	00:00:04	00:00:36	00:00:40	0.00	Terminated by Surachai Thakoengsuk (2412)	▶ ▶
2/13/2019 9:00:48 AM	Surachai Thakoengsuk (2412)	026181171	unanswered	00:00:19	00:00:00	00:00:19	0.00	Failed	
2/13/2019 9:17:54 AM	Wissanu Krutnak (2414)	Customer Service # 1 (5000)	answered	00:00:03	00:00:48	00:00:51	0.00	Terminated by Wissanu Krutnak (2414)	▶ ▶
2/13/2019 9:20:13 AM	Customer Service # 1 (5000)	Wissanu Krutnak (2414)	answered	00:00:04	00:00:14	00:00:18	0.00	Terminated by Wissanu Krutnak (2414)	▶ ▶
2/13/2019 9:19:17 AM	Yanisa OCN (4201)	Somkiat Udomsuk (2311)	answered	00:00:07	00:01:10	00:01:17	0.00	Terminated by Yanisa OCN (4201)	▶ ▶



3CX Call Report – Billing

ข้อมูลการโทรของระบบ 3CX Phone System

Asset Department							
5/8/2019 9:04:05 AM	5745 Nattita Boon-Chom แพร	0819249855	Mobile	answered	00:00:16	00:01:04	1.33
5/8/2019 9:21:05 AM	5745 Nattita Boon-Chom แพร	0841361167	Mobile	unanswered	00:00:08	00:00:00	0.00
5/8/2019 9:21:36 AM	5745 Nattita Boon-Chom แพร	0841361167	Mobile	unanswered	00:00:05	00:00:00	0.00
5/8/2019 9:25:10 AM	5744 Puttisa Phetjumrus บ็อม	022858450	Local	answered	00:00:05	00:02:06	2.10
5/8/2019 10:48:32 AM	5744 Puttisa Phetjumrus บ็อม	022858450	Local	answered	00:00:05	00:02:38	2.63
5/8/2019 10:59:03 AM	5744 Puttisa Phetjumrus บ็อม	022858450	Local	answered	00:00:04	00:00:19	0.32
5/8/2019 11:08:31 AM	5744 Puttisa Phetjumrus บ็อม	0865603717	Mobile	answered	00:00:06	00:02:26	3.04
5/8/2019 11:28:38 AM	5744 Puttisa Phetjumrus บ็อม	0865603717	Mobile	unanswered	00:00:02	00:00:00	0.00
5/8/2019 11:36:23 AM	5744 Puttisa Phetjumrus บ็อม	0865603717	Mobile	answered	00:00:16	00:01:15	1.56
5/8/2019 1:35:49 PM	5745 Nattita Boon-Chom แพร	0922625009	Mobile	unanswered	00:00:32	00:00:00	0.00
5/8/2019 1:40:00 PM	5745 Nattita Boon-Chom แพร	0922625009	Mobile	answered	00:00:22	00:00:46	0.96
5/8/2019 2:05:02 PM	5744 Puttisa Phetjumrus บ็อม	022858450	Local	answered	00:00:06	00:03:02	3.03
5/8/2019 2:24:22 PM	5744 Puttisa Phetjumrus บ็อม	022858000	Local	answered	00:00:01	00:00:01	0.02
5/8/2019 5:07:24 PM	5745 Nattita Boon-Chom แพร	027310050	Local	answered	00:00:25	00:04:38	4.63
5/9/2019 11:14:57 AM	5745 Nattita Boon-Chom แพร	0858587177	Mobile	answered	00:00:10	00:01:04	1.33
5/10/2019 1:23:50 PM	5744 Puttisa Phetjumrus บ็อม	0863848078	Mobile	unanswered	00:00:31	00:00:00	0.00
5/10/2019 2:17:08 PM	5744 Puttisa Phetjumrus บ็อม	022982521	Local	answered	00:00:20	00:00:19	0.32
5/10/2019 4:39:00 PM	5745 Nattita Boon-Chom แพร	0949098738	Mobile	unanswered	00:00:33	00:00:00	0.00
5/13/2019 9:02:21 AM	5744 Puttisa Phetjumrus บ็อม	0859165655	Mobile	answered	00:00:07	00:01:50	2.29
5/13/2019 9:05:28 AM	5744 Puttisa Phetjumrus บ็อม	022982190	Local	unanswered	00:00:33	00:00:00	0.00
5/13/2019 9:06:20 AM	5744 Puttisa Phetjumrus บ็อม	022982195	Local	answered	00:00:15	00:12:15	12.25
5/13/2019 11:05:52 AM	5745 Nattita Boon-Chom แพร	Mobile Call	Not Configured	unanswered	00:00:04	00:00:00	0.00
5/14/2019 8:54:18 AM	5744 Puttisa Phetjumrus บ็อม	022858450	Local	answered	00:00:07	00:02:22	2.37
5/14/2019 10:29:29 AM	5745 Nattita Boon-Chom แพร	0947922909	Mobile	unanswered	00:00:44	00:00:00	0.00
5/14/2019 10:30:21 AM	5745 Nattita Boon-Chom แพร	0991026622	Mobile	answered	00:00:11	00:00:18	0.38
5/14/2019 10:31:06 AM	5745 Nattita Boon-Chom แพร	0635689500	Mobile	unanswered	00:01:11	00:00:00	0.00
5/14/2019 10:32:47 AM	5745 Nattita Boon-Chom แพร	0635689500	Mobile	answered	00:00:53	00:00:29	0.60
Total:			Calls - 27		00:08:12	00:36:52	39.16



Contact Center



3CX Contact Center

ข้อมูล Contact Center ของระบบ 3CX Phone System

The image shows two screenshots of the 3CX interface. The left screenshot is the '3CX Wallboard' for 05/13/2019 at 4:36 PM, displaying metrics: 0 WAITING, 00:04:40 AVG TALK TIME, 212 ANSWERED, 16 ABANDONED, 2 AGENTS BUSY, 228 TOTAL, 0 CALLBACKS, and 00:00:31 WAITING TIME. The right screenshot is the 'Navakij Contact Center (Customer Service)' dashboard for 5/13/2019 at 4:26 PM, displaying metrics: 1 WAITING, 15:56:45 TALK TIME, 203 ANSWERED, 16 ABANDONED, 5 AGENTS BUSY, 219 TOTAL, 0 CALLBACKS, and 00:30 WAITING TIME. Below the wallboards is a list of agents with columns for 'Ext', 'Name', and 'Queues logged in to'. The agent list includes agents like Monitor 1651, BCPM_Patcharee Mekthaveekul, BCPM_Pawita Eamsagul, BCPM_Supannee Sukjit, BCPM_Yuwadee Nacham, BCP_Chuanchuen Jaengsan, BCP_Panadda Autaphan, BCP_Willawan Nittaya, BCP_Tichakon Yapeang, BCP_Phonpisut Thammassathian, BCP_Sinwisut Thammassathian, BCP_Wanida Sosungnoen, BCP_Areeya Siripatana, and BCP_Phornaphat Wannaro.

- ACD Call Routing
 - Skilled Based
 - Least Talk
 - Hunt
 - Random etc.
- Call Center Report for Call Center Manager
 - Agent Statistic Report
 - Queue Performance Report etc.
- Manager Call Control
 - Least Talk
 - Barge in
 - Listen to
 - Whisper
- Realtime Wallboard
- Realtime Manager Dashboard
- Web Client
- Call Recording



3CX Contact Center – Supervisor and Manager

ข้อมูล Contact Center ของระบบ 3CX Phone System

The screenshot displays the 3CX Q-Manager interface. At the top, there's a 'View: Q-Manager' dropdown and a settings gear icon. Below this is a call log table with columns for Caller, Callee, Duration, and Details. A context menu is open over a call entry, listing actions like Barge In, Listen, Whisper to, Transfer, Conference, Park, Drop, and Stop recording. To the right, a 'Customer Support' queue view shows a list of callers with a context menu open over one entry, listing actions like Barge In, Listen, Whisper to, Transfer, Park, Drop, and Record. At the bottom left, there's a 'Queues logged in to' table listing various queue names and their associated agents. The Windows taskbar is visible at the bottom, showing the time as 4:31 PM on 5/13/2019.

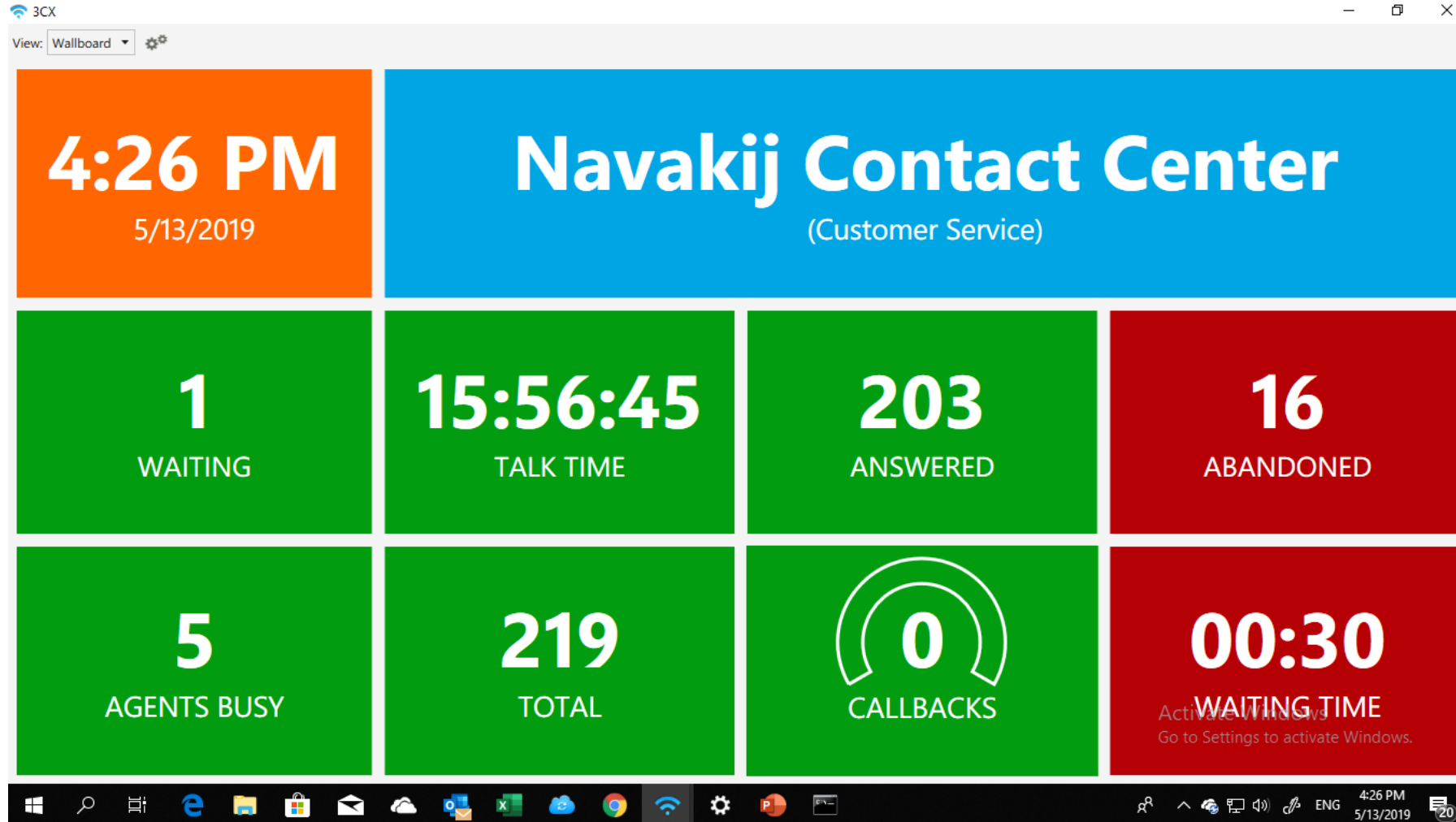
Caller	Callee	Duration	Details
0614084969:Bangchak O...	BCP_Areeya Siripatana[4...	00:04:06	External Call
0863437780:Bangchak One	BCP_Phonpisut Thammasathian[00:00:12		External Call
0980163900:Bangchak One	BCP_Agent 16[4016]		

Caller	Callee	Time	Details
Jack Sanders[033]	Alisa Lindsey[015]	00:00	
Nik Tesla[369]	Customer Support		Waiting in Queue
Brody Hampton:Customer Support[038]	Quincy Simmons		Connected to Queue

Ext	Name	Queues logged in to
4000	Monitor 1651	
4001	BCPM_Patcharee Mekthaveekul	
4002	BCPM_Pawita Eamsagul	
4003	BCPM_Supanee Sukjit	
4004	BCPM_Yuwadee Nacham	
4005	BCP_Chuanchuen Jaengsan	
4006	BCP_Panadda Autaphan	BCP Call Center Press 3, BCP Call Center Press 4, BCP Call Center Press 6
4007	BCP_Willawan Nittaya	
4008	BCP_Tichakon Yapeang	
4009	BCP_Phonpisut Thammasathian	BCP Call Center Press 3, BCP Call Center Press 4, BCP Call Center Press 6
4010	BCP_Sinwisut Thammasathian	
4011	BCP_Wanida Sosungnoen	
4012	BCP_Areeya Siripatana	BCP Call Center Press 3, BCP Call Center Press 4, BCP Call Center Press 6
4013	BCP_Phornnaphat Wannaro	

3CX Contact Center – Wallboard from App

ข้อมูล Contact Center ของระบบ 3CX Phone System





3CX CRM Integration

ข้อมูลการทำ Integration กับระบบอื่น ของระบบ 3CX Phone System

- Synchronize contacts across apps
- Automatic call pop-ups when receiving incoming calls
- Automatically create new contacts from unknown numbers
- Call journals instantly log records in the CRM
- Launch calls in a single click with the 3CX Click to Call function



Nutshell

zendesk

treshdesk

vtiger

Microsoft Dynamics CRM

ZOHO

Bitrix24

salesforce

Office 365



3CX Customization – Voicemail and Call Recording

ข้อมูล Contact Center ของระบบ 3CX Phone System

The screenshot displays the 3CX Voicemail Report interface. The browser address bar shows the URL `192.168.150.131/report/vm`. The interface includes a sidebar with navigation options such as ADMIN, Reports, Call Data Incoming, Agent, Agent Signed, CDR, Call Satisfaction, Agent Service Interval, IVR, Voice Mail, and Call Data Incoming (New). The main content area is titled "VOICE MAIL REPORT" and features a search and filter section with fields for Date Range, DNIS, Customer Number, Start Time, End Time, and Service Name / Script. Below this is a table of call records.

Date	Time	Service Name	Customer Number	DNIS	Voice	Status	By	Listen Date
2021-01-07	13:10:17	Central_FamilyMart	0902569413	023158752	▶ 0:00 - 🔊	🟢	admin	2021-01-07 13:42:29
2021-01-07	09:10:59	Central_FamilyMart	0915781884	026277352	▶ 0:00 - 🔊	🟢	admin	2021-01-07 12:22:07
2021-01-07	07:52:37	Central_FamilyMart	0985567895	026277352	▶ 0:00 - 🔊	🟢	admin	2021-01-07 08:12:57
2021-01-07	07:25:36	Starbucks	0924622698	026277353	▶ 0:00 - 🔊	🟢	admin	2021-01-07 08:03:51
2021-01-07	06:51:22	Starbucks	0655241932	026277353	▶ 0:00 - 🔊	🟢	admin	2021-01-07 07:33:56
2021-01-07	00:54:48	Central_FamilyMart	0844390627	026277352	▶ 0:00 - 🔊	🟢	admin	2021-01-07 01:04:41
2021-01-06	22:35:06	Central_FamilyMart	0915763397	026277352	▶ 0:00 - 🔊	🟢	admin	2021-01-06 22:45:34

3CX Customization – Report and Score

ข้อมูล Contact Center ของระบบ 3CX Phone System

CALL SATISFACTION REPORT

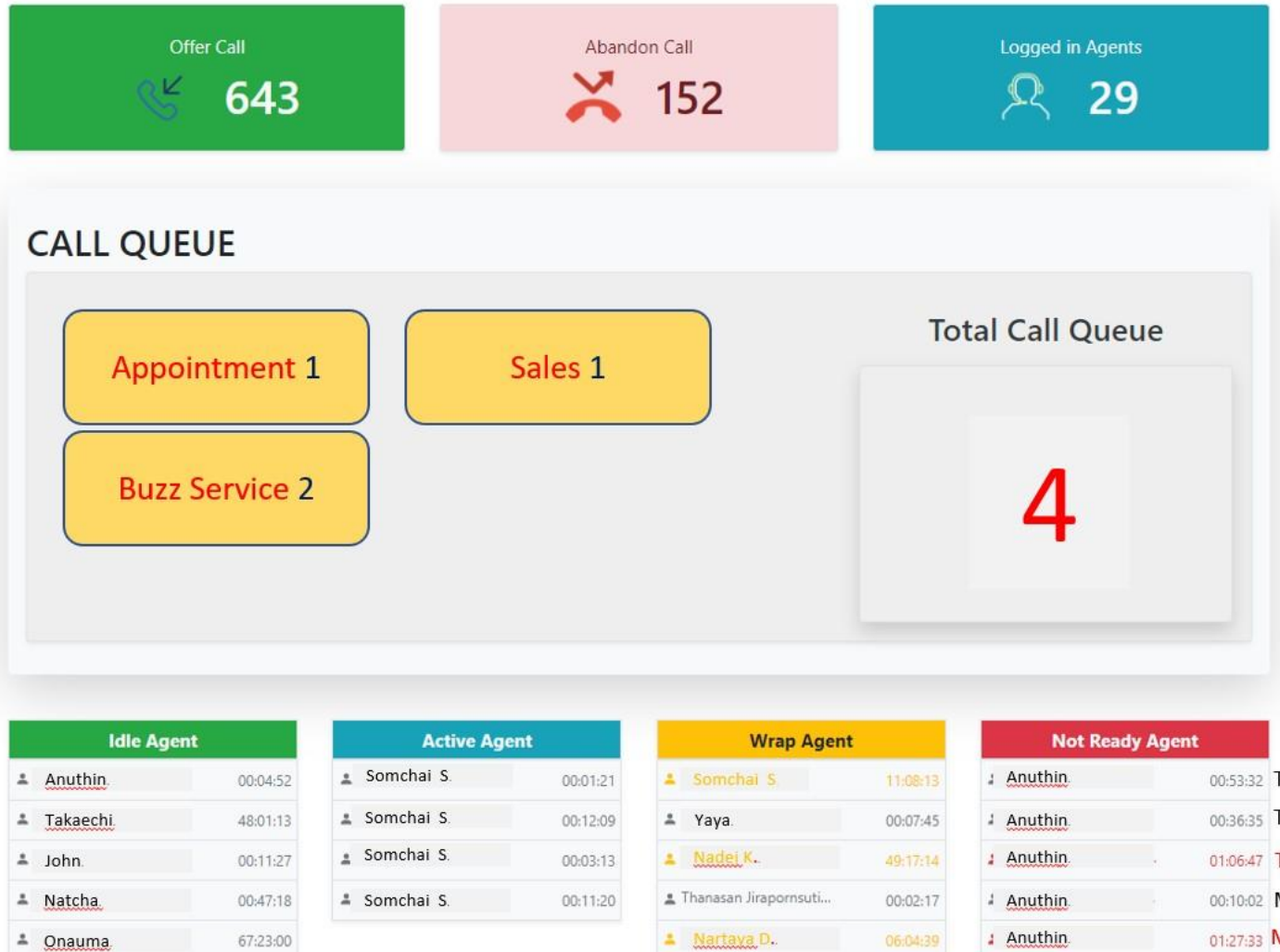
Date Range: Answered / No rate: Service: [Generate / Export Data](#)
[Generate](#) [Export Data](#)

Start Time: End Time: Agent ID or Agent Name: Incident No.:

Date / Time	Service Name	Customer No.	Incident No.	Agent ID	Agent Name	Question 1		Question 2		Agent Comment	Managements
						No	No	No	No		
						Rate	Rate	Rate	Rate		
2021-01-07 14:27:10	Central_FamilyMart	020335620		09241	Poramatt Soman	1	0	0	1		Edit
2021-01-07 14:24:29	McDonald	0818369097	INC0888449	08925	Pawat Buavichien	1	0	0	1	MGR. พุดกมล	Edit
2021-01-07 14:23:15	MFG	0982509039	INC0888427	10003	Kittiphong Phongpanna	1	0	0	1	สาขาพุดจาศี	Edit
2021-01-07 14:21:44	Central_FamilyMart	0843613975	INC0888454	09270	Siriporn Kojak	1	0	0	1	สาขาพุด	Edit

3CX Customization – Wallboard

ข้อมูล Contact Center ของระบบ 3CX Phone System



3CX Customization – Wallboard

ข้อมูล Contact Center ของระบบ 3CX Phone System

OVERVIEW - 1268

22 JUNE 2021

TOTAL CALLS 1,407	INBOUND 1,290	OUTBOUND 117	54 LONG CALLS	25 SHORT CALLS	04:45 LONGEST WAIT TIME	00:13 LATEST WAIT TIME	00:21 AVERAGE WAIT TIME	19:30		
INBOUND	CALL on IVR 5	CALL Waiting 1	Total Offer 78	Total Ans 30sec. 75	Total Ans 74	Total ABN 2	Service Level(%) 96.15%	Abandon Rate(%) 2.6%	ASA (Sec) 8.5	AHT(Mns) 4.24
OUTBOUND	Traget Call 140	Remain Call 23	Total Call OB 117	Contract 75	Uncontract 42	Follow up 14	Actual Call (%) 83.57%	Remain (%) 16.4%	Contact (%) 4%	Uncontract(%) 36%
LOG IN 36	ACTIVE 5 14%	IDLE 7 19%	AUX 24 67%	WRAP 1 3%	TOILET 2 6%	MEAL 5 14%	FOLLOW UP 1 3%	WORK AS 5 42%		
Inbound 14	ACTIVE 5 36%	IDLE 7 50%	AUX 2 14%	WRAP 1 7%	TOILET 0 0%	MEAL 0 0%	FOLLOW UP 1 7%	WORK AS 0 0%		
Outbound 22	ACTIVE 0 0%	IDLE 0 0%	AUX 22 157%	WRAP 0 0%	TOILET 2 14%	MEAL 5 36%	FOLLOW UP 0 0%	WORK AS 15 68%		

6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00
Time (in hours)

3.7
Satisfaction Score



Case Study

แนะนำตัวอย่างเคสของลูกค้าที่ใช้งานระบบ IP Phone

Case Study

โครงการปรับปรุงระบบโทรศัพท์โรงพยาบาลมหาราช จังหวัดนครราชสีมา

ระบบเดิม

ระบบโทรศัพท์ของโรงพยาบาลมี 2 ระบบ ซึ่งยังไม่ได้เชื่อมโยงกัน เพราะเป็นเทคโนโลยีที่แตกต่างกัน

Cisco Call Manager 500 License

มีความต้องการขยายระบบเพิ่มเป็น 2,000 เลขหมาย



Ericson Consono MD110

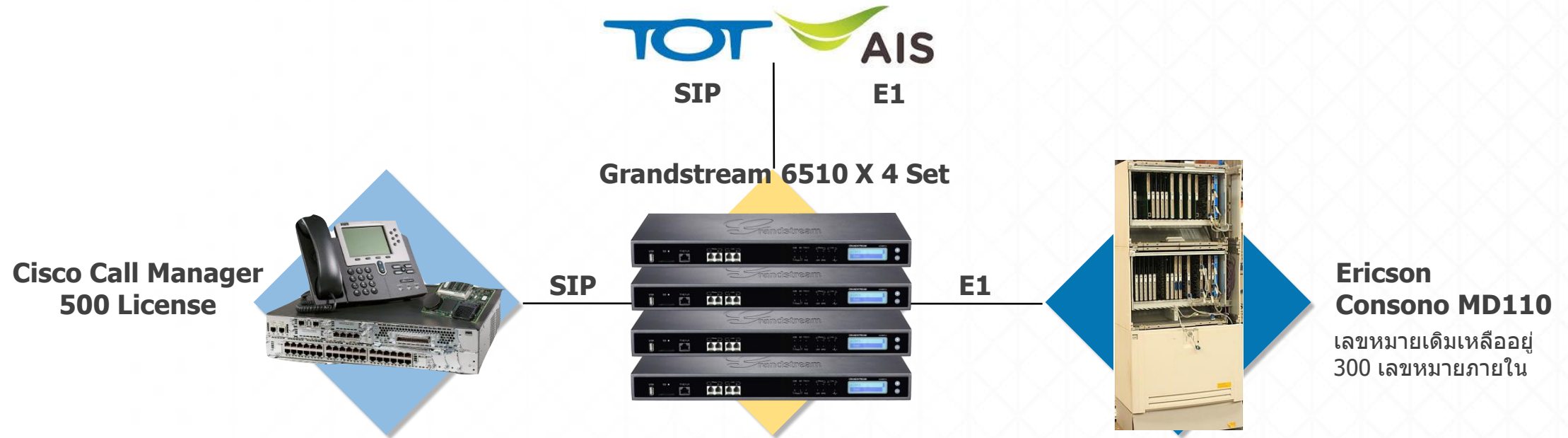
เป็นระบบเดิมที่เป็น Analog 800 เลขหมาย

ความต้องการ

- ต้องการเพิ่มเลขหมายเป็น 2,000 เลขหมาย ลงทุนสูงหากลงทุนฝั่ง Cisco
- เพิ่มเต็มเบอร์ 044 ซึ่งเป็นเบอร์ตรงอีก 1,000 เลขหมาย แบบ SIP Trunk
- เชื่อมระบบระหว่าง Cisco และ Ericson เพื่อให้โทรหากันภายใน
- จัดเรียงสายภายในใหม่ทั้งหมด

Case Study

โครงการปรับปรุงระบบโทรศัพท์โรงพยาบาลมหาราช จังหวัดนครราชสีมา



ระบบใหม่

- นำตู้สาขา GRANDSTREAM 6510 จำนวน 4 ชุดมาเชื่อมระหว่าง Cisco และ Ericson
- เชื่อมระบบกับ Cisco ด้วย SIP Trunk
- เชื่อมระบบกับ Ericson ด้วย E1 จำนวน 3 Port
- เชื่อมเบอร์ตรง 044 ด้วย SIP Trunk จาก TOT 1,000 เบอร์
- เชื่อม E1 จำนวน 2 วงจรไปยัง AIS เพื่อรองรับการโทรออก

Case Study

โครงการปรับปรุงระบบโทรศัพที่โรงพยาบาลมหาราช จังหวัดนครราชสีมา

Before



After Renovate



Contact Us

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