

Cisco 7800 Series

Cisco 8800 Series



Exchange Phone System

INFORMATION ON EXCHANGE PHONE SYSTEM OPTIONS
EXCHANGE COMMUNICATION SERVICE

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EXCHANGE FIELD TELEPHONE SYSTEM v1

Stores and Admin Offices

Overview:

Exchange IT-I has a Field Telephone System in place that supports over 1000 IP and analog telephones. The Cisco IP Telephony solution works with and takes advantage of the existing Cisco network infrastructure deployed globally by AAFES. For individual sites, this VoIP system includes flexibility, redundancy, and support not available in previous offerings. The Cisco solution is now the standard phone system. In the past this was a Nexus solution.

System Description:

Onsite Equipment (at the facility):

- IP Phones. These are the replacement telephones for the old Digital phone system phones (ex: all 8 and 16 button phones that are branded and come with the old telephone switch)
- IP Phones (Wireless). These are telephones that work with your existing Cisco store/office wireless access points. Known as “Handys” in Europe – these are real telephones just like your hardwire IP phones (and not walkie-talkies or cell phones).
- Analog Gateway(s). Support for Analog Phones and Fax Machines. Analog phones might include generic desk and wall phones, “Cordless” phones that share a base station, devices with modems like postal meters. An analog gateway is a special type of router where the generic analog device meets and is connected to the network.
- Voice Gateway. Support for Voice Circuits. Your current site routers will serve as the main termination points of your existing Voice Circuits (for which you receive a monthly bill from the local carrier). Your analog lines (Plain Old Telephone Service – POTS lines), your T1/PRI voice circuit (if you have one) will terminate here. You must have a local phone service.
- Telephone Paging Access Module. This is a small device that sits between an analog gateway and your existing paging controller. The TAMB2 allows telephones from all over the facility to access the paging system.

Offsite Equipment (HQ/CDC):

- Telephone/Voicemail servers. Primary call processing, automated attendant functions, and voicemail is all provided from Dallas.
- Automated Attendant. This server subsystem stands in between a POTS line with a single number at a site, and routes calls to phones in different departments or different desks. It can be built to play one message/menu during the day and have a different one for after hours.
- Voicemail. All phones may be assigned a voicemail box, as desired.

Operations:

- Internal Calling (Paging). Designated telephones may access the existing paging system, if desired.
- Internal Calling (Indyme Shoptalk). Designated phones may access existing Indyme “Shoptalk” systems.
- Internal Calling (Doorbox, Gatebox, Security Latches). If a security latch system already exists, designated phones can communicate with associates/visitors at a door, delivery trucks at a gate, and allow access.
- Inbound Calling (Automated Attendant). Callers reaching an Auto Attendant are given the option to press “1” for Dept. A, “2” for Dept. B, etc. An after-hours message can be recorded that lets callers know that the office is closed but will re-open during business hours. A site administrator can be assigned in order to make changes to the messages.
- Inbound Calling (Voicemail). End users with voicemail boxes can access messages left by other callers.
- Outbound Calling. Class of Service restrictions allows individual phones to be assigned calling privileges (Internal, Local+Toll Free, Long Distance, and Intl). The total number of concurrent calls outbound depends upon the number of voice circuits terminated on the Voice Gateway(s). (Same as today) (For Example: Phones at front checkout can only dial out to the 800 numbers for credit authorizations, while still maintaining the ability to call internal extensions and page.)
- IP Phone Call History. End Users with IP phones can access a call log from their phone that shows calls from and to their phone with time stamps.
- Self-Service Speed Dials. End users with IP Phones can access a web page from their PC that allows them to assign speed dials to available (unused) line buttons.

Support:

The AAFES Filed Telephone System comes initially with 3 years of dedicated Telephone System Support. Support analysts are full time telephone administrators and engineers with a specific understanding of the AAFES telephone system. Support includes:

- Outages. Interruptions to telephone service caused by circuit outages, equipment failure, loss of power
- Feature Troubleshooting. Call Pickup Groups, Hunt Groups, and other telephone features
- Moves/Adds/Changes/Deletes (MACD). Updates to telephones to accommodate new users, departing users, users changing departments/names/titles, etc. fall within the scope of MACD.

Ordering a phone system:

To begin the process of getting a phone system installed the EXCHANGE RETAIL STORE IP TELEPHONE SYSTEM QUESTIONNAIRE will need to be filled out. In order to complete this form, you will need to know the following:

- Type of phone lines in the facility
- Location where these lines terminate in the building
- How many phones are needed?

- What kind of access does each phone need?
- How many Analog devices will need to be supported (Fax/Modem)?
- Is shoptalk used (Indyme in store call box system)?
- Is a Paging Controller being used?
- How many paging Zones are there currently?

Type of Phone line/lines you have at the facility

POTS (Plain Old Telephone Service) – This is what the majority of facilities have. These lines allow for one to one call and can be grouped together into a hunt group which would allow for multiple calls to come in through a single number. We have seen some facilities with just a couple of POTS lines and some with up to 20. (Note if you have a large number of POTS lines you may want to get with your local provider to ask about a PRI service or if you have the needed bandwidth SIP may be an option to reduce costs). Please ensure that all POTS lines are being used or note on the form if you require assistance with this as terminating unused lines will result in unnecessary costs to the facility.

PRI (Primary Rate Interface)- This connectivity is used in a few of our facilities and delivery the phone service to the facility over a T1/E1 and can support multiple calls over this one line. This is usually the preferred method once you get over 10 POTS lines coming into your facility to help you maintain your additional cable pairs and also reduce costs. You will have to work with your provider to do a comparison of the costs of POTS over a PRI you could possibly save money doing this.

SIP (Session Initiation Protocol) – We currently only have 2 facilities running this type of connectivity, one is HQ and the other is Dan Daniel Distribution center. This type of connection runs over you current WAN connection and utilizes the WAN bandwidth to place and receive calls. This bandwidth is reserved for these calls and is done in increments of 25. For example if you expect to have up to 25 concurrent calls going on at the same time (Outside of the facility) you would order 25 SIP sessions. These can be looked into for facilities with 20Meg MPLS connections or higher.

DSN (Defense Switched Network) – This is the military supplied lines that we have in several of our facilities. The service can be delivered in several different ways. The most popular way is POTS lines into our facility from Base Communications. The other options are PRI or directly connected through the military network. If you have a specific phone for DSN then usually the DSN line is not going through your current phone system. Otherwise the DSN line is connected into your phone system and you key in an access number before dialing DSN such as an 8 or 88. The current phone solution is JITC certified and does work with DSN.

If you have Questions about your type of phone service, please contact your service provider and/or Base Communications.

Location where the lines terminate into the building

Usually for Main Stores these lines all terminate in your ELCC, with trunk cables running to other IDFs or telco rooms. In your smaller facilities there will probably be a small telco room possibly only accessible from outside the building. Base communications should be aware of the location of this termination point.

How many phones are needed?

You will have to have a good inventory of the phones in the facility to accurately order the phones. The questionnaire has the type of phones to order as well as the recommended usage for these phones. If you have analog phones on the sales floor or other locations that you would like to keep so that you do not have to run a CAT 6 cable to that location, you will have to account for these devices under the Fax/Modem entry as this would just be another analog device. NEW CONSTRUCTION PROJECTS SHOULD BE ALL IP PHONES.

What kind of access does the phone need?

There are several choices to consider when listing the type of access each phone should have. The options are

- International – These phones will have access to call International, long-distance, local and internal
- Long Distance – These phones will have access to long-distance, local and internal
- Local/800 - These phones will have access to local and internal plus the ability to call 800 numbers
- Internal - These phones will have access to internal calling only (Department phones)

How many Analog devices will need to be supported?

This takes into account any analog device that will be needed to stay in place with the new phone system. This includes Fax machines, Modems and any Analog phones that will need to remain. We want to limit the number of Analog devices that we keep as this will add cost to the system as we need additional gear for them to function. Any Analog phones that can be replaced with an IP phone is encouraged. Once again New Stores should be all IP Phones with the exception of a few devices such as FAX machines.

Is shoptalk used

This is the Indyme call box solution. Customers use these devices to ask for assistance in an area. There is usually a phone connected to this system in order to manage it.

Paging controller used

For this we need to know the type of controller/AMP (Manufacture and Model number) that is being used for your speakers in the store. Currently the paging system and AAFES radio is being played through this.

How many paging zones are used?

A paging zone is a section of the facility where the page is focused. For Example, if you wanted to only page in the stockroom there would be a zone setup specifically for that. There are some facilities that have up to 5 or 6 paging zones which include Admin area, Sales Floor, Stock room, Food Court and Concession mall. The operations managers are usually aware of this type of setup.

FAQ

Q. Do I need an extra CAT 5e/6 drop for these phones?

A. This answer depends on what you already have in the existing location. If you have a PC already near where the phone will be the answer is no. The phone have a built in switch that will allow you to run the Ethernet connection from the wall to the phone then from the phone to the PC with a patch cable. If you have an Analog phone that you are replacing with an IP Phone, then you would have to look at the existing connection for that phone to see if it has already been wired to standard. If it has not then you would need a new drop, if it has been wired correct then there will be a CAT5/6 Patch cable that can be used.

Q. Can we use this on the same line as a Register?

A. Not at this time.

Q. How long does it take to get my system installed?

A. At this time the lead time to get the equipment in is 21 days after the PO is cut. Once the equipment has a delivery date then the install can be scheduled for GDT. We will eventually allow self-installs for smaller facilities with remote support.

Q. How do I know what kind of phone lines I have?

A. There are a couple of approaches to find out this information. You can ask the service provider (Who you pay your bills to) or you can ask Base Comm if your lines go through them.

Q. Will this work with my site because of bandwidth?

A. This solution will work with any site as all calls will go across existing phone lines. The only bandwidth utilized is for checking voicemails and auto attendant which utilizes very little bandwidth.

Q. Will the wireless phones work in my facility?

A. If you have Cisco access point installed the answer is yes. If you do not have Cisco access Points, we can add access points at a cost.

Q. What does the Order sheet look like?

A. Below....

AAFES RETAIL STORE IP TELEPHONE SYSTEM QUESTIONNAIRE



SiteName:
Address:

If you have questions regarding the answers to the below or require help, please contact your support team at teammcrary@gdt.com

Please send completed form to teammcrary@gdt.com

SITE NAME/ADDRESS/FAC CODE	SPECIAL DEVICES
MAIN Number	Fax/Meters/Modems
CARRIER/PROVIDER	Phone Buzzer/Bell/Flasher
POC Contact Info	Paging - Zones
Attach Phone Bill (Y/N)	Paging - Controllers
Attach Phone List (Y/N)	Shoptalk
Attach Current PBX CFG (Y/N)	Door/Gate Opener

Phone Lines	QTY	Number(s) (List all)	Auto-Attendant(s)	QTY	Number(s) (List all)
T1/PRI(s)			MAIN		
T1/PRI (DSN)			CUST SVC		
POTS Line(s)			OTHER		
POTS Line (DSN)					

Location of Circuits in IDFs and Telco Rm								
Name	Description	FAX/Modems	POTS	T1	DSN	Paging CTRL	Shoptalk	Doorbox/Gatebox
Telco	ex - RM 100							
MDF1	ex - RM 101							
IDF2	ex - RM 102							
IDF3	ex - RM 103							
IDF4	ex - RM 104							
IDF5	ex - RM 105							

Notes (ex Manager, Softlines, Cash Cage)	QTY	DEPARTMENT	MODEL	VOICEMAIL	COS	HEADSET	S/C

Recommended Models	Register/Column Desk		Desk-Mgr/Adm/GM	Handy	TrngRm
	3905	7841	8841	8821bundle	Conference Station 8831
CISCO IP Phone Comparison Matrix					
User Connect License	Essential/Entry	Enhanced	Enhanced	Enhanced	Enhanced
Integral Switch	10/100	10/100/1000	10/100/1000		No
Wireless Support (802.11)	No	No	No	Yes	No
Display	128 x 32 Monochrome Backlit	396 x 162 pixel-based, anti-glare graphical monochrome display with white backlight	Digital, 24-bit graphical backlit TFT Color, 5"	Digital, 2.4-in. (6-cm) color display with 240 x 320 pixel resolution	396 x 162 Mono (3.5-in.)
Touchscreen	No	No	No	No	No
Number of DN's supported	1	4	5	6	1
Programmable (line) keys	0	4	5-lighted	N/A	0
Programmable (soft) keys	0	4	4	2	4
Speakerphone	Yes	Yes	Yes	Yes	Yes
Headset Port	No	Yes	Yes, High-definition voice support	Yes	No
Bluetooth Support	No	No	No	Yes	No