

Administrator Guide





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IP Network Resources

Please note the below IP Network Ports are specified if you restrict Ports in your network and need to be allowed for the appropriate products listed

EMS

TCP outgoing to port 5038 on ToolVox RTSP outgoing to port 554 (or other locally-configured port) on cameras if video is in use

IP5000

HTTP/TCP, HTTPS/TCP incoming to ports 80, 443 for web-based management NTP/UDP outgoing to port 123 on ToolVox for time service SNMP/UDP incoming to port 161 for UPD testing SNMPTRAP/UDP outgoing to port 162 for UPD traps HTTPS/TCP incoming to port 443 from ToolVox for programming IAX2/UDP outgoing to port 4569 on ToolVox SIP/UDP outgoing to port 5060 on ToolVox RTP/UDP incoming from ToolVox to UDP ports 23456-23556 (configurable)

ToolVox

DHCP for IP5000 units if configured SSH/TCP incoming to port 22 for secure shell management SMTP/TCP outgoing to port 25 on configured mail server for mail alerts DNS/UDP outgoing to port 53 if configured to use DNS servers HTTP/TCP, HTTPS/TCP incoming to ports 80, 443 for web-based management NTP/UDP incoming to port 123 from IP5000 for time service SNMP/TCP outgoing to port 161 on IP5000 for UPD testing SNMPTRAP/TCP incoming to port 162 from IP5000 for UPD traps H.323/TCP incoming and outgoing to and from port 1720 for H.323 trunks HTTPS/TCP incoming to port 2000 for Webmin management TCP incoming to port 2840 from Blue Alert clients IAX2/UDP incoming to port 4569 from IAX2 phones TCP incoming to port 5038 from EMS clients RTSP outgoing to port 554 (or other locally-configured port) on cameras if EMS video is in use SIP/UDP incoming to port 5060 from SIP phones and trunks RTP/UDP incoming to ports 10000-20000 from SIP and H.323 phones and trunks

ToolVox Blue Alert MNS

Core Application

HTTP/TCP and HTTPS/TCP incoming to ports 80 and 443 on ToolVox Optional Internet access to the Google Maps API over HTTP and HTTPS for aerial imagery

4U2SEE Digital Signage

TCP outgoing to port 3001 on 4U2SEE digital signs

Desktop Alert

Multicast UDP to port 9264 on the configured IPv4 multicast address, which must



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be routed appropriately to destination systems

Email

SMTP/TCP outgoing to port 25 on configured mail relay

PAS

Delivered via telephony connections to Code Blue PAS units (see ToolVox and IP5000 network resources)

RSS

HTTP/TCP incoming to port 80 to read feed content This access should be proxied instead of allowing ToolVox to directly service requests from public networks

SMS via 2SMS

HTTP/TCP to port 80 via the Internet to www.2sms.com

SMS via email

See "Email"



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Configuring Server Settings

Warning: Advanced knowledge of the ToolVox system is required before making any changes other than network settings to the system. Changing settings other than the network settings may result in complete system failure. Hourly support packages are available and require remote access to the system via remote desktop control.

The ToolVox Media Gateway has the IP configuration set to DHCP by default. A user account was also added to run the following from the CLI for those familiar with Linux platforms:

There are multiple methods for logging into the ToolVox server.

Initially you may just want a keyboard and monitor directly plugged into the server. You can then configure the network settings using CLI commands listed below. Once you know the IP address of the server you can connect via SSH or use a web browser and enter the Webmin side of the server to edit network settings. You do not need to do both methods.

Direct Connect and SSH commands:

This is the login information for the user account on the ToolVox systems :

Login:	cbadmin
Password:	CodeBlue92

These are some of the common commands the user is able to run as sudo.

ifconfig (see current network info)

the server by default is DHCP so once you have connected a network connection to the eth0 port on the rear of the server, it will pull an IP address if DHCP is running on your network. If not using DHCP then run the below command to configure a Static IP.

sudo system-config-network (setup Dynamic/Static network settings for the ToolVox)

sudo /etc/init.d/network restart (restart network services if changed)

ping

Once you connect ToolVox to your network you should be able to login to the Webmin management portal with the DHCP assigned address or Static IP that you setup in the above steps: Using your web browser browse to: https://ToolVoxIP:2000

If you already know the IP address of ToolVox you can simply browse to the IP address of ToolVox you can simply browse to the IP address to directly access the system and begin setting up Code Blue Phones. The below is another side of the server if you wanted to setup the network devices and/or the Post Fix Mail Server settings.



Webmin commands:

Enter the default username '*cbadmin*' and password '*codeblue'*. Click Login

Login to Webmin		
You must enter a user	name and password to login to the Webmin	server on toolvox61.pd.codeblue.com.
Username	cbadmin	
Password	•••••	
	Remember login permanently?	
	Login Clear	
If you wish to change Click Networking on the I	eft navigation bar.	
Login: cbadmin System Servers Others Networking Hardware Search Search System Information Logout	System hostname Operating system Webmin version Time on system Kornel and CPU Processor information System uptime Running processes CPU load averages CPU usage Real memory	toohax51.pd.codeblue.com CentOS Linux 5.5 1.520 Thu Jan 3 10.51.26 2013 Linux 2.6 18.194 11.3 al5 on i686 Pentum(R) Dual-Core CPU E5400 (§ 2.70GHz, 2 cores 7 days, 1 hours, 35 minutes 120 0.02 (1 min) 0.03 (5 mins) 0.00 (15 mins) 0% user. 18% kernel. 0% 10. 82% idle 1.93 GB total, 495 20 MB used
	Virtual memory	2 GB total, 0 bytes used
	Local disk space	447 30 GB total, 53 18 GB used
	Package updates	310 package updates are available

Click on Network Configuration.

Login chadmin System	Module Config	Network Configuration		
Servers Others Networking Linux Firewal Network: Configuration	Network Interfaces	Routing and Cateways	Kostrame and DNS Client	Host Addresses
Search	Apply Configuration	Click this button to activate the current boot time interface and routing settings, as the	ey normally would be after a reboot. Warning - this may make your system	inaccessible wa the network, and cut off access to Webmin.
System Information				

Click on Network Interfaces.

Login: cbadmin B System	Module Index Network Interfaces						
Servers Others Networking Linux Firewall	Active Now Activited at Boot Interfaces listed in this table are cun Select all [Invert selection] Add a	ently active on the system. In most cases, you should edit	them under the Activated at Boot tab.				
Network Configuration	Name	Туре	IP Address	Netmask	Status		
Hardware Hardware	eth0	Ethernet	172 1 100 61	255 255 255 0	Up		
Search		Ethernet	fe80: 21c c0ff feb0:950f	64	Up		
	10	Loopback	127.0.0.1	255.0.0.0	Up		
System Information		Loopback	11	128	Up		
Cogout	Select all. Invert selection. Add a	new interface.					
	De-Activate Selected Interfaces						



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Click on Activated at Boot then click on eth0.

Login: cbadmin System	Module Index			Edit Bootup Interface	е	
Others	Boot Time Interface Parameters					
Networking	Name	ech0			Activate at boot?	📽 Yes 🔿 No
Linux Firewall Metwork Configuration	Address source	C From DHCP				
Hardware		From BOOTP				
Search:		Static configuration	aration IP Address 172.1.100.61			
The System Information			Netmask 255.255.0			
O Logout			Broadcast 🔿 Automatic 🔍	172 1.100 255		
	MTO	👻 Default 🗇			Virtual interfaces	0 (Add virtual interface)
	Hardware address	Default O				
	Save Save and Apply Del	ete and Apply Delete				
	Return to network interfaces					
Enter the IP	Address and N	etmask then o	lick Save			
CIICK						
Click on Rou	iting and Gateway	/S				
Login: cbadmin	Module Index				Routing	g and Gateways
Savara						
Others	Boot time co	nfiguration Active config	uration			
Networking	This section allo	ows you to configure the rout	es that are activated when the	e system boots up, or when netw	work settings are fully re applied	L
Linux Firewall	Douting confl.	auration activated at heat	time			
Network Configuration	1 Roding com	guration activated at boot	ume			
Hardware	Default route:	Interface	Gateway			
Search:		eth0 -	172.1.100.1			
-		*				
System Information	Act as router	Van Q Na				
ULOgout	Static router		Not set 200			
	State Fortes	Internace Network	Netmask Gat	eway		
	Local routes	Interface Network	Netmask			
	Save					
	A Return to n	twork configuration				
	Tetuin to in	stwork comiguration				
Enter the Ga	iteway IP Addre	ess for eth0 ar	d click Save]		
Click 🐂 Ket	um to network com	iguration				
Click on Ho	stname and DNS	Client				
Login: cbadmin System	Module Index				Hostname and D	NS Client
Servers	DNS Client Ontion					
Others	Hostnama		hal find a dable			
Linux Firowall	nostname		toolvoxe i.pd.codeblue.com			
Network Configuration	Resolution order		Hosts • DNS	•		1
Hardware	DNS servers			Search d	omains	None Visted
Search:						pd.codeblue.com
System Information						
W Logout	9					
	ouve					
	< Return to networ	k configuration				

Enter Hostname and DNS server IP Address information (if other than default) then click Save



This concludes the network configuration. You may need to reboot the system for the new settings to take effect. Below is the list of the settings you can control via Webmin on your ToolVox.

Login: cbadmin
System
Bootup and Shutdown
Servers
DHCP Server
Postfix Mail Server
Others
System and Server Status
Networking
Linux Firewall
Network Configuration
Hardware
CD Burner
System Time
Search:
🕅 System Information

Logout

Under Bootup and Shutdown you can shut down or restart your ToolVox. Located at the

bottom of the Bootup and Shutdown section.



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ToolVox® Software Update Procedure

Only customers under ToolVox Annual Maintenance plans receive Full Hardware & Software Coverage and Software Upgrades/Enhancements/Bug fixes etc. Please inquire to Customer Service if not under a Plan.

ToolVox Software Update

1.1 Insert the ToolVox Update CD for your ToolVox edition (Standard or Advanced) into the ToolVox hardware's DVD-ROM drive

- 1.2 Browse to the IP address of your ToolVox Communications Server
 - 1.2.1 http://<IP address of ToolVox>



TOOLVOX	
	Voicemail / Recordings ToolVox Administration
Features	Client Software Downloads
+ Blue Alert PAS + Blue Alert MNS	

- 1.3 Enter "Username": admin
- 1.4 Enter "Password": codeblue (default) or another password

Windows Security	X
The server 172. and password.	1.100.60 at ToolVox Administration requires a username
	admin Password Image: Constraint of the second s
	OK



1.5 Click on **Tools** next to Setup

1.6 WARNING – if you haven't done a backup recently please consider this a good time to start this practice. See the attached document "Configuring Backup & Restore"

- 1.7 Under "System Administration", click **ToolVox Update**
- 1.8 Click Update System.
- 1.9 Select Apply configuration changes (red bar) at the top of screen and Reload (red box)



- 1.10 After updating, you may need to refresh your screen.
- 1.11 Log out and then log back in to ToolVox Communication Manager.
- 1.12 <u>The update process is now complete.</u>



Configuring Digital & Analog (DAHDi) Hardware

172.1.100.65	Admin	CDR Reports EMS Records	s Help					Logged in
Setup Tools Admin	Digital	Hardware						
ToolVox System Status								
Dasic		_						
Business Phones		Span	Alarms	Framing/Coding	Chann	els Used/Total	Signalling	Action
DAHDi	Wildcard TE	E122. Card 1 - Port (span 1)	OK	ESF/B8ZS	24/24		pri cpe	Edit
Fax Configuration		(<u>-</u> -)					1 T	
Feature Codes	Analog	Hardwara						
General Settings	Analog	naiuwaie						
Outbound Routes								
Trunks	Type		Ports		1	Action		
Administrators	EXO Durte	05 00 07 00				C.A.		
Code Blue Software	FAUPUILS	23,20,27,20			0	Euit		
License Key Administration	FXS Ports	29,30,31,32,33,34,35,36,37	,38,39,40	41,42,43,44,45,46	47,48 6	Edit		
Code Blue Devices								
Diagnostic Schedules	Advanc	ed Settings						
Diagnostic Reports	Advanc	eu oenniga						
EMS Administration								
UPD Administration		Module Name: work	dm24xxp					
Blue Alert Administration		Tone Region: Uni	ted States/	North America	-			
Inbound Call Control		Opermode:	USA	-				
Inbound Routes		A-law Override:	ulaw 🔻					
Announcements		FXS Honor Mode.	Apply Ope	ermode to FXO Modules	s	•		
Blacklist		Boostringer.	Normal	•				
CallerID Lookup Sources			Normal	•				
			Normai	-				

This is used to display and configure Digital and Analog Hardware that may have been installed in your ToolVox. T1 PRI, FXO, and FXS, depending on what is required in the application.

The Ports will be auto numbered during boot up of the ToolVox.

FXS Ports – FXS's produce dial tone and should be cross connected to analog Code Blue devices or phones that need dial tone. These FXS Port numbers are used when you build your phones in Code Blue Devices.

Click the Blue "Edit" button next to the FXS Ports. They should be configured as follows. Note that your port numbering may be different and the Group Number should be 1. Do not change Kewl Start.



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Analog FXS Ports

Port 5:	Kewl Start 👻	Group: 1
Port 6:	Kewl Start 👻	Group: 1
Port 7:	Kewl Start 👻	Group: 1
Port 8:	Kewl Start 👻	Group: 1
Port 9:	Kewl Start 👻	Group: 1
Port 10:	Kewl Start	Group: 1
Port 11:	Kewl Start	Group: 1
Port 12:	Kewl Start	Group: 1
Port 13:	Kewl Start	 Group: 1
Port 14:	Kewl Start	Group: 1
Port 15:	Kewl Start	 Group: 1
Port 16:	Kewl Start	 Group: 1
Port 17:	Kewl Start	Group: 1
Port 18:	Kewl Start	 Group: 1
Port 19:	Kewl Start	 Group: 1
Port 20:	Kewl Start	 Group: 1
Port 21:	Kewl Start	Group: 1
Port 22:	Kewl Start	Group: 1
Port 23:	Kewl Start	 Group: 1
Port 24:	Kewl Start	Group: 1
Cancel	Save	

Hit save then

🐻 Apply Configuration Changes

Then Continue with reload.



<u>If done making adjustments in DAHDi then reboot the ToolVox.</u> It can be done using the black toggle switch on the front of the ToolVox or done remotely using Webmin. See Chapter on Configuring Server settings on how to do so.



FXO Ports – FXO's receive dial tone, and should be cross connected to Bell POTS phone lines or to Phone lines from customer PBX. These Port numbers are used when you build trunks to transport calls into and out of the ToolVox.

Click the Blue "Edit" button next to the FXO Ports. Note that your port numbering may be different and the Group Number should be 2. Do not change Kewl Start and make sure the ports are set up as follows.

Analog FXO Ports

Port 1:	Kewl Start	•	Group:	2	Context:	from-pstn
Port 2:	Kewl Start	•	Group:	2	Context:	from-pstn
Port 3:	Kewl Start	•	Group:	2	Context:	from-pstn
Port 4:	Kewl Start	•	Group:	2	Context:	from-pstn
Cancel	Save					

Hit save then

🐻 Apply Configuration Changes 🚽

Then Continue with reload.



<u>If done making adjustments in DAHDi then reboot the ToolVox.</u> It can be done using the black toggle switch on the front of the ToolVox or done remotely using Webmin. See Chapter on Configuring Server settings on how to do so.

T1 PRI – If you are interconnecting ToolVox with a PBX via a T1 PRI configure this section provided your hardware displays.

Click the Blue "Edit" button next to the Wildcard TE122 Card.



Set the ToolVox to the opposite of the PRI Signaling then the PBX your connecting to.



Customer PBX needs to be Net or CPE.

Hit save then



Then Continue with reload.



If done making adjustments in DAHDi then reboot the ToolVox. It can be done using the black toggle switch on the front of the ToolVox or done remotely using Webmin. See Chapter on Configuring Server settings on how to do so.



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Configuring Trunks

172.1.100.61	Admin CDR Reports EMS Records Help
Setup Tools Admin	Add a Trunk
Basic Business Phones	Add Zap Trunk (DAHDI compatibility mode)
DAHDi	Add SIP Trunk
Feature Codes	Add IAX2 Trunk
General Settings Outbound Routes	Add ENUM Trunk
Trunks Administrators	Add DUNDi Trunk
Code Blue Software License Key Administration	Add Custom Trunk
Code Blue Devices Diagnostic Schedules	
Diagnostic Reports	OOLVOX
UPD Administration	Communications Manager ToolVox is a registered trademark of Code Blue Corporation
Blue Alert Administration	

To be able to pass calls from the ToolVox to exterior phones lines or to a PBX you must configure a trunk.

Your options are Dahdi (PRI T1, FXO phone line), IAX2, or a SIP trunk. If your server has hardware installed it will display in the DAHDI screen.



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Add ZAP/DAH	Add ZAP/DAHDI Trunk				
TOOLVOX®	Admin CDR Reports	EMS Records Help			
172.1.100.61					
Setup Tools Admin	Add ZAP Trunk	(DAHDI compatibility mode)			
ToolVox System Status Basic		(,			
Business Phones	Concrel Cottings				
DAHDi	General Settings				
Fax Configuration	Trunk Description:				
Feature Codes					
General Settings	Outbound Caller ID:				
Outbound Routes	CID Options:	Allow Any CID -			
Trunks	Maximum Channels:				
Administrators	Disable Trunk:	Disable			
Code Blue Software	Monitor Trunk Failures:	Enable			
License Key Administration					
Code Blue Devices	Outgoing Dial Rules				
Diagnostic Schedules					
Diagnostic Reports	Dial Rules:				
EMS Administration					
UPD Administration					
Blue Alert Administration					
Inbound Call Control		dian A P arana distanta			
Inbound Routes	Dial Dulas Wizarda:				
Announcements	Dial Rules Wizards.	(pick one)			
Blacklist	Outbound Dial Prefix:				
CallerID Lookup Sources					
Day/Night Control	Outgoing Settings				
Follow Me					
IVR	Zap Identifier (trunk name	e): g0			
Queue Priorities					
Queues	Submit Changes				

General Settings



(PRI/BRI/E1/T1/J1/SIP/IAX).

Never Override Caller ID(Optional): Check this box to disable using the Outbound CID set up in the extensions configuration page. You must enter an Outbound Caller ID when checking this box.

Maximum Channels(Optional): The maximum number of outgoing calls that can be made simultaneously on this trunk. Incoming calls have no effect on the maximum. A default of blank specifies no maximum.

Disable Trunk(Optional): Disables the trunk for all routes configured.

Monitor Trunk Failures(Optional): If checked enter the AGI script that will be called to either log, email, or take action due to a trunk failure other than CANCEL or NOANSWER.

Outgoing Dial Rules

Dial Rules(Optional): A Dial Rule to set how calls are sent out this trunk. If your outbound call does not match anything then it will be dialed as is.

- X matches any digit from 0-9
- · Z matches any digit from 1-9
- N matches any digit from 2-9
- · . is a wildcard that matches one or more characters
- | removes the dialing prefix from the number dialed. Example 9|.
 - o This would send any number beginning with 9 out this route. 95551212 would send 5551212 out this trunk.
- + adds a dialing prefix to the number dialed. Example 1616+.
 - o This would add 1616 to any number sent out this trunk. 5551212 would be prepended and sent to the carrier as 16165551212.

Dial Rules Wizards(Optional): Useful in creating Dial Rules. You can use the wizard to add or delete a prefix to numbers or lookup numbers for local calling.

Outbound Dial Prefix(Optional): Enter the outbound dial prefix for Centrex or other custom type of trunks where you have to dial a 9 etc. to make a call to the PSTN.

Outgoing Settings

ZAP Identifier (trunk name): This is the group number or individual channel number of this trunk. After you have looked in the DAHDI menu screen and noted the FXO channel numbers you need to create one of these trunks for each FXO you wish to use.

For example if your FXO's are 1-4 enter 1 in the Zap Identifier (trunk name) field. Then create 3 more trunks, 2,3, and 4. Your Outbound Route will need to be created that will reference these trunks as available routes.

To save your settings click:

Submit Changes



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To apply the changes to the system click:

🐻 Apply Configuration Changes 🛛

At the top of the screen.

Click - **Continue with reload** - to finish the changes otherwise click - **Cancel reload and go back to editing** - to cancel the changes and continue editing the extension.





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Add IAX2 Trunk

TOOL VOX	Admin / Reports	Panel TRecords	gs -	Lagged in setting to deal
Setup Tools				English 💌
ToolVox System Status	Add IAX2 Trun	k		, MERCE MARKY, MICH.
Extensions				Add Trank
Feature Codes	General Settings			Tounk ZARVoD
General Settings	Street and Street and Street			Thank and the
Outbound Routes	Outbound Caller ID	Ê		
Titutes	Never Override CallerID	10		
EMISSIPO	Maximum Channels:			
License Key Administration	Dicable Trunk	C Dirable		
Code Blue Devices	Manitar Trank Calibrany	Unsaure	E Frank	
Diagnostic Schedule	Monitor Trunk Failures.		1. Enable	
Diagnostic Reports	Outersine Diel Dulas			
UPD Email / EMS Security	Outgoing bial Rules			
Inbound Routes	Dial Rules:		(4)	
Zap Channel DIDs				
Announcements				
Blackist				
CallertD Lookup Sources	2/22/22/27/00/27/22/2007	Clean & Remove dup	licated	
Day/Night Control	Dial Rules Wizards:	{pick one}	151	
Follow Me	Outbound Dial Prefix:			
IVR	39 39250			
Queue Priorities	Outgoing Settings			
Queues	STREET			
Ring Groups	Trunk Name:			
Time Conditions	PEER Details			
Time Groups	host=***provider ip (address***	-	
Internal Options & Configuration	secrec **** password ***			
Callback	type=peer			
Conferences				
DISA				
Lahouades				

General Settings

Never Override Caller ID(Optional): Check this box to disable using the Outbound CID set up in the extensions configuration page. You must enter an Outbound Caller ID when checking this box.

Maximum Channels(Optional): The maximum number of outgoing calls that can be made simultaneously on this trunk. Incoming calls have no effect on the maximum. A default of blank specifies no maximum.

Disable Trunk(Optional): Disables the trunk for all routes configured.

Monitor Trunk Failures(Optional): If checked enter the AGI script that will be called to either log, email, or take action due to a trunk failure other than CANCEL or NOANSWER.



Outgoing Dial Rules

Dial Rules(Optional): A Dial Rule to set how calls are sent out this trunk. If your outbound call does not match anything then it will be dialed as is.

- X matches any digit from 0-9
- Z matches any digit from 1-9
- N matches any digit from 2-9
- . is a wildcard that matches one or more characters
- | removes the dialing prefix from the number dialed. Example 9|.
 - o This would send any number beginning with 9 out this route. 95551212 would send 5551212 out this trunk.
- + adds a dialing prefix to the number dialed. Example 1616+.
 - o This would add 1616 to any number sent out this trunk. 5551212 would be prepended and sent to the carrier as 16165551212.

Dial Rules Wizards(Optional): Useful in creating Dial Rules. You can use the wizard to add or delete a prefix to numbers or lookup numbers for local calling.

Outbound Dial Prefix(Optional): Enter the outbound dial prefix for Centrex or other custom type of trunks where you have to dial a 9 etc. to make a call to the PSTN.

Outgoing Settings

Trunk Name: The name you wish the trunk to be identified as.

PEER Details: Enter the details of the IAX2 PEER here. The order of any allow or deny statements will be followed in order.

USER Context: The user name or account identifier the PEER is expecting.

USER Details: Enter the details of the IAX2 USER here. The order of any allow or deny statements will be followed in order.

Registration

Register String: The registration string required to authenticate with the IAX2 PEER. Example: username:password@iax.toolvox.com

To save your settings click:

Submit Changes

To apply the changes to the system click:

🐻 Apply Configuration Changes 🛛



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At the top of the screen.

Click - **Continue with reload** - to finish the changes otherwise click - **Cancel reload and go back to editing** - to cancel the changes and continue editing the extension.





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Add SIP Trunk

Setup: Tools English Tool/ox system Status Add SIP Trunk Tool/ox system Status General Settings General Settings Outbourd Caller ID Outbourd Caller ID Investor Outbourd Caller ID Investor Disable Trunk Disable Trunk		Admin Reports	Panel T Records	ngs		Logged in: somm (Logged in:
Add SIP Trunk Taxbox Taxbox Peature Codes General Settings Outbourd Routes Outbourd Caller ID Taxbox Diable Trunk Diable Devces Diable Trunk Diable Trunk Diable Devces Diable Trunk Dial Rules Dial Rules Dial Rules Dial Rules Outpoing Dial Rules Dial Rules Dial Rules Outpoing Settings Outperex S	Setup Tools					English
Extension General Settings Add Tunk General Settings Outbound Caller ID Immediate Outbound Routes Outbound Caller ID Immediate Themse Disable Trunk Disable Trunk Outbound Routes Disable Trunk Disable Trunk Disable Trunk Disable Trunk Disable Trunk Disal	TooD/or System Status	Add SIP Trunk				NEW WAY AND
Extensions Peable Peable General Settinga Outbound Routes Outbound Caller D Naximum Channels: Never Overnde CallerD: Diable Trunk: Disable Trunk: Dognoti: Schedule Monitor Trunk Failures: Dagnoti: Schedule Outgoing Dial Rules Diable Trunk: Disable Trunk: Outgoing Settings Trunk: Trunk: Trunk: Gause Prontles Disable Trunk: Trunk: Second: Trunk: Second: PEEER Details: Second: Trunk: Second: Trunk: Second: Second: Second: Trunk: Second: Trunk: Second: </td <td>Date:</td> <td>Had on Hank</td> <td></td> <td></td> <td></td> <td></td>	Date:	Had on Hank				
Feature Codes General Settings Trunk ZAP) General Settings Outbourd Caller ID Index Trunk ZAP) Outbourd Caller ID Index Trunk ZAP) Never Override CalledD Index Lensex Key Administration Never Override CalledD Index Code Blue Devces Disable Trunk Disable Diagnotic Schedule Disable Trunk Disable Diagnotic Schedule Outgoing Dial Rules Index UPD Enal / EMS Security Outgoing Dial Rules Index Zap Channel DDS Dial Rules Index Bancie dupliate Callen D Lookup Sources Dial Rules Index Bancie dupliate Daynotight Control Outbourd Bources Outbourd Caller ID Rancurcements Dial Rules Index General Settings Backist Outgoing Settings Queues Trunk Xame Ring Groups Trunk Rame Ring Groups PEER Details There Groups Index Settings Gallarkit Descriter Settings Gueues Trunk Rame There Groups Index Settings There Groups Index Settings Gallarkit Descriter Settings Gallarkit Descriter Setings Settings <	Extensions					Add Trunk
General Settings Outbound Caller ID Outbound Routes Outbound Caller ID Training Never Overale Caller ID Never Overale Caller ID Never Overale Caller ID Never Overale Caller ID Never Overale Caller ID Outbound Caller ID Never Overale Caller ID Never Overale Caller ID Never Overale Caller ID Disable Trunk Disable Monitor Trunk Failures: Disable Outpoing Dial Rules: Outpoing Dial Rules Dial Rules: Dial Rules: Dial Rules: Dial Rules: Dial Rules: Outpoing Settings Outpoing Settings Outpoing Settings Queues Trunk Name: PEER Details: Nese-***provider 1p edidemas*** Time Groups PEER Details: Time Groups Nese-***********************************	Feature Codes	General Settings				Trunk ZAP/g0
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Queees Trunk Name Ring Groups PEER Details: Time Conditions bott="""""""""""""""""""""""""""""""""""	Queue Priorities					
Ring Groups PEER Details: Time Conditions host=***provider sp addreas*** Time Groups ecres=****password*** Lines(Source & Conferences rype=peer	Queues	Trunk Name:				
Time Conditions host=***provider ip address*** secret=************************************	Ring Groups	PEER Details				
Time Groups UBETRADE=***UBETRADE=**UBETRADE=** Information Conformation Scattack Conferences DISA	Time Conditions	host=***provider ip a	address***			
Caliback Conferences CRSA ecoretication Conferences CRSA	Time Groups	username***userid***				
Conferences DISA	Callback	type=peer	5			
Conferences CRSA	Castanana	Alle Pass				
MOM .	Contenences					
	USA					

General Settings

Never Override Caller ID(Optional): Check this box to disable using the Outbound CID set up in the extensions configuration page. You must enter an Outbound Caller ID when checking this box.

Maximum Channels(Optional): The maximum number of outgoing calls that can be made simultaneously on this trunk. Incoming calls have no effect on the maximum. A default of blank specifies no maximum.

Disable Trunk(Optional): Disables the trunk for all routes configured.

Monitor Trunk Failures(Optional): If checked enter the AGI script that will be called to either log, email, or take action due to a trunk failure other than CANCEL or NOANSWER.



Outgoing Dial Rules

Dial Rules: Dial Rules(Optional): A Dial Rule to set how calls are sent out this trunk. If your outbound call does not match anything then it will be dialed as is.

- X matches any digit from 0-9
- Z matches any digit from 1-9
- N matches any digit from 2-9
- . is a wildcard that matches one or more characters
- | removes the dialing prefix from the number dialed. Example 9|.
 - o This would send any number beginning with 9 out this route. 95551212 would send 5551212 out this trunk.
- + adds a dialing prefix to the number dialed. Example 1616+.
 - o This would add 1616 to any number sent out this trunk. 5551212 would be prepended and sent to the carrier as 16165551212.

Dial Rules Wizards(Optional): Useful in creating Dial Rules. You can use the wizard to add or delete a prefix to numbers or lookup numbers for local calling.

Outbound Dial Prefix(Optional): Enter the outbound dial prefix for Centrex or other custom type of trunks where you have to dial a 9 etc. to make a call to the PSTN.

Outgoing Settings

Trunk Name: The name you wish the trunk to be identified as.

PEER Details: Enter the details of the SIP PEER here. The order of any allow or deny statements will be followed in order.

Example:

host=X.X.X.X (Ip address of corresponding IP PBX)

type=peer

qualify=yes

context=from-internal

USER Context: The user name or account identifier the PEER is expecting. Most cases a name you make up and is not needed.

USER Details: Enter the details of the SIP USER here. The order of any allow or deny statements will be followed in order.

Example:

host=X.X.X.X (IP address of corresponding IP PBX)

type=user

context=from-trunk



Registration

Register String(Optional): The registration string required to authenticate with the IAX2 PEER. Example: username:password@iax.toolvox.com

To save your settings click:

Submit Changes

To apply the changes to the system click:

🐻 Apply Configuration Changes 🛛

at the top of the screen.

Click - Continue with reload - to finish the changes otherwise click - Cancel reload and go back to editing - to cancel the changes and continue editing the extension.

Apply Configuration Changes Reloading will apply all contiguration changes made in ToolVox to your PBX Engine and make them active. Continue with reload Cancel reload and go back to editing



Administrator Guide (prior to Aug, 2014)

Configuring Outbound Routes

ToolVox®	Admin CDR Reports EMS Records Help
172.1.100.67	
Setup Tools	
Admin	Add Route
ToolVox System Status	
Basic	Route Name:
DAUD:	Route CID: Override Extension CID
DAHDI Fax Qaafiawatian	Route Password:
Fax Conliguration	PIN Set: None -
Feature Codes	Emergency Dialing:
General Settings	Intra Company Route:
Outbound Routes	Music On Hold?
Trunks	Dial Pattorns
Administrators	
Diagnastia Sahadulaa	
Diagnostic Schedules	h.
Diagnostic Reports	Clean & Remove duplicates
EMS Administration	Dial patterns wizards: (pick one)
UPD Administration	Trunk Sequence
Blue Alert Administration	
Inbound Boutes	
Rinduncements	
	Submit Changes
Day/Night Control	out international and the second se
Follow Me	
Oueue Priorities	
Queues Bing Croups	trademark of Code Blue
Ring Groups	Corporation

Outbound Routes is the area that you configure the ToolVox to select a Trunk to transport calls out of ToolVox.

Route Name: Describe the type of route here. Examples would be: Local Calls, Long Distance and International.

Route Password: (Optional)Use a route password to have the system prompt each caller to this route to enter the password in order to be able to make calls. This is useful to prevent unauthorized long distant or international calling.



Administrator Guide (prior to Aug, 2014)

Pin Set: (Optional)Enter the Pin Set group to be used for authenticating calls out on this route. If utilizing a Pin Set leave the Route Password field blank.

Emergency Dialog: (Optional)This setting will force the extensions Emergency CID to be used on an outgoing call. This setting is typically used on routes to 911 or public safety dispatch centers.

Intra Company Route: (Optional)This setting will preserve the internal Extension CID and not replace it with the Outbound CID of the extension or the trunk. This is used for dialing across connected ToolVox systems.

Music on Hold: (Optional)Select which music on hold category to use or select none.

Dial Patterns: A Dial Pattern will be used to select this trunk for outbound calls.

- X matches any digit from 0-9
- · Z matches any digit from 1-9
- N matches any digit from 2-9
- · . is a wildcard that matches one or more characters
- | separates the dialing prefix from the number dialed. Example 9|.
 - o This would send any number beginning with 9 out this route. 95551212 would send 5551212 to the trunks selected by this route

Dial Patterns Wizard: (Optional)Use the wizard to select common route matching schemes.

Trunk Sequence: Select the trunks to be used for this route and which order they should be used in.

To save your settings click:

Submit Changes

To apply the changes to the system click:

🐻 Apply Configuration Changes

At the top of the screen.

Click - **Continue with reload** - to finish the changes otherwise click - **Cancel reload and go back to editing** - to cancel the changes and continue editing the extension.





Administrator Guide (prior to Aug, 2014)

Configuring Code Blue Devices

172.1.100.65	Admin CDR Reports EMS R	Records Y Help
Setup Tools Admin	To navigate through this form, ple	ase do not use the browser Back, Forward, or Reload buttons
ToolVox System Status Basic Business Phones	Add Code Blue Devic	e
DAHDi	Licensed for 50 units. 5 units ha	ve been created.
Fax Configuration		
Feature Codes		Next
General Settings		
Outbound Routes	Device Info	
Trunks		
Administrators Code Blue Software	Extension	
License Key Administration	Caller ID Display Name	
Code Blue Devices		
Diagnostic Schedules	Unit Info	
Diagnostic Reports		
EMS Administration	Model	IA4100 👻
UPD Administration	Device Connection Type	FXS Analog Extension 💌
Blue Alert Administration		

Device Info

Extension: This will be the internal number displayed on the phones Caller ID screen and EMS agent screen.

Caller ID Display Name: This will be the internal number NAME displayed on the phones Caller ID screen and EMS agent screen.

Unit Info

Model: Choose the type of Code Blue Phone you are configuring.

Device Connection Type: Choose the method of connection the Code Blue phone is using to connect to ToolVox.

FXS Analog Extension – IA4100, CB3000, CB3100, IA500

SIP & IAX Extensions – IP5000

Off System Unit – IA4100, CB3000, CB3100, IA500

The difference between Off System and FXS is that FXS are FXS ports providing dial tone directly off of ToolVox. Off System Unit means the analog phone line is provided by an external PBX or local Bell company.



Assigned DID/CID

(Optional) If you wish to have an inbound Direct Dialed number associated to this phone and ring it when dialed you can fill this out and it will create an Inbound Route to this Extension.

Push the Next button to continue configuration

Next

Please scroll down in this manual to the appropriate Model of phone you are provisioning. They are titled in **RED** lettering.

CB3000 & CB3100 Models

Device Options - FXS Analog Extension type

This device uses zap technology.	
Channel (FXS Port)	
context	from-internal
immediate	no
signalling	fxo_ks
echocancel	yes
echocancelwhenbridged	no
echotraining	100
busydetect	no
busycount	7
callprogress	no

Enter in the FXS Port number from Dahdi that you have cross connected the Analog Code Blue Phone to. Do not duplicate this number with another Code Blue Device.

Every other field in the Device Options FXS analog Extension type Section leave as default.

Device Options - Off System Unit

This device uses custom technology.	
Unit Phone Number	

Enter in the actual phone number ToolVox needs to dial to reach this unit.

Example: 916163928296 or 6163928296 or 4378

This may or may not be the same number you assigned it as an extension on the ToolVox system



Voicemail Playback Commands

0	Play Message 1 to G	uard
۲	Play Message 1 at Unit	
0	Play Message 1 at Unit. Play Message 2 to Guard	
0	Play Messages to Guard and at Unit	
Message 1	None	•
Message 2	None	•
Message Repeat	1 - times	
Playback Volume	3 -	

Skip this section if not using Messages. See the System Recording on how to load Messages.

Play Message 1 to Guard – 1st single message must be less than 18 seconds and will be played only to the guard.

Play Message 1 at Unit – 1st message must be less than 18 seconds and will be played at the CB unit until the guard answers.

Play Message 1 at Unit. Play Message 2 to Guard – 1st message must be less than 9 seconds and will be played at the CB unit until the guard answers. 2nd message must be less than 9 seconds and will be played to the guard and at the CB unit until the guard answers.

Play Messages to Guard and at Unit – 1st message must be less than 9 seconds and will be played at both ends after the guard answers. 2nd message must be less than 9 seconds and will be played at both ends after the 1st message.

Standard Trunk Disable ANI

-

-

Disable ANI

Message 1 & Message 2 - you can select System Recordings you have previously loaded.

Line Type

Ring Down

Auto Dial Off
 Auto Dial On

milliseconds

Disabled
 Enabled

Disabled
 Enabled

2

30

Message Repeat - How many times to repeat the message.

Playback Volume - 3 is the highest

Other Options

Ring Down and ANI

Call Button

Ring Back Detection

Wink Time In Call Commands

Ring Time



Administrator Guide (prior to Aug, 2014)

Ring Down and ANI – Ring down selection & Automatic Number identification (ANI). Selections 0-3 are available only for standard trunk lines, while selections 4-6 are available only for analog ring down lines. Note: this was originally for RPD/CMS. For most users you only need to select whether this CB phone is connected on a Dial up phone line or a Ring Down/Hot line.

Call Button (CB3100 only)– This command is used with the CB3100K keypad faceplate to allow for a number to be automatically dialed before using the keypad.

Ring Back Detection (CB3100 only)- Call progress monitor for hang up.

Wink Time (CB3100 only)– This is the minimum amount of time that talk battery is removed or reversal of polarity for the CB phone to hang up. 2=200 milliseconds etc. 0-9

In Call Commands (CB3100 only)- The operators ability to send commands during a call.

Ring Time – The amount of time the phone will try a number before resetting and dialing the next number 00-60.

Dial Type (CB3000 only) - Phone line uses Pulse or DTMP encoding

Other Options (cont.)

Auxiliary #2	Unslave from Aux #1
	Slave to Aux #1
Auto Connection	Oisabled
	Enabled
Auxiliary #2 Active Time	00

Auxiliary #2 – Determines whether Auxiliary output #2 (pins 7&8) activate the same as Auxiliary output #1 (pins 5&6 Slaved) or by pressing the 6 key during a call (Unslaved).

Auto Connection – If Auxiliary output #2 is unslaved from Auxiliary output #1, Disabling allows the use of the In Call Command (DTMF 6) to activate Auxiliary output #2. If enabled Auxiliary output #2 will activate on an incoming call.

Auxiliary #2 Active Time – The amount of time Auxiliary output #2 will stay active. 00=Active for the duration of the call. 01-89=Active for 1-89 minutes. 90-99=5-50 seconds in 5 second increments (90=5 seconds, 91=10 seconds, etc.)



Phone Numbers



Progress Tone Table

Cadence #	Ring Back(seconds)	Busy Tones(seconds)	Recorder Tone
1	2 ON, 4 OFF	¹ / ₂ ON, ¹ / ₂ OFF	¹ / ₄ ON, ¹ / ₄ OFF
2	¹ / ₂ ON, ¹ / ₄ OFF, ¹ / ₂ ON, 4 OFF	¹ / ₂ ON, ¹ / ₂ OFF	¹ / ₄ ON, ¹ / ₄ OFF
3	¹ / ₂ ON, ¹ / ₂ OFF, ¹ / ₂ ON, 2 ¹ / ₂ OFF	¹ / ₂ ON, ¹ / ₂ OFF	¹ / ₄ ON, ¹ / ₄ OFF
4	1 ON, 3 OFF	¹ / ₂ ON, ¹ / ₂ OFF	¹ / ₄ ON, ¹ / ₄ OFF

Cycle Count

2 -

Enter in the Phone Number you wish the CB phone to call. If you have a double button phone enter in the Number you wish for the Information Number. A Cadence table is provided if you desire custom tone intervals.

Cycle Count – Number

of cycles the CB phone will cycle through the above Numbers if a busy tone is encountered

Command Passwords

Programming Password	2258
Monitoring Password	2258

Programming Password – The password used to access programming mode(2) on initial calls into the unit.

Monitoring Password – The password used to access 2-way monitoring mode(1) on initial call in to the unit.



Off Hook Time	10 minutes
Silent Timeout & Alt Hangup	00 seconds
Auxiliary Input #1	 Disabled Enabled
Speaker Operation	 Speaker disabled for entire call Speaker disabled while placing call Speaker enabled for entire call
Wait for Dial Tone	5 seconds
Wait for Call Progress Tone	20 seconds

Off Hook Time – Maximum conversation time in minutes before CB phone hangs up.

Silent Timeout Alternate Hang-up Method – If this command is enabled the CB phone will hangup after hearing silence for the set number of seconds. 00-disabled 05-99 seconds.

Auxiliary Input #1 – Enables Auxiliary Input #1 (pins 9&10). When activated it will activate a red button call.

Speaker Operation - Select the type of speaker operation here

Wait for Dial tone – This is the maximum time that the CB phone will wait for a dial tone 0-99 seconds.

Wait for progress tone – This is the maximum time that the CB phone will wait for a call progress tone after the last digit has been dialed.

In-Call Commands



This is used to display the In-Call Commands in the Pop-Up window on the Agents Computer if using the Event Management Software



EMS Unit Location Information

Latitude

Longitude

		_

Enter in the most accurate Long and Lat of this specific CB unit. This will pop up a Bing Satellite map on the Agents Computer if using the Event Management Software.

Detailed Unit Location – you can select a custom map to place the CB unit onto, that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Location Description / Notes – Custom Detailed CB Unit location info that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Device Camera URL's

Camera 1 & Camera 2 – You can enter up to 2 camera streams to tap into, that will display in the Pop-Up a window on the Agents Computer if using the Event Management Software

Unit Address Info

Address Info that will appear in the Pop-Up window on the Agents Computer if using the Event Management Software

Push "Finish" when done

Finish

Push "Apply Configuration Changes"

🐻 Apply Configuration Changes

Push "Continue with reload"

Apply Configuration Changes

Reloading will apply all configuration changes made in ToolVox to your PBX Engine and make them active.

Continue with reload
 Cancel reload and go back to editing



If you have UPD (Unit Programming and Diagnostics) then you can click "Program Extension" to have ToolVox call out to the Unit and program it, provided the ToolVox and Phone lines are all built.

Delete Extension 6143 Copy Extension 6143 Program Extension 6143 Test Extension 6143

You may also now copy the Code Blue extension you just built to save time. If an analog unit you will have to either change the FXS port or the Unit number it calls out to, if off system. If you have EMS you will also need to change that info.

IA500 Model

Device Options - FXS Analog Extension type

This device uses zap technology.	
Channel (FXS Port)	
context	from-internal
immediate	no
signalling	fxo_ks
echocancel	yes
echocancelwhenbridged	no
echotraining	100
busydetect	no
busycount	7
callprogress	no

Enter in the FXS Port number from Dahdi that you have cross connected the Analog Code Blue Phone to. Do not duplicate this number with another Code Blue Device.

Every other field in the Device Options Section for an FXS analog unit leave as default.

Device Options - Off System Unit

This device uses custom technology.	
Unit Phone Number	

Enter in the actual phone number ToolVox needs to dial to reach this unit.

Example: 916163928296 or 6163928296 or 4378

This may or may not be the same number you assigned it as an extension on the ToolVox system.



General Options

Programming Password	2258	
Off Hook Time	10	minutes
Ring Time	30	seconds
Cycle Count	2 -	
Auxiliary Output Closure Time	00	

Programming Password – The password used to access programming mode(2) on initial calls into the unit.

Off Hook Time – Maximum conversation time in minutes before CB phone hangs up.

Ring Time – The amount of time the phone will try a number before resetting and dialing the next number 00-60.

Cycle Count – Number of cycles the CB phone will cycle through the above Numbers if a busy tone is encountered

Auxiliary Output Closure Time – The default is for the duration of the call. Enter 01-99 seconds to allow activation during a call by pressing the 6 key on the called party's keypad

Phone Numbers

Phone Number 1	Red "Help" Button 👻
Phone Number 2	Red "Help" Button 👻
Phone Number 3	Red "Help" Button 👻
Phone Number 4	Red "Help" Button 👻
Phone Number 5	Red "Help" Button 👻
Phone Number 6	Red "Help" Button 👻

Enter in however many phone numbers you wish the CB phone to call. If upon encountering a busy line it will roll to the 2nd number automatically. By Default the CB phone is set to roll through the numbers twice. This can be controlled with the Call Cycle count option above. You can program up to 6 numbers for the Red Help button or a combination of 6 numbers for the Red Help and Black Info button if you have a double button phone.

In-Call Commands

#	Command Text	DTMF Tone
1		
2		
3		
4		
5		
6		
7		
8		

This is used to display the In-Call Commands in the Pop-Up window on the Agents Computer if using the Event Management Software.



EMS Unit Location Information

Latitude

Longitude

Enter in the most accurate Long and Lat of this specific CB unit. This will pop up a Bing Satellite map on the Agents Computer if using the Event Management Software.

Detailed Unit Location – you can select a custom map to place the CB unit onto, that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Location Description / Notes – Custom Detailed CB Unit location info that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Device Camera URL's

Camera 1 & Camera 2 – You can enter up to 2 camera streams to tap into, that will display in the Pop-Up a window on the Agents Computer if using the Event Management Software

Unit Address Info

Address Info that will appear in the Pop-Up window on the Agents Computer if using the Event Management Software

Push "Finish" when done

Finish

Push "Apply Configuration Changes"

🐻 Apply Configuration Changes

Push "Continue with reload"

Apply Configuration Changes

Reloading will apply all configuration changes made in ToolVox to your PBX Engine and make them active.

Continue with reload

Scancel reload and go back to editing


If you have UPD (Unit Programming and Diagnostics) then you can click "Program Extension" to have ToolVox call out to the Unit and program it, provided the ToolVox and Phone lines are all built.

Delete Extension 6143
 Copy Extension 6143
 Program Extension 6143
 Test Extension 6143

You may also now copy the Code Blue extension you just built to save time. If an analog unit you will have to either change the FXS port or the Unit number it calls out to, if off system. If you have EMS you will also need to change that info.

IA4100 Model

Device Options - FXS Analog Extension type

This device uses zap technology.	
Channel (FXS Port)	
context	from-internal
immediate	no
signalling	fxo_ks
echocancel	yes
echocancelwhenbridged	no
echotraining	100
busydetect	no
busycount	7
callprogress	no

Enter in the FXS Port number from Dahdi that you have cross connected the Analog Code Blue Phone to. Do not duplicate this number with another Code Blue Device.

Every other field in the Device Options FXS analog Extension type Section leave as default.

Device Options - Off System Unit

This device uses custom technology. Unit Phone Number

Enter in the actual phone number ToolVox needs to dial to reach this unit.

Example: 916163928296 or 6163928296 or 4378

This may or may not be the same number you assigned it as an extension on the ToolVox system



Phone Numbers	
Phone #1	
Dhono #2	
Phone #3	
Phone #4	
Phone #5	
Phone #6	
Phone #7	
Phone #8	
Phone #9	

You can enter in up to 9 Phone numbers into these memory slots. They will be referenced further down in the configuration.

Outputs	
Output #1 Active Time	91
Output #2 Active Time	01
Output #3 Active Time	01

Output #1 Active Time – 00=Disabled, 01-60=1-60 seconds, 61-90=1-30 minutes, 91=till end of call, 92=trigger on input 2.

Output #2 Active Time – 00=Disabled, 01-60=1-60 seconds, 61-90=1-30 minutes, 91=till end of call, 92=trigger on input 2.

Output #3 Active Time – 00=Disabled, 01-60=1-60 seconds, 61-90=1-30 minutes, 91=till end of call, 92=trigger on input 2.

Recordings Recording #1	None •
Recording #2	None -
Recording #3	None -
Recording #4	None -
Recording #5	None •
Recording #6	None •
Recording #7	None -
Recording #8	None -
Recording #9	None

If you wish to use messages you can record them in System Recordings and reference them here. You have 9 memory slots and these will be called upon further down in the configuration.



Buttons and Inputs

Button 1 – this is the Red button on your CB phone. By default it will try numbers in memory slots 1,2, and 3 from above. It will also play recording 1 from above and activate Outputs 1 and 3 which are normally open contacts. The Call Cycle count is set for 2 by default, so for example if you set Phone Numbers as 11 it would call Phone Number in memory slot 1 Four times if it encountered a busy signal.

Button 2 – this is the Black button on your CB phone. Choose 0 as the phone number if your CB phone has a key pad. This will provide dial tone when the black button is pushed so the keypad can be used. If there is no key pad present then you can enter a Phone Number slot to have Button 2 place a call.

Button 3,4 – If you have a CB phone with a 3rd and 4th button you can program them here.

Input #1,#2 - select which button you want the input to mimic

Loss of AC Power – Enter the phone number memory slot 1-9 and outputs that you want the unit to dial should there be a loss of AC power. Enter the recordings 1-9 that the unit should play when the call is answered.

Low Battery - Enter the phone number memory slot 1-9 and outputs that you want the unit to dial should there be a low battery condition (less than 11.7 VDC). Enter the recordings 1-9 that the unit should play when the call is answered.

AMP SPKR Fault - Enter the phone number memory slot 1-9 and outputs that you want the unit to dial should there be an AMP/PAS fault. Enter the recordings 1-9 that the unit should play when the call is answered.

<u>Call Properties</u>	
Wait For Dial Tone	05
Call Progress Detection Delay	20
Wait For Answer	30
Call Connected	0
Call Loop Cycles	2
Duplex Operation	© Full
	e Half
Full Duplex Noise Cancellation	Low -
Answer Message Repeat	No
	Yes
Acknowledge Beep Delay	15
Call In Answer Mode	Two Way Audio 👻

Wait For Dial Tone – 00=ring down/Hot line, 01 to 99 =1-99 seconds. If dial tone is not detected in this time the phone will hang up.

Call Progress Detection Delay – 1 to 99 is 1-99 seconds. The time that the phone will wait to hear progress tones after dialing.





Wait for Answer -

The amount of time the phone will try a number before resetting and dialing the next number 00-99. Timer begins at button press.

Call Connected -

0 or 1, 0=when voice or DTMF is detected by the CB phone. 1=call is assumed connected immediately and will not retry. (Non-ADA)

Call Loop Cycles -

Number of cycles the CB phone will cycle through the above Numbers if a busy tone is encountered.

Duplex Operation –

Audio operation of the CB phone. Half or Full. Half is generally much better in most situations. In very load environments Full may be necessary so the mic and speaker are both on at the same time.

Full Duplex Noise Cancellation –

If you use Full Duplex then you can increase Noise cancellation but may suffer some audio degradation.

Answer Message Repeat -

Enabling will force messages after the guard answers to repeat until the in-call command 33 is sent to the unit.

Acknowledge Beep Delay – The amount of time the phone will wait to play acknowledgment tones. Designated value * 20 = time in milliseconds. Example Value 15=300ms.

Call In Answer Mode – In two way Audio the unit will answer and immediately go into 2 way talk mode. In 2 way Audio – Password required, the unit will prompt the caller for a password before entering 2 way talk mode.

DTMF On Time	7
DTMF Off Time	7
DTMF Dialing Volume	5 🗸
Recording Playback Level	5 -
Answer Ring Count	0 -
Ring-In Unit Speaker	No
	Yes
Enable Mass Notification System	No
	Yes
Mass Notification Outputs:	Mass Notification Recordings:
1 2 3	
<u>Miscellaneous</u>	

DTMF On Time – DTMF tone duration: 1 to 3 = 100 to 200ms, 4 to 9 = 40ms to 90ms.

DTMF Off Time – Silence between DTMF tone duration: 1 to 3 = 100 to 200ms, 4 to 9 = 40ms to



90ms.

DTMF Dialing Volume – Sets the volume of the DTMF tones during the dialing sequence

Recording Playback level – Sets the volume level of the recordings played back out of the unit and to the guard.

Answer Ring count - Number of Rings before the unit will answer

Ring-In Unit Speaker – Enable to hear incoming call ring out of the unit speaker

Enable Mass Notification System – Enabling will force the IA4100 to answer incoming calls and pass the audio to the amp/speaker array.

Mass Notification Outputs - If desired select 1 of the Auxiliary Outputs and a recording to play from one of the recording memory slots above.

Hang up Methods		
Wink Timing	2	
Revert To Dial Tone	00	seconds
Silent Time Out	0	
Reorder/Repeating Tones	00	cycles
Call Time Out	10	minutes

Wink Timing – 0=disabled, 1-9 = 100ms to 900ms. Length of the wink signal coming from the connected phone line.

Revert to dial tone – 00=disabled, 01-99 1 to 99 seconds. Continuous sound for this period of time will cause the unit to hang up.

Silent Time Out – 0 to 3, 0=disabled, 1=30 sec, 2=60 sec, 3=90 sec. Silence for this period of time will cause the unit to hang up.

Reorder/Repeating Tones – 00=disabled, 01 to 99= 1 to 99 cycles. This is the number of repeating cycles that will cause the unit to hang up.

Call Time Out – 00=disabled, 01-99 = 1 to 99 minutes. DTMF tones BBBBB will play to both parties during a call notifying them 30 seconds prior to call disconnect. At this time the call can be extended by entering the IN call command 31. Once the timer has expired, if command 31 is not entered, the unit will hang up.

Advanced Programming Passcode	2583	
Audio Passcode		

Pass Codes

Advanced Programming Passcode – 2583 is the default for entering into programming mode. You can change it.

Audio Passcode – default is blank. You can add it if necessary.



In-Call Command	S
-----------------	---

#	Command Text
1	
2	
3	
4	
5	
6	
7	
8	

DTMF	То	ne
	_	

This is used to display the In-Call Commands in the Pop-Up window on the Agents Computer if using the Event Management Software

EMS Unit Location Information Latitude

Longitude

Enter in the most accurate Long and Lat of this specific CB unit. This will pop up a Bing Satellite map on the Agents Computer if using the Event Management Software.

Detailed Unit Location – you can select a custom map to place the CB unit onto, that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Location Description / Notes – Custom Detailed CB Unit location info that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Device Camera URL's

Camera 1 & Camera 2 – You can enter up to 2 camera streams to tap into, that will display in the Pop-Up a window on the Agents Computer if using the Event Management Software

Unit Address Info

Address Info that will appear in the Pop-Up window on the Agents Computer if using the Event Management Software

Push "Finish" when done Finish

Push "Apply Configuration Changes"

🐻 Apply Configuration Changes



Push "Continue with reload"

Reloading will apply all configuration changes made bolVox to your PBX Engine and make them active
oon on to your i brit Engine una mana a forma dano.
Continue with reload
Cancel reload and go back to editing
 Cancer reload and go back to editing

If you have UPD (Unit Programming and Diagnostics) then you can click "Program Extension" to have ToolVox call out to the Unit and program it, provided the ToolVox and Phone lines are all built.

Delete Extension 6143
 Copy Extension 6143
 Program Extension 6143
 Test Extension 6143

You may also now copy the Code Blue extension you just built to save time. If an analog unit you will have to either change the FXS port or the Unit number it calls out to, if off system. If you have EMS you will also need to change that info.

IP5000 Model

Device Options

This device uses sip technology.

secret	cbUnit
dtmfmode	inband
canreinvite	no
context	from-internal
host	dynamic
type	friend
nat	yes
port	5060
qualify	yes

Other than the secret please do not change any of these settings. The secret listed is the default and is set in the IP5000 phone to match by default. You can change it if necessary.



Current Username	admin
Current Password	admin
New Username	
New Password	

You can change the default username & password of the IP5000 phone if desired. This is the same username and password for both web and telnet.

Network - Dynamic IP Default Setting

Host	
Domain	
Connection Type	Oynamic IP Static IP
MAC Address	
IP Address	Unit IP address is unknown; run IP Unit Scan from UPD Administration

Network - Static IP

Host	
Domain	
Connection Type	Opnamic IP Static IP
Static IP Address	
Address	
Mask	
Default Router	
DNS Primary	
DNS Secondary	
DNS Tertiary	
MAC Address	
IP Address	Unit IP address is unknown; run IP Unit Scan from UPD Administration

Host - DNS Host Name (Optional)

Domain – DNS Domain Name (Optional)

Connection Type – Dynamic or Static. The IP5000 phone by default is set for Dynamic.

Address – Static IP Address to assign to the CB Phone

Mask – Network Mask defining the network scope

Default Router - IP address of Default Router if routing traffic off the subnet

DNS Primary, Secondary, Tertiary - IP Address of DNS Servers if desired but not necessary

MAC Address – Required – Mac Address of IP5000 Phone can be found on rear of the phone or by browsing to the phone and looking under Administration.

IP Address – If you have the UPD software package, after you provision the phone in ToolVox you can run Unit Scan from UPD Administration. After 2-3 minutes you can Program the Phone from ToolVox.



VLAN - Enable or Disable VLAN Support

ID - VLAN Identifier 1-4094, 0 indicates this frame does not belong to any VLAN

User Priority – Priority level (PCP). Higher numbers will tag frames will tag frames with higher priority.

Account 1

Registrar	172.1.100.61	
Registrar Port	0	
Registration Lifetime	3600	
RTP Base Port	23456	
Keep-Alive	Register -	
STUN	Disabled	
VLAN User Priorities		
SIP	0 - Best Effort	•
RTP Audio	6 - Video < 10ms latency and jitter	•

Registrar - IP address of the ToolVox

Registrar Port – Port that the server will accept registrations on. Set to 0 for auto-detect.

Registration Lifetime – in seconds. If IP5000 phone is losing registration to ToolVox but is still accessible on the network consider lowering down to 60 seconds.

RTP Base Port - Base Port for RTP traffic.

Keep-Alive – Keep Alive method to use. Most common is Register.

STUN – Enable or disable STUN for NAT traversal. Set the STUN server in advanced settings.

SIP – VLAN priority for SIP traffic. Default is 0

RTP Audio - VLAN priority for RTP audio traffic. Default is 6

Account 2

You can configure a 2nd Account on the same phone.



Media

Silence Suppression	Disabled	nabled	
Codec Selection			
Available		Preferred	
PCMU PCMA G726-32 G728-16 G726-24 G726-32 G726-40 G722 G722 G722 G729 DVI4		PCMU PCMA G726-32 G726-16 G726-16 G726-40	×

Silence Suppression – enabled by default.

Codec - this is the preferred codecs ToolVox will communicate with to the IP5000 phones.

Security

Negotiation Options			
SIPS Security	Disabled -		
SRTP Security	Disabled -		
SRTP Encryption	Prefer OFF -		
SRTP Authentication	Prefer OFF -		
SRTCP Encryption	Prefer OFF -		
Advanced Options			
мкі	Disabled	nabled	
Key Lifetime	0	seconds	
SRTP Crypto Suite Selection			
Available		Preferred	
AES_CM_128_HMAC_SHA AES_CM_128_HMAC_SHA	1_80 1_32	AES_CM_128_HMAC_SHA1_80 AES_CM_128_HMAC_SHA1_32	Î Î
	~	-	

Leave the Security section alone unless your VoIP Engineer would like something different.

Advanced Settings

STUN	
Server	
Port	3478
Security Options	
Certificates	Trusted only -



Server – STUN server address for NAT traversal. STUN must be enabled on each account that uses it.

Port – STUN Server port for NAT traversal. This is an advanced setting; it should typically be left at the default of 3478

Certificates – Trusted options for Certificates

Date & Time

Daylight Savings	Disabled Interpretent Enclosed
Time Zone	(GMT) Casablanca, Monrovia
NTP Server	
Enabled	Disabled Enabled
Server Address	172.1.100.61

Daylight Savings - enable or disable

Time Zone – Choose your time zone

Enabled (NTP) – enable or disable NTP service

Server Address – by default your IP5000 will pull NTP from ToolVox and you can set the ToolVox to pull NTP time from your server or from an external source.

Numbers

Number	Description	
Account I 👻		•

Enter in the Phone Numbers you wish the IP5000 phone to call upon button press.

Enter Number and Description then press the green + icon. You may enter in multiple numbers to have the phone roll to more numbers.

Recordings

Recording	Description	
CB8LocMsg.wav		

Enter in Recordings and descriptions here then press the green + icon to submit it. You can enter multiple entries.



General Settings

Answer In	Immediately -
Public Address	Disabled Always route incoming calls to public address
Aux Output 1	Disabled Enable while incoming calls are active
Aux Output 2	Disabled

Location Recording None Selected -

Answer In – Specify how many rings the IP5000 should receive before answering an incoming call.

Public Address – Route all incoming calls to the Public Address output

Aux Output 1 – Enable auxiliary output 1 when incoming calls are active.

Aux Output 2 – Enable auxiliary output 2 when incoming calls are active.

Location Recording – Specify a location recording that will be played for in-call command 1.

Hardware Configuration

Interface	
Button Count	● 1 Button ◎ 2 Buttons ◎ 3 Buttons ◎ 4 Buttons
Keypad	Available Inavailable
Public Address	Available Inavailable
Public Address Gain	0 -
Power Sources	
A/C	Available Inavailable
D/C	Available Inavailable
ΡυΕ	 Available Unavailable
Auxiliary I/O	
Aux Input 1	Available O Unavailable
Aux Output 1	Available Unavailable Inavailable Available Ava
Aux Output 2	Available O Unavailable

Button Count – The number of buttons on the face of the IP5000

Keypad – Does the IP5000 have a keypad on the faceplate

Public Address - Whether the IP5000 has a public address system connected to it

Public Address Gain - gain in dB for the public address output

A/C – specify if available or not

D/C - specify if available or not

PoE – specify if available or not



Aux Input 1 – specify if available or not

Aux Output 1 - specify if available or not

Aux Output 2 - specify if available or not

Action Scripts

Script for:	Button #1 Pressed	-
Do Nothing		
Add Action		Sava Soriat

This is the section to specify the action the IP5000 phone does upon button press. Here is a sample of a typical setup for Button 1.

Script for: Bu	tton #1 Pressed 👻
Control AUX Output 1 4	• 8
Output Number: I : A	UX One 🔻
 Set to. Enabled • 	
Ouration: Until Disable	d -
º Place Call 🛊 🔻 🞇	
Call ▼ 6163928296 : Co	ode Blue 👻
If not answered, then	Go to next step 🔹
Dialing/Answer timeou	al. 60 - seconds
Maximum call duration	n: 600 seconds
While Dialing: Standa	rd Ringback -
• When Answered: No	rmal Two-Way Conversation 👻
In Call Commands: E	nabled -
Control AUX Output 🔹 4	× 82
Output Number: 1 : A	UX One 🔻
• Set to: Disabled •	
Add Action	
	Save Script

The above action takes place in order from top to button upon a Button 1 press. The above will activate Aux Output 1 turning a strobe light on, then place a call. It will try calling the first phone number for 60 seconds if no answer. The max call duration is set at 600 seconds. During dialing the person at the CB phone will hear standard ring back. Upon the call being answered Normal 2-way conversation will be set up. In Call commands (specified in the IP5000 Manual) will be allowed to be in use. Upon hang-up Aux Output 1 will be disabled stopping the combo/beacon light from strobing.

There are many options you can use in the Actions Script area. Actions Scripts are covered in more detail in the IP5000 Administrators Guide.



Diagnostic Settings

SNMP	
SNMP Traps	Disabled Enabled
SNMP Server	ToolVox IP Address
SNMP Server Port	162
Power Supply Failure Timeout	
12-24 Volt A/C or D/C	900
12 Volt D/C Battery	900
PoE Failure Timeout	900
Others	
Microphone Test	Disabled •
Microphone Test Hour	12 AM -
Microphone Test Days	🗖 Sun 🗖 Mon 🗖 Tue 🗖 Wed 🗖 Thu 🗐 Fri 🗖 Sat
Microphone Test Max Beeps	5 🗸
Microphone Test Volume	Soft -

SNMP Traps – enabled by default to send traps for UPD monitoring of the IP5000 phone by ToolVox

SNMP Server – by default the ToolVox IP Address

SNMP Server Port – 62 default port

12-24 Volt A/C or D/C - timeout in seconds to notify before a power failure on the main line is reported

12 Volt D/C Battery – imeout in seconds before a power failure on the battery line is reported

PoE Failure Timeout – timeout in seconds before a PoE failure is reported.

Microphone Test – frequency to test the IP5000 Microphone

Microphone Test Hour – What Hour to test the microphone at. Only applies to Daily and Weekly.

Microphone Test Days – Which days of the week to test the microphone on. Only applies to Weekly.

Microphone Test Max Beeps – Maximum number of beeps used for the microphone test.

Microphone Test Volume - Microphone setting for the microphone test



In-Call Commands

#	Command Text	
1		
2		
3		
4		
5		
6		
7		
8		

DTMF	Tone
	_

This is used to display the In-Call Commands in the Pop-Up window on the Agents Computer if using the Event Management Software

EMS Unit Location Information

Latitude

Longitude

Enter in the most accurate Long and Lat of this specific CB unit. This will pop up a Bing Satellite map on the Agents Computer if using the Event Management Software.

Detailed Unit Location – you can select a custom map to place the CB unit onto, that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Location Description / Notes – Custom Detailed CB Unit location info that will Pop-Up a window on the Agents Computer if using the Event Management Software.

Device Camera URL's

Camera 1 & Camera 2 – You can enter up to 2 camera streams to tap into, that will display in the Pop-Up a window on the Agents Computer if using the Event Management Software

Unit Address Info

Address Info that will appear in the Pop-Up window on the Agents Computer if using the Event Management Software

Push "Finish" when done

Finish

Push "Apply Configuration Changes"

🐻 Apply Configuration Changes 🛛



Push "Continue with reload"



If you have UPD (Unit Programming and Diagnostics) then you can click "Program Extension" to have ToolVox communicate out to the Unit and program it, provided the ToolVox is provisioned. Make sure UPD administration is configured and Unit scan has been run since building your Code Blue Devices.

Delete Extension 6143 Copy Extension 6143 Program Extension 6143 Test Extension 6143

You may also now copy the Code Blue extension you just built to save time. You will have to enter in a unique Mac Address and Extension number as well as if you have EMS you will also need to change that info.



Administrator Guide (prior to Aug, 2014)

Configuring Business Phones

172.1.100.61	Admin CDR Reports EMS Records Help
Setup Tools Admin ToolVox System Status Basic Business Phones DAHDi Fax Configuration	Add an Extension Please select your Device below then click Submit Device
Feature Codes General Settings Outbound Routes Trunks Administrators Code Blue Software	Device SIP Device -
License Key Administration Code Blue Devices Diagnostic Schedules Diagnostic Reports EMS Administration UPD Administration Blue Alert Administration Inbound Call Control	Corporation Corporation

Business Phones is the area you would build non-Code Blue devices into. For example: SIP, IAX2, Analog (FXS) or Virtual Extension. Note that the screens when adding a Business Phone look different then when editing an existing one.

Add Extension

User Extension: Number you wish to give this Phone that will be dialed.

Display Name: The Caller ID name for calls from this user will be set to this name. Only enter the name, not the number.

CID Num Alias: (Optional) The CID Number to use for internal calls, if different from the extension number. This is used to appear as a different user. A common example is a team of support people who would like their internal Caller ID to display the general support number (a ring group or queue). There will be no effect on external calls.



SIP Alias: (Optional) If you want to support direct sip dialing of users internally or through anonymous sip calls you can supply a friendly name that can be used in addition to the user's extension to call them.

Extension Options

Ring Time: (Optional) Number of seconds to ring the extension prior to going to voicemail. Default will use the value set in the General Setting. If no voicemail is configured this will be ignored. Call Waiting: (Optional)Allows/Disallows call waiting on the extension.

Call Screening: (Optional) Call Screening requires external callers to say their name, which will be played back to the user and allow the user to accept or reject the call. Screening with memory only verifies a caller for their caller-id once. Screening without memory always requires a caller to say their name. Either mode will always announce the caller based on the last introduction saved with that Caller ID. If any user on the system uses the memory option, when that user is called, the caller will be required to re-introduce themselves and all users on the system will have that new introduction associated with the caller's Caller Id.

Pinless Dialing: (Optional) enabling will allow the extension to bypass any pin codes normally required on outbound calls.

Emergency CID: (Optional) This Caller ID will always be set when dialing out an Outbound Route flagged as Emergency. The Emergency CID overrides all other Caller ID settings.

Assigned DID/CID (Optional)

DID Description: (Optional) A description for this DID, such as "Sales"

Add Inbound DID: (Optional) This is where you enter the Direct Inward Dial (DID) you'd like to reach this extension. The format should be: XXXXXXXX or XXXX or whatever Number you route into this Gateway if you want it to ring this Extension. If you do not enter a value here all calls to that DID will route to the inbound route setting for the trunk the call comes in on. Putting a value here automatically creates an Inbound Route. This can also be done in Inbound Routes.

Add Inbound CID: (Optional) Add a CID for more specific DID + CID routing. A DID must be specified in the above Add Inbound DID box. In addition to standard dial sequences, you can also put Private, Blocked, Unknown, Restricted, Anonymous and Unavailable in order to catch these special cases if the provider transmits them.

Device Options - FXS Extension

Enter the DAHDi channel that this extension will use. Go into DAHDi to see available FXS channels. Do not duplicate.

Device Options -SIP Extension

Secret: alpha numeric secret password you create. This must match what you provision in your SIP Device. This is the value used to authenticate the device to the system. This should not be the



same as the device name or extension number.

Device Options -Custom Extension

This device uses custom technology.

dial local/9616346760@outbound

Utilized to dial out to a Custom Extension which is not directly attached to the ToolVox system. An example would be an offsite phone attached to a GSM cellular unit or analog line.

Language(Optional)

Language Code

This setting will cause all messages and voice mail prompts to utilize the language of choice if installed on the system.

Recording Options

Record Incoming	Always	•
Record Outgoing	Always	•

This will allow the recording of incoming and outgoing calls. Values are: Never, On Demand, Always. Always is Mandatory if using EMS ToolVox Software

To save your settings click:

Submit

To apply the changes to the system click:

🐻 Apply Configuration Changes

At the top of the screen.

Click - **Continue with reload** - to finish the changes otherwise click - **Cancel reload and go back to editing** - to cancel the changes and continue editing the extension.





Administrator Guide (prior to Aug, 2014)

Configuring Digital Receptionist (IVR)

172.1.100.61	Admin CDR Reports EMS Records Help Logged in: admin (Logout)	¢
Setup Tools Admin ToolVox System Status Basic	Digital Receptionist	nglish -
Business Phones DAHDi Fax Configuration Feature Codes General Settings Outbound Routes Trunks Administrators Code Blue Software	You use the Digital Receptionist to make IVR's, Interactive Voice Response systems. When creating a menu option, apart from the standard options of 0-9,* and #, you can also use 'i' and 't' destinations. 'i' is used when the caller pushes an invalid button, and 't' is used response. If those options aren't supplied, the default 't' is to repla times and then hang up, and the default 'i' is to say 'Invalid option, again' and replay the menu. After three invalid attempts, the line is	'R est Page Group nnamed when there is no y the menu three please try s hung up.
License Key Administration Code Blue Devices Diagnostic Schedules Diagnostic Reports EMS Administration UPD Administration Blue Alert Administration Inbound Call Control	Corporation Corporation	
Inbound Routes Announcements Blacklist CallerID Lookup Sources Day/Night Control Follow Me IVR		

Much can be customized and configured with the IVR options. If you have your Inbound Route set up to point to the IVR your creating you simply just need to make sure "Enable Direct Dial" is checked. No announcements needed, recordings or any other settings. You will then be able to call into the ToolVox and be able to enter in the Extension Number of the Business Phone or Code Blue device you're trying to reach. If using Blue Alert and want to route inbound calls select Misc Destinations below.



Edit Menu Unnamed

Save Delete Digit	al Receptionist Unnamed
Change Name	Unnamed
Announcement	None -
Timeout	10
Enable Directory	
VM Return to IVR	
Directory Context	•
Enable Direct Dial	
Loop Before t-dest	
Timeout Message	None 👻
Loop Before i-dest	
Invalid Message	None -
Repeat Loops:	2 💌

Edit Menu

Change Name: This is the name of the IVR.

Announcement(Optional): Message to be played to the caller. To add additional recordings please use the "System Recordings" Menu

Timeout: The amount of time (in seconds) before the "t" option if specified is used.

Enable Directory(Optional): Let callers into the IVR dial # to access the directory

VM Return to IVR(Optional): If checked upon exiting voicemail a caller will be returned to this IVR if they got a user's voicemail.

Directory Context(Optional): When # is selected, this is the voicemail directory context that is used

Enable Direct Dial: Let callers into the IVR dial an extension directly

Loop Before t-dest(Optional): If checked, and there is a "t" timeout destination defined below, the IVR will loop back to the beginning if no input is provided for the designated loop counts prior to going to the timeout "t" destination.

Timeout Message(Optional): If a timeout occurs and a message is selected, it will be played in place of the announcement message when looping back to the top of the IVR. It will not be played if the "t" destination is the next target.

Loop Before i-dest(Optional): If checked, and there is an "i" (invalid extension) destination defined below, the IVR will play invalid option and then loop back to the beginning for the designated loop counts prior to going to the invalid "i" destination.

Invalid Message(Optional): If an invalid extension is pressed and a message is selected it will be played in place of the announcement message.

Repeat Loops(Optional): The number of times we should loop when invalid input or no input has



been entered before going to the defined or default generated "i" or "t" options. If the "I" or "t" boxes are defined the above check boxes must be checked in order to loop.

Return to IVR	 Phonebook Directory: Phonebook Directory • Terminate Call: Hangup • Extensions: <6100> TestLab Polycom • Ring Groups: rg EMS <6198> • Custom Contexts: Full Internal Access • Misc Destinations: Test Page • IVR: IVR •
Return to IVR	 Phonebook Directory: Phonebook Directory Terminate Call: Hangup Extensions: <6100> Test Lab Polycom Ring Groups: rg EMS <6198> Custom Contexts: Full Internal Access Misc Destinations: Test Page IVR: IVR
Return to IVR	 Phonebook Directory: Phonebook Directory • Terminate Call: Hangup • Extensions: <6100> Test Lab Polycom • Ring Groups: rg EMS <6198> • Custom Contexts: Full Internal Access • Misc Destinations: Test Page • IVR: IVR •
Increase Options	Save Decrease Options

These Destinations represent what to do if a particular key is pushed from the calling party's keypad once into the IVR. If you're just using the Direct Dial then nothing need be entered in this section since you can just enter in the extension number and will be transferred immediately. If using Blue Alert and are trying to reach a specific Misc Destination choose it here. This is useful if wanting a special pin code used to access certain page groups.

To save your settings click:

Save

To apply the changes to the system click:

🐻 Apply Configuration Changes



Administrator Guide (prior to Aug, 2014)

At the top of the screen.

Click - **Continue with reload** - to finish the changes otherwise click - **Cancel reload and go back to editing** - to cancel the changes and continue editing the extension.





Administrator Guide (prior to Aug, 2014)

Configuring Inbound Routes

172.1.100.61	Admin CDR Reports EMS Records Help Logged in: admin (Logout)	O
Setup Tools Admin	Add Incoming Route	English -
Basic		Add Incoming Route
Business Phones DAHDi	Add Incoming Route	All DIDs (toggle sort)
Fax Configuration		User DIDs
Feature Codes	Description:	General DIDs
General Settings	DID Number:	Unused DIDs
Outbound Routes	Caller ID Number:	
Trunks	CID Priority Route:	
Administrators		
Code Blue Software	Options	
License Key Administration		
Code Blue Devices	Alert Info	
Diagnostic Schedules		
Diagnostic Reports	Music On Hold: Default -	
EMS Administration		
UPD Administration		
Blue Alert Administration Inbound Call Control	Pause Before Answer:	
Inbound Routes	Privacy	
Announcements		

If you need to call into ToolVox or Phones connected to the ToolVox you will need Inbound Routes configured to control call Routing. Reasons for needing this can include Manual programming of Analog phones through an IVR, Adjusting In-Call phone settings on phones like speaker and mic gain, or allowing only specific DID and CLID combinations into the system for making Blue Alert Pages. There is a lot of flexibility.

Add Incoming Route

Description: Provide a description name for this route to be refined by

DID Number(Optional): Define the expected DID Number if your trunk passes DID on incoming calls. Leave blank if you want to allow ALL DID's access. A pattern can also be entered (see Dial Patterns in the Trunks section to understand how to create a Dial Pattern).

Caller ID Number(Optional): Define the Caller ID Number to be matched on incoming calls. Leave this field blank to match a specific CLID Number to allow it or leave blank to allow ALL. You can also enter in a Dial Pattern (see trunks for instructions) or put in Private, Blocked, Unknown, Restricted, Anonymous, and Unavailable to match on, if the Telco transmits them.

CID Priority Route(Optional): This effects CID ONLY routes where no DID is specified. If checked calls with this CID will be routed to this route, even if there is a route to the DID that was called. Normal behavior is for the DID route to take the calls. If there is a specific DID/CID route for this CID, that route will still take the call when that DID is called.



Options

Alert Info(Optional): Alert_INFO can be used for distinctive ring with SIP devices.

CID name prefix(Optional): You can optionally prefix the Caller ID name i.e.: IF you prefix with "Sales" a call from John Doe would display as "Sales :John Doe" on the extensions that ring.

Music on Hold(Optional): Set the MoH class that will be used for calls that come in on this route. For example, choose a type appropriate for routes coming in from a country which may have announcements in their language.

Signal RINGING(Optional): Some devices or providers require RINGING to be sent before AN-SWER. You'll notice this happening if you can send calls directly to a phone, but if you send it to an IVR, it won't connect the call.

Pause before Answer(Optional): An optional delay to wait before processing this route. Setting this value will delay the channel from answering the call. This may be handy if external fax equipment or security systems are installed in parallel and you would like them to be able to seize the line.

Privacy		
Privacy Manager:	No 🔻	

<u>Privacy</u>

Privacy Manager(Optional): If no Caller ID has been received, Privacy Manager will ask the caller to enter their phone number. If a user/extension has Call Screening enabled, the incoming caller will be prompted to say their name when the call reaches the user/extension.

Language	
l anguage:	

<u>Language</u>

Language(Optional): Allows you to set the language for this DID

Fax Detect

Detect Faxes:
No O Yes

Fax Detect

Detect Faxes(Optional): if set to yes it TV will try to determine if this is a fax call and route to the selected destination below.



CID Lookup Source	
Source:	None •
CID Lookup So	urce
Source(Optional	I): Sources can be added in Caller Name Lookup Sources Sectio
Set Destination	
Phoneboo	k Directory: Phonebook Directory 👻
Terminate	Call: Hangup
Extension	5: <6100> Test Lab Polycom 💌
Ring Grou	ps: rg EMS <6198> 👻
Custom C	ontexts: Full Internal Access 👻
Misc Desti	nations: TestPage 🔹
IVR: IVR	▼

Set Destination

(Required)

Upon Match of DID and/or CLID, select in the ToolVox system where to have the call routed to.

To save your settings click:

Submit

To apply the changes to the system click:

🐻 Apply Configuration Changes 🛛

At the top of the screen.

Click - **Continue with reload** - to finish the changes otherwise click - **Cancel reload and go back to editing** - to cancel the changes and continue editing the extension.

Apply	Configuration Changes
Reloading will appl ToolVox to your PB	y all configuration changes made in X Engine and make them active.
Continue v	with reload
Scancel rel	oad and go back to editing
Gancerrei	oad and go back to editing



Administrator Guide (prior to Aug, 2014)

Configuring System Recordings

TOOLVOX	Admin CDR Reports EMS Records Help
172.1 100.61	Logged in cbvoipade
Setup Tools	
TooMax System Status	System Recordings
Medule Admin	
Basic	Add Recording
Business Phones	Star 1: Record as unlead
DAHDi	
Fax Configuration	If you wish to make and verify recordings from your phone, please enter your extension number here: Go
Feature Codes	
General Settings	Alternatively, upload a recording in any supported asterisk format. Note that if you're using .wav, (eg, recorded with Microsoft Recorder) the file must be PCM Encoded, 16 Bits, at.
Outbound Routes	SUDUH2: Datama United
Trunks	Di D
Administrators	Step 2: Name
License Key Administration	Name this Departing
Code Blue Devices	Name and Kecologing.
Diagnostic Schedules	
Diagnostic Reports	Likek "SAVA," whee you are satisfied with your recording. Sawe
EMS Administration	
UPD Administration	
Blue Alert Administration	
Inbound Call Control	
Inbound Routes	Communications Manager
Announcements	TooNov is a registered budemerk of Code Blue Corporation
Blacklist	
CallerID Lookup Sources	
Day/Night Control	
Follow Me	
IVR	

Recordings can be useful for pushing messages to your Phones. They can be created can be done in 2 different ways. You can use a phone connected directly to ToolVox or by making the recording off system and loading it into ToolVox. Note that the format must be compatible though; PCM Encoded, 16 Bits at 8 MHz.

Add Recording

If using a phone to make the recording, enter in your extension number and hit "Go" Dial *77 on that phone and the system will prompt you on what to do.

After you hang up, name the recording and save it. It will appear on the right side of the screen and will be available throughout the ToolVox system for use.

If uploading a recording from your PC, browse to it and upload. Name the recording and save it. It will appear on the right side of the screen and will be available throughout the Tool-Vox system for use.



Administrator Guide (prior to Aug, 2014)

Configuring License Key Administration

	Admin CDR Reports EMS Records He	qle
172.1.100.01		
Setup Tools Admin		
ToolVox System Status	Software Licensing	
Basic		Max Code Blue Units: 100
Business Phones		Max allowed EMS Users: 20
DAHDi		EMS Type: EMS Advanced
Fax Configuration		Blue Alert PAS Enabled: Yes
Feature Codes		Cepstral Voice: Disabled
General Settings		Blue Alert MNS Features: core, desktop, email, feed, pas, signage, sms
Outbound Routes		
Trunks		
Administrators	System UUID	063F928E-CC7E-11DE-92E5-0013D4D9C93B
Code Blue Software	ToolVox ID	CAC2-B340-9AB1
License Key Administration	Liconco	0.02-0040-0.201
Code Blue Devices	License	
Diagnostic Schedules		

Software Licensing

This screen lists what Your ToolVox is licensed for. If you notice any discrepancies with what you ordered please notify Code Blue Technical Services. Make note of your System UUID and ToolVox ID.



Administrator Guide (prior to Aug, 2014)

Configuring Backup & Restore You can configure a regular backup schedule to ensure that you have a copy of your ToolVox

¶uu\/uv				A
UULVUA	Admin CDR Reports	EMS Records	Help	
172.1.100.61			Logged in: admin (Logou	t)
Setup Tools Admin	System Backup)		English
ToolVox System Status				
Support				Add Backup Schedule
ToolVox Logfiles				Manage/Restore Backups
ToolVox Support				Manager Restore Dackups
System Administration				Upload Backup File
ToolVox IAX Settings				(B)
ToolVox SIP Settings				
Backup & Restore			Anna and a second	
Custom Contexts Admin				
Custom Destinations				
Custom Extensions				
DUNDi Lookup				
Java SSH				
LDAP Authentication	Com	munications		
Print Extensions	Mana	ager		
Route Congestion Messages		x is a registered ark of Code Blue		
System Log Viewer	Corporation			

configuration settings and CDR's. You can also restore a previous backup, in case of data loss or a major configuration fault. Backups are stored on the file system at /var/lib/asterisk/backups. You should make a point of making an offline copy of important backups.

Add Backup Schedule

172.1.100.61	Admin CDR Reports EMS Records Help	
Setup Tools	System Backup	
ToolVox System Status		
Tooblex Loofling	Basic Settings	
Toolilov Sunnort		
System Administration	Schedule Name:	
ToolVox IAX Settings	VoiceMail:	
ToolVox SIP Settings	System Recordings:	
Backup & Restore	System Configuration:	
Custom Contexts Admin	Admin Web Directory	
Custom Destinations	CDR I	
Custom Extensions	Operator Panel:	
DUNDI Lookup		
Java SSH	Additional Files	
LDAP Authentication		
Print Extensions	FTP Settings	
Route Congestion Messages		
System Log Viewer	SSH Settings	
ToolVox API	C. manufacture control	
TooIVox CLI	+ Email Settings	
ToolVox Info		
Too/Vox Phonebook	Pun Schedule	
TooiVox Update		_
Weak Password Detection	Run Backup Follow Schedule Below -	
Third Party Addon	Minutes Hours Days Months Weekdays	6
Bulk DIDs	• All • All • All	
Bulk Extensions	Selected Selected Selected	d
Customer DB	0 • 0 • 1 • January • Monday	1
Gabcast	1 1 2 February Tuesday	
inventory	2 2 2 2 2 4 4 April Transday 3 3 4 April Transday 5 5 5 6 Autore Saturday 6 6 7 July Sunday 7 7 8 August 8 8 9 September 9 9 10 October 10 10 11 November	r



Administrator Guide (prior to Aug, 2014)

Basic Settings

Create a the Backup Set

At a minimum check the System Configuration box. If you utilize recordings in your ToolVox then also choose System Recordings. The other items are completely optional.

FTP & SSH Settings

If you have an FTP or SSH server on your network you can enter in it's settings here to have it automatically FTP or SSH the backup file off the ToolVox.

Email Settings

If email is configured on your ToolVox server you can choose to have the backup set emailed to the designated address.

Run Schedule

You can have it run "NOW" or set up a schedule using these options.

Manage/Restore Backups

Tinni Vnx*	Admin CDD Deports EMS Decords	Help	A
172.1.100.61		Logged in: admin (Logout)	
Setup Tools Admin	Manage/Restore Backups		English
ToolVox System Status Support	today		Add Dealeur Cabadula
ToolVox Logfiles	• today		Add Backup Schedule
ToolVox Support			Manage/Restore Backups
System Administration			Upload Backup File
ToolVox IAX Settings			today
ToolVox SIP Settings			
Backup & Restore			
Custom Contexts Admin			
Custom Destinations			
Custom Extensions		1 mar 1 m	
DUNDi Lookup			
Java SSH			
LDAP Authentication			
Print Extensions			
Route Congestion Messages			
Custom Log Visuar			

When selecting Manage/Restore Backups you can see your backup set and restore from it. You will have the option of only restoring parts of your backup set or all.



Unit Programming and Diagnostics (UPD) Configuration and Operation

TOOL	/OX [°] ⁽	Code Blue
Setup Tools Admin ToolVox System Status Basic	Admin CDR Reports EMS Records IP Info Help Code Blue Devices Add Code Blue Extension Program All Units Units and Edited:	Logged in: admin (Logeut) English • System Time: 11:29:63
Business Phones DAHDI General Settings Outbound Routes Trunks Administrators	Unit SearCh: 2009 : 4100 Guard Shack 2009 :	
Code Blue Software License Key Administration Code Blue Devices Diagnostic Schedules Diagnostic Reports EMS Administration UID Administration	ext 202 : IP2501 (restrig) Test Program Copy Delete NEXT Device Info	
Blue Alert Administration Blue Alert Administration Inbound Call Control Inbound Routes Announcements Follow Me	Extension 202 Caller ID Display Name IP2501	
Ring Groups Time Conditions Time Groups Languages Misc Destinations	Model IP1500/2500 Device Connection Type SIP Extension Assigned DID/CID	
System Recordings Third Party Addon Custom Contexts	DID Description Add Inbound DID Outbound CID	
	TOOLUVOX Toolia a registered trademark of Code Blue Corporation	

NOTE: The ToolVox[®] Media Gateway must be installed and configured before the UPD software can be configured. Onsite installation and remote support packages are available from your authorized Code Blue dealer.



Administrator Guide (prior to Aug, 2014)

UPD End User License Agreement

IMPORTANT – READ CAREFULLY. This is a legal agreement between you (either an individual or an entity), the end user, and Code Blue Corporation of Holland, Michigan. By opening the sealed CD-ROM packet(s) and installing or otherwise using the software, you agree to be bound by the terms of this End User License Agreement (EULA). If you do not agree to the terms of this Agreement, promptly return the disk package and accompanying items (including written materials, binders or other containers) to the place you obtained them.

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For more information about Code Blue's licensing policies, please call Code Blue at 800.205.7186.





UPD Activation

- 1. Open your web browser and enter the IP address of your ToolVox. Example: http://172.1.100.65
- 2. Click TOOLVOX ADMINISTRATION button (III. 3A).



Illustration 3A

3. Enter your administrator User Name and Password (**admin** and **codeblue**) at popup menu (III. 3B).

Authentication Required		
The server https:// password. The ser	10.42.4.191:443 requires a username and ver says: ToolVox Administration.	
User Name: Password:		
	Log In Cancel]

Illustration 3B

4. Click the **OK** button.



Administrator Guide (prior to Aug, 2014)

5. A new menu ToolVox System Status will initiate (III. 3C).



Illustration 3C

- 6. Under the **SETUP** tab, go to Code Blue Software > License Key Administration.
- 7. Software Licensing screen will open (III. 3D).

TOOL	Admin CDR Reports EMS Records IP Info [Help]	Code Blue
Setup Admm Toofvox System Status	Software Licensing	English •
Intela Dualitesia Phones DIA-IDI General Settings Ourbound Routes Trunks Administrators	Star Code Kim (14h) \$3 War Started Kill Stern 0 UST Type None -PD Enabled No Star Ann PAS Enabled Starbeld Blue Nort MNS Fostorov core, desktop email, feed, pos, signage, sms	
Code Brue Software Latense Key Administration	System UUID 00000000-0000-0000-0000-0000-0000-000	
Code Blue Devices	ToolVox ID C61A.09F1-8878	
Diagnostic Reports	License (partie new locance rode here)	
UPD Administration		
PAS Administration		
nbound Call Control		
noound Houtes		
Colou Ma		
100		
Rang Groups		
Time Conditions	Submit	
Time Groups		
Internal Options & Config		
anguages		
itisc Destinations		
System Recordings		
Castron Contexts		
Current Contexts	TOOLVOX	
	Such to a registered valence of Case Rue Contradict	

Illustration 3D

8. Enter the License Key provided from Code Blue (only needed after original purchase).

9. Select **SUBMIT** button to apply.



UPD Page Navigation

NOTE: At the top of the web page you will see this message: To navigate this form, please do not use the browser Back, Forward or Reload buttons (III. 4A).

To navigate through this form, please do not use the browser Back, Forward, or Reload buttons

Illustration 4A

1. Utilize the **NEXT**, **BACK** and **FINISH** buttons located at the top and bottom of each page to navigate through the unit forms.

2. All of the field titles on these pages have a dashed line below them. Place the mouse pointer over these fields to receive a description of its use.

Example: Description (orange box) displays upon user's mouse rollover on **MUSIC ON HOLD** text (III. 4B).

Alert Info:	
CID name prefix:	
Music On Hold:	Default 💌
Set the MoH class that will be used for calls that come in on this route. For example, choose a type appropriate for routes coming in from a country which may have announcements in their language.	
Privacy	

Illustration 4B

- 3. EMS/UPD Administration
 - Update Unit Failure Address
 - Enter email address and click UPDATE UNIT FAILURE EMAIL AD DRESS (III. 4C).

UPD Administration
Update Unit Failure Email Addresses
You may enter multiple email addresses. Separate email addresses with a semicolon(;) or a comma(,).
Update Unit Failure Email Addresses

Illustration 4C



3. • IP Unit Information Monitor

• Check the boxes you wish to monitor.

• Click on UPDATE IP MONITORING (III. 4D).

IP Unit information to Monitor

- Script Triggered
- Auxillary Out Toggled
 Call Incoming
- Call Outgoing
- ✓ Incoming DTMF Commands
- Account Registration
- Call Failed
- Audio Playback Failed
- Script Failure
- F Button Failure
- Power Failure
- Public Address Failure
- High Temperature
- Mic/Speaker Failure

Update IP Phone Monitoring

Illustration 4D

- IP Unit Address Range (only needed if using SIP or IAX)
 - Enter IP UNIT NETWORK/MESH.
 - Click UPDATE IP SUBNET (III. 4E).

IP Unit Network/ Mask: 172.1.100.0/24

Example: 192.168.1.1/24 for complete subnet range 192.168.1.1 through 192.168.1.255 Contact your Network Administrator for more information.

Update IP Subnet Run IP Unit Scan

IP Unit Address Range

Illustration 4E

Max Analog or Pri Trunks for Testing Analog Phones

• Enter MAX TRUNKS USED

• Click UPDATE TRUNK AMOUNT (III. 4F).



Illustration 4F

- Update Access Information for EMS Software
 - Enter Authorization Code
 - Enter Authorization IP Subnet/Mask
 - Click UPDATE INFORMATION (III. 4G).

Update Access information for	EMS Software
Authorization Code:	
Authorized IP Subnet / Mask:	
Example: 192.168.1.0/255.255.255 Contact your Network Administrato	.0 for complete subnet or for individual IP: 192.168.1.10/255.255.255.255 r for more information.
and a second second second	


UPD - Recording Custom Messages

1. Some Code Blue models have the capability to store messages that are played in various manners when the unit is activated. You may want to record these messages prior to configuring your units. ToolVox allows you to select the recording from the dropdown menu on the model configuration page (III. 5A).

Recording #1	None -	
Recording #2	None	
Recording #2	testcallcbunit.wav	
Recording #3	codeblueunit.wav	

Illustration 5A

2. To record your message(s) from the **SETUP** tab, go to Internal Options & Configuration > System Recordings.

3. The System Recordings page will initiate (III. 5B).

	System Recordings
Add Recording	Tasen Time 1210
Buit-n Recordings	Add Recording
2500Romix8Hz16Bi	
25YearsRemx	Step 1: Record or upload
CB1-wRemix)
C82-#PASRemix	If you wish to make and verify recordings from your phone, please enter your extension number here.
CB4dRemix	Go
CB4_uRemix	Atternatively, upload a recording in any supported asterisk format. Note that if you're using, way, (eg. recorded
C85_pRemo	with Microsoft Recorder) the file must be PCM Encoded, 16 Bits. at 6000Hz
C89-dRemia	Choose File No file chosen Uplicad
InfoButton	
IP1500Remix	Step 2: Name
PureMichigan Rema	Name this Recording
TestRemix)
	Click "SAVE" when you are satisfied with your recording

Illustration 5B

4. Follow the instructions on this page. You can either use your phone to record the message(s) or upload them from your PC.

NOTE: Recordings uploaded from your PC must be PCM Encoded, 16 bits at 8 kHz.



Adding a Code Blue Unit

- 1. From the **SETUP** tab go to Code Blue Software > Code Blue Devices.
- Follow the section below that pertains to your Code Blue installation scenario:
 "7: Creating a New Unit"
 "9. Creating a leaf"
 - "8: Copy a Unit"

Creating a New Unit

1. From the **SETUP** tab go to **Code Blue Software** > **Code Blue Devices.**

2. When creating a new unit, you will be prompted to enter the following information on the first page (III. 7A).

TOOL	VOX	🗘 Code Blue
Setup	Code Blue Devices (III Add Code Blue Extension) (Program Al Units	Ingent .
Normal Control	ble faret/	On Los Mail (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (2) (1) (2) (1)
	Functional REP.	

Illustration 7A

3. Device Information

• **EXTENSION:** *Required field.* This is the number given to each unit for system identification. A carefully thought out dial plan should be devised before configuring your ToolVox and UPD system.

• **CALLER ID DISPLAY NAME:** *Required field.* This is the location or name you wish to label the unit.

- 4. Unit Information
- MODEL: Required field. UPD will configure all Code Blue unit types. Select your model here.

NOTE: If OTHER is selected in the Model field, then no unit type will be used. Only the extension and EMS information will be configured. This is for EMS database entries of people or non-Code Blue devices to be managed by the Code Blue Emergency Communications System.

• **DEVICE CONNECTION TYPE:** *Required field.* Selection informs ToolVox unit's connection type:

- FXS Analog Extension
- SIP Extension
- IAX Extension
- GSM Offsite Unit
- 5. Hit the **NEXT** button to continue unit configuration on the next page.



6. The following are the required parameters that will be presented, based on the Device Type previously selected:

FXS Analog Extension

• **CHANNEL:** *Required field.* This is the FXS port number the unit is connected to. This information may be different for each system. Refer to the ToolVox documentation received with the system for a list of available FXS ports (ill. 7B) Do not change the other fields unless instructed by Code Blue technical support per sonnel.

Channel (FXS Port)	25	
context	from-internal	
immediate	no	
signalling	fxo_ks	
echocancel	yes	
echocancelwhenbridged		
echotraining	100	
busydetect	no	
busycount	7	
callprogress	no	

Illustration 7B

· SIP Extension

NOTE: After the IP phone is connected to the network, click on 1) EMS/UPD ADMINIS-TRATION and 2) RUN IP UNIT SCAN below IP Unit Address Range before creating a unit. Run again after creating a unit.

- SIP SECRET: Required field. Used for SIP phones or analog terminal adapters (see III. 7C).
- This is used to authenticate the SIP phone to the ToolVox system.

secret	cbUnit201	
dtmfmode	inband	
canreinvite	no	
context	from-internal	
host	dynamic	
type	friend	
nat	yes	
port	5060	
qualify	yes	

Illustration 7C

NOTE: Strong password methodologies are recommended.

IAX Extension



- IAX SECRET: Required field. Used for IAX phones or analog terminal adapters (see III. 7D).
- · Off System Unit

secret	cbUnit	
notransfer	yes	
context	from-internal	
host	dynamic	
type	friend	
port	4569	
qualify	yes	

Illustration 7D

NOTE: After IP phone is connected to the network, click on 1) EMS/UPD ADMINITRA-TION and 2) RUN IP UNIT SCAN below IP Unit Address Range before creating a unit. Run again after creating a unit.

 UNIT PHONE NUMBER: *Required field.* For GSM/Offsite units. This number will frequently include an outside line access number, such as 9, in front of the phone number (III. 7E).

This device uses custom technology. Unit Phone Number

Illustration 7E

7. The commands at this point will be configured for your particular model of Code Blue phone. Each command will give you an explanation when you roll the mouse over the command (ill.7F).

			1	С	ycl	e Count		
Nu rej	imber peat	of	cycles	for	the	programmed	numbers	to

Illustration 7F

8. On the last page of each unit you will be presented with the following categories:

• **IN CALL COMMANDS:** These commands will be utilized on the EMS Agent screen to control the unit (III. 7G).

# C	ommand Text	DTMF Tone
1 V	olume Up	22
2 V	olume Down	23
3 N	IIC Volume Up	20
4 N	IIC Volume Down	21
5 C	open Gate	11
6 E	nable PAS	****9
7 P	lay Message	01
8		

Illustration 7G



Administrator Guide (prior to Aug, 2014)

9. EMS Unit Location Information consists of selecting the Latitude/Longitude on a MS Bing[™] map (III. 7H).



Illustration 7H

10. Detailed Unit Location allows you to select the uploaded map (configured in EMS/UPD Administration) and place a Code Blue unit on the map in the desired location (III. 7I).



Illustration 7I

11. Location Description/Notes allows you to enter specific location/ unit information to be displayed on the EMS Agent screen (III. 7J).

Location Description / Notes	Code Blue CB 1s East Parking Lot. Contact officer Joe at 555-1212 for dispatch.	*
		Ŧ

Illustration 7J

12. Device Camera URL's allows for the entries of two IP camera streams, which will be displayed on the EMS Agent screen (III. 7K).

Comora 1	1	
Camera 1	rtsp://1/2.1.100.60	
Camera 2	rtsp //172 1 100 60	



13. Unit Address Info allows for the physical address to be documented for display on the EMS Agent screen (III. 7L).

Unit Address Info	
Address	92 East 64th St.
City	Holland
State/Province/Region	M
Postal Code	49423
Country	United States

Illustration 7L

- 14. After configuring your Code Blue unit, click the **FINISH** button on the last page.
- 15. Click **APPLY CONFIGURATION CHANGES** button at the top of the screen (III.7M).

x Apply Configuration Changes

Illustration 7M

- 16. Click **CONTINUE WITH RELOAD** radio button to finish the changes (III. 7N).
- 17. Cancel the changes and continue editing the extension by selecting CAN CEL RELOAD AND GO BACK TO EDITING (III. 7N).

Apply Configuration Changes
Reloading will apply all configuration changes made in ToolVox to your PBX Engine and make them active.
Continue with reload
⊘ Cancel reload and go back to editing

Illustration 7N

- 18. There are two ways to send the configuration to the Code Blue units:
- Select the unit by clicking on the extension and click **PROGRAM EXTENSION** at the top of the page.
- Click PROGRAM ALL UNITS.



UPD - Copying a Unit

- 1. From the **SETUP** tab, go to **Code Blue Software** > **Code Blue Devices.**
- 2. Select a unit to copy.
- 3. Click **COPY EXTENSION** button.

4. When copying a unit you will be prompted to enter the following information (III. 8A):



Illustration 8A

• **EXTENSION:** *Required field.* This is the number given to each unit for system identification. A carefully thought out dial plan should be devised before configuring your ToolVox and UPD system.

• CALLER ID DISPLAY NAME: *Required field.* This is the location or name you wish to label the unit.

• **CHANNEL:** *Required field.* This is the FXS port number the unit is connected to. This information may be different for each system and is configured at the factory. Refer to the ToolVox documentation received with the system for a channel list.

• IAX SECRET: Required field. Used for IAX phones or analog terminal adapters.

NOTE: Strong password methodologies are recommended.

• **UNIT PHONE NUMBER:** *Required field.* This is the phone number of GSM or Offsite units. This number will frequently include an outside line access number, such as 9, in front of the phone number.

5. All other values will remain the same unless changed by the user.

6. After configuring your Code Blue unit, click the **FINISH** button on the last page.

7. Click APPLY CONFIGURATION CHANGES button at the top of the screen (III.7M).

8. Click **CONTINUE WITH RELOAD** radio button to finish the changes (III. 7N).

9. Cancel the changes and continue editing the extension by selecting **CANCEL RE-LOAD AND GO BACK TO EDITING** (III. 7N).

10. There are two ways to send the configuration to Code Blue units:

• Select the unit by clicking on the extension and click **PROGRAM EXTENSION** at the top of the page.

Click PROGRAM ALL UNITS.



UPD Diagnostic Schedules

1. UPD Diagnostics can run as many schedules as you configure. Keep in mind that each phone is tested every 2 seconds, beginning at the scheduled time. If you put the same phones in multiple testing schedules, ensure that the time period will not overlap or you may cause erroneous fault reports.

2. From the **SETUP** tab go to **Code Blue Software > Diagnostic Schedules** (see III. 9A)

Test Schedule				
Currently Scheduled Unit Tests				
Schedule New Analog Unit Test				
For Extensions 7503 - Through 7503 -				
Test Weekly Every Sunday Al 12 AM Plus Minutes Test Daily Al I2 AM Plus Minutes Test Houry Al Minutes				
Add				
Schedule New IP Unit Test				
For Extensions 7501 Through 7501 Test Every 1 Minutes				
Daily Log Emails				
Currently Scheduled Daily Emails				
Schedule Daily Log Email				
For Extensions 7501 Through 7501 Email logs Daily at 12 AM Plus 0 Minutes				
÷				
Add				

Illustration 9A

- 3. Schedule New Analog Unit Test
- Select the range you wish to include in the schedule.
- Select the appropriate schedule for your needs.
- Click on Add to create the schedule (III. 9B).

Set Schedule				
Currently Scheduled Unit Tests				
Add New Unit Tests				
C Test Weekly Every Tuesday At 12 AM Plus 27 Minutes Test Daily At 7 AM Plus 29 Minutes C Test Hourly At 0 Minutes Add				

- 4. Schedule New IP Unit Test
- Select the range you wish to include in the schedule.
- Select TEST EVERY 1-59 MINUTES.
- Click on Add to create the schedule.

Illustration 9B



- 5. Repeat steps 7.3 through 7.4 to create additional schedules.
- 6. Diagnostic Reports
- Click on Code Blue Software > Diagnostic Reports (III. 9C).

Pending Unit Programming	I
Log Viewer	Available Logs Delete Checked Logs
Show/Hide Detailed Logs 200 14 29 06 Successfully tested extension 200.	January 2010 January 26, 2010 January 26, 2010 January 24, 2010 Ianuary 23, 2010
	January 23, 2010

Illustration 9C

• Information pertaining to unit programming and logs from test schedules will be displayed. Click on the log you wish to view under Available Logs. Click on the **Show/Hide Detailed Logs** to view detailed information of the testing/programming of the units (ill. 9D).

Pending Unit Programming	
No pending programming	
Log Viewer Delete Obecked Logs	
ShowHide Detailed Logs	
ScheduledTest January 25, 2010 January 24, 2010	
14:29:01 - Running a scheduled test - 14:29:01 num trunks 4 January 23, 2010	
14:29:01 Testing extention 200. January 22, 2010 14:29:03 Testing 200.	
14:29:03 Finished scheduled test.	
200	
14:16:41	
14:16:43 Extension is up.	
14:16:43 Extension is 200	
14:16:43 Heard RFA tone B	
14:16:43 Putting extension 200 in programming mode	
14116146 Reading phone information from the database for extension 200	
14:16:46 Calculated checksum 2075	
14:16:46 Sending all commands	
14:18:04 Checksum verifing result	
14:18:04 Processing Audio commands	
14:18:12 Audio command successful.	
14:18:14 Finished programming extension 200, exiting normally.	

Illustration 9D

• Select the check box beside each log and click on **Delete Checked Logs** to delete old log files.



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IP Audio Interface Wiring Diagram



Product wiring diagram shown reasonably represents current offering and is intended to assist in component identification and service. Earlier product production may have different components and wiring connections. Reference the model and serial number from the unit ID tag and contact manufacturer to confirm replacement part version and availability.



Lightning Protection

Installation procedure for the recommended ToolVox Lightning Protection

ITW SurgeGate CO/25 Module

SurgeGate CO/25 modules are used to protect the ToolVox Analog FXO/FXS telephony card(s) and Adtran 624 units.

Installation

1. Install the Velcro clamps provided with the protector.



- 2. Securely mount the SurgeGate between the 66 block and the ToolVox Media Gateway.
- 3. Connect an Amphenol cable from the ToolVox to the "Line" side of the SurgeGate.

*Do not connect the SurgeGate directly to the back of the ToolVox. This will not provide adequate protection and will void the warranty.

4. Connect an Amphenol cable from the 66 block to the "Equipment side of the SurgeGate. This will be the side the Code Blue devices.



5. Secure both Amphenol ends with the Velcro mounted on the clamps of the SurgeGate.



Important Safety Points

ITW Linx surge protectors and the connected equipment must be indoors in a dry location and in the same building. Although your protector is durable, its internal components are not isolated from the environment. Do not install any product near any heat-emitting appliances, such as a radiator or heat register. Do not install this product where excessive moisture is present.

ATTENTION

To ensure proper protection, the SurgeGate module <u>MUST BE CONNECTED TO EARTH</u> <u>GROUND</u>. There cannot be any exceptions. A minimum #14 green insulated copper wire, with a ring terminal at each end, should be used. Route the wire as directly as possible. Do not make any other connections to the ground terminal of the module.



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Technical Data

The Code Blue **ToolVox® Media Gateway** provides flexibility to your organization's communication needs. This allows **ToolVox** to be a complete enterprise-class IP and analog call processing capability allowing for:

- · Management and diagnostics for all Code Blue devices
- Blue Alert[®] Event Management System (EMS) to record, document and respond to emergency situations appropriately
- Robust API for third party integration
- · Open and scalable architecture
- · Optional software system platforms including Blue Alert®, EMS and UPD

Standard/Advanced Case Specifications				
Construction	Heavy-duty cold rolled steel			
Drive Capacity	Exposed 3 x 5.25" and 1 x 3.5 drives			
Cooling	1 x 12 cm ball-bearing fan • Optional 2 x 8 cm hot-swap fans			
Front Panel Indicators	1 x pwr on/off, 1 x system reset			
Front Panel Controllers	2 x USB, 1 x PS2 mini-DIN keyboard			
Maximum Expansion Card Length	13.3 in. (33.8 cm)			
Power Supply	400W, 115/230V ATX (standard) 400W, 115/230V redundant hot-swap (advanced)			
Dimensions (WxLxH)	19 x 17.7 x 7 in. (48.26 x 45 x 17.8 cm)			



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Standard Server Specifications		Advanced Server Specifications		
CPU	Pentium [®] Dual-Core 2.5GHz (minimum installed) • Supports Intel [®] LGA775 socket processors	CPU	Pentium [®] Dual-Core 2.5GHz (minimum installed) • Supports Intel [®] next generation 45nm multi-	
Front Side Bus	1333/1066/800MHz	Front Cido Duo		
Chipset	Intel P43 Express and ICH10	Front Side Bus	1333/1066/800MHz	
Memory	4 x 240-pin DDR2 800/667MHz (4GB DDR2 800MHz installed); 8GB max	Memory	2 x Dual channel DDR2 800/667MHz	
Video	Intel GMA 3100	Video	(4GB DDR2 800MHz Installed); max 8GB	
Audio	5.1 HDA Realtek [®] AL888VC	Audio		
ΙΔΝ	Intel 82567V Gigabit (10/100/1000 Mbits/sec)		Gigabit LAN Broadcom [®] BCM5784	
Expansion Slots	1 x PCI Express x 16, 5 x PCI 32-bit	Expansion Slots	1 x PCI Express x 16, 5 x PCI 32-bit	
	1 x ATA100	IDF	1 x ATA100	
Drives	2 x 500GB SATA, 7200 rpm, RAID 1 (ad- vanced)	Drives	2 x 500GB SATA, 7200 rpm, RAID 1 1 x DVD-RM/R/RW CD/RW SATA	
BIOS	1 x DVD-RM/R/RW CD/RW SATA BIOS Intel Platform Innovation Framework for EFI		8MB flash EEPROM w LAN boot PnP, ACPI, WfM, DMI 2.0	
	32Mbit Symmetrical flash memory device	Form Factor	ATX, 12 x 8 in. (30.5 x 20.3 cm)	
Form Factor	Intel Rapid BIOS boot SMBIOS support ATX, 12 x 8 in. (30.5 x 20.3 cm)	Back Panel Connectors	Audio jack (supports 3 jacks) 1 x PS/2 keyboard port 1 x PS/2 mouse port 2 x B I45 L AN port	
Back Panel Connectors Audio jack (supports 3 jacks) 1 x PS/2 keyboard port 1 x PS/2 mouse port		1 x Serial port 1 x VGA port 4 x USB 2.0 ports		
Internal Connectors	2 x RJ45 LAN port 1 x Serial port 1 x VGA port 6 x USB 2.0 ports 3 x USB 2.0 headers (supports 6 USB devices) 1 x Parallel ATA IDE interface with UDMA 33, ATA-66/100 support	Internal Connectors	3 x USB 2.0 headers (supports 6 USB devices) 1 x Parallel ATA IDE interface with UDMA 33, ATA-66/100 support 1 x 24-pin ATX main power connector 1 x S/PDIF_OUT connector (3-pin) 6 x Serial ATAII connectors 2 x IEEE 1394a interfaces	
1 x 24-pin ATX main power connector 1 x S/PDIF_OUT connector (3-pin) 6 x Serial ATAII connectors 2 x IEEE 1394a interfaces	Expansion Capabilities	3 x PCI Conventional bus connectors 3 x PCI Express 1.1 x 1 bus add-in card connector 1 x PCI Express 2.0 x 16 bus add-in card con- nector		
Expansion Capabilities	3 x PCI Conventional bus connectors 3 x PCI Express 1.1 x 1 bus add-in card connector 1 x PCI Express 2.0 x 16 bus add-in card con- nector	Power Management	Wake on USB, PCI, PCI Express, PS/2, LAN and front panel Suspend to RAM (STR) Energy Star capable	
Power Management	Wake on USB, PCI, PCI Express, PS/2, LAN and front panel Suspend to RAM (STR) Energy Star capable ACPI support	Hardware Monitor Subsystem	ACPI support Intel Quiet System Technology implemented through the Intel Management Engine in ICH10 Out-of-range thermal values detection	
Hardware Monitor Subsystem	Intel Quiet System Technology implemented through the Intel Management Engine in ICH10 Out-of-range thermal values detection 4 x Fan activity sense input monitors 4 x Fan headers	Instantly Available PC Technology	4 x Fan activity sense input monitors 4 x Fan headers PCI Local Bus Specification Rev.2.3 support PCI Express Rev.1.1 support Suspend to RAM support	
Instantly Available PC PCI Local Bus Specification Rev.2.3 support			and USB ports	
Technology	PCI Express Rev.1.1 support Suspend to RAM support Wake on PCI, RS-232, front panel, PS/2 devices, and USB ports	Warranty	1 year	
Warranty	1 year			



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Regulatory & Warranty

Regulatory

The IP5000 speakerphone conforms to the following list of directives and product safety standards as applicable:

EU: EN 55022:2006+A1:2007 EN 55024:1998+A1:2001+A2:2003 EN 61000-4-2:1995 EN 61000-4-3:2006+A1:2008 EN 61000-4-4:2004 EN 61000-4-5:2006 EN 61000-4-6:2007 EN 61000-4-8:1993+A1:2001 EN 61000-4-11:2004 EN 61000-3-2:2006+A1:2007 EN 61000-3-3:2008

USA: CFR 47, Part 15 CANADA: ICES-003e

Warranty

Code Blue Corporation provides a limited warranty on this product. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Code Blue's standard warranty language, as well as information regarding support for this product, while under warranty, is available at **www.codeblue.com/support**.

Notice : Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.



Technical Services and Support

For additional support, please feel free to contact Code Blue's Technical Services and Support Staff at **ts@codeblue.com** or **(616) 392-8296, Opt 3.**

8 a.m. to 6 p.m. Monday through Thursday and 8 a.m. to 5 p.m. Friday Eastern Time