



Configuring FortiVoice Survivability Solution Technical Note



Survivability Solution Technical Note

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training.fortinet.com
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Introduction

A Survivable Branch is a PBX containing local lines that is part of a larger centralized deployment. These systems would be deployed at branch offices and provide access to lines in the event that extensions at the branch office cannot reach the central system.

This technical note describes how to configure FortiVoice Enterprise system in order to configure and manage the branch systems. Use this note in conjunction with the FortiVoice Enterprise Phone System Administration Guide.

Prerequisites

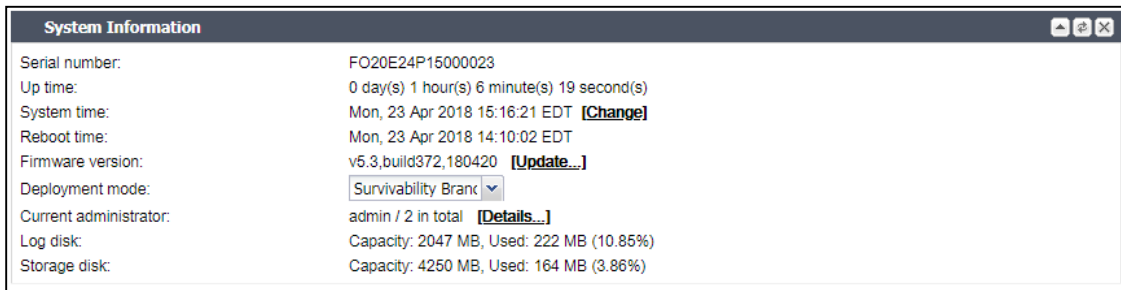
- FVE 5.3.14 build or later
- FVE-300E-T (FVE-VM500) or larger system for Central System
- FVE system at branch location (FVE-20E2, FVE-20E4, FVE-50E6 or FVE-200F8)
- Extensions have been preconfigured on central system

Note: It is important to follow the steps accordingly to avoid problems with configuration files being sent to the corresponding systems and IP phones receiving the correct settings.

Configuring Branch Systems

To configure the branch systems to work with the central system follow these steps for each location:

1. Log into the branch system.
2. On the dashboard under System Information set the *Deployment mode* to 'Survivability Branch'



3. On the dashboard under System Information click *Change* next to the system time and select the correct time zone for the branch system, and then click *Ok*.
4. Under *System* -> *Network* -> *Network* configure Port 1 with the correct IP settings for the network.

The screenshot shows the 'Network' configuration page in the FortiVoice Enterprise web interface. The 'Network' tab is selected, and a table of network ports is displayed. The table has columns for Name, Type, IP/Netmask, IPv6/Netmask, Access, and Status.

Name	Type	IP/Netmask	IPv6/Netmask	Access	Status
port1	Physical	192.168.1.92/24	:::0	HTTPS,PING,SSH,TFTP	⊕
port2	Physical	192.168.2.99/24	:::0	HTTPS,PING,SSH,TFTP	⊕

- Under *System -> Network -> Routing* add a local route to the system.

Enabled	Destination IP/Netmask	Gateway	Interface	Comment
<input checked="" type="checkbox"/>	0.0.0.0/0	192.168.1.99	port1	

- Under *Phone System -> Setting -> Location* choose the correct country for where the branch office is located, and apply settings.

Location Setting

Country/Region:

Emergency number: **911**

Long-distance prefix: **1**

International prefix: **011**

Outside line prefix: **9**

Area code: [Click to edit...](#)

Area code is required when dialing local numbers

Main display name:

Main number:

Default prompt language:

- (Optional) Under *System -> Admin -> Administrators* set a password for the admin account, or create a new admin for remote management.

Edit Administrator

Administrator:

Single sign-on manager:

Authentication type:

Change password

Old password:

New password:

Confirm password:

Configuring Central FortiVoice System

To configure the central system to manage the branch systems, follow these steps for each location:

- Log into the central system.
- Select *Managed Systems ->Survivability* in the left hand navigation; click *New* to add in a location.

Survivability Branch

Page 1 / 1 Records per page: 50

Name	Type	Serial number	Host name/IP address	Enabled
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3. Enter a name for the location and a corresponding display name.

Name:	<input type="text"/>
Enabled:	<input checked="" type="checkbox"/>
Display name:	<input type="text"/>

4. Enter the following:

Hostname/IP address – the internal or external IP address to connect to the system

Admin user name – the username for connecting to the system, default is admin

Admin password – password for the admin user account you are connecting with

Hostname/IP address:	<input type="text"/>	<input type="button" value="Get device information"/>	<input type="button" value="Connect device"/>
Admin user name:	<input type="text" value="admin"/>		
Admin password:	<input type="password"/>	<input type="checkbox"/>	View password

5. Click *Get Device information*, the serial number and MAC should automatically fill in.

Serial number:	<input type="text" value="FO20E4"/>
Type:	<input type="text" value="20E4"/> ▼
Mac address:	<input type="text" value="11:11:11:22:22:22"/>

6. Under *Survivability* select the appropriate management mode for the branch system:

- Fully managed – the central system will create the system configuration for the device, excluding Network settings and admin settings which will be managed directly on the branch system. (most common solution thereby it is the default)
- Partially managed – the central system will only create configuration for extensions only, Auto Attendants, VoIP profiles, Call Routing, Networking and admin settings will be managed directly on the branch system

Management mode:	<input checked="" type="radio"/> Fully managed
	<input type="radio"/> Partially managed

7. Select the heartbeat server address:

- Internal – use the Port/IP selected for '*Server Settings for Phone Configuration*' under Phone System -> Advanced Settings -> Auto Provisioning
- External host IP – use the external IP address as the means for checking connectivity

Heartbeat server address:	<input checked="" type="radio"/> Internal provisioning address
	<input type="radio"/> External host IP

Note: This setting is dependent upon whether you used the internal or external IP for the Hostname/IP address in step 4.

8. Enter the following:

- Branch SIP server – the internal or external SIP IP address for the branch system, by default this would be the same IP that was entered in for the Hostname/IP address in step 4.
- Branch SIP port – the SIP port used by the branch system, default 5060
- SIP phone registration interval – the registration interval for the IP phones at the branch system, default is 5 minutes

Branch SIP server:	<input type="text" value="192.168.1.92"/>
Branch SIP port:	<input type="text" value="5060"/>
SIP phone registration interval:	<input type="text" value="5"/>

9. Select the emergency call handling:

- a. Handled by branch – the branch system will intercept the emergency call and send it out one of the local lines
- b. Handled by central – the central system will handle the emergency call based upon it's configuration

Emergency call:	<input checked="" type="radio"/> Handled by branch
	<input type="radio"/> Handled by central

10. Choose whether the branch system should handle normal outbound calls in the event that the trunks at the central system are unavailable. To support this enable the *Central trunk fallback to branch* check box.

Central trunk fallback to branch:	<input checked="" type="checkbox"/>
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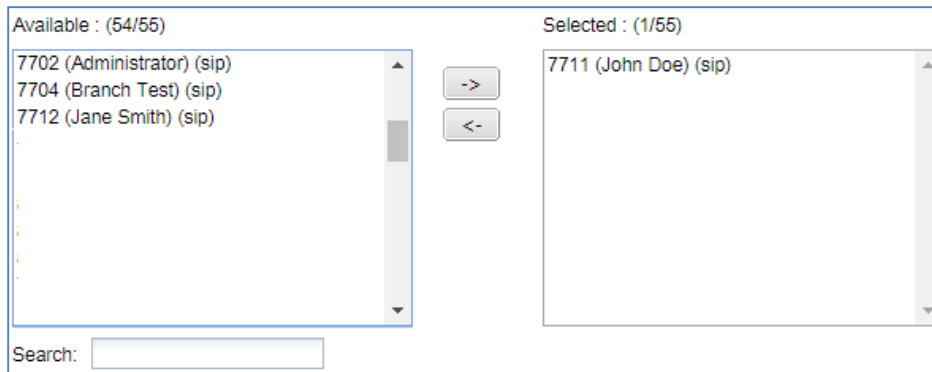
11. Enter the FXO ports to be used on the branch system in the event of a failure. List the ports using a hyphen for a continuous range or a coma separate individual ports. Example 1-4,6

Branch failover trunk FXO ports:	<input type="text"/>
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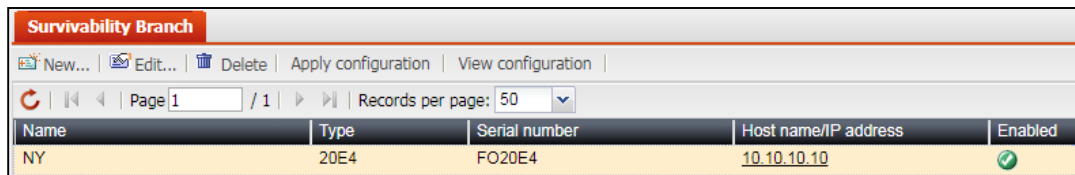
12. (Optional) If using an overhead paging device select the FXO port that it is connected to in the Branch FXO paging port. If required to dial a code to activate the paging server enter it in the paging number field, if not leave blank.

Branch FXO paging port:	<input type="text" value="0"/>
Paging number:	<input type="text"/>

13. Add the extensions to that reside at the location, and then click *Ok*.



14. Select the branch system and click the *Apply configuration* to send the configuration to the location.



Note: If you add or change any configuration parameters for the branch system you will need to click *Apply configuration* to push the new configuration to the system.

IP Extensions

Once branch locations have received their configuration files the IP phones at the location can be added to the network.

1. Plug the IP phones to the network
2. Phones should pull their configuration and display the desired extension name and number.

If the phone is displayed *unassigned*, factory default the phone and try again.

Note: only the following phones support the survivability solution; FON-175, FON-375, FON-570, FON-670 and FON-675.

Congratulations, your extensions can now make calls out through the central system, or failover to the branch system.