
**CallFinder® CDMA & GSM
Cellular Gateways**

**Configuration Guide for
Inter-Operation between
CallFinder Cellular Gateways and
AltiGen IP Phone System**



CallFinder CF100FX2 Configuration Guide Inter-Operation with AltiGen IP Phone System PN S000449A, Version A

Copyright

This publication may not be reproduced, in whole or in part, without prior expressed written permission from Multi-Tech Systems, Inc. All rights reserved.

Copyright © 2007, by Multi-Tech Systems, Inc.

Multi-Tech Systems, Inc. makes no representations or warranty with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. Furthermore, Multi-Tech Systems, Inc. reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of Multi-Tech Systems, Inc. to notify any person or organization of such revisions or changes. Check Multi-Tech's Web site for current versions of our product documentation

Revisions

<i>Revision Level</i>	<i>Date</i>	<i>Description</i>
A	11/05/07	Initial release.

Trademarks

CallFinder, Multi-Tech, and the Multi-Tech logo are trademarks of Multi-Tech Systems, Inc. Microsoft, Windows 2000, 2003, and XP are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Patents

This Product is covered by one or more of the following U.S. Patent Numbers: **6151333, 5757801, 5682386, 5.301.274; 5.309.562; 5.355.365; 5.355.653; 5.452.289; 5.453.986**. Other Patents Pending.

World Headquarters

Multi-Tech Systems, Inc.
2205 Woodale Drive
Mounds View, Minnesota 55112
Phone: 763-785-3500 or 800-328-9717
Fax: 763-785-9874

Technical Support

Country

Europe, Middle East, Africa:
U.S., Canada, all others:

By Email

support@multitech.co.uk
support@multitech.com

By Phone

+(44) 118 959 7774
(800) 972-2439 or (763) 717-5863

Internet Address: <http://www.multitech.com>

Introduction

Multi-Tech CallFinder® Cellular Gateway is an ideal solution for

- Reducing cellular telecom costs
- Cellular wireless communication backup
- Primary voice network for remote locations or temporary work sites

The gateway is connected to an analog trunk port on the AltiGen IP phone system. The user simply dials the desired cell phone number and the phone system's routing table will hand off the call to the port connected to the CallFinder. From there, the CallFinder will route the call over the wireless network.

The CallFinder also provides an affordable back-up communication network during times of emergency. In the case of a PSTN failure, it will bridge the AltiGen IP phone system to the cellular network providing an alternate route. In a disaster situation, it will even establish critical communication, including emergency 911 service.

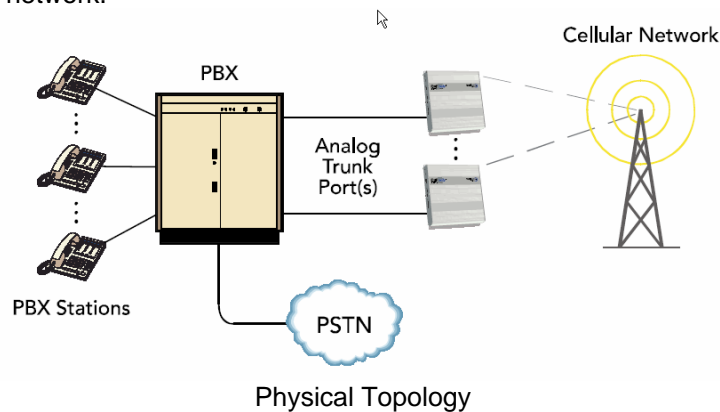
In addition, the CallFinder gateway provides a fast, easy fixed line alternative for small offices, SOHO environments or other remote locations. Simply connect an analog phone to the gateway and the user can make affordable cellular calls over the GSM network. There is no need for fixed wiring, making it an ideal solution to any environment where a fixed line is not readily available, such as mobile centers or retail kiosks.

Network Topology

There are two models of CallFinder Cellular Gateways:

1. GSM Model – CF100FX2-G
2. CDMA Model – CF100FX2-C

The focus of this document is to provide set-up and configuration instructions to support a MobileExt call from AltiServ to a cellular phone network.



Requirements

AltiServ:

Software – AltiWare 5.1 Update1 and AltiWare 5.0A with Update 4 or above. AltiWare 5.1 support dynamic trunk sharing for MobileExt operation while AltiWare 5.0A requires dedicated trunk channels to support MobileExt.

Hardware – Triton or MAX1000 analog trunk port for Multi-Tech CF100FX2-G (GSM one port) and CF100FX2-C (CDMA one port)

CallFinder:

Software – CallFinder Version 3.00 for GSM and 2.06 for CDMA

Setting Up CallFinder Hardware

Please follow the steps documented in Multi-Tech's CallFinder Quick Start Guide or CallFinder User Guide to connect the following:

1. SIM Card, if using GSM service
2. Antenna
3. Power
4. FXS port using RJ11 cable to FXS port and AltiServ analog trunk port

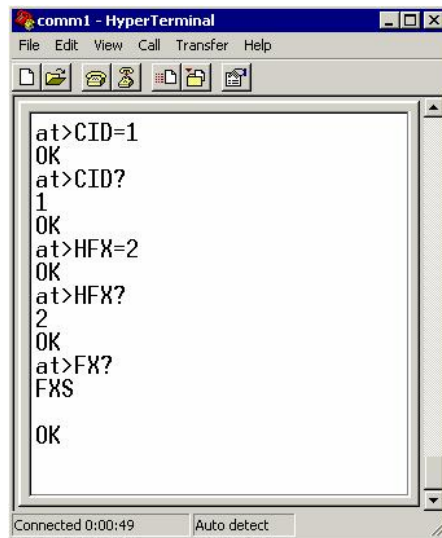
If you are using CDMA service, you need to set the VOICE/DATA switch to the DATA position (for activation) before connecting the power cord. In DATA mode, the CDMA CallFinder can respond to generic AT commands needed for activation with your service provider. It must later (after activation) be switched to VOICE mode for configuration with Multi-Tech specific AT commands and for general operation.

To Configure CallFinder

1. Connect the DB9 cable between the CallFinder and a computer. If your computer has no serial ports but has only USB ports, you must obtain a USB2.0-to-Serial adapter ("dongle") for use between the serial cable and your computer's USB port. This USB2.0-to-Serial adapter must have a male end to attach to the DB9 cable.
2. Establish a HyperTerminal "connection" to the CallFinder by following the steps in the CallFinder User Guide.
3. To activate CDMA service, enter the required AT commands for different service providers. (Follow the steps in the CallFinder User Guide.)
4. To prepare the CF100FX2 for AltiGen analog trunk port, enter the following AT commands:
AT>CID=1 (enable Caller-ID)
AT>CID? (query the parameter and confirm CID is set accordingly)

AT>HFX=2 (enable FXS loop-break disconnect when Cellular side hangs up)
AT>HFX? (query the disconnect setting and confirm it is set accordingly)

AT>FX? (query the Port parameter and confirm it is set to FXS port, default setting)

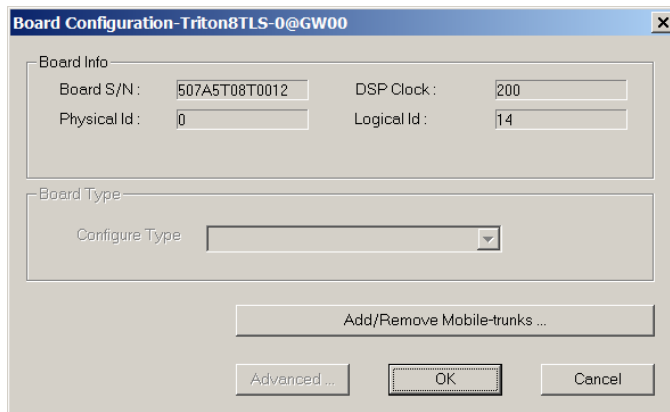


Configuring AltiServ

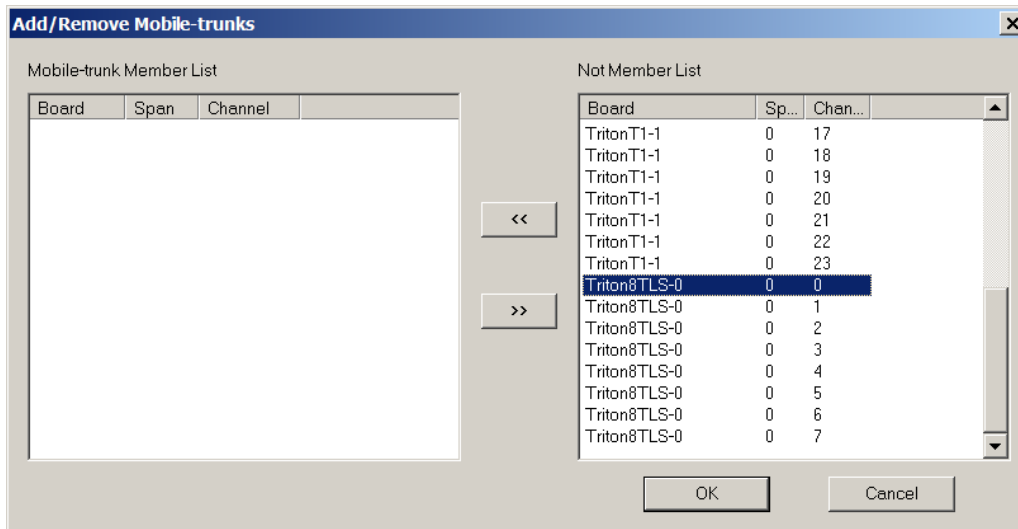
1. Use the default analog trunk port setting to connect to the CallFinder Cellular Gateway.
 - Interface: Loop Start
 - Impedance: 600 ohm
 - Incoming Ring: Single Ring
 - Caller ID Receiving: FSK
 - Dial Tone Detection: Enabled
 - Disconnect Supervisor: Loop break 600ms

Note: If you plan to use CallFinder as a regular trunk line, you may assign a trunk access code to the trunk port for making an outbound call through a cell phone network. To empower cell phone users with PBX call control functions, Hold/Transfer/Conference/Get Dial Tone..., you need to set up the following Mobile Extension configuration.

2. In the Board Configuration Window, click the **Board Configuration** button. The following screen appears.



3. Click **Add/Remove Mobile-trunks** button. The following screen appears.



4. Select the trunk port that connects to the CallFinder and add it to the **Mobile-Trunk Member List**.
5. Stop and restart the switching service, if MobileExt virtual board was not configured in the system.

- After system startup, double-click on the **MobileExt** virtual board and channel group to see the Mobile Extension Board Configuration.

Logic...	Board Type	Physical ID
0	Triton12E	1
1	Triton12E	2
2	Triton12E	3
3	Triton12E	4
4	Triton12E	5
5	Triton12E	6
6	Triton12E	7
7	Triton12E	9
8	TritonT1	1
9	TritonPRI	2
10	TritonMeetMeConf	0
11	TritonResource	1
12	TritonIP12PT	2
13	TritonIP30PT	0
14	Triton8TLS	0
15	MobileExt	0
16	H323SP	0
17	SIPSP	0

Channel Group Info

Total Number of Channel Group: 1

[0] -> Ok

- Check both **Use * to Simulate "FLASH"** and **Use ** to Disconnect and then Get Dial Tone** options.

Mobile Extension Board Configuration - MobileExt-0@GW

Mobile Extension

Max Number of Extensions: 40 (0 ~ 256)
(This Change Requires Restart of AllWare)

Key Simulation

- Use * to Simulate "FLASH"
- Use ** to Disconnect and then Get Dial Tone (< 1.5 seconds between two * keys)

Transmit Caller ID to MobileExt through PRI

- Send inbound caller ID or Extension Number
- Send inbound caller ID only
- Replace with Following Number

To set up a mobile extension

1. Open the Extension Configuration window.
2. To assign an extension to a mobile extension port, select a virtual extension and change it to a physical extension.
3. By clicking the **Next** or **Prev** button in the **Location** panel, select the MobileExt **Logical Board ID** and **Logical Channel ID** for this extension, then click **Apply**. The new location is displayed in the **Extension View** window. With the extension selected, click the **Line Properties** button to configure the mobile PSTN number and other options for this mobile extension.

ExtensionAnywhere Configuration - MobileExt-0@GW00

Port Number: 12

Name:

Target Phone Number:
(Example: 15102529712)

Incoming Caller ID Verification

Caller ID:
(Example: 5102529712)

Mobile Trunk Allocation

Shared
 Dedicated

Mobile Trunk:

Disable Caller ID Verification

Phrase

Press Any Key To Answer Call

Play Phrase After Answered Phrase Number:

Play Phrase Before Dial Tone Phrase Number: