Synway AST Series

SynAST Application Platform-AsteriskNow Installation Manual

Synway Information Engineering Co., Ltd

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Contents

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Preface

When you use the Synway AST series boards to set up an AsteriskNOW application system, this file provides the help for software installation, configuration and test. It aims at those people who use the Synway AST series boards in AsteriskNOW for the first time, and takes the use of TEJ-4A/PCI and FXM-16A/PCIe in AsteriskNOW1.5 for example.

Chapter 1 introduces how to install and automatically configure the driver of Synway AST series boards in AsteriskNOW.

Chapter 2 tells how to manually configure the system.

Chapter 3 shows how to test the Synway AST series boards in AsteriskNOW.

Appendix A gives the contact way of technical support and sales department in Synway.

Although Synway has scrupulously checked through this manual, but cannot guarantee the absence of errors and omissions. We sincerely apologize for any consequent inconvenience brought to you and will be very grateful if you kindly give your advice regarding amendments to this book.

Chapter 1 Installation & Automatic Configuration

1.1 AsteriskNOW

For detailed information about AsteriskNOW, visit the official website of AsteriskNOW: http://www.asterisknow.org.

1.1.1 Preparation

Obtain the resource package you need for AsteriskNOW installation. See Table 1-1 below for details.

Resource Package	Version Recommendation	Address	Description
dahdi	corresponding version downloaded from internet	http://downloads.digium.com	Command: #rpm –q dahdi, to check the version
SynAST-x.x.x.x.tar.gz	1.1.0.0 or above	http://www.synway.net	None

Table 1-1 Resource Packages for AsteriskNOW Installation

1.1.2 AsteriskNOW System Installation

Step 1: Install AsteriskNOW.

Download the file AsteriskNOW ISO from internet and make it an installation disk for AsteriskNOW system. Then complete the installation.

Step 2: Install the compilation environment.

```
#yum install gcc                    # install the compiler gcc
#yum install kernel-devel-`uname –r`   # install the kernel source code tree
```

1.1.3 Driver Installation

Step 1: Stop dahdi service.

```
#service asterisk stop              # stop asterisk service
#service dahdi stop                 # stop dahdi service
```

Step 2: Install the dahdi driver and the SynAST driver.

Refer to Section 3.1.2 Based on Dahdi in the file *SynAST_UserManual.pdf*.

1.1.4 Configuration

Note: You may choose either the method listed here or the manual configuration (See Chapter 2 Manual Installation) by individual requirement.

#astcfg_dahdiasterisk

1.1.5 AsteriskNOW Startup

#service dahdi start	*# start dahdi service*
#service asterisk start	*# start asterisk service*

Chapter 2 Manual Configuration

This chapter takes the FXM-16A/PCIe board and the TEJ-4A/PCI board for example to show you how to configure a system.

2.1 Zaptel/Dahdi Configuration

Refer to Section 3.2.2 Manual Configuration in the document *SynAST_UserManual.pdf*.

2.2 AsteriskNOW Configuration

Modify the configuration file according to Table 2-1 below.

Config File \ Board Model	TEJ-4A/PCI				FXM-16A/PCIe (top 4 slots: trunk; bottom 4 slots: station)
	E1 Mode		T1/J1 Mode		
	ISDN	SS1	ISDN	SS1	
/etc/asterisk/chan_dahdi.conf	[trunkgroups] [channels] usecallerid=yes hidecallerid=no callwaiting=no threewaycalling=yes transfer=yes rxgain=0.0 txgain=0.0 echocancel=yes echocancelwhenbridged=yes busydetect=yes busycount=7 relaxdtmf=yes				
	Context=from-pstn signalling=pri_cpe switchtype=euroisdn channel=>1-15,17-31 channel=>32-46,48-62 channel=>63-77,79-93 channel=>94-108,110-124 Note: For the configuration to support channel bank, Context=channelbanktest signalling=fxo_rx channel => 1-15,17-31		context=from-pstn signalling=pri_cpe switchtype=national channel=>1-23 channel=>25-47 channel=>49-71 channel=>73-95	context=from-pstn signalling=em_w switchtype=national channel=>1-23 channel=>25-47 channel=>49-71 channel=>73-95	;fxo Module context=from-pstn signalling=fxs_ks channel=>1-8 ;fxs Module context=from-internal signalling=fxo_ks channel=>9-16
/etc/asterisk/unicall.conf		[channels] language=en usecallerid=yes			

		echocancel=yes rxgain=0 txgain=0 group=1 callgroup=0 pickupgroup=0 amaflags=default accountcode=avantel musiconhold=default context=pstn-incoming loglevel=255 protocolclass=mfcr2 protocolvariant=[See Table 2-2] category= NATIONAL_SUBSCRIBER channel=>1-15,17-31 channel=>32-46,48-62 channel=>63-77,79-93 channel=>94-108,110-124			

Table 2-1 AsteriskNOW Configuration

Notes:

1) ***Change pri_cpe to pri_net if using the network side in ISDN.***
2) ***In E1+SS1, the value of the field protocolvariant in the configuration file unicall.conf should be set according to the country or the communication operator. See Table 2-2 below for details.***

Country/Operator	protocolvariant
China	protocolvariant=cn,20,7
Argentina/Telecom E1	protocolvariant=ar,10,4
Brazil/ Embratel	protocolvariant=br,20,4,8
Brasil/ Telecom	protocolvariant=br,20,4
Brasil/ Telefonica	protocolvariant=br,20,20
GVT	protocolvariant=br,20,20
Telemar	protocolvariant=br,20,20
Colombia/ ETB	protocolvariant = ar,20,4
Telefónica /Telecom	protocolvariant = br,10,7,7
Mexico/ Telmex and Avantel	protocolvariant=mx,10,4
Phillippines/ Nextel	protocolvariant=ph,12,18,1

Table 2-2 Value of protocolvariant Field

3) ***Do not configure a channel repeatedly in /etc/asterisk/unicall.conf and /etc/asterisk/chan_dahdi.conf; otherwise, errors occur.***
4) ***Use the following command to correct if the system reports error in chan_unicall.so at the start of Asterisk.***

   chcon -t texrel_shlib_t /usr/lib/asterisk/modules/chan_unicall.so

Chapter 3 Test

3.1 Preparation

Use an FXM-16A/PCIe board and a TEJ-4A/PCI board for example. The former 4 modules on the FXM-16A/PCIe board are FXO and the latter 4 are FXS. Meanwhile, configure the TEJ-4A/PCI board with E1+ISDN mode.

Examine the configuration of dahdi:

#dahdi_cfg –vv

3.2 Test Example

3.2.1 AsteriskNOW Environment

Step 1: Examine the configuration of AsteriskNOW.

#asterisk –vvr

*CLI>dahdi show channels

Step 2: Test Example 1 (FXM-16A/PCIe).

a) Open the AsteriskNOW WEB management window. Add extensions repectively to Channel 13 and Channel 15 by pbx ->system setting->extensions.

b) Test the call with Channel 13 and Channel 15.

Step 3: Test Example 2 (TEJ-4A/PCI).

a) Open the AsteriskNOW WEB management window. Register a sip channel by pbx ->system setting->extensions.

b) Use such soft terminals as eyebeam to register a sip terminal.

c) Add rules for calling out through TEJ channels by pbx->system setting->outbound route.

d) Test outbound calls via sip.

Appendix A Technical/Sales Support

Thank you for choosing Synway. Please contact us should you have any inquiry regarding our products. We shall do our best to help you. However, our technicians and salesmen are mainly responsible for maintaining our boards and providing relative technical support. If there are problems about Asterisk, please keep touch with Digium Inc. for help.

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