



Synway AST Series

SynAST Application Platform-Yate Installation Manual

Version 1.0.0.0

Synway Information Engineering Co., Ltd

www.synway.net

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Revision History

Version	Date	Comments
Version 1.0.0.0	2009-7	Initial publication.

Note: Only major revisions to this manual itself recorded herein.

Preface

When you use the Synway AST series boards to set up a Yate 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 Yate for the first time, and takes the use of TEJ-4A/PCI and FXM-16A/PCIe in Yate-1.3.0 for example.

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

Chapter 2 tells how to manually configure the system.

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

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 Yate

For detailed information about Yate, visit the official website of Yate: <http://yate.null.ro>.

1.1.1 Preparation

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

Resource Package	Version Recommendation	Address	Description
zaptel-1.4.x.tar.gz	1.4.x	http://downloads.digium.com/pub/zaptel/releases/	Command: <code>#rpm -q zaptel</code> , to check the version
yate	latest version downloaded from CVS	<code>pserver:anonymous@voip.null.ro:/home/cvsroot/private</code>	Respectively execute the following commands: #cvs -d :pserver:anonymous@voip.null.ro:/home/cvsroot/private login #cvs -d :pserver:anonymous@voip.null.ro:/home/cvsroot/private checkout yate

Table 1-1 Resource Packages for Yate Installation

1.1.2 Driver Installation

Step 1: Install the zaptel driver and the SynAST driver.

Refer to Chapter 3 Driver Installation & Configuration in the file *SynAST_UserManual.pdf*.

1.1.3 Yate Installation

```
# ./configure
```

```
#make
```

```
#make install
```

1.1.4 Configuration

Note: Follow [Chapter 2 Manual Installation](#) in this file to configure.

1.1.5 Yate Startup

#yate&

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 Yate Configuration

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

Board Config Model File	TEJ-4A/PCI		FXM-16A/PCIe (top 4 slots: trunk; bottom 4 slots: station)
	E1 Mode	T1/J1 Mode	
/usr/ local/ etc/ yate/ zapcard.conf	ISDN	ISDN	
	[span1-1] type=E1 offset=0 sigchan=16 voicechans=1-15	[span1] type=T1 offset=0 sigchan=24 voicechans=1-23	;fxo Module [span1] type=FXO offset=0 voicechans=1-8 echotaps=4
	[span1-2] type=E1 offset=16 voicechans=1-15	[span2] type=T1 offset=24 sigchan=48 voicechans=1-23	;fxs Module [span2] type=FXS offset=8 voicechans=1-8 echotaps=4 channel=>1-8
	[span2-1] type=E1 offset=31 sigchan=47 voicechans=1-15	[span1] type=T1 offset=48 sigchan=72 voicechans=1-23	
	[span2-2] type=E1 offset=47 voicechans=1-15	[span1] type=T1 offset=72 sigchan=96 voicechans=1-23	
	[span3-1] type=E1 offset=62 sigchan=78 voicechans=1-15		
	[span3-1] type=E1		

	offset=78 voicechans=1-15 [span4-1] type=E1 offset=93 sigchan=109 voicechans=1-15 [span4-2] type=E1 offset=109 voicechans=1-15		
/usr/ local/ etc/ yate/ ysigchan.conf	[link1] type=isdn-pri-net sig=span1-1 voice=span1-1,span1-2 [link2] type=isdn-pri-net sig=span2-1 voice=span2-1,span2-2 [link3] type=isdn-pri-net sig=span3-1 voice=span3-1,span3-2 [link4] type=isdn-pri-net sig=span4-1 voice=span4-1,span4-2	link1] type=isdn-pri-net sig=span1 voice=span1 [link2] type=isdn-pri-net sig=span2 voice=span2 [link3] type=isdn-pri-net sig=span3 voice=span3 [link4] type=isdn-pri-net sig=span4 voice=span4	
/usr/ Local/ etc/ yate/ analog.conf			[link1] echocancel=enable type=FX0 spans=span1 [link2] Echocancel=enable type=FXS spans=span2

Table 2-1 Yate Configuration

Chapter 3 Test

3.1 Preparation

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

Examine the configuration of zaptel:

```
#ztcfg -vv
```

3.2 Test Example

3.2.1 Yate Environment

Step 1: Examine the configuration of Yate.

```
#yate&                # start Yate

#telnet 127.0.0.1 5038 # connect to Yate

status zaptel         # enter this command at the terminal telnet to check the configuration
```

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

- 1) Add dialing rules to '/usr/local/etc/yate/regexroute.conf':

```
[default]
^3020$=analog/span1/1
```

- 2) Use the client program in Yate to dial 3020 and call out through the first channel on FXM-16A/PCle.

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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