

Contents

1. SynCTI Driver 5.3.2.7 Upgrade Instruction	2
2. SynCTI Driver 5.3.3.0 Upgrade Instruction	4
3. SynCTI Driver 5.3.3.1 Upgrade Instruction	7

1. SynCTI Driver 5.3.2.7 Upgrade Instruction

New Features & Fixed Bugs (This version supports 32-bit or 64-bit Windows OS and Linux OS)

Series	Feature	Supported Board Model	New Feature & Fixed Bug
SHN	VoIP Media Processing & Signaling	SHN Series	Support the SIP channel to send the call transfer, call hold or call unhold request during an ongoing call.
			Better support the function SsmSetTxCallerId for SIP channels.
			Support the new board model SHN-120B-CT/PCIe/VAR.
			Improve the capability in the peer to peer incoming call processing for registered SIP channels.
			Allow the Domain field to be filled in with a domain name in multi-channel registration.
			Solve the problem that SDP fails to be queried due to frequent reception of the invite message.
			Solve the problem that the APP crashes due to the dynamical configuration of the log for the IP board in case no SHN series boards are installed.
			Solve the problem that the driver state goes abnormal as COT doesn't reply the ACK message.
			Improve the capability in parsing the abnormal message header.
			Improve the capability in parsing the domain name for multi-channel registration.
SHD	Digital Media Processing & Signaling	SHD Series	Support to set the SS7 subservice code in a specified link set.
			Improve the ISDN processing.
			Support the range of 64~126 for TEI value.
DST	Digital Station Tap Boards	DST-24B/PCI	Better support the Siemens AC WIN4.0 console.
			Better support the ERICSSON digital phone.
			Better support the LCD info display of AVAYA PBXes.

FAX	Fax Board	SHF Series	Support to encode the pagination of the current page in the page header.
			Better support the function SsmFaxStartReceive.
IPR	VoIP Recording Software	NTP-480A/PCle	Better support the NTP board working under the non-administrator user mode.
			Better support the function SsmGetAccreditIdEx for the NTP board.
			Newly support the ALCATE 4059 console.
		IPR series	Newly support the RTP-only recording mode.
			Newly support the G722 RTP recording.
			Newly support LG NORTEL PBXes
			Better support CISCO PBXes
			Better support the IPR capture.
			Better support the processing of non-standard RTP addresses in IPR recording.
			Newly support the recording of specified IP calls.
			Better support CISCO H323.
			Newly support the separate recording of two extensions for an ongoing call.
			Better support the IPR recording under registration.
			Better support the recording for target monitoring.
Support to obtain the original SIP message.			
DTP	DTP	DTP Series	Newly support three interfaces - framing, coding and sync – on the configuration tool.
Install package	Install package	All	Support to modify the driver's default installation path in the setup.ini file.
			Newly support to configure the installation package to be neutral.
Newly Added Configuration Item	Add a new configuration item SubServicefield under the section [LinkSetInfo] to set the SS7 subservice code in a specified link set.		

	Add a new configuration item RTPCtrlRec under the section [BoardId=x] to set the RTP-Only mode switch for SynIPAnalyzer.
	Add a new configuration item AfterFlashNotAffectChState under the section [SystemConfig] to set whether to keep the channel state after the flash operation.
	Add six new configuration items LPTSPort, LPTSPortType, PhonePort, PhonePortType, NonStationAddressNo and NonStationAddress[y] under the section [IPRLGNortel] to set the LG Nortel monitoring.
	Add a new configuration item SipSearchChInRegisterChannel under the section [SIP] to set whether to search for an idle channel only from the registered channels while receiving a peer to peer incoming call.
	Add a new configuration item SipDomain under the section [SIP] to set whether to parse the SIP server domain name while checking the Registration state of the channel.
	Add a new configuration item LocalHookFilterTime under the section [SystemConfig] to set the minimum duration for judging the flash signal.
	Add three new configuration items RegOutBoundProxyAddr, RegAuthUserName and RegDisplayName under the section [SIP] to set Bound External Address, Authentication Username and Display Username for the multi-channel registration.
	Add a new configuration item TelephoneEventsPt under the section [BoardId=x] to set the DTMF RFC2833 payload format for local reception.
Newly Added Function	Add a new function fPcm_NotchFilter_ULAW to filter the specific frequency from a μ -Law formatted voice file which is recorded by the Synway board using the notch filtering algorithm.
	Add a new function SsmSipChHold to send the Call Hold or Call UnHold request from SIP channels to the remote end.
	Add a new function SsmSipChTransfer to send the Call Transfer request from SIP channels to the remote end during an ongoing call.
	Add a new function fBmp_SetHeaderFormatA to set the properties of the page header of a .tif formatted fax file to determine the pagination position, the prefix, etc.
	Add a new function SsmCheckMediaChRTPTimeOut to set the timeout value for a specified media channel to receive RTP data from the remote end or checks whether the RTP data reception is overtime.

Release Date: July, 2014

2. SynCTI Driver 5.3.3.0 Upgrade Instruction

New Features & Fixed Bugs (This version supports 32-bit or 64-bit Windows OS and Linux OS)

Series	Feature	Supported Board Model	New Feature & Fixed Bug
SHN	VoIP Media Processing & Signaling	SHN Series	Newly support to obtain the Reason field from 480 message.
			Improve the processing of call transfer message.

			Support the new board model SHN-480C-CT/PCle.
			Better support IMS network.
			A-type IP board supports the auto-detection RTP address feature.
			Newly support the compatible processing of 180 and 183 message.
			Add new feature that only support the mode Signaling to receive DTMF.
			Newly support whether to enable the RTP traversal feature on the designated channels.
SHD	Digital Media Processing & Signaling	SHD Series	Newly support to record the synchronous data and signaling on T1 trunk.
			Support the configuration item DTMFFreqOffset.
			Support the functions related to Tone.
			Support the Prerecord feature on ISDN, ISUP, TUP channels.
			Provide the function to parse IAM message to obtain the callerID/calleeID.
DST	Digital Station Tap Boards	DST-24B/PCI	Better support the monitoring of BRI lines.
FAX	Fax Board	SHF Series	Support the new board model SHF-4D/PCle.
IPR	VoIP Recording Software	NTP-480A/PCle	Newly support the recording of TADICOM MGCP protocol.
		IPR series	Newly support the re-dial button for ALCATE PBXes.
			Newly support to parse the NOTIFY message in SIP of NEC PBXes.
			Newly support SAMSUNG PBXes.
			Newly support to monitor two network cards simultaneously.
Better support the recording of SHORTEL MGCP PBXes.			
DTP	DTP	DTP Series	Newly support the DPNSS protocol.
			Support the function SsmGetIsdnMsu.
Install package	Install package	All	Linux driver support new kernel version 3.13.5.

Configuration tool	Configuration tool	All	Configuration tool for Linux add the dynamic recording feature.
			Solve the problem that applying reports error when add the IP board manually.
Header file	Header file	All	Header file of C# support the 64 bit OS.
			Add statement of function SsmIPGetStunPublicIP in header file of Delphi.
Tone	Tone	All	Newly support the ZVEI-I tone detection
			Newly support the feature of distinguishing the ringback music from the cue tone.
Newly Added Configuration Item	Add a new configuration item HandleWithoutCic under the section [Ss7SystemConfig] to set whether to get the decoding messages by the function SsmGetDecodeSs7Msu in case there is no CIC set in SS7.		
	Add two new configuration items MonitorPort, MonitorPortType under the section [IPRSAMSUNG] to set the Samsung monitoring.		
	Add two new configuration items CallAgentPort, CallAgentPortType, GatewayPort, GatewayPortType under the section [SystemConfig] to set the Tadicom MGCP monitoring.		
	Add a new configuration item SelcallToneDetectMode under the section [SystemConfig] to set whether to enable the Selcall Tone detector.		
	Add a new configuration item SelcallToneType under the section [SystemConfig] to set the type of Selcall Tone		
	Add a new configuration item SelcallTonePara under the section [SystemConfig] to set the frequency parameter of Selcall Tone.		
	Add a new configuration item EnableAMDBeep under the section [SystemConfig] to set whether to enable the feature of distinguishing the ringback music from the cue tone when the tone detector is working.		
	Add a new configuration item OctLogEnable under the section [SystemConfig] to set whether to output the debugging and error information of Oct to the log file.		
	Add a new configuration item OctMac0 under the section [BoardId=x] to set the MAC address of Ethernet 1 on the SHN C series board.		
	Add a new configuration item DhcpServer under the section [DHCP] to set the IP address of the on-PC Ethernet port for control messages.		
	Add a new configuration item ProcessorCtrlMac under the section [DHCP] to set the MAC address of the on-PC Ethernet port for control messages		
	Add a new configuration item FilterMacRange under the section [DHCP] to set the MAC address whose IP can be allocated by the DHCP server.		
Add a new configuration item BootFileName under the section [DHCP] to set the name of the firmware to be loaded.			

	Add a new configuration item LogLevel under the section to set the switch for DHCP and TFTP logs.
	Add a new configuration item DHCPRange under the section [DHCP] to set the range of DHCP IP address.
Newly Added Function	Add a new function SsmSipSetConnectionInforOfSDPEx to set the IP address in the Connectioninformation field in the SDP message body of the Invite or 200 message for SIP and informs the remote end to send the RTP data to this IP address.
	Add a new function SsmSipSetContactSection to designate the host and port of the 'Contact' field in the invite, 180 and 200 messages which are sent out from the SIP channels.
	Add a new function SsmIPGetMsgFieldStr to obtain a series of field values from those messages related to the call establishment of a designated channel.
	Add a new function SsmGetDecodeSs7Msu to obtain the calling/called party number, DPC, OPC and the original called party number from the MSU receive buffer of the driver.
	Add a new function SsmSipChEnableRtpStun to set whether to enable the RTP traversal feature on those SIP channels within the range from channel nChFrom to channel nChTo.
	Add a new function SsmGetSelcallToneStr to obtain the Selcall Tone characters saved in the buffer area of the Selcall Tone detector.
	Add a new function SsmGetSelcallToneLen to obtain the number of DTMF characters saved in the buffer area of the Selcall Tone detector.
	Add a new function SsmClearSelcallToneBuf to clear the Selcall Tone reception buffer area in the driver.

Release Date: Nov, 2014

3. SynCTI Driver 5.3.3.1 Upgrade Instruction

New Features & Fixed Bugs (This version supports 32-bit or 64-bit Windows OS and Linux OS)

Series	Feature	Supported Board Model	New Feature & Fixed Bug
SHN	VoIP Media Processing & Signaling	SHN Series	Enable the B-type IP board to support the RTP package which includes the checksum field.
			Support to set the name and content for the required field.
			Improve the SHN board to better support RFC2833 DTMF.
			Enable the SHN board to handle the RTP package of which the Source field is always changing.
			Improve the function of enabling 183 and stun simultaneously.
			Newly support the dynamical setting of the DTMF transmission mode for each SIP channel.

			Adjust the timestamp of the GSM formatted RTP data package.
			Improve the capability of the SHN board to connect with the IMS server.
			Upgrade the SHN linux kernel to version 334
			Improve the reply processing to the reinvoke message
SHD	Digital Media Processing & Signaling	SHD Series	Newly support to obtain the original monitoring message of L2 in ISND protocol.
			Newly support adding a field to the SETUP message or sending a user-defined non-SETUP message dynamically.
			Newly support to output the internal time information of the SS7 server to the log file.
			Enable the SHD Series D-type or E-type boards to have the tone and the DTMF signal enter the recording buffer area.
SHT	Analog Trunk Voice Board	SHT Series	Newly support to search for an idle channel in the analog channels to make outgoing calls
			Fix the problem that the application closes immediately after it starts with the service mode.
IPR	VoIP Recording Software	IPR Series	Newly support win8 and win2012 operating systems.
			Improve three monitor modes (IP, MAC and Extension Number) for target monitor.
DTP	DTP	DTP Series	Improve the T1 ISDN monitoring for DTP board.
			Improve monitoring and recording capabilities.
DST	DST	DST Series	Linux system newly supports the tool under textual interface to record the raw wave data and bit stream.
			Newly support to monitor the ASCOTEL OFFICE 45 phone.
			Repair the abnormal problems which occur while monitoring the ASCOTEL PBXs.
			Improve the monitor function to ALCATEL PBX.
Tone	Tone	All	Newly support to set the parameters to judge whether the phone is picked up by a man or not for the AMD detector
Driver	Driver	Linux	Linux USB driver can support the linux kernel of 3.13.0
Newly Added Configuration Item	Add a new configuration item DtmfModel under the section [BoardId=x] to set whether to only use the energy within the range of 697HZ~1633HZ as the reference overall energy for DTMF detection.		

	Add a new configuration item bOpenSpylsdnL2 under the section [ISDN] to set whether to have the DTP board output the event E_RCV_IsdnL2SpyMsu.
	Add a new configuration item OutputTimerStateToLog under the section [Monitor] to set whether to output the internal time information of the SS7 server to the log file.
	Add a new configuration item ShdDEToneRec under the section [BoardId=x] to set whether to have the tone and the DTMF signal sent by the SHD Series D-type or E-type boards enter the recording buffer area.
	Add a new configuration item NoiseFilteringMinGate under the section [BoardId=x] to set the threshold of back noise.
	Add a new configuration item SipAddRTPChkSum under the section [SIP] to set whether to have the RTP data package include the Checksum field.
	Add a new configuration item SipMsgHeaderName and SipMsgHeaderValue under the section [SIP] to set the name and content of the field to be added.
Newly Added Function	Add a new function fPcm_ALawToAdpcm to convert the A-law formatted file recorded by Synway boards to be IMA ADPCM formatted file.
	Add a new function SsmGetIsdnL2SpyMsu to obtain an original monitoring message of L2 in ISND protocol from the internal buffer area of the driver.
	Add a new function SsmSetIsdnParameterA to add a field to the SETUP message or sends a user-defined non-SETUP message dynamically.
	Add a new function SsmSetAMDPara to set the parameters to judge whether the phone is picked up by a man or not for the AMD detector.

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