



Toshiba Strata[®] CIX[™]

**Configuration Guide
For Use with AT&T[®] IP Flexible Reach Service
SIP Signaling
Strata CIX Software R5.1 and R5.2
MIPU01_14**

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1 Introduction

The purpose of this guide is to provide the details of configuring the Strata CIX system to connect to AT&T's Flexible reach service. Before proceeding with the configuration, please ensure that all system requirements are met as outlined in the "System Requirements" section.

2 Special Notes

- The Toshiba Strata CIX uses G.711 for fax.
- The CIX does not support SIP Asserted Identity (RFC3325)
 - As a result of this the Toshiba Strata CIX does not support Calling Number Privacy on Toshiba Strata CIX originated calls."
- Translate 10 digit called number to private extension
 - When CIX receives the call, CIX treats last 7 digits of called number as DID number.
 - The destination of CIX is mapped by DID number
- CPE Failover
 - CIX acquires server information by the setting and the DNS solution. CIX can preserve one server by the setting, and CIX can preserve multiple servers by using the DNS solution. ATT specification does not require the use of domain names.
 - Currently, there is no tested configuration with the Toshiba Strata CIX SIP trunk for connecting to an alternate AT&T Border Element if the primary border element is not available.
- CPE Calling Name Delivery: IP PBX pass display name
 - Calling name will not be generated by the Toshiba CIX

Note: Fax calls from the Toshiba Strata CIX IP PBX System to the AT&T HIPCS platform will not work when the destination fax machine answers with a Super G3 fax tone. This only affects the fax calls made to the destinations in a HIPCS local serving area.

Note: Due to inhomogeneous hardware standards among fax machines and also among customer-provided equipment such as PBX's, fax is inherently unreliable. No guarantees can be given for functionality or reliability even in the PSTN between any two locations with any two models of fax machine connected to any two PBX's.

Note: While AT&T IP Flexible Reach services support E911/911 calling capabilities in certain circumstances, there are significant limitations on how these capabilities are delivered. Please review the AT&T IP Flexible Reach service Guide in detail to understand these limitations and restrictions.

3 System Requirements

- CIX Hardware: CIX-40, CIX-100, CIX-200, CIX-670
- CIX Software: R5.1 and R5.2
- MIPU: MIPU01_14 (minimum)
- eManager: V5.10 A17 (minimum)
- Service provider: Please contact the Toshiba Sales Applications Desk
- Soft Switch: Sonus
- License: LIC-CIX-SIPT-CH

4 Overview

The Toshiba SIP Trunking implementation is provided through the use of the MIPU or GIPU8 card. There are two versions of the MIPU card: MIPU16 and the MIPU24. Other than the number of IP channels (16 or 24), there are no other architectural differences between the two cards. The GIPU8 card is the same architecture as the MIPU card but provides for only 8 IP channels. There is no need to buy separate MIPU/GIPU8 cards for each service provider. Each MIPU/GIPU can handle multiple service providers as shown in the "Programming" section.

The MIPU/GIPU8 card will connect to a network switch which will connect to AT&T's managed router as shown in figure 1. With the AT&T MIS package, the IP Address, Subnet Mask, Gateway and DNS values will be provided. With the AT&T SIP Trunk package, the IP domain name and URI will be provided. The domain name (IP Address) will be required in configuring the SIP Trunk on the CIX using Program 327 FK[05]. The URI information will be required in Program 329 FK[02].

- o Signaling and Media Ports:
 - o The following signaling and media ports must be open TO the AT&T IPBEs.
 - o Signaling
SIP 5060
 - o Media
UDP 16384 to 32767 (RTP)

- Customer Premises
 - Phones and server in private address space.
 - Managed Router does NAT.
- Customer sites connect to ATT IP Border Element

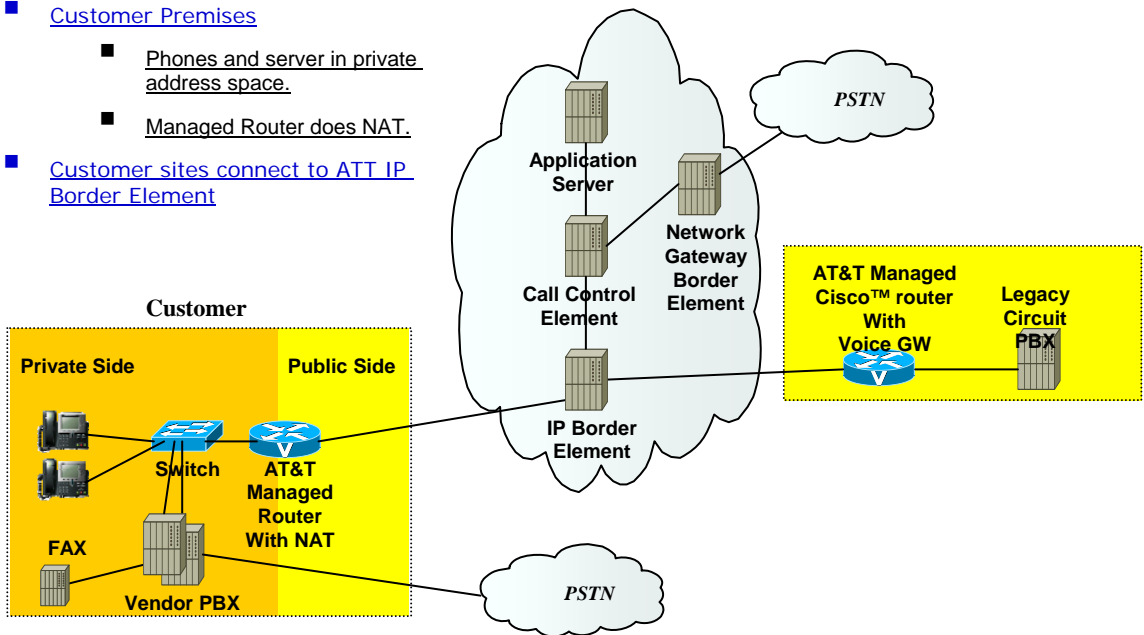


Figure 1

5 Programming the CIX for SIP Trunking

5.1 Assigning the MIPU

1. Set the card type for the slot holding the MIPU
2. Choose the type of MIPU for use in the system. The number of channels entered must match the number of channels on the card.

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Strata CIX NETWORK EMANAGER
TOSHIBA TELECOMMUNICATION SYSTEMS DIVISION
User Name: Administrator

Strategy ES > System > Station > Trunk > IP-Telephony > LCR/DR > Strata Net > Maint

System - Card Assignment

REMOTE TRAINING SYSTEM
CIX200-TECH

Cabinet: 01 Slot: 01 [Assign] [Remove]

PCB Type: MIPU16 - 16 IP Station

Cabinet	PCB Type
01	MIPU16 - 16 IP Station
01	iES32 - 32 Channel
01	LIPU-X/LIPS - 32 IP Station
01	LIPU-X - 16 IP Station
01	LVMU - 8 voice mail channels
01	MF2U - MF2U interface circuits
01	MIPU16 - 16 IP Station
01	MIPU24 - 24 IP Station
01	PDKU - 8 DKTs with Spkr OCA
01	PDKU - 8 DKTs without Spkr OCA
02	RBSU/RBSS - 4 BRI S/T interface circuits
02	RBSU - 2 BRI S/T interface circuits
02	RBUU/RBUS - 4 BRI U interface circuit
02	RBUU - 2 BRI U interface circuits
02	RCIU/RCIS - 4 or 8 circuit Caller ID interface
02	RCDU/RCOS - 8 analog loop start lines
	RDDU - 4 analog DID lines
	RDSU/RSTS - 4 standard/4 digital telephone ports with Spkr OCA
	RDSU/RSTS - 4 standard/4 digital telephone ports without Spkr OCA
	RDTU - 16 channel T1
	RDTU - 24 channel T1
	RDTU - 30 channel T1
	RDTU - 8 channel T1
	REMU or BVPU - 4 analog Tie lines or 4 VOIP circuits

5.2 Programming the Incoming Line Group

- For SIP trunk programming you start with an ILG and OLG assignment.
- For ILG Programming create an ILG group (8).
- FB01-Trunk type- select SIP
- FB03-CO service type- DID
- FB11-Number of DID Digits- number of incoming digits to use from the dialed number to route the call. (Count from the least significant digit side.)

The screenshot displays the '304 INCOMING LINE GROUP ASSIGNMENT' configuration page in the Strata CIX Network Emanager. The interface includes a navigation menu at the top with options like 'Home', 'Clients', 'Connected Equipments', and 'App'. The main content area is titled 'Trunk - ILG' and contains a form for configuring the line group. The form is organized into two columns of settings, each with a label, a value field, and a dropdown menu.

Field Label	Value	Field Label	Value
Group Number	8	02 Line Type	CO
01 Group Type	SIP	04 Private Service Type	Standard
03 CO Service Type	DID	06 Pool Key Number	0
05 GCO Key Number	0	COS Day2	1
07 COS Day1	1	COS Night	1
08 DRL Day1	1	DRL Day2	1
09 FRL Day1	1	DRL Night	1
10 QPL Day1	1	FRL Day2	1
11 DID Digits	4	FRL Night	1
12 Speech/3.1KHz	Audio	QPL Day2	1
13 Delay1 Ringing Timer	12	QPL Night	1
14 Delay2 Ringing Timer	24		
15 Interdigit 1 Timer	15	16 Interdigit 2 Timer	5
17 Auto Campon	Enable	18 Calling Number ID	User Provided
19 Intercept	Disable	20 Send Dial Tone	Disable
21 TGAC Override	Disable	22 Network COS	1
23 LCR Group	1	24 Change COS Override Code	Disable
25 Register Speed Dial Codes	Disable	26 Originator Invoke OCA	Disable
27 Senderized Tone Mode	Dial Tone	28 Emergency Call Group	1

Note: SIP trunking requires a license for each trunk. No channel group can successfully be programmed without a license.

Sip trunking is supported by the MIPU card only. It can share connections of its ports between stations and IPTs and other IPU devices. The IPTs are the only devices that are flexibly assignable. That is, SIP stations, VM ports, SIP trunks and attendant consoles are fixed resources. IPTs do not need to be fixed assignments (unless they have an assigned equipment number, not 0000).

5.3 Assigning the Trunk DID Destination

- FB01- DID number - Incoming digits use to direct the dialed number to route the call. (Count from the least significant digit side and will be limited to the number of digets set in Prog204 FB11.)
- FB05-07 Audio Day1, 2, Night Dest Type/Dst Digits – For example Dialing Digits/Extention

Note: DID routing must be set up to route incoming SIP calls to their desired destinations. That programming is the same as any other trunk group type. If that routing is not set up incoming Invites will fail instantly

The screenshot shows the Toshiba Network eManager web interface. The browser title is "Toshiba::TAIS::TSD::Network eManager - Microsoft Internet Explorer". The page header includes the Toshiba logo and "Strata CIX NETWORK EMANAGER" branding. The user is logged in as "administrator". The navigation menu shows the path: Strategy ES > System > Station > Trunk > IP-Telephony > LCR/DR > Strata Net > Maintenance > Alarm/Traffic > Help.

The main configuration area is titled "Trunk - DID" and shows the "Default" configuration. The "ILG Group Number" is set to 8. The "309 DIRECT INWARD DIALING" section contains the following fields:

01 DID Number	8400	List
02 MOH Source	1 Processor MOH Jack	
03 GCO Key Group	0	04 Pooled Key Group 0
05 Audio Day1 Dst Type	Dialing Digits	Audio Day1 Dst Digits 2400
06 Audio Day2 Dst Type	Dialing Digits	Audio Day2 Dst Digits 2400
07 Audio Night Dst Type	Dialing Digits	Audio Night Dst Digits 2400
08 Data Day1 Dst Type	No Data	Data Day1 Dst Digits
09 Data Day2 Dst Type	No Data	Data Day2 Dst Digits
10 Data Night Dst Type	No Data	Data Night Dst Digits
11 DID/DNIS No. VMID		12 DID/DNIS Name
15 VM Application Digits		16 Tenant Number 1

At the bottom of the configuration area, there are buttons for Submit, Print, Refresh, Get Default, Create, Copy, Delete, and DID/DNIS Table View. The footer of the page includes "Network eManager: V5.10A13", "©2008 Toshiba America Information Systems", and a "disclaimer" link.

5.4 Programming the Outgoing Line Group

1. Create a new OLG and designate it as SIP.
2. FB01-Group type – SIP
3. The rest can be default. There is a need to create an OLG access code for this group.

The screenshot displays the 'Strata CIX NETWORK eMANAGER' web interface. The top navigation bar includes 'Home', 'Clients', 'Connected Equipments', and 'Application Settings'. The user is logged in as 'Administrator'. The breadcrumb trail is: Strategy ES > System > Station > Trunk > IP-Telephony > LCR/DR > Strata Net > Maintenance > Alarm/Traffic > Help.

The main content area is titled 'Trunk - OLG' and shows the configuration for '306 OUTGOING LINE GROUPS'. The configuration fields are as follows:

- Group Number: 8
- 01 Group Type: SIP
- 02 Trunk Type: CO/DID
- 03 Service Type: Standard
- 04 GCO Key1 Number: 0
- 06 Pool Key1 Number: 0
- 07 Pool Key2 Number: 0
- 08 COS Day1: 1
- COS Day2: 1
- COS Night: 1
- 09 FRL Day1: 1
- FRL Day2: 1
- FRL Night: 1
- 10 QPL Day1: 1
- QPL Day2: 1
- QPL Night: 1
- 11 Speech/3.1KHz: Audio
- 12 MOH Source: 1 Processor MOH Jack
- 13 Account Code: Enable Disable
- 14 Destination Restriction: Enable Disable
- 15 Credit Card Calling: Enable Disable
- 16 Send CESID: Enable Disable
- 17 QSIG Sending Type: Cut Through
- 18 Network COS: 1
- 19 Recall on AC15: [Empty dropdown]

At the bottom of the configuration area, there are buttons for 'Submit', 'Print', 'Refresh', 'Get Default', 'Create', 'Copy', and 'Delete'. A sidebar on the left shows 'REMOTE TRAINING SYSTEM' and 'CIX200-TECH'. On the right, there is a list of line types: 1 ANALOG, 2 ISDN, 3 ANALOG, 5 ISDN, 8 SIP, 9 SIP, 10 ISDN, 11 SIP.

The footer of the interface includes 'Network eManager: V5.10A12', '©2008 Toshiba America Information Systems', and 'disclaimer'. The Windows taskbar at the bottom shows 'Done', 'Internet', and '100%' zoom level.

5.5 Creating the Channel Group

1. Go to IP Telephony | SIP trunking. The first tab is Channel Group setting Program 326.
2. Create- Channel Group (16) – [Example use only]
3. FB01- Equipment Number- 0201 (four digits only)
4. FB02- LAN interface number = 1 (MIPU only has one interface)
5. FB03 – StrataNet Channels – The TOTAL number of ports on this card that are going to be dedicated to SIP Trunking. On further tabs, each OLG or ILG can be for a different service provider and still be in the same channel group. This entry is the total number of trunks from ALL the service providers
6. FB04- RBT tone on incoming call- Enable for the CIX to provide RBT (ring back tone).

The screenshot displays the Strata CIX Network eManager web interface. The top navigation bar includes links for Home, Clients, Connected Equipments, and Application Settings. The main header features the Toshiba logo and the Strata CIX Network eManager title, along with the user name 'Administrator' and a 'log out' link. The breadcrumb trail shows the path: Strategy ES > System > Station > Trunk > IP-Telephony > LCR/DR > Strata Net > Maintenance > Alarm/Traffic > Help. The current page is titled 'IP-Telephony - SIP Trunking' and has four tabs: Channel Group Setting (active), Service Definition, Service Assignment, and URI. On the left, there is a 'REMOTE TRAINING SYSTEM' section with a 'CIX200-TECH' icon. The main content area shows the configuration for '00 SIP Trunk Channel Group' with a value of '16' and a 'List' button. Below this is the '326 SIP TRUNK ASSIGNMENT' section with four fields: '01 Equipment' (0201), '02 LAN Interface Number' (1), '03 Strata Net IP Channels' (5), and '04 RBT on Incoming Call' (Enable). At the bottom, there are buttons for Submit, Print, Refresh, Get Default, Create, and Delete. The footer contains version information 'Network eManager: V5.10A12' and copyright '©2008 Toshiba America Information Systems'.

5.6 Service definition

This tab is where the ISP that is providing the SIP trunk service is defined. There may be several ISPs per channel Group.

1. Create the Service Kind Table Index - start with index 1 if desired (11 in this example)
2. FB01 – Registration Mode: None
3. FB02 – ILG: Use the previously created ILG number
4. FB03 – OLG: Use the previously created OLG Number
5. FB04 – Effective Channel Number: Number of SIP trunks the customer ordered from AT&T.
6. FB05 – Domain Name: Enter the IP Address for the domain name provided by AT&T. The customer will get the IP address from AT&T implementation group. No domain name will be given and no DNS is required.
7. FB06 – SIP Server: For AT&T leave this field blank
8. FB17 – Primary Audio Codec: Set to G.729a
9. FB18 – Secondary Audio Codec: Set to G.711u
10. FB35 – SIP Trunk Message From Header Options: IPU IP Address
11. These are the only mandatory program entries. The rest can be default for now.

Service definition Continued

Toshiba::TAIS::TSD::Network eManager - Windows Internet Explorer

Home Clients Connected Equipment Application Settings

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Strata CIX NETWORK EMANAGER
TOSHIBA TELECOMMUNICATION SYSTEMS DIVISION
User Name: Administrator log out

Strategy ES System Station Trunk IP-Telephony LCR/DR Strata Net Maintenance Alarm/Traffic Help

IP-Telephony - SIP Trunking

Local Host
localhost

Channel Group Setting Service Definition Service Assignment URI

327 SIP TRUNK SERVICE KIND ASSIGNMENT

00 SIP Trunk Service Kind Table Index	11	List	
01 Registration Mode	None		02 ILG 1
03 OLG	1		04 Effective Channel Number 1
05 Domain Name	207.242.225.200		
06 SIP Server			
07 Primary Voice Packet Configuration	1		08 Secondary Voice Packet Configuration 1
09 Registration Period	3600		10 TimerB 5
11 Recovery Timer	60		12 Network Transfer Enable
13 User Agent Header	Disable		14 Server Header Disable
15 Protocol Option	Disable		16 Session Timer 1800
17 Primary Audio Codec	G.729a		18 Secondary Audio Codec G.711u
19 DTMF Transmission Method	RFC2833		20 RTCP Support Enable
21 T.38 Support	Disable		22 SIP Server Caches 10
23 Diffserv for Media	Disable		24 TOS Field Type for Media TOS
25 TOS Precedence Type for Media	Critical/ESP		TOS Delay Type for Media Normal
			TOS Throughput Type for Media Normal

Submit Print Refresh Get Default Create Delete

Network eManager: V5.10A17 ©2008 Toshiba America Information Systems ?

Done Local intranet 100%

Service definition Continued

The screenshot displays the Toshiba Network eManager web interface for configuring SIP Trunking services. The browser window title is "Toshiba::TAIS::TSD::Network eManager - Windows Internet Explorer". The interface includes a navigation menu with options like "Home", "Clients", "Connected Equipment", and "Application Settings". The main content area is titled "IP-Telephony - SIP Trunking" and is divided into four tabs: "Channel Group Setting", "Service Definition", "Service Assignment", and "URI". The "Service Definition" tab is active, showing a list of 19 configuration items (IDs 23-39) with their respective settings. A "Local Host" sidebar is visible on the left. At the bottom, there are buttons for "Submit", "Print", "Refresh", "Get Default", "Create", and "Delete". The footer contains the text "Network eManager: V5.10A17 ©2008 Toshiba America Information Systems".

Item ID	Setting	Value	Item ID	Setting	Value
23	Diffserv for Media	Disable	24	TOS Field Type for Media	TOS
25	TOS Precedence Type for Media	Critical/ESP		TOS Delay Type for Media	Normal
26	DSCP for Media	0		TOS Throughput Type for Media	Normal
27	Diffserv for Signaling	Disable		TOS Reliability Type for Media	Normal
29	TOS Precedence Type for Signaling	Critical/ESP	28	TOS Field Type for Signaling	TOS
30	DSCP for Signaling	0		TOS Delay Type for Signaling	Normal
31	Call Release On QoS Failure	Disable		TOS Throughput Type for Signaling	Normal
33	SIP Trunk Service Recovery Time	60		TOS Reliability Type for Signaling	Normal
35	SIP Trunk Message From Header Options	IPU IP Address	32	QoS Failure Notification Timer	10
37	SIP Trunk Register Message From Header Options	FQDN	34	SIP Trunk Options Interval	60
39	Assert Identity	Disable	36	SIP Trunk Message To Header Options	FQDN
			38	SIP Trunk Register Message To Header Options	FQDN

5.7 Service Assignment

This tab must be completed before entries can be made on the next tab. If not completed, entries attempted in the URI tab will not save.

Important! After URI entries are made in URI tab changing this program will DELETE all the URIs programmed. Once this is set, do not change it.

1. FB01 – Channel Group (16 in this example)
2. FB02 – Select the “service number” by clicking on one of the table’s line entries. Use the drop down box to select the ISP to which the URIs belong. This is to match the “service kind table index” number of the desired ISP. The (URI) tab is where the URIs (directory numbers) will be entered.

The screenshot displays the Toshiba Network eManager web interface. The browser title is "Toshiba::TAIS::TSD::Network eManager - Windows Internet Explorer". The page header includes the Toshiba logo and "Strata CIX NETWORK EMANAGER" branding. The user is logged in as "Administrator". The navigation menu shows "Home", "Clients", "Connected Equipment", and "Application Settings". The main menu includes "Strategy ES", "System", "Station", "Trunk", "IP-Telephony", "LCR/DR", "Strata Net", "Maintenance", "Alarm/Traffic", and "Help". The current page is "IP-Telephony - SIP Trunking".

The interface has four tabs: "Channel Group Setting", "Service Definition", "Service Assignment" (active), and "URI".

Under "Service Assignment", there is a "00 Channel Group" dropdown set to "16". Below it, a "328 SIP TRUNK SERVICE ASSIGNMENT" section contains a "02 Service Index" dropdown set to "11" and a "Set" button.

Service No.	Service Index
1	11
2	<Empty>
3	<Empty>
4	<Empty>
5	<Empty>
6	<Empty>
7	<Empty>
8	<Empty>
9	<Empty>
10	<Empty>
11	<Empty>
12	<Empty>
13	<Empty>
14	<Empty>
15	<Empty>
16	<Empty>

The footer of the interface shows "Network eManager: V5.10A17" and "©2008 Toshiba America Information Systems". The Windows taskbar at the bottom shows "Done", "Local intranet", and "100%" zoom.

5.8 URI Programming

The SIP URI is effectively the Telephone Number (TN) that AT&T is going to provide. When the URI TN is dialed (from outside), AT&T will send a SIP INVITE just as if it were a call to a SIP station. (But an outbound call using one of the UAs does not busy out the UA against an incoming call, that is a key difference of SIP trunks)

1. FB00 – URI Service Index: The service Kind index that defines the ISP. For instance, the service kind is AT&T. Here you will enter the TNs provided from AT&T.
2. FB01 – Index: Click the ‘index’ line in the table to select one of the indexes 1-160. Now proceed to fill in the URI data
3. FB02 – SIP URI: This will be the TN of the URI
4. FB03 – SIP URI User Name: AT&T does not use a User Name. Leave this field blank.
5. FB04-SIP URI password = AT&T does not use a password. Leave this field blank.
6. FB05-Channel Group Number- this will be filled in automatically when the ADD button is clicked.

The screenshot displays the Strata Network eManager web interface. The top navigation bar includes 'Home', 'Clients', 'Connected Equipment', and 'Application Settings'. The main header features the Toshiba logo and 'Strata CIX NETWORK EMANAGER' branding. The user is logged in as 'Administrator'. The breadcrumb trail shows the path: Strategy ES > System > Station > Trunk > IP-Telephony > LCR/DR > Strata Net > Maintenance > Alarm/Traffic > Help. The current page is 'IP-Telephony - SIP Trunking' with sub-tabs for 'Channel Group Setting', 'Service Definition', 'Service Assignment', and 'URI'. The 'URI' tab is active, showing '329 SIP URI ASSIGNMENT'. The configuration fields are as follows:

00 SIP URI Trunk Service Index	11	Add	Modify	Remove	
01 SIP URI Index	1				
02 SIP URI	9495833001	03 SIP URI User Name			
04 SIP URI Password		05 SIP URI Channel Group	16	06 SIP URI Attribution	

Below the form is a table with the following data:

Index	URI	User Name	Password	Reg. Channel Group
1	9495833001			16
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Note: The above example is showing a 10 digit URI. If number sent is 4 digits use last 4 digits of URI. If this example was a 4 digit URI the number in FB02 would be entered 3001.

5.9 Configuring the MIPU

1. Go to IP Telephony | IPU config. Here you will program the public IP address for the MIPU card no interface to the sip trunk provider.
2. FB01 = IP address. Set a public IP address
3. FB02 = Subnet Mask. As applicable.
4. FB03 = Default Gateway Address. From IT department.
5. There is only one interface on an MIPU so skip the second interface programming.

The screenshot displays the Strata CIX Network Emager web interface for configuring a 161 LIPU/MIPU. The interface includes a navigation menu at the top with options like Home, Clients, Connected Equipments, and Application Settings. The main configuration area is titled "161 LIPU/MIPU CONFIGURATION" and contains the following fields and options:

- 00 Cabinet & Slot Number: 0201
- 01 IPU IP Address: 68 . 232 . 52 . 50
- 02 IPU Subnet Address: 255 . 255 . 255 . 224
- 03 IPU Default Gateway Address: 68 . 232 . 52 . 1
- 07 Version of IPU/IPH: MIPU01_06DA100
- 09 Available IPU/IPH IP Ports: 3
- 04 LIPS IP Address: 0 . 0 . 0 . 0
- 05 LIPS Subnet Address: 0 . 0 . 0 . 0
- 06 LIPS Default Gateway Address: 0 . 0 . 0 . 0
- 08 Version of LIPS: [Empty]
- 10 Available LIPS IP Ports: 0
- 11 IPU/IPH Packet Prioritization: Enable Disable
- 12 IPU/IPH Packet Prioritization Type: Best Effort Voice
- 13 IPU/IPH VLAN: Enable Disable
- 14 IPU/IPH VLAN ID: 1
- 15 LIPS Packet Prioritization: Enable Disable
- 16 LIPS Packet Prioritization Type: Best Effort Voice

At the bottom of the configuration area, there are buttons for Submit, Print, Refresh, and Get Default. On the right side, a list of ports is visible, including 0101, 0102, 0103, 0201, 0202, and 0203.

5.10 Configuring the MIPU continued

For a static IP you'll need to enter the DNS server address also. After making all these programming entries, press the reset button on the MIPU. The new data will be absorbed by the MIPU. In the MIPU will begin registration to the ISP.

- FB 22- primary DNS IP address
- FB 23- secondary DNS IP address

The screenshot shows the Strata CIX Network Emager web interface. The top navigation bar includes 'Home', 'Clients', and 'Connected Equipments'. The main header displays the Toshiba logo and 'Strata CIX NETWORK EMANAGER' with the user name 'Administrator'. The breadcrumb trail is 'Strategy ES > System > Station > Trunk > IP-Telephony > LCR/DR > Strata Net > Maintenance > Alarm/T'. The current page is 'IP-Telephony - L/M IPU Configuration'. On the left, a sidebar shows 'REMOTE TRAINING SYSTEM' with a 'CIX200-TECH' icon. The main configuration area lists 13 settings:

12 IPU/IPH Packet Prioritization Type	<input type="radio"/> Best Effort	<input checked="" type="radio"/> Voice
13 IPU/IPH VLAN	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
14 IPU/IPH VLAN ID	1	
15 LIPS Packet Prioritization	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
16 LIPS Packet Prioritization Type	<input type="radio"/> Best Effort	<input checked="" type="radio"/> Voice
17 LIPS VLAN	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
18 LIPS VLAN ID	1	
19 IP Strata Net RTP Base Port (IPU/IPH)	20992	
20 IP Strata Net RTP Base Port (LIPS)	20992	
21 MIPU DHCP Server	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
22 MIPU Primary DNS	198 . 168 . 211 . 20	
23 MIPU Secondary DNS Server	204 . 210 . 220 . 57	
24 MIPU Hostname		
25 MIPU Primary DNS Suffix		

At the bottom of the configuration area are buttons for 'Submit', 'Print', 'Refresh', and 'Get Default'.

Note: The default value for the RTP base port is 20992

Note: AT&T does not provide a domain name, so DNS servers addresses are not required for AT&T.

6 Compatibility

- GIPU8/MIPU16/MIPU24
- CIX-40
- CIX-100
- CIX-200
- CIX-670

7 Licensing

SIP Trunking requires the following license:

- LIC-CIX-SIPT-CH

8 Troubleshooting

Please contact Toshiba's Technical Support Department for any support issues concerning the CIX SIP Trunk setup. The phone number for technical support is 800-777-4873. Please note that before calling technical support, the technician will need to provide the following information:

Basic information

- CIX processor hardware revision (i.e. BCTU1A)
- CIX processor software version
- MIPU firmware version
- MIPU IP Address, subnet and gateway
- eManager/Network eManager version
- AT&T provided URI and domain name (IP Address)

Capture files

- Packet capture (i.e. Wireshark) between the MIPU and the network switch
- CIX database (default.dat)
- Secure Digital files (all files from SD card)
- PPTC9 – (May be required to export MIPU log data)

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