

## Spectrum Enterprise SIP Trunking Service Toshiba IPledge IP PBX Configuration Guide

### About Spectrum Enterprise:

Spectrum Enterprise is a division of Charter Communications following a merger with Time Warner Cable and acquisition of Bright House Networks. Spectrum Enterprise is a national provider of scalable, fiber technology solutions. The Spectrum Enterprise portfolio includes networking and managed services solutions, including Internet access, Ethernet and Managed Network Services, Voice, TV and Cloud solutions. Our industry-leading team of experts works closely with clients to achieve greater business success.

### About this document:

Spectrum Enterprise assures IP PBX compatibility by conducting interoperability testing to ensure any potential compatibility issues have been resolved prior to installation. Please review the IP PBX configuration instructions in this guide prior to your installation date.

Be advised that this document may contain references to Charter or Charter Business. All references to Charter should be read as Spectrum Enterprise.

**Thank you,**

**Spectrum Enterprise**

# Toshiba IPledge IP PBX Configuration Guide



## 1 Introduction

This document describes how to configure the Toshiba IPledge IP PBX to interoperate with the Charter network. It does not provide any information how to provision, configure or use the features of Toshiba IPledge. Please refer to the documentation provided with the IP PBX or contact the vendor.

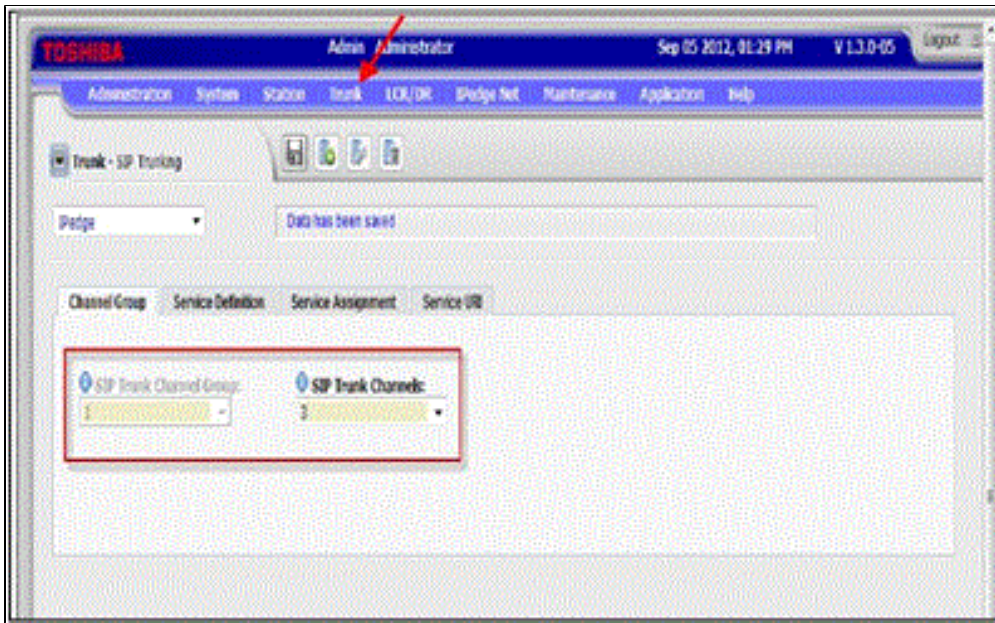
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## 2 Configuration Setup

### 2.1 Adding SIP Trunking

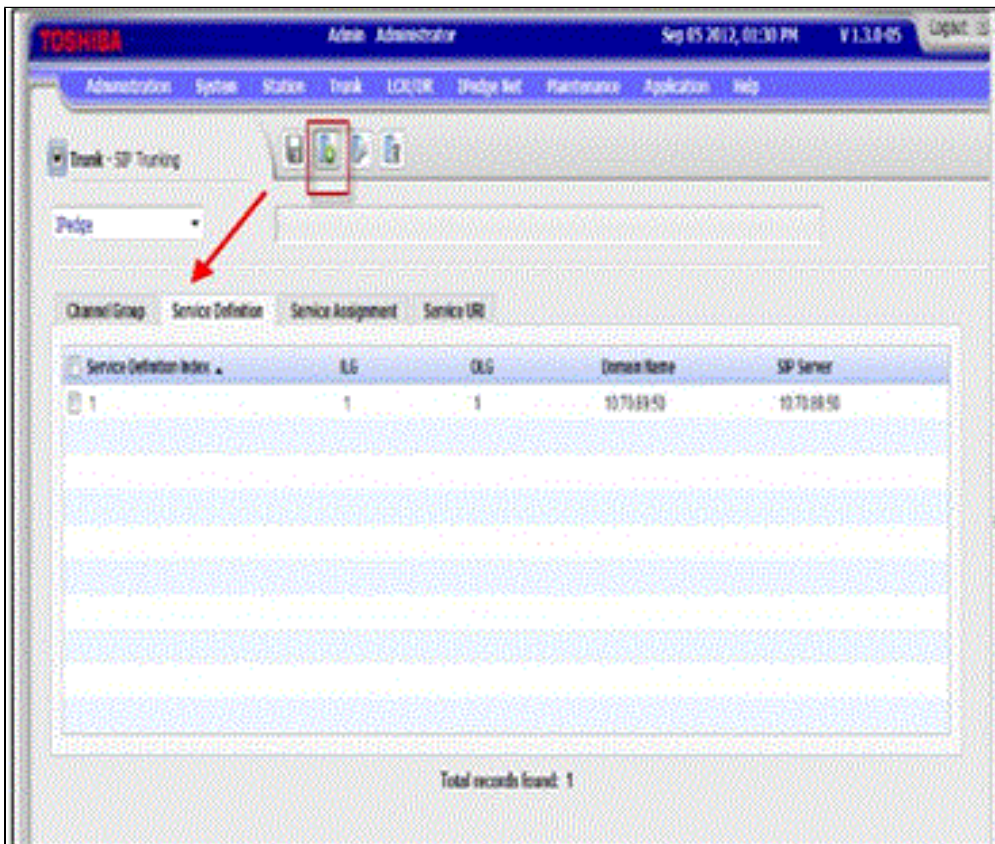
To add SIP Trunking, follow the step-by-step procedure.

Step	Action	Result
1	Log on to the Toshiba Admin Administrator	
2	At the menu bar Click on <b>Trunk</b>	
3	Navigate <b>SIP Trunking</b>	
4	Click on <b>Channel Group</b> tab	
5	At SIP Trunk Channels: Select <b>3</b>	
6	Go to the next table	



Step	Action	Result
1	Click the <b>Service Definition</b> tab	
2	Under the main menu Click the <b>Add New</b> icon	SIP Service Definition window opens
3	Under Registration Mode Select <b>None</b>	
4	Under ILG: Select <b>1</b>	
5	Under OLG: Select <b>1</b>	
6	Under Effective Channel Number: Select <b>3</b>	
7	Under Domain Name: Enter: <b>IP Address of the eSBC</b>	<b>Note:</b> Use the IP Address of the eSBC. Example: 10.70.89.50
8	Under SIP Server Enter: <b>IP Address of the eSBC</b>	<b>Note:</b> Use the IP Address of the eSBC. Example: 10.70.89.50
9	Click on <b>Show basic configuration</b>	This extends the configuration page

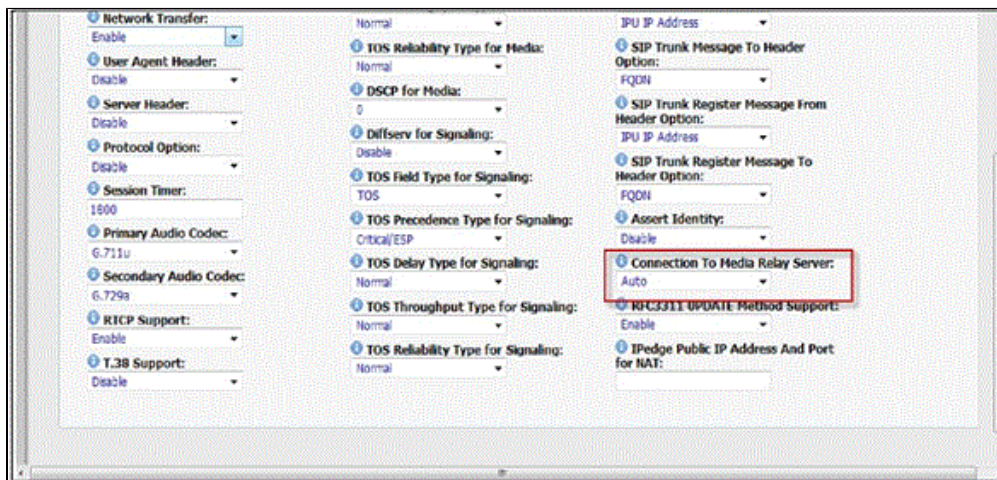
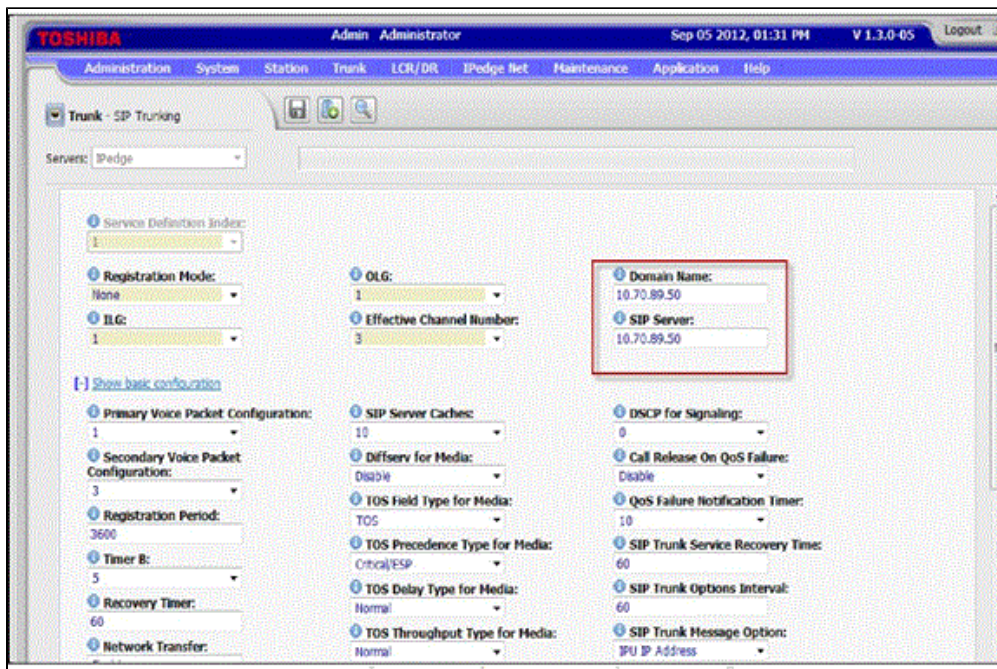
10	<p>Column 1:</p> <p>Select the following</p> <p>Primary Voice Packet Configuration: <b>1</b></p> <p>Secondary Voice Packet Configuration: <b>1</b></p> <p>Registration Period: <b>3600</b></p> <p>Timer B: <b>5</b></p> <p>Recovery Timer: <b>60</b></p> <p>Network Transfer: <b>Enable</b></p> <p>User Agent Header: <b>Disable</b></p> <p>Server Header: <b>Disable</b></p> <p>Protocol Option: <b>Disable</b></p> <p>Session Timer: <b>1800</b></p> <p>Primary Audio Codec: <b>G.711u</b></p> <p>Secondary Audio Codec: <b>G.729a</b></p> <p>RTCP Support: <b>Enable</b></p> <p>T.38 Support: <b>Disable</b></p>	
11	Go to next table.	



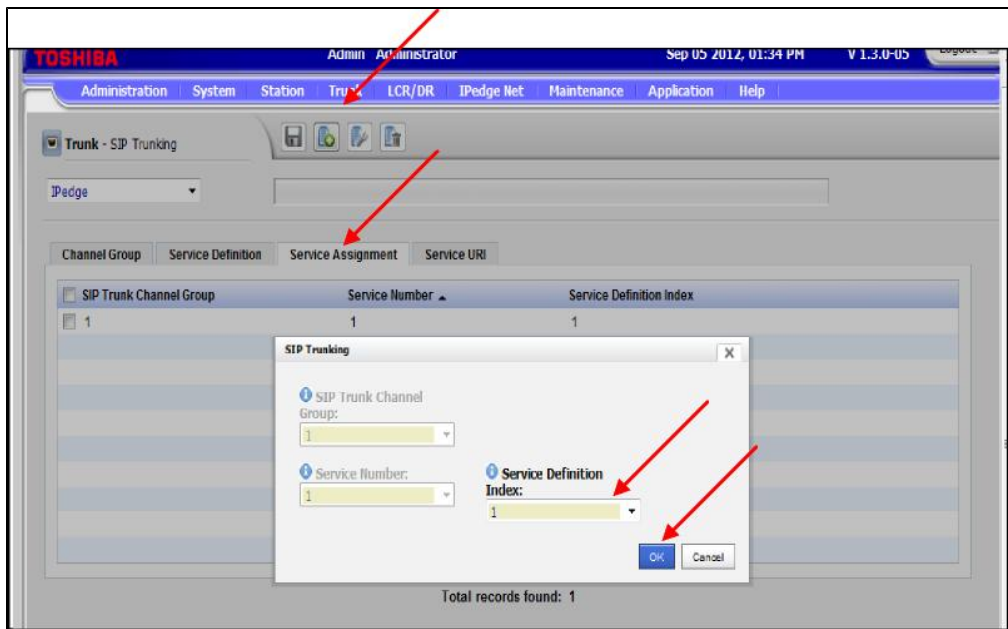


Step	Action	Result
1	Column 2: Select the following SIP Server Caches: <b>10</b> Diffserv for Media: <b>Disable</b> TOS Field Type for Media: <b>TOS</b> TOS Precedence Type for Media: <b>Critical/EP</b> TOS Delay Type for Media: <b>Normal</b> TOS Throughput Type for Media: <b>Normal</b> TOS Reliability Type for Media: <b>Normal</b> DSCP for Media: <b>0</b> Diffserv for Signaling: <b>Disable</b> TOS Field Type for Signaling: <b>TOS</b> TOS Precedence Type for Signaling: <b>Critical/ESP</b> TOS Delay Type for Signaling: <b>Normal</b> TOS Throughput Type for Signaling: <b>Normal</b> TOS Reliability Type for Signaling: <b>Normal</b>	
2	Column 3: Select the following DSCP for Signaling: <b>0</b> Call Release on QoS Failure: <b>Disable</b> QoS Failure Notification Timer: <b>10</b> SIP Trunk Service Recovery Time: <b>60</b> SIP Trunk Options Interval: <b>60</b> SIP Trunk Message Option: <b>IPU IP Address</b> SIP Trunk Message To Header Option: <b>FQDN</b> SIP Trunk Register Message From Header Option: <b>IPU IP Address</b> SIP Trunk Register Message To Header Option: <b>FQDN</b> Assert Identity: <b>Disable</b> Connection To Media Relay Server: <b>Auto</b> RFC3311 Update Method Support: <b>Enable</b> IPedge Public IP Address and Port for NAT: <b>Leave blank</b>	SIP Service Definition window opens
3	Click the <b>Ok</b> button	Return to SIP Trunking window.
4	Go to next table.	

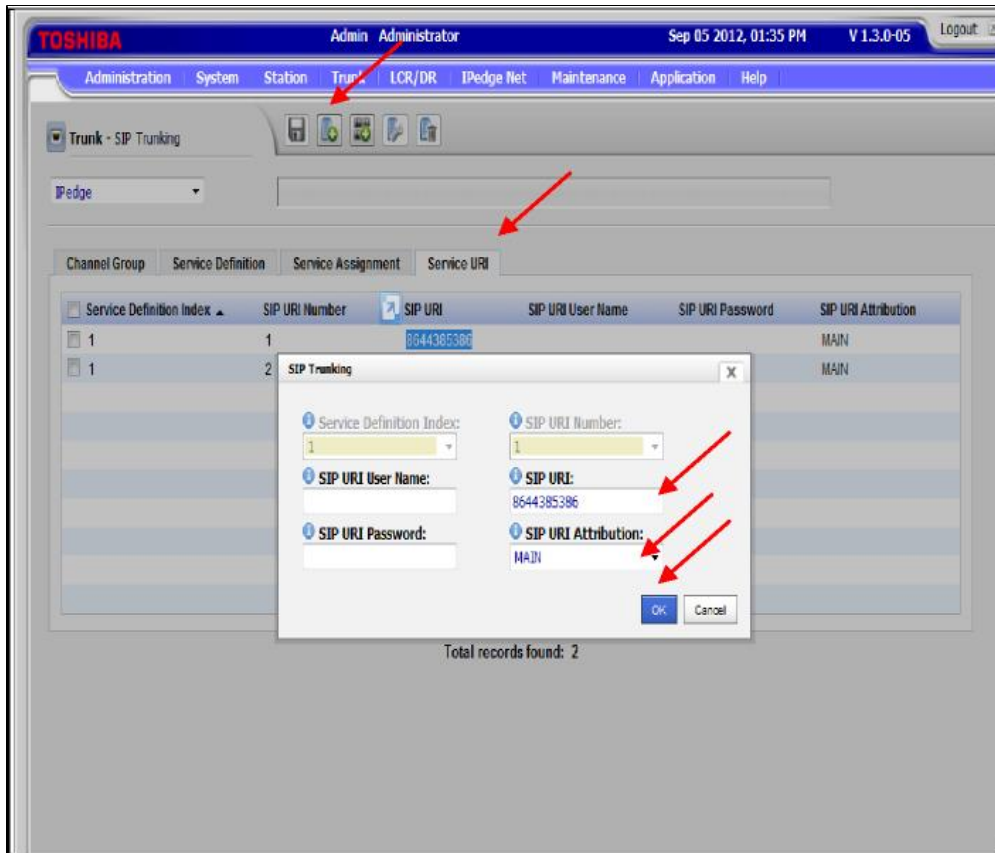




Step	Action	Result
1	Click the <b>Service Assignment</b> tab	
2	Click the <b>Add New</b> Icon	SIP Trunking Service Definition window opens.
3	In the Service Definition Index: Select 1	
4	Click <b>OK</b> button	Return to SIP Trunking window
5	Go to next table.	



Step	Action	Result
1	Click the <b>Service URI</b> tab	
2	Click the <b>Add New</b> Icon	SIP Trunking Service URI window opens.
3	In the SIP URI: Enter: <b>DID assigned</b>	
4	Click <b>OK</b> button	Return to SIP Trunking window
5	Procedure completed.	

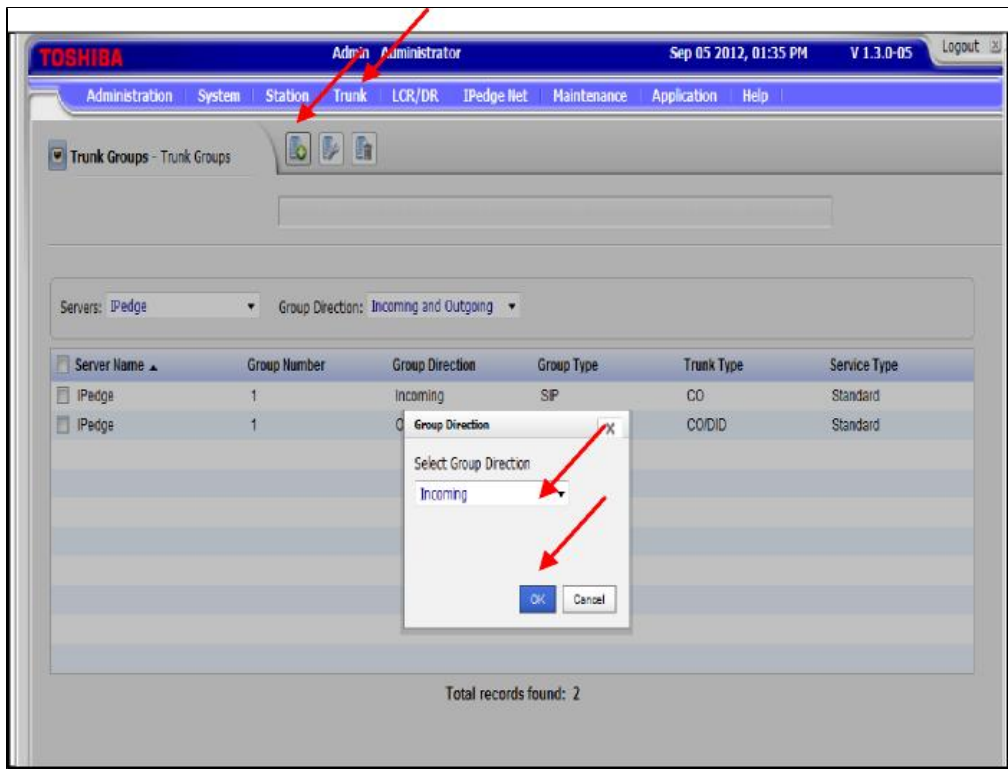


## 2.2 Adding Trunk Groups

To add trunk groups, follow the step-by-step procedure:

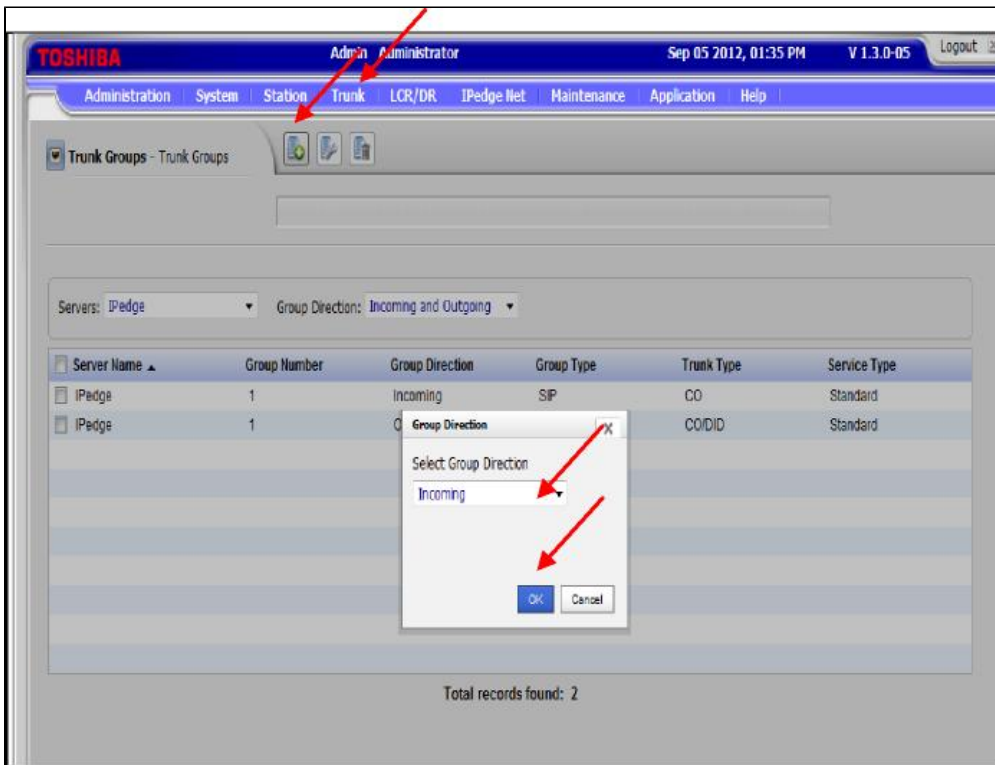
Step	Action	Result
1	From the menu bar Click <b>Trunk</b>	
2	Navigate to <b>Trunk Groups</b>	
3	Click the <b>Add New</b> icon	The Group Direct window opens
4	In Group Direction Select <b>Incoming</b>	
5	Click the <b>OK</b> button	Trunk Group Incoming window opens
6	Go to next table	





Step	Action	Result
1	Confirm Group Number: is <b>1</b>	
2	Select the following Group Type: <b>SIP</b> Set Line Type: <b>CO</b> Set Private Service Type: <b>Standard</b> Set GCO Key Number: <b>0</b> Set Pool Key Number: <b>0</b>	
3	Click <b>Show Basic Configuration</b>	Window extends
4	In Row 1 Class of Service: Select the following COS Day1: <b>1</b> COS Day2: <b>1</b> COS Night: <b>1</b>	

5	In Row 2 DRL: Select the following DRL Day1: 1 DRL Day2: 1 DRL Night: 1	
6	In Row 3 FRL : Select the following FRL Day1: 1 FRL Day2: 1 FRL Night: 1	
7	In Row 4 QPL: Select the following QPL Day1: 1 QPL Day2: 1 QPL Night: 1	
8	Go to next table	



Step	Action	Result
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1	In Row 5: Select the following CO service Type: <b>DID</b> Auto Campon: <b>Enable</b>  Change COS Override Code: <b>Disable</b>	
2	In Row 6: Select the following DID Digits: <b>4</b> Calling Number ID: <b>User Provided</b> Register Speed Dial Codes: <b>Disable</b>	
3	In Row 7: Select the following Speech/3.1KHz: <b>Audio</b> Intercept: <b>Disable</b> Originator Invoke OCA: <b>Disable</b>	
4	In Row 8: Select the following Delay1 Ringing Timer: <b>12</b> Send Dial Tone: <b>Disable</b> Senderized Tone Mode: <b>Dial Tone</b>	
5	In Row 9: Select the following Set Delay2 Ringing Timer: <b>24</b> TGAC Override: <b>Disable</b> Set Emergency Call Group: <b>1</b>	
6	In Row 10: Select the following Interdigit 1 Timer: <b>15</b> Network COS: <b>1</b> Tenant Number: <b>1</b>	
7	In Row 11: Select the following Interdigit 2 Timer: <b>5</b> LCR Group: <b>1</b>  Call-By-Call Cause: <b>UserBusy</b>	
8	Click the <b>Ok</b> button.	
9	Go to next table	

① CO Service Type: DID	① Auto Campon: Enable	① Change COS Override Code: Disable
① DID Digits: 4	① Calling Number ID: User Provided	① Register Speed Dial Codes: Disable
① Speech/3.1KHz : Audio	① Intercept: Disable	① Originator Invoke OCA: Disable
① Delay1 Ringing Timer: 12	① Send Dial Tone : Disable	① Senderized Tone Mode: Dial Tone
① Delay2 Ringing Timer: 24	① TGAC Override: Disable	① Emergency Call Group: 1
① Interdigit 1 Timer: 15	① Network COS: 1	① Tenant Number: 1
① Interdigit 2 Timer: 5	① LCR Group: 1	① Call-By-Call Cause: UserBusy



Step	Action	Result
1	Click the <b>Add New</b> icon	The Group Direct window opens
2	In Group Direction Select <b>Outgoing</b>	
3	Click the <b>OK</b> button	Trunk Group Outgoing window opens
4	Go to next table	

Server Name	Group Number	Group Direction	Group Type	Trunk Type	Service Type
IPedge	1	Incoming	SIP	CO	Standard
IPedge	1	Group Direction		CO/DID	Standard

Total records found: 2



Step	Action	Result
1	Confirm Group Number: is <b>1</b>	
2	Select the following Trunk Type: <b>CO/DID</b> GCO Key1 Number: <b>0</b>	
3	Select the following Group Type: <b>SIP</b> Service Type: <b>Standard</b> Pool Key1 Number: <b>0</b>	
4	Click <b>Show basic configuration</b>	Window extends
5	Go to next table	

TOSHIBA Admin Administrator Sep 05 2012, 01:37 PM V 1.3.0-05 Logout

Administration System Station Trunk LCR/DR IPedge Net Maintenance Application Help

Trunk Groups - Outgoing

Servers: IPedge

Additional information to setup trunk group for IPedge Net

Group Number: 1 Trunk Type: CO/DID GCO Key1 Number: 0  
Group Type: SIP Service Type: Standard Pool Key1 Number: 0

[+] Show basic configuration

Class Of Service  
COS Day1: 1 COS Day2: 1 COS Night: 1

FRL  
FRL Day1: 1 FRL Day2: 1 FRL Night: 1

QPL  
QPL Day1: 1 QPL Day2: 1 QPL Night: 1

Pool Key2 Number: 0 Destination Restriction: Disable QSIG Sending Type: Cut Through



Step	Action	Result
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1	Under Class of Service Select the following COS Day1: 1 COS Day2: 1 COS Night: 1	
2	Under FRL Select the following FRL Day1: 1 FRL Day2: 1 FRL Night: 1	
3	Under QPL Select the following QPL Day1: 1 QPL Day2: 1 QPL Night: 1	
4	Select the following Pool Key2 Number: 0 Destination Restriction: <b>Disable</b> QSIG Sending Type: <b>cut Through</b>	
5	Select the following <b>Speech/3.1KHz: Audio</b> Credit Card Calling: <b>Disable</b> Network COS: 1	
6	Select the following MOH Source: <b>Music 1</b> Send CESID: <b>Disable</b>	
7	Account Code: <b>Disable</b>	
8	Click the <b>Ok</b> button.	
9	Procedure completed.	

The screenshot shows a configuration window with the following settings:

- Speech/3.1KHz: Audio
- Credit Card Calling: Disable
- Network COS: 1
- MOH Source: Music 1
- Send CESID: Disable
- Recall on AC15: (empty dropdown)
- Account Code: Disable



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