Toshiba IPedge

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SIP Trunking using the Optimum Business SIP Trunk Adaptor and the Toshiba IPedge IP-PBX

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1. Overview

The purpose of this configuration guide is to describe the steps needed to configure the Toshiba IPedge IP-PBX for proper operation with Optimum Business Sip Trunking.

2. Prerequisites

Please follow the instructions in the Optimum Business SIP Trunk Set-up Guide. The Set-up Guide was left by the Optimum Business technician at installation. If you do not have the Set-up Guide, go to optimumbusiness.com/sip to download a copy.

Important: The Optimum SIP Trunk Adaptor needs to convert out of band DTMF sent by the IP PBX to Inband. This is in step 3 of the Optimum Business SIP Trunk Set-up Guide. Make sure you click the box next to "Convert Inband DTMF".

Table 1 – PBX Information

Manufacturer:	Toshiba
Model:	IPedge
Version:	1.6.0.26
Does the PBX send SIP Registration messages (Yes/No)?	Yes
Vendor Contact:	www.telecom.toshiba.com

3. Toshiba IPedge PBX Configuration

The steps below describe the minimum configuration required to enable the PBX to use Optimum Business SIP Trunking for inbound and outbound calling for both PBX registration and static IP (or non-registration) modes of PBX operation. Please refer to the Toshiba IPedge product documentation for more information on other advanced PBX features.

The configuration described here assumes that the PBX is already configured and operational with station side phones using assigned extensions or DIDs. This configuration is based on Toshiba IPedge version 1.6.0.26. In this document the address of the Toshiba IPedge is 192.168.254.250 /24 and the Optimum Business Sip Trunk Adaptor is 192.168.254.1 /24.

3.1 SIP Trunking

Navigate to **Trunk→Trunk Groups** and then click on the **New** icon to create SIP Trunk Groups for incoming and outgoing lines.
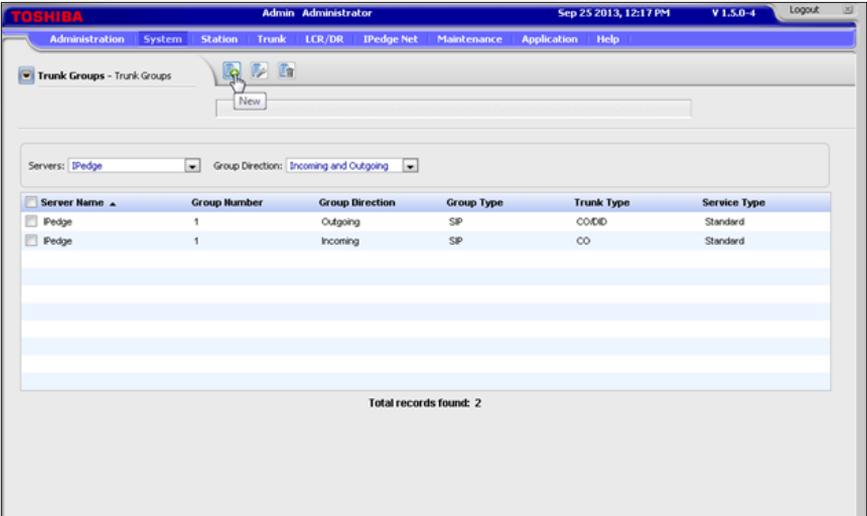
Select **Incoming and Outgoing** from the pull-down menu of the **Select Group Direction** field and then click the **OK** button.
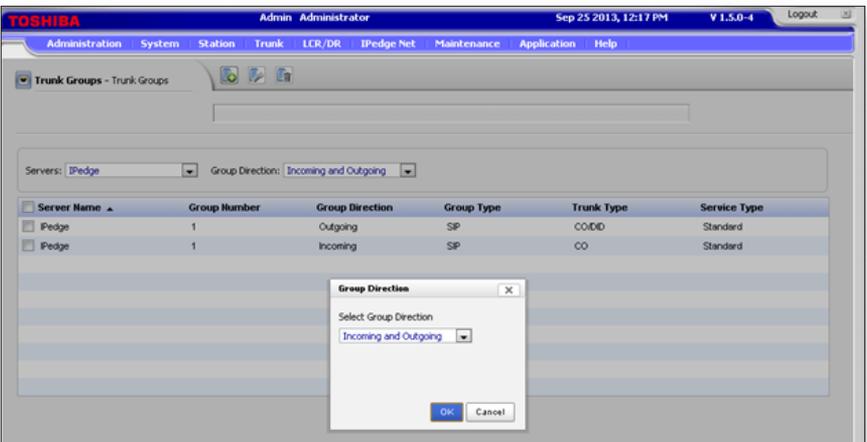
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Select the **Common** tab, select a trunk group number, 8 was selected in the **Group Number** field. Select **SIP** in the **Group Type** field. Leave other fields as shown and then click the **Save** icon.

Select the **Incoming** tab, select DID in the **CO Service Type** field, select **4** in the **DID Digits** field, leave other fields as shown and then click the **Save** icon.
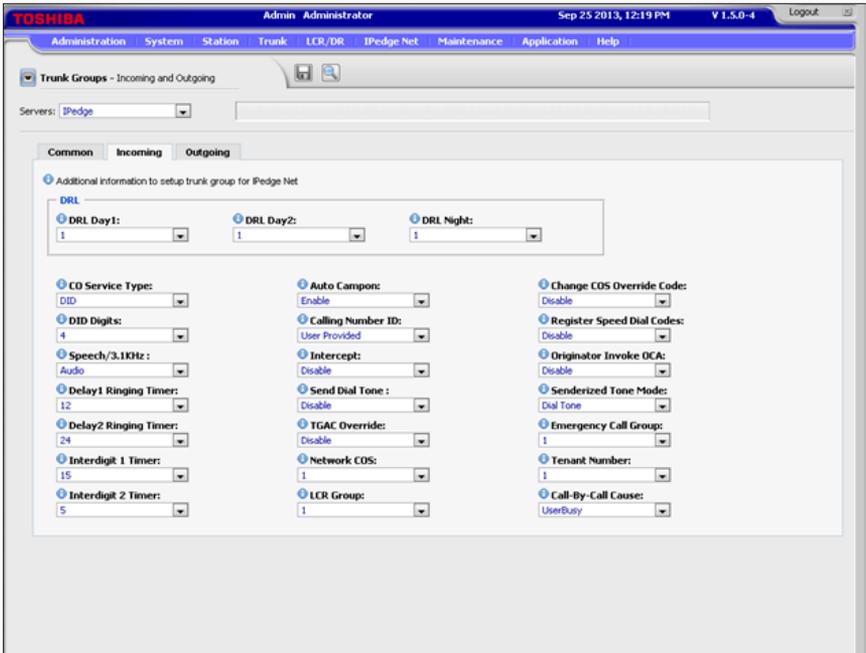
NOTE: The PBX will route the incoming call to an extension based on the last 4 digits of the called number.

Select the **Outgoing** tab, leave all fields as default and then click the **Save** icon.
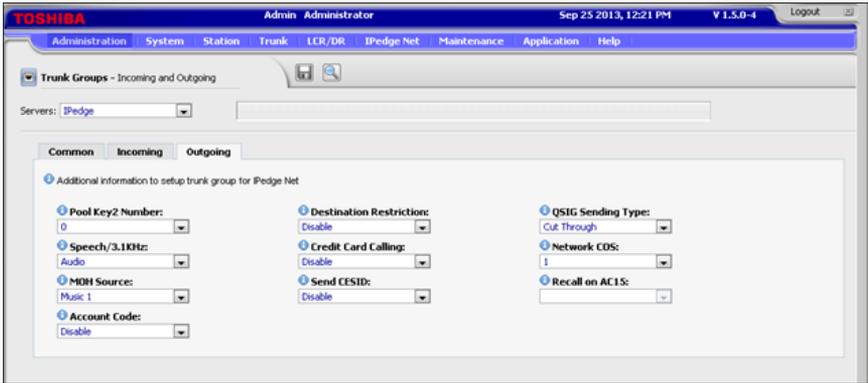
Navigate to **Trunk→SIP Trunking** to set up SIP Trunk services via the Optimum Business SIP Trunk Adaptor. Select the **Channel Group** tab to create a Channel Group for SIP Trunking service. Choose a Channel group number, **16** was chosen in this example from the pull-down menu of the **SIP Trunk Channel Group** field. The number **3** was entered in the **SIP trunk Channels** field corresponding to 3 phones.
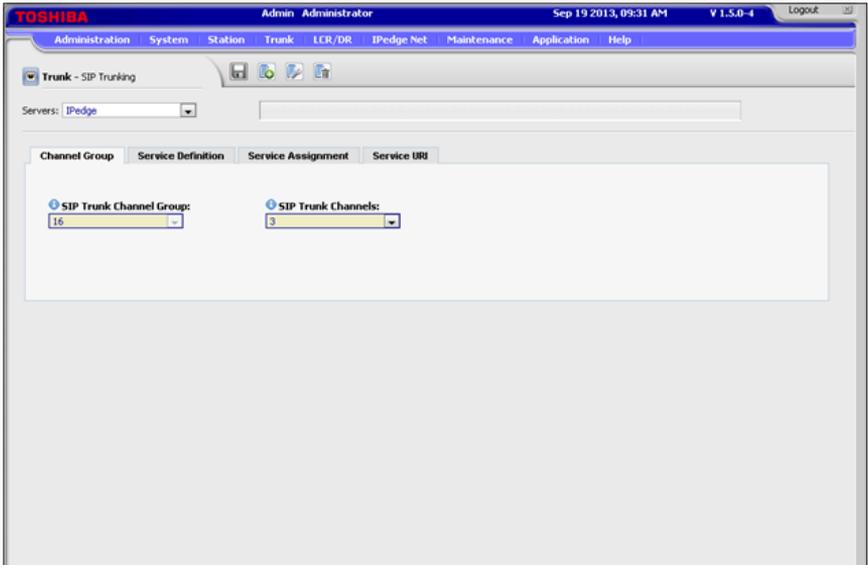
Select the **Service Definition** tab and then click the **New** icon. Choose a SIP Trunk Service Definition Index from the pull-down menu of the **Service Definition Index** field. You can configure the PBX to communicate in Registration mode or Static IP mode. To configure the PBX for Registration mode select **Client** in the **Registration Mode** field. Enter the Optimum Business SIP Trunk Adaptor's IP address in both the **Domain Name** and **SIP Server** fields.
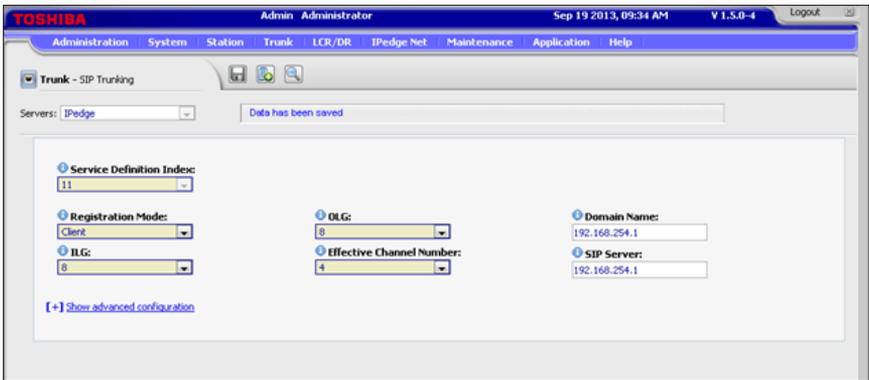
For Static mode select **None**.

When done click **Save**.

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Click the **[+] Show advanced configuration** link. Enter **700** in the **Registration Period** field. Select **G.711a** in the **Secondary Audio Codecs** field. Enter **0** in the **SIP Trunk Options Interval** field. Click **Save**.
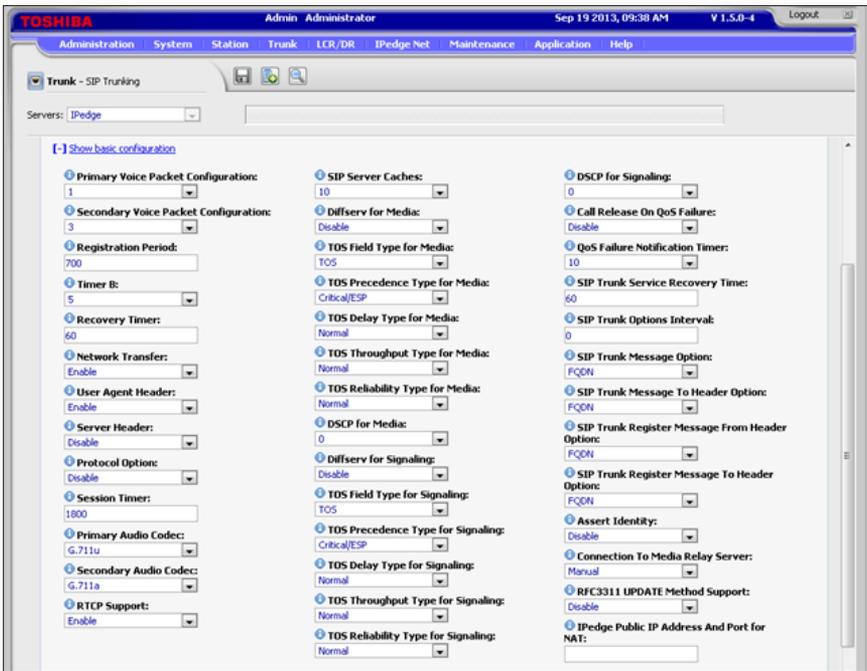
Important: The IPedge uses RFC2833 so its needed to check "Convert Inband DTMF" on the Optimum Business SIP Trunk Adaptor. This is step 3 in the Optimum Business SIP Trunk Set-up Guide.

Select the **Service Assignment** tab and then click the **New** icon. Select the group number in the **SIP Trunk Channel Groups** field. Select the Service Definition Index in the **Service Definition Index** field. Select **1** in the **Service Number** field. Click the **OK** button.
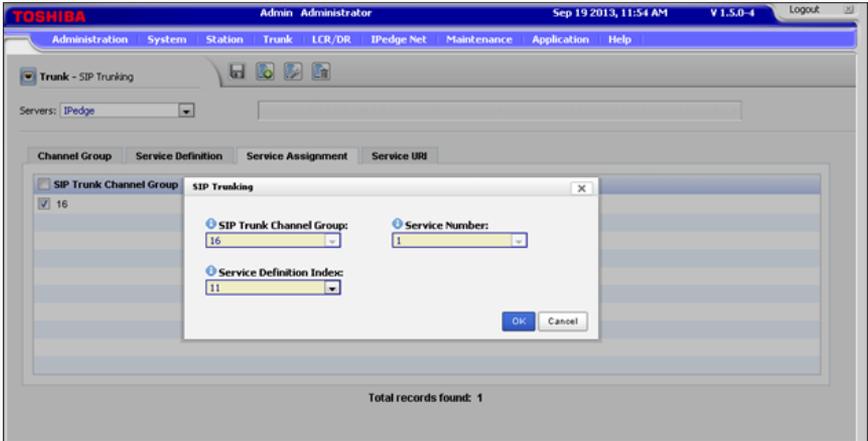
Select the **Service URI** tab and then click the **New** icon to create the SIP URI. Select the Service Definition Index in the **Service Definition Index** field. Enter the **SIP URI** string in the SIP URI field and Select **MAIN** in the **SIP URI Attribution** field. Enter the Authentication username in the **SIP URI User Name** field. Enter the Authentication password in the **SIP URI Password** field. The user name and password must match the user name and password specified in the Optimum Business SIP Trunk Adaptor. Leave other fields as default and then click the **OK** button.
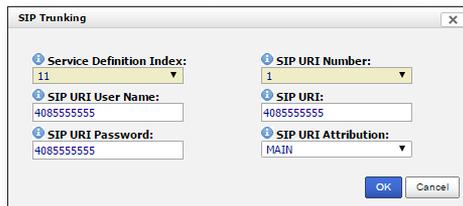
Repeat process for remaining DIDs similairly except but now only change **SIP URI** field to match remaing DIDs and select **SUB** under **SIP URI Attribution**. 3.2 Stations

3.2   Stations

Navigate to **Station➔Station Assignment** to create 3-digit extensions. Click **New**. Enter extension number under **Prime DN**. Select **IPT** under **Type**. Configure other fields as appropriate.
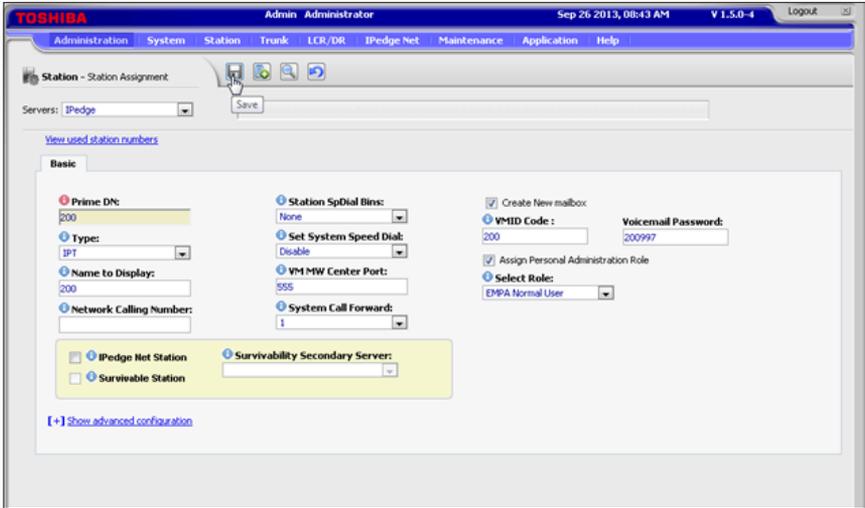
Navigate to **Trunk➔DID** and click **New**. This shows extension 200 as an example. Configure **DID Audio** column as shown. Change **DID Number** to match last 4 digits of this extensions DID.
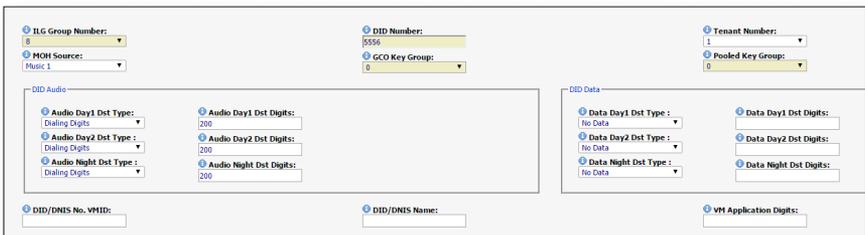
Navigate to **Trunk→Calling Number→CNIS Presentation**. Map DIDs to extensions here.

Navigate to **Trunk→Calling Number→Calling Number Identification** and enter the area code under **Number Prefix** and Pilot DID under **Default Number**.

3.3   Dial Plan

Navigate to **System→Public Numbering Plan** to enable specific outgoing digits. Click **New**. Enter extension number under **Prime DN**. Select **IPT** under **Type**. Configure as needed.

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3.4   Backup/Restore

To backup or restore navigate to **Application➔Webmin**➔and click on the **IPedge** tab. From here click **Backup and Restore**.