

SIP Trunking Test Results for Toshiba IPedge PBX



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1 Executive Summary

This report provides the test results found to date for the Toshiba IPedge PBX SIP Trunking evaluation. The following is a summary addressing the limitations found while performing the test.

- Call forwarding works, but Diversion header is not supported so if a call is forwarded out to a 3rd party they will not be able to see the original caller ID.
- DTMF RFC 2833 is supported only.
- Outbound Caller ID Blocking *67xxxxxxxxx is not supported.
- Consultative Call Transfer works with both REFER method and non-REFER method, but Blind Call Transfer only works with non-REFER method. Calls will be processed regardless of the REFER method.
- Toshiba IPedge doesn't support Session Timer. No impact on calls.

Special provisioning settings are required for workaround :

- For outbound fax T.38 to work properly a workaround is required on XO side. Please contact XO support.

Registration Method

Static registration is utilized between the Toshiba IPedge IP phones and the XO call agent.

XO SIP Service Packages Supported

Pkg	Codec	DTMF	Fax
1	G.711	RFC 2833 supported	T38; G.711 pass-through
2	G.729a/G.711	RFC2833 supported	T38; G.711 pass-through

2 Software and Hardware Equipment Requirements for Testing

1. Sonus NBS
GSX Release: V07.03.01 R006
PSX Release: V07.03.01 R005

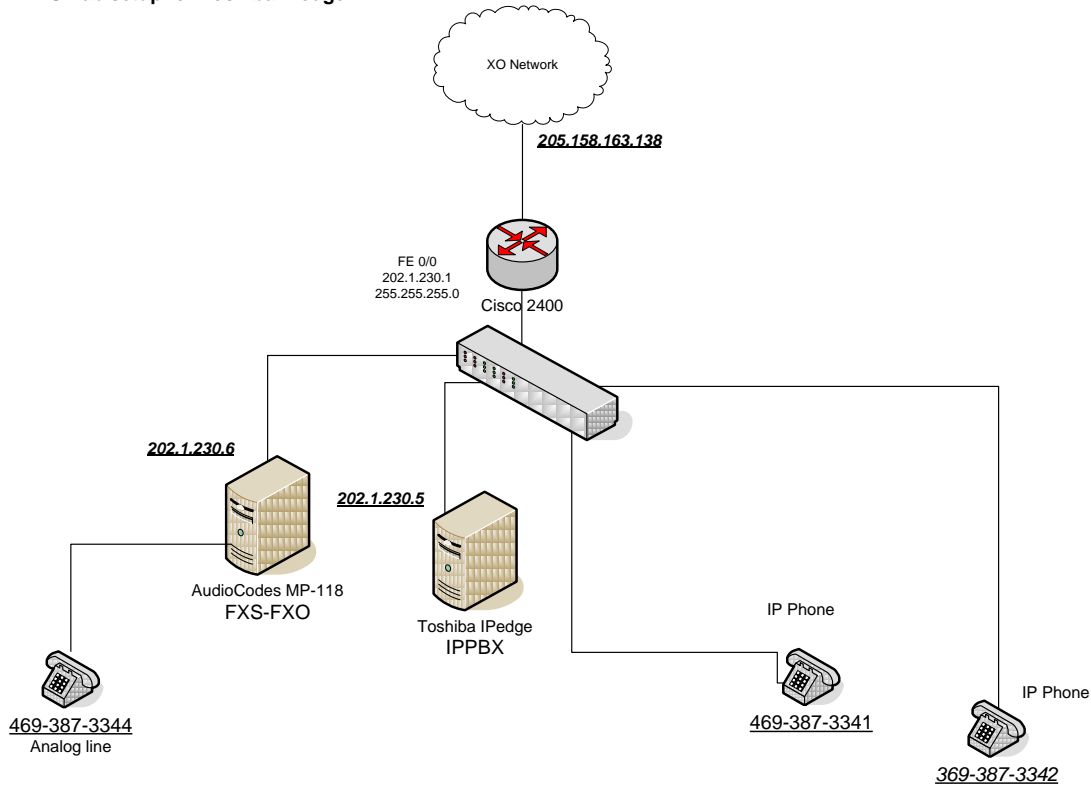
2. Toshiba IPedge
TGZ Version: 1.1.1.12
GCP Version: 1.1.13-1 (Webmin->IPedge->Program Update RPS)
Enterprise Manager version: 1.1.3-14 (Upper right corner of Enterprise manager)

- AudioCodes MP-118
Firmware version: 5.80A.053.005

3 Test Configurations

3.1 The following diagram is the configuration used during lab testing.

XO Lab setup for Toshiba IPedge



Notes:

- Above lab setup only shows main lab network elements.
- For this lab setup public IPs used for Proxy and PBX so that vendor can access system remotely to help in lab testing. In real environment that may not be the case hence NAT on XO router may require.

4 Test Bed Configuration Files

4.1 Toshiba IPedge / AudioCodes MP118 basic Configuration

IPedge Configuration

Network Configuration (for **PBX IP Address**) : Application -> Webmin -> Networking Configuration

Module Index

Network Interfaces

Activated at Boot Active Now

Interfaces listed in this table will be activated when the system boots up, and will generally be active now too.

Warning: when changing and applying new IP address, the connection will be lost and you will have to login through Ente Manager again!

Select all | Invert selection.

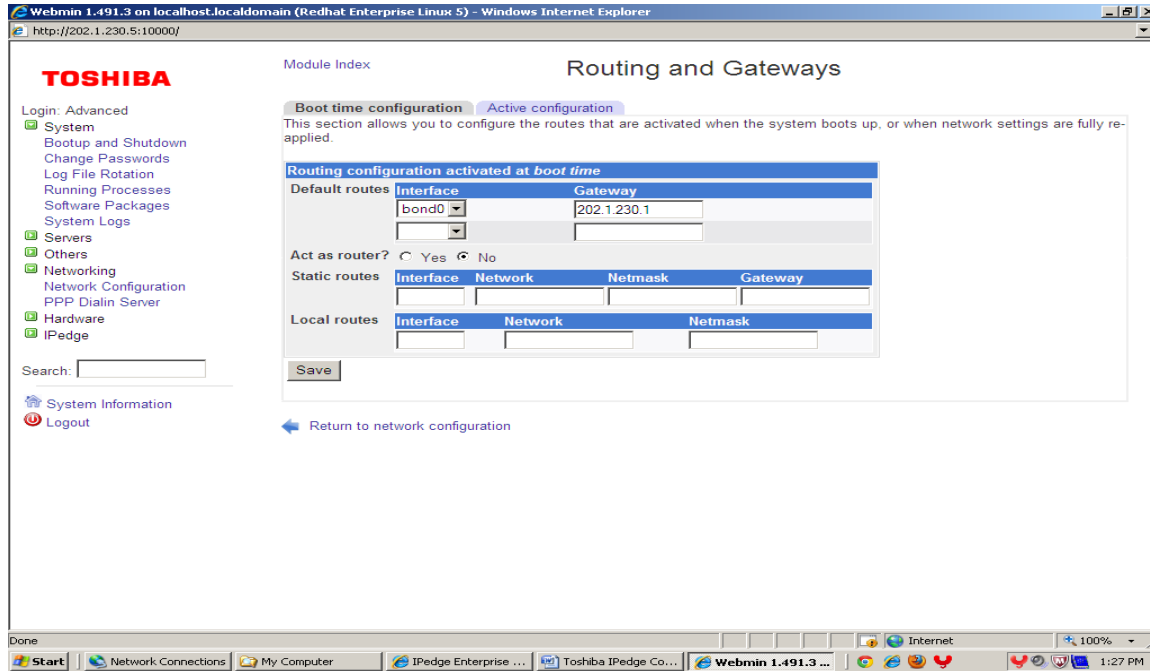
Name	Type	IP Address	Netmask	Activate at boot?
<input type="checkbox"/> bond0	Bonded	202.1.230.5	255.255.255.0	Yes
<input type="checkbox"/> lo	Loopback	127.0.0.1	255.0.0.0	Yes

Select all | Invert selection.

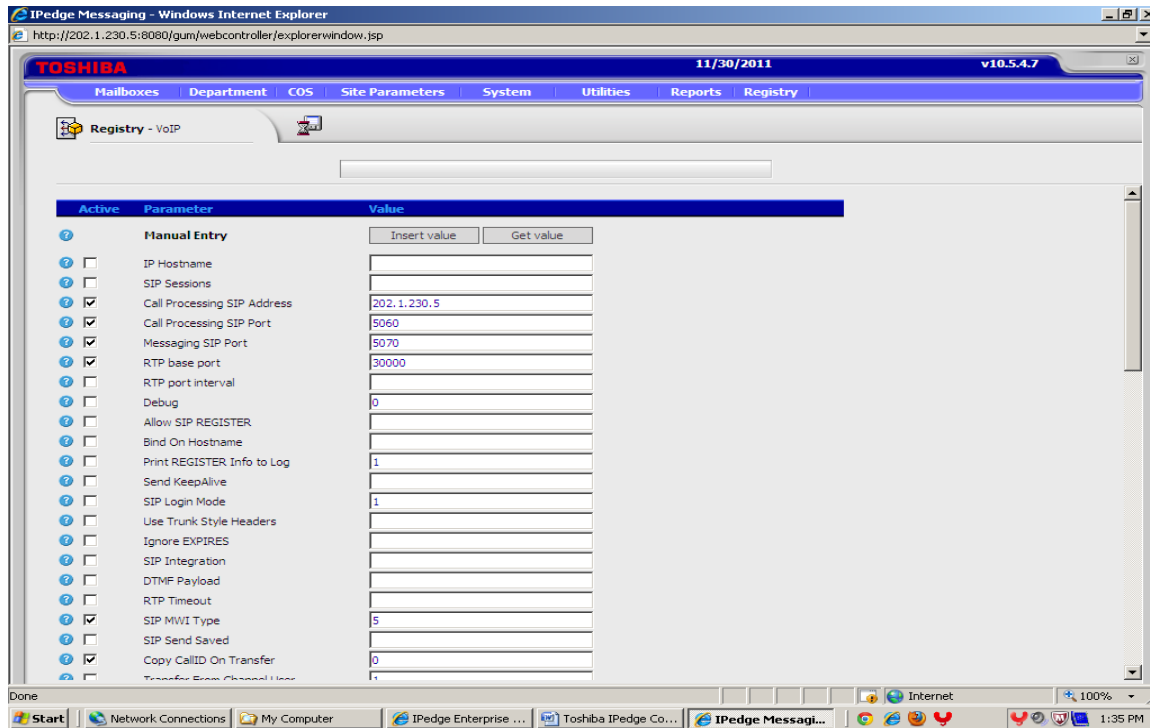
[Return to network configuration](#)

Search:

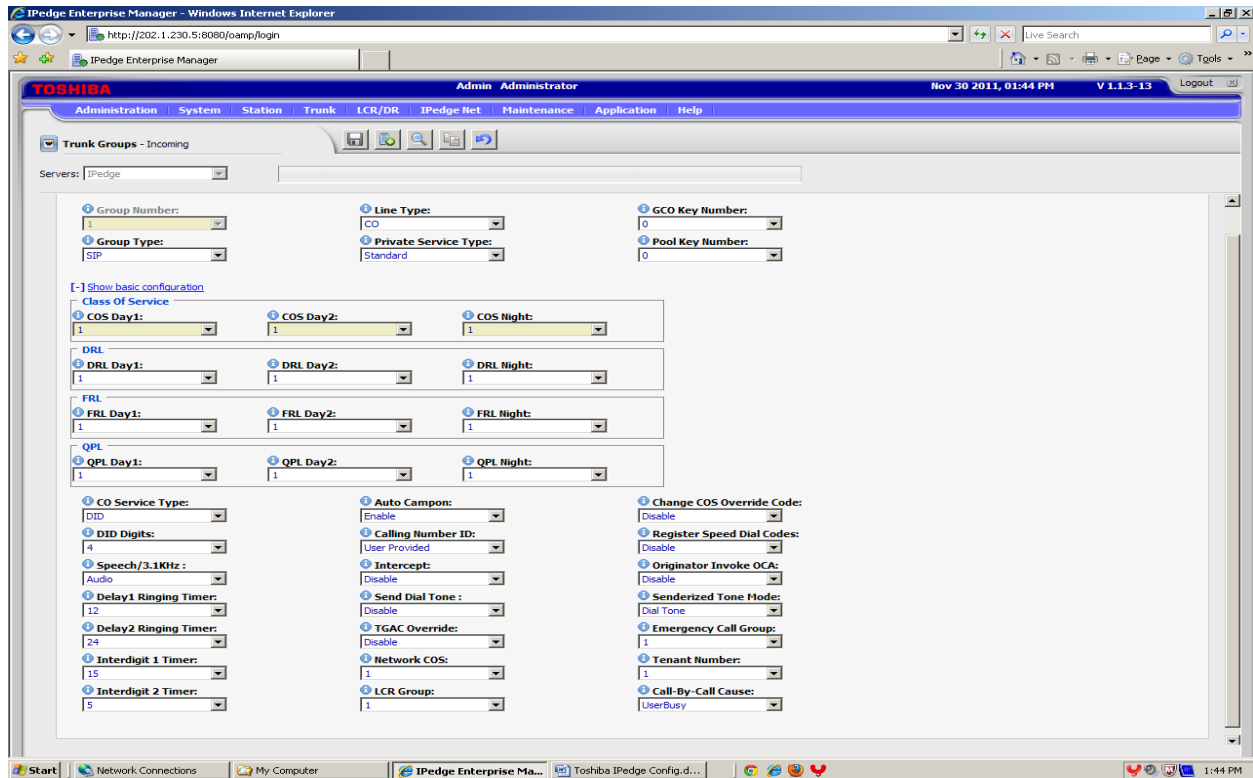
System Information
Logout



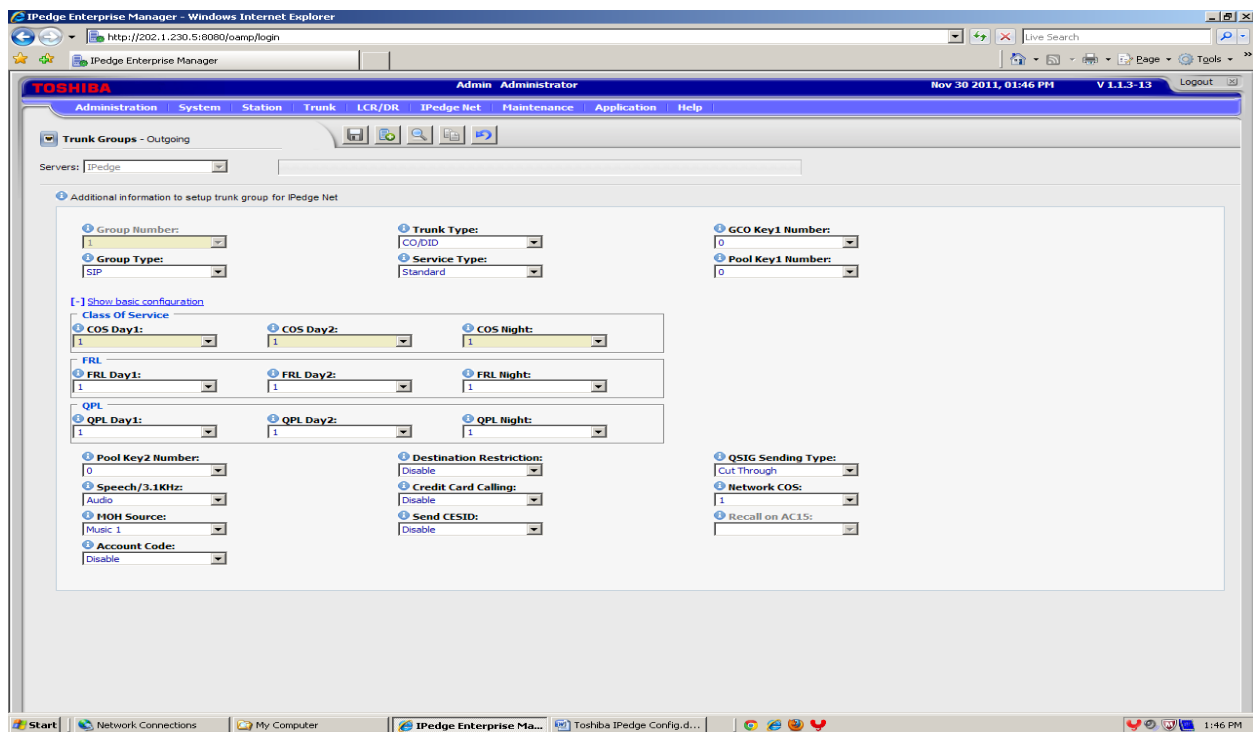
Voice Mail : Application -> Messaging -> Registry -> VoIP



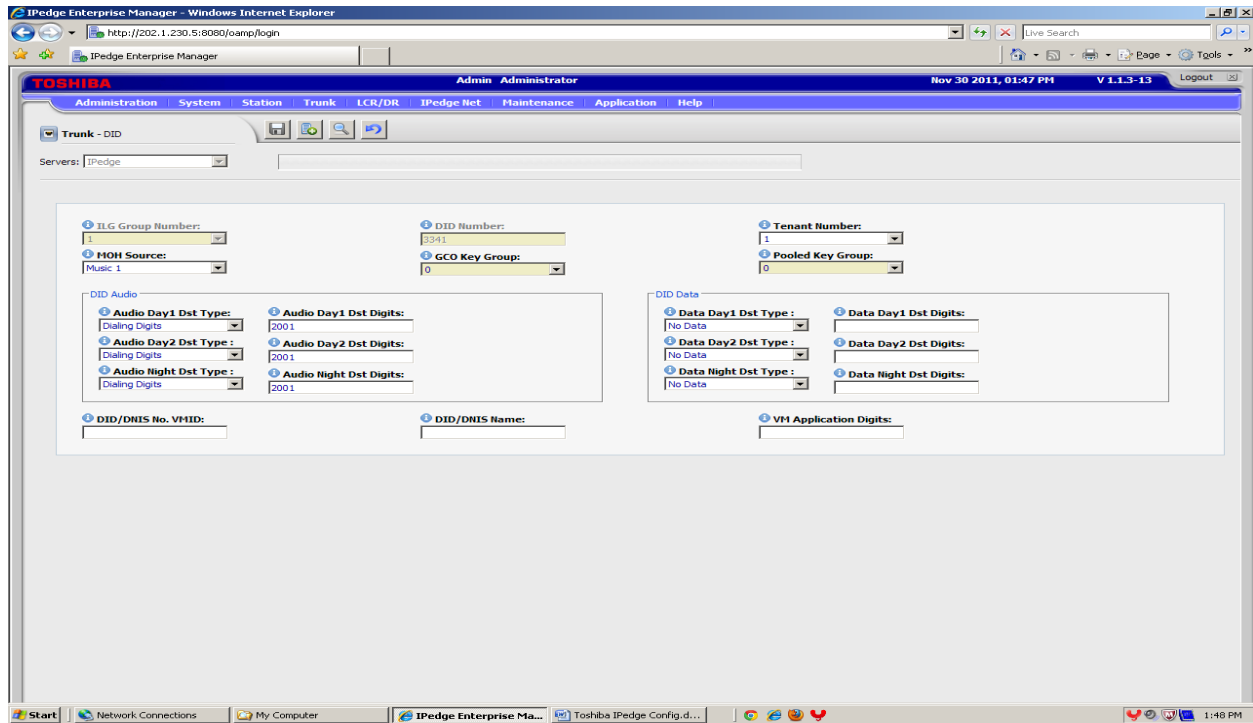
Trunk Group: Trunk -> Trunk Group -> Incoming



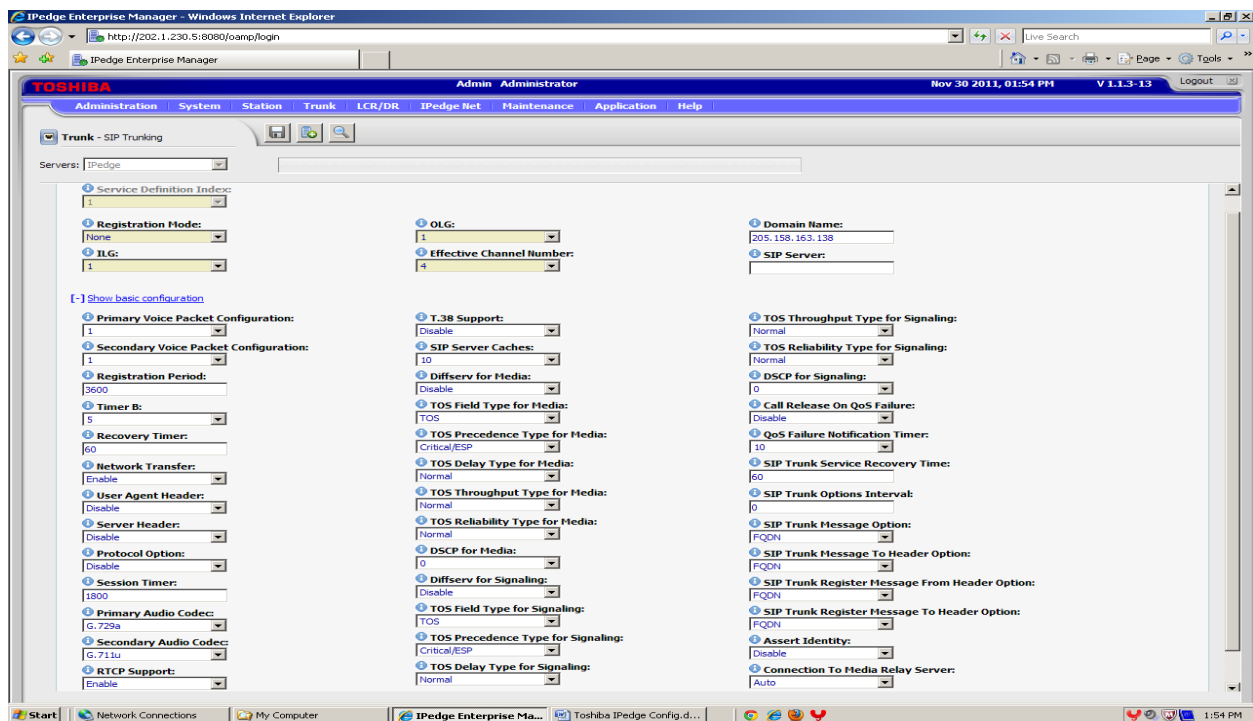
Trunk -> Trunk Group -> Outgoing



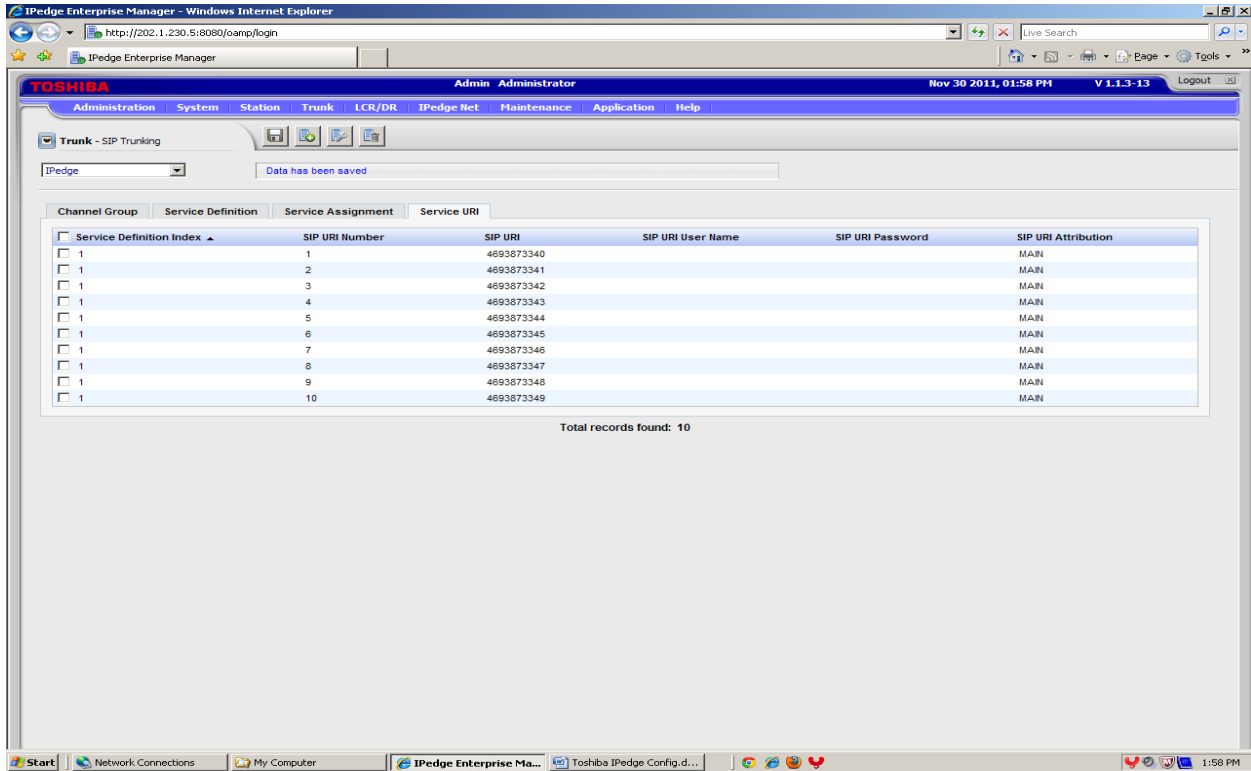
DID : Trunk -> DID -> 3341



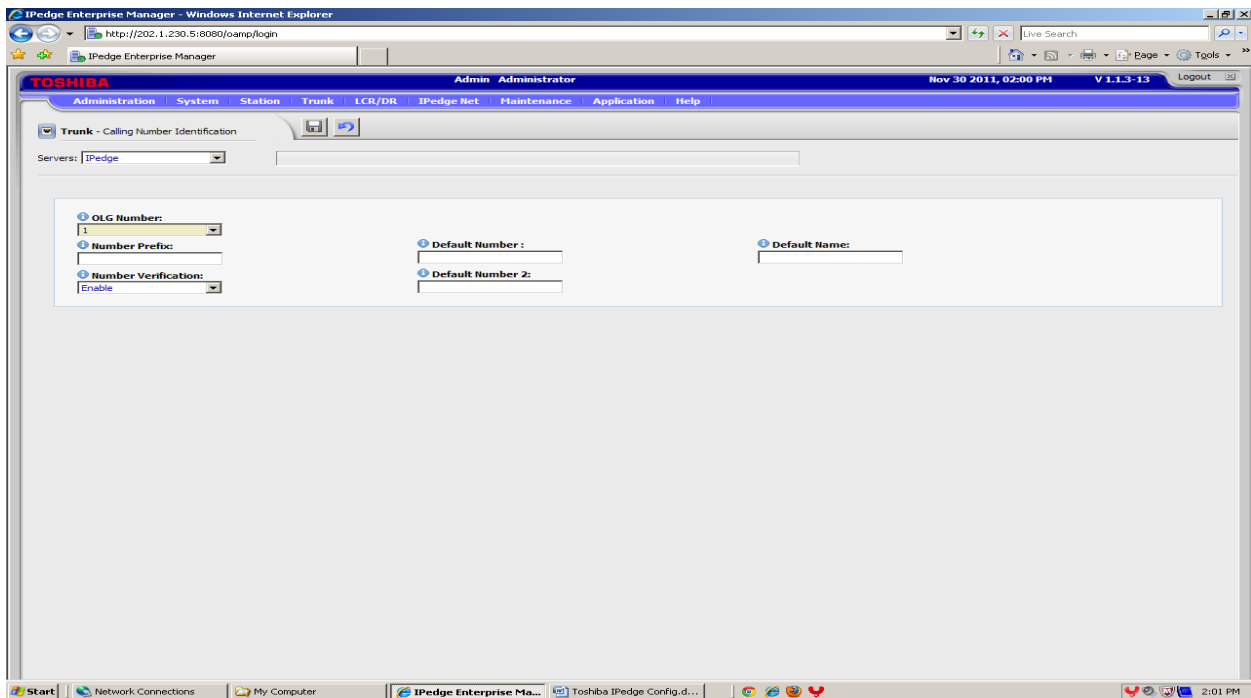
PBX Proxy IP (**NBS SIP port** / Codec Preference) : Trunk -> SIP Trunking -> Service Definition



SIP URI : Trunk -> SIP Trunking -> Service URI



Calling Number Identification (for Call Forwarding) : Trunk -> Calling Number



Station : Station -> Station Assignment

The screenshot shows the 'Station - Station Assignment' page in the Toshiba IPedge Enterprise Manager. At the top, there are navigation tabs for Administration, System, Station, Trunk, LCR/DR, IPedge Net, Maintenance, Application, and Help. Below the navigation is a search area with 'Servers: All' and a 'Directory Number' field. The main content is a table with the following data:

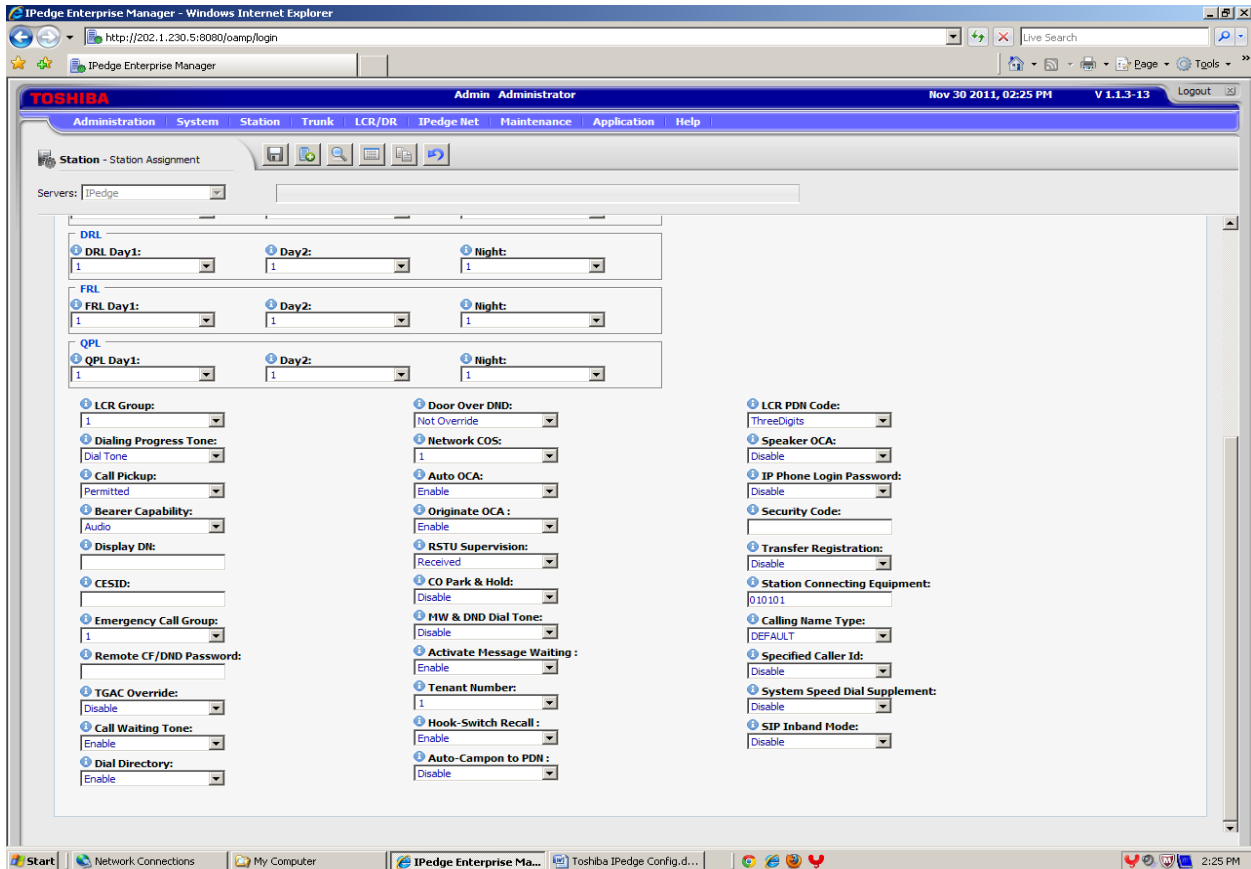
Server Name	Prime DN	Type	EMPA User	Tenant Number	Name to Display	COS Day1	Day2	Night
<input type="checkbox"/> IPedge	2001	IPT_L	Yes	1	AARON	1	1	1
<input type="checkbox"/> IPedge	2002	IPT_L	Yes	1	BYRON	1	1	1
<input type="checkbox"/> IPedge	2003	IPT_L	Yes	1	CHARLES	1	1	1
<input type="checkbox"/> IPedge	3333	SIP VM		1	3333	1	1	1

Below the table, it states 'Total records found: 4'. The taskbar at the bottom shows the Start button, Network Connections, My Computer, and the IPedge Enterprise Manager application.

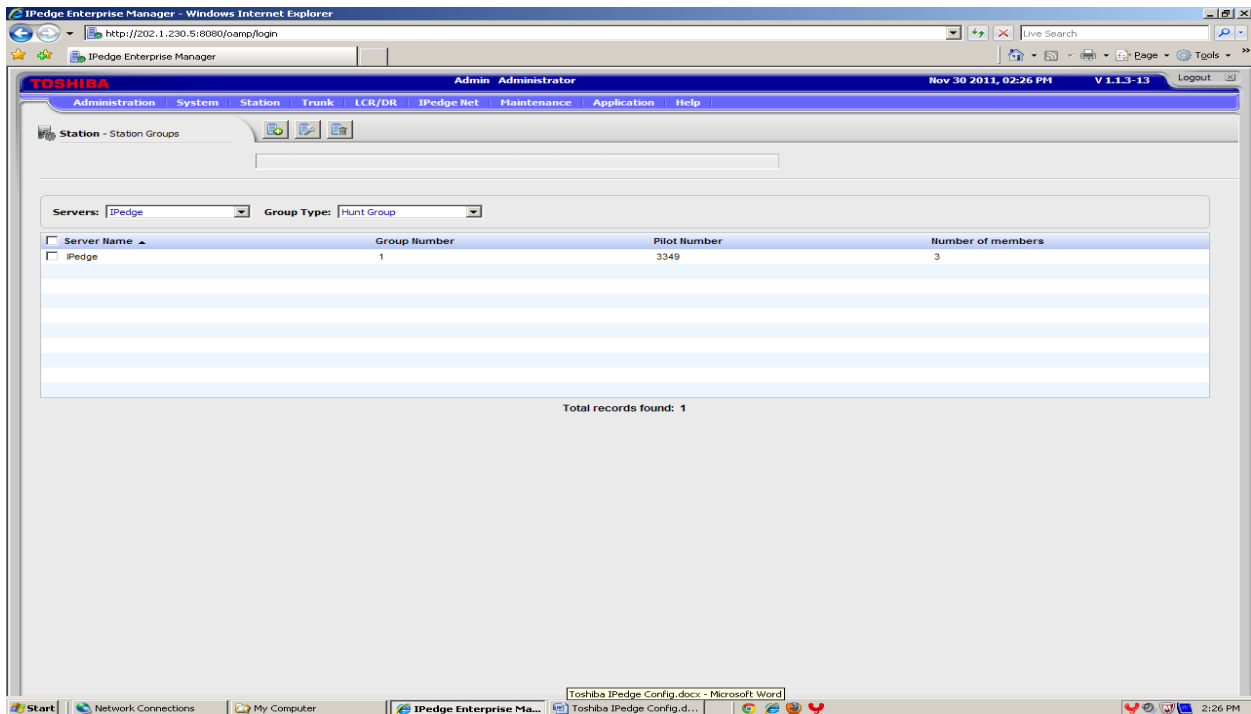
The screenshot shows the configuration page for a station in the Toshiba IPedge Enterprise Manager. The 'Basic' tab is selected, and the configuration is for the 'IPedge' server. The fields are as follows:

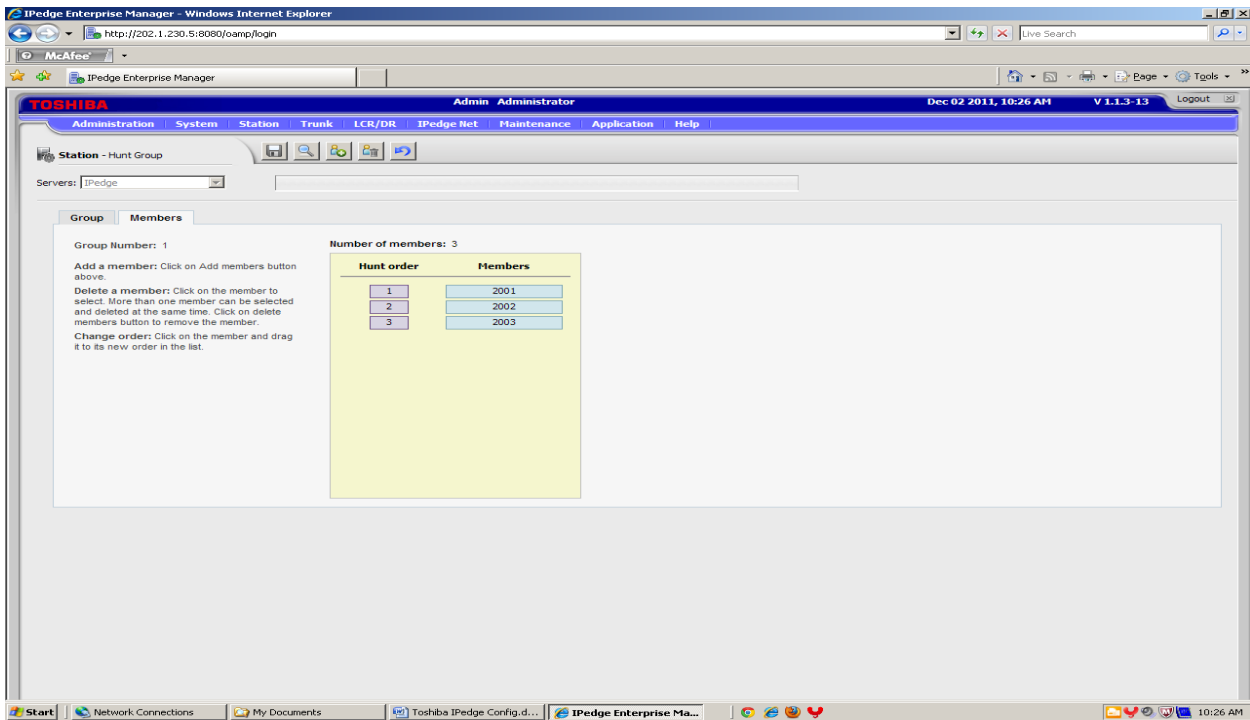
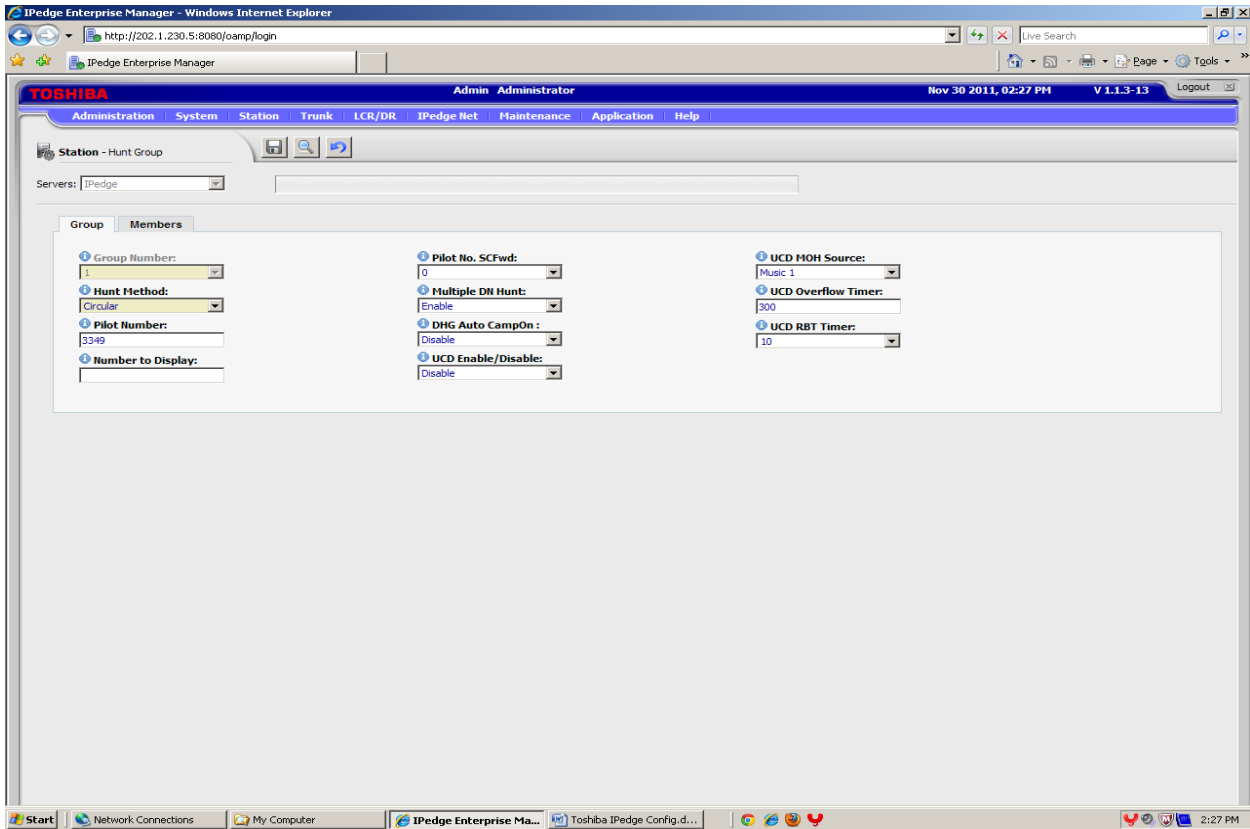
- Prime DN: 2001
- Type: IPT
- Name to Display: AARON
- Network Calling Number: 4693873341
- Station SpDial Bins: None
- Set System Speed Dial: Disable
- VH MW Center Port: 3333
- System Call Forward: 1
- VHID Code: 2001
- Assign Personal Administration Role:
- Select Role: EMPA Normal User
- Survivable Station:
- Survivability Secondary Server: [Empty]

Below these fields, there are sections for 'Class Of Service' (COS Day1, Day2, Night) and 'DRL', 'FRL', 'QPL' (all set to 1). Other settings include LCR Group (1), Door Over DND (Not Override), Network COS (1), Auto OCA (Enable), LCR PDN Code (ThreeDigits), Speaker OCA (Disable), and IP Phone Login Password (Disable). The taskbar at the bottom shows the Start button, Network Connections, My Computer, and the IPedge Enterprise Manager application.



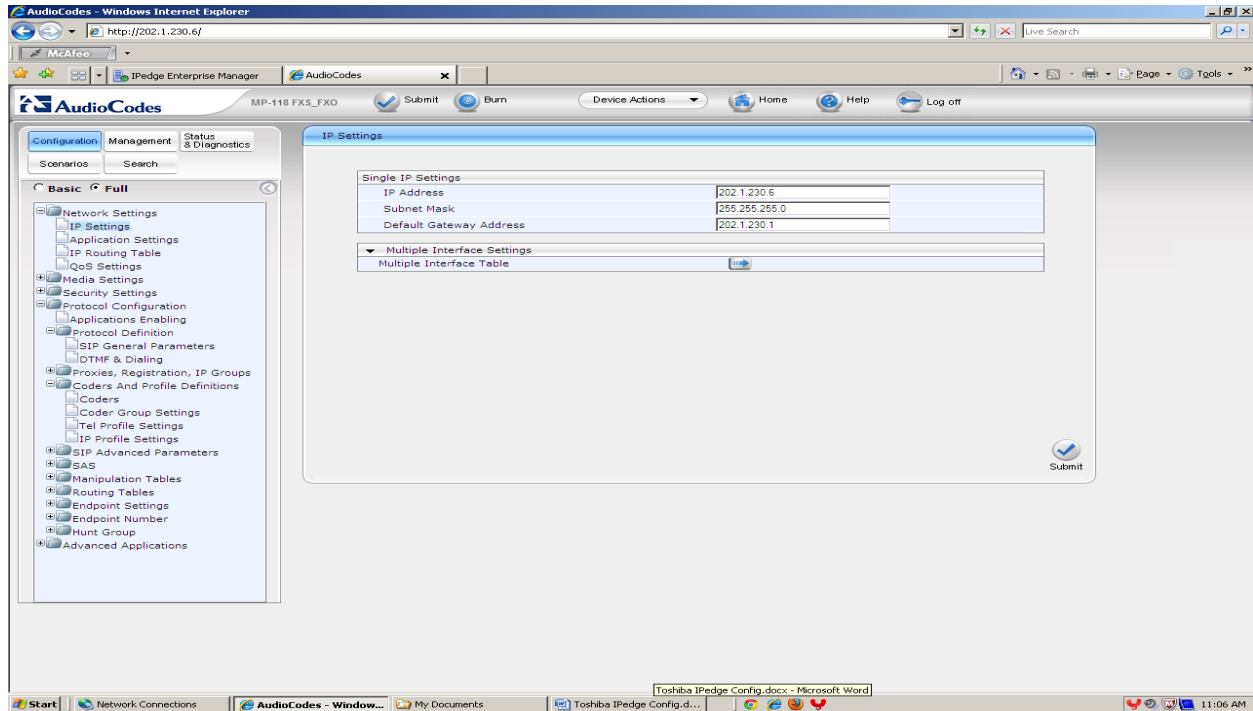
Hunt Group (hunt groups could be optional if customer does not require): Station -> Station Groups



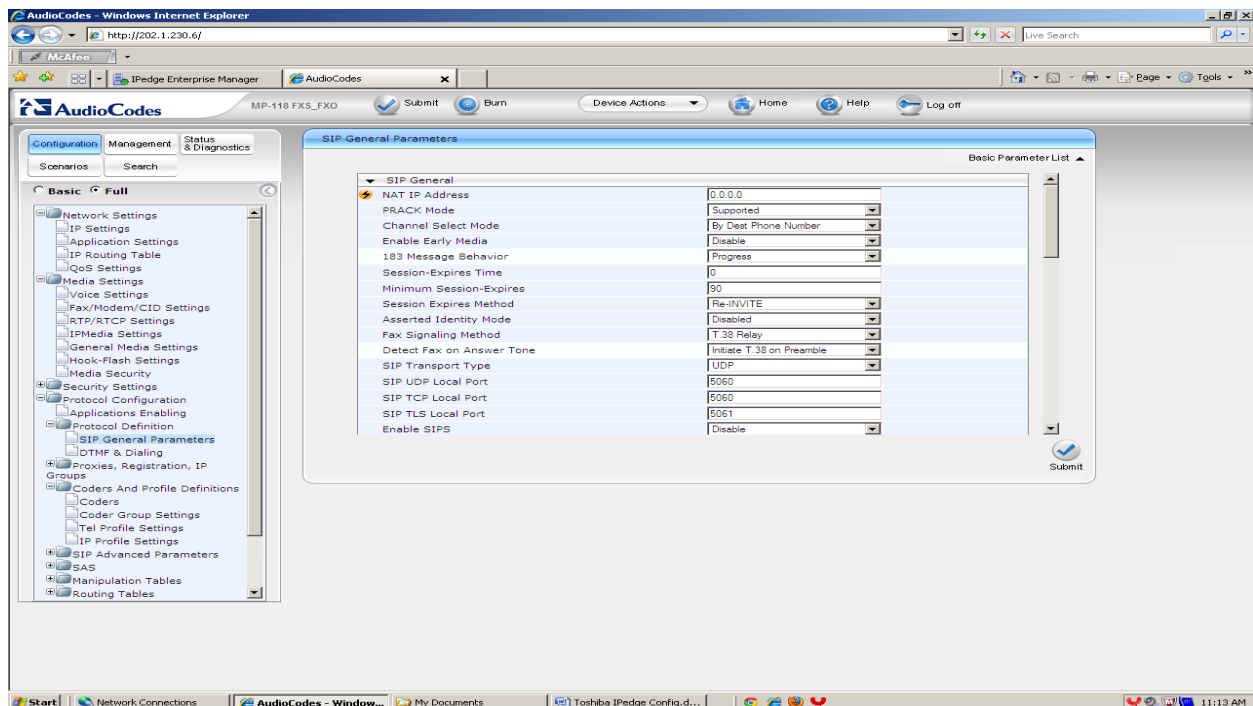


AudioCodes Configuration

IP Address : Configuration -> Network Settings -> IP Settings



Fax (T.38/G.711) : Configuration -> Protocol Configuration -> Protocol Definition -> SIP General Param



Voice codec : Configuration -> Protocol Configuration -> Coders and Profile Definitions -> Coders

The screenshot shows the AudioCodes configuration interface in a web browser. The left sidebar contains a tree view of configuration categories, with 'Coders' selected under 'Protocol Configuration'. The main area displays the 'Coders Table' with the following data:

Coder Name	Packetization Time	Rate	Payload Type	Silence Suppression
G.729	20	8	18	Disabled
G.711U-law	20	64	0	Disabled

A 'Submit' button is located at the bottom right of the table area.