DuVoice Integration

Title	**Digital Media Gateway using Digital**
Document	dmg1000-digital-sip-in
Last update	**2013/01/10**
DuVoice Versions	**5.XX**
Switch Versions	**N/A**

Table of Contents

DMG 1000 Configuration

IP (default)

Dialogic DMG's are shipped from the factory with the IP address 10.12.13.74. This IP Address will need to be changed to match the existing network configuration. This can be done using either a small router configured temporally for this sub-net or by using a cross-over cable with the a system configured for the same sub-net.

Default username is **admin** and password **IpodAdmin** (case-sensitive).

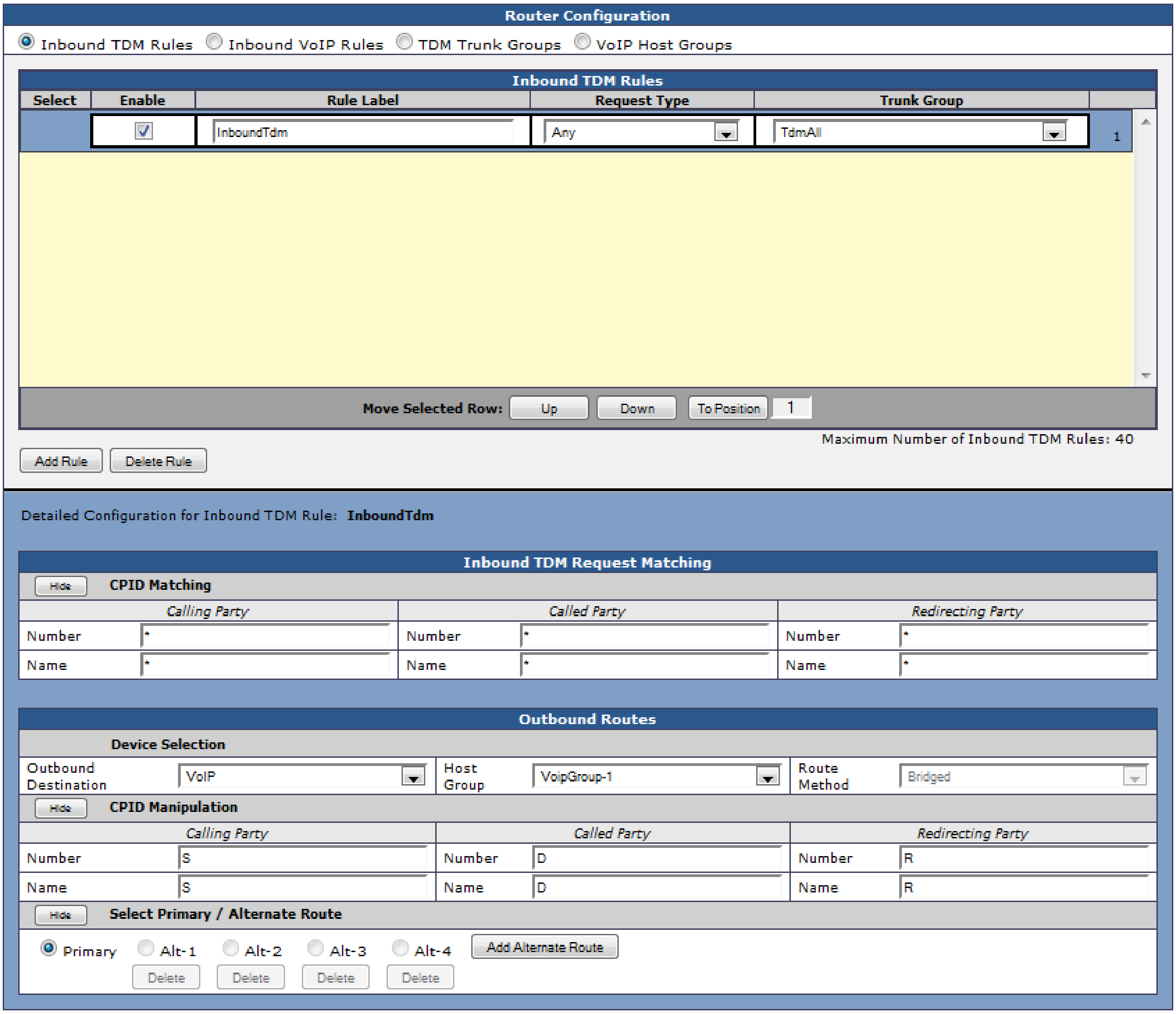
IP Settings, LAN1	
MAC	00-a0-e6-89-d5-7c
* **Client IP Address**	10.12.13.74
* **Client Subnet Mask**	255.255.255.0
* **Default Network Gateway Address**	0.0.0.0
* **BOOTP Enabled**	No
* **SNTP Server IP Address**	

Mgmt Protocols (default)

Management Protocols	
E-mail	
E-Mail Alarms Enabled	No
E-Mail Minimum Alarm Severity	Info
Destination E-Mail List	
E-Mail Server IP Address	
Source E-Mail Address	alarm@pbxgw.com
SysLog	
* **SysLog Server IP Address**	
Alarms to Syslog Enabled	No
SysLog Minimum Alarm Severity	Info
Diagnostics Trace to SysLog Enabled	No
SNMP	
SNMP Traps Enabled?	No
SNMP Minimum Alarm Severity	Info
SNMP Trap IP List	255.255.255.255
* **SNMP Community Name**	public
* **SNMP System Name**	
* **SNMP System Contact**	
* **SNMP System Location**	
Web Server	
* **HTTP Server Enabled**	Yes
* **HTTPS Server Enabled**	No
Telnet	
* **Telnet Server Enabled**	Yes
Serial Ports	
* **Maintenance Port Enabled**	Yes

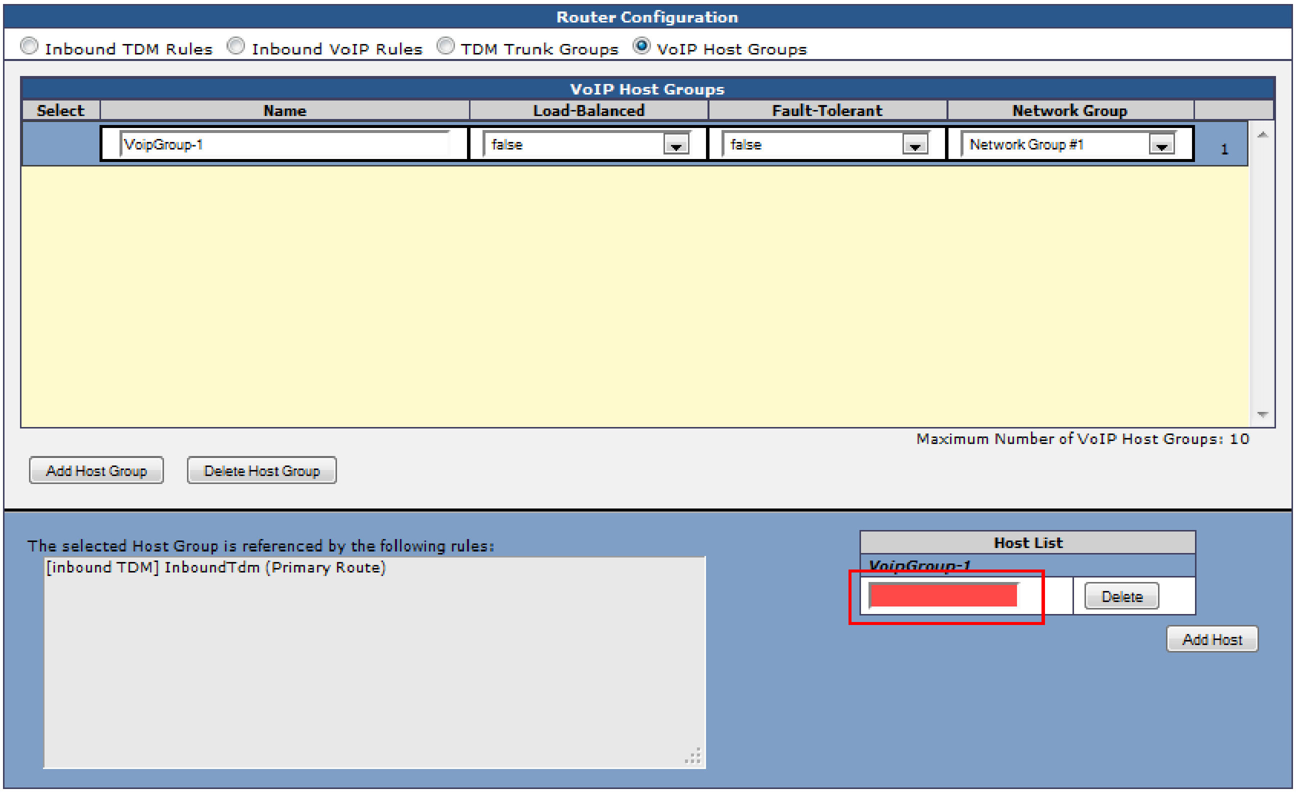
Routing Table (default)

Failure to enter the routing IP address will result in calls from the PBX not being directed to the DuVoice system.



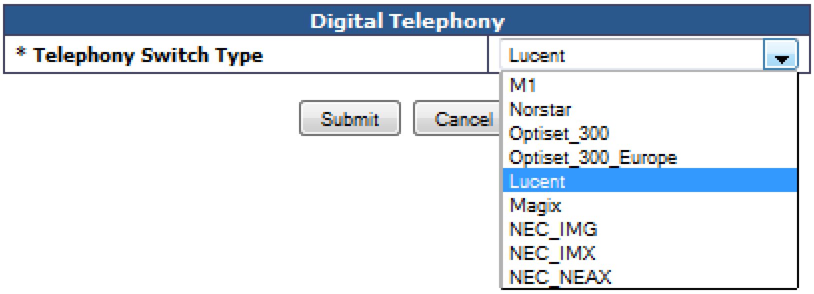
Routing Table > VoIP Host Groups

Enter the IP address of the DuVoice system under VoipGroup-1



TDM > Digital

Choose the Digital integration you wish to emulate.



TDM > General

Avaya Definity

- Leave **Turn MWI on FAC** and **Turn MWI Off FAC** blank.

Mitel

- Set MWI values to:
  - TURN MWI On FAC to #21
  - TURN MWI Off FAC to #22

TDM General Settings	
*** PCM Coding**	uLaw
Minimum Call Party Delay (ms)	0
Maximum Call Party Delay (ms)	2000
Dial Digit On Time (ms)	100
Dial Inter-Digit Time (ms)	100
Dial Pause Time (ms)	2000
Turn MWI On FAC	
Turn MWI Off FAC	
Outbound Call Connect Timeout (ms)	10000
Wait for Ringback/Connect on Blind Transfer	Yes
*** Hunt Group Extension**	
Disconnect on Fax Cleardown Tone	No
Connect Outbound Call On DTMF	No

VOIP > General (default)

Voip General Settings	
User-Agent	
* **Host and Domain Name**	pbxgw.default.com
User-Agent Header Value	PBX-IP Media Gateway
Call as Domain Name?	No
Invite Expiration (sec)	120
Reliable Provisional Responses	Supported
Server	
* **DNS Server Address**	
* **DNS Server Address (Secondary)**	
DNS Translation of Phone Numbers	No
TCP/UDP	
* **UDP/TCP Transports Enabled**	Yes
* **TCP/UDP Server Port**	5060
TCP Inactivity Timer (sec)	90
TLS	
* **TLS Transport Enabled**	No
* **TLS Server Port**	5061
* **SSL TLS Protocol**	SSLv3_TLSv1
* **Mutual TLS Authentication Required**	Yes
TLS Inactivity Timer (sec)	30
Verify TLS Peer Certificate Date	Yes
Verify TLS Peer Certificate Trust	Yes
Verify TLS Peer Certificate Purpose	Yes
Timing	
T1 Time (ms)	500
T2 Time (ms)	4000
T4 Time (ms)	5000
* **T1 Multiplier**	64
Monitoring	
Monitor Call Connections	No
Call Monitor Interval (sec)	60
* **VoIP Host Monitor Interval (sec)**	30
* **Proactive DNS Monitoring**	No
QoS	
* **Call Control QoS Byte**	0

VoIP > Network Groups (default)

VoIP Network Group Configuration	
Network Group	
Network Group Label	Network Group #1
Transport	
Transport Protocol	UDP
SIPS URI Scheme	No
URI Parameters	
User Phone Parameter	Yes
Local Phone Context	
Remote Phone Context	
Diversion Header Format	TEL
Proxy	
Primary Proxy Server Address	
Primary Proxy Server Port	5060
Backup Proxy Server Address	
Backup Proxy Server Port	5060
Proxy Query Interval (sec)	30
Registration	
Registration Server Address	
Registration Server Port	5060
Registered User	
Gateway Name	
Registration Expiration (sec)	120
Audio	
Codec #1	G.711u
Codec #2	G.711a
Codec #3	None
Low Bit Rate Codec	G.723.1 [Modify]
Packet Time (ms)	30
SRTP	
SRTP Preference	RTP_Only
Authentication Tag Length	80
MKI on Transmit Stream	Yes
Key Derivation Enable	No
Key Derivation Rate	16
Window Size Hint	64
UnEncrypted SRTP Enable	No
UnEncrypted SRTCP Enable	No
UnAuthenticated SRTP Enable	No

VoIP > Media

VoIP Media Settings	
Early Media	
RFC 3960 Early Media Support	OnDemand
Send Early 183 Progress Response	No
Send Early 180 Ringing Response	Yes
Require Reliable Provisional Responses	No
Audio	
* **Low Bit Rate Codec**	G.723.1
Signaling Digit Relay Mode	Off
Voice Activity Detection	Off
Continue Ringback on CN	Yes
Acceptable Media	RTP_SRTP
Packet Time (ms) for Inbound VoIP	30
Digit Relay Mode	RFC2833
Telephone-Event Payload Type	101
Fax	
Fax IP-Transport Mode	T.38
Fax Server Host	
Fax Server Network Group	
Fax/Modem Tone Relay Mode	RFC2833
RTP	
* **RTP Start Port**	49000
* **RTP End Port**	50000
* **RTP Source IP Address Validation**	Off
* **RTP Source UDP Port Validation**	Off
RTP QoS Byte	0

Voice Activity Detection
Set to off. Setting this value to off will reduce clipping during audio recordings on calls with low db levels.

VoIP > Authentication (default)

VoIP Authentication

(•) Inbound VoIP [Server] ( ) Outbound VoIP [Client]

Inbound VoIP Configuration	
Inbound Authentication Enabled	No
Gateway Realm	default.gw.com
Algorithm	MD5

Methods to Challenge

[ ] Invite [ ] Register [ ] Notify [ ] Info [ ] Bye [ ] Refer [ ] Options

Users

	Realm	User Name	Password

Add Entry

PBX Configuration

Avaya

Station Programming

Avaya Digital Set types must be set as 7434ND types

```
add station 62501                                              Page   1 of   6
                                     STATION

Extension: 62501                        Lock Messages? n              BCC: 0
     Type: 7434ND                       Security Code:                 TN: 1
     Port: 01A0801                    Coverage Path 1:                COR: 1
     Name: DuVoice Digital #1         Coverage Path 2:                COS: 1
                                      Hunt-to Station:
STATION OPTIONS
                                          Time of Day Lock Table:
              Loss Group: 2         Personalized Ringing Pattern: 1
             Data Module? n                     Message Lamp Ext: 62501
          Display Module? y
        Display Language: english                Coverage Module? n

          Survivable COR: internal             Media Complex Ext:
   Survivable Trunk Dest? y                         IP SoftPhone? n
                                             Remote Office Phone? N
```

On page two of the Digital extension for the DMG you must disable the “LWC reception” then enable the “LWC activation” and enable the “Display Client redirect”

```
add station 62501                                              Page   2 of   6
                                     STATION
FEATURE OPTIONS
           LWC Reception: none          Auto Select Any Idle Appearance? n
          LWC Activation? y                      Coverage Msg Retrieval? y
  LWC Log External Calls? n                                 Auto Answer: none
            CDR Privacy? n                            Data Restriction? n
  Redirect Notification? y                 Idle Appearance Preference? n
 Per Button Ring Control? n               Bridged Idle Line Preference? n
   Bridged Call Alerting? n                  Restrict Last Appearance? y
  Active Station Ringing: single

        H.320 Conversion? n         Per Station CPN - Send Calling Number?
       Service Link Mode: as-needed
         Multimedia Mode: basic
    MWI Served User Type:                  Display Client Redirection? Y
              AUDIX Name:                  Select Last Used Appearance? n
                                             Coverage After Forwarding? s
                                               Multimedia Early Answer? n
```

Button Programming

1: call-appr
2: call-appr
9: lwc-store
10: lwc-cancel

Meridian

For each of the ports connected to the DMG configure them as show below (LD 11).

TN	
TYPE	2616
CDEN	8D
CUST	0
FDN	
TGAR	0
LDN	NO
NCOS	7
RNPG	0
SCI	0
SSU	
CLS	FBD, WTA, MTD, FNA, HTA, ADD, HFD, MWA, CNDA, CPFD, CPTD
HUNT	XXXX
LHK	0
KEY	00 SCR YYYY (Call Appearance) 07 PROGRAM 13 MIK (Message Indication) 14 MCK (Message Cancellation) 15 TRN (Transfer)

DuVoice Configuration

Lines

- Set the extension number for each line to a matching number associated with an extension located on the DMG.
- When connecting to an Avaya PBX be sure to configure **Port number for MWI use** to **Same**.
- Set the hunt group field to the hunt group number.
- Do not check the Register field for any line.

SIP Configuration

- Set the registrar address to the IP address of the DMG.
- Set the Register expire time to what the DMG is configured for in VoIP General under the field Invite Expiration (sec). The default is 120.

MWI

Set MWI method to SIP.

- Set retries to at least 5 in MWI on/off template.
- Set retry interval to 1 or above. in MWI on/off template.

Testing

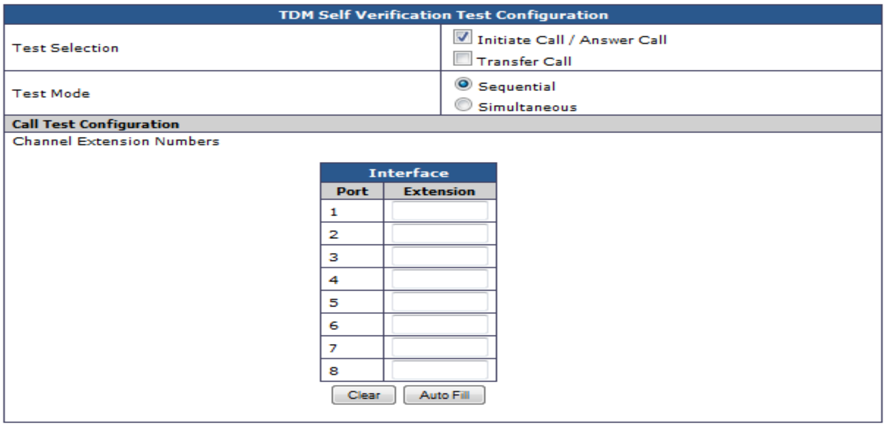
DMG Testing

The DMG has the ability to test all the channels including integration, mwi and transfers. These tests are located under Diagnostics.

Test channels

Dianostics > Tests > TDM Self Test

Enter your extensions in the space provided and click Start Test.



Here you can see sample results from the test. A Green box with the letter P means the test passed. If any box shows red with an F then the test failed.

TDM Self Verification Test Status															
Port	Chan	Status	Outbound Route	Initiate Call				Answer Call				Transfer Call			
				Orig	Prog	DTMF	Disc	Ans	CPID	DTMF	Rls	Ans	CPID	DTMF	Rls
1	1	Complete	1:1 5104->2:1 5105	P	P	P	P	P	P	P	P	-	-	-	-
2	1	Complete	2:1 5105->1:1 5104	P	P	P	P	P	P	P	P	-	-	-	-

Test MWI

The DMG can test both setting and clearing an MWI. This will confirm the PBX configuration for lighting MWI's.

Diagnostics > Tests > TDM

1. Choose **Send Message**
2. Enter the station number in the **Destination Number** field.
3. Choose **Set** or **Clear**.
4. Click **Start Test**.

TDM Test Configuration	
Test Selection	Initiate Call Send Message
Port	Automatic
Channel	Automatic
Destination Number	
Source Name	
Source Number	
Device	TDM
Message Waiting Status	Set Clear