



## IP Office Technical Tip

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### **Networking Avaya Magix with an Avaya IP Office Using PRI**

This document is designed to expand upon the previous technical tip “Connecting IP Office to Merlin Legend and Merlin Magix”, regarding networking an Avaya Magix to an Avaya IP Office via a point-to-point T1/Tie Trunk. The previous technical tip was specific to IP Office Release 1.3.37 or above.

With PRI there is the addition of Caller ID which eliminates the need for having touch tone receiver cards for T1/Tie trunks on Magix. This main focus of this technical tip is to explain the Magix programming required.

#### **Advantages**

- In this configuration, Magix does not require touch tone receivers.
- In this configuration, Magix displays incoming CLID information.

#### **Magix Programming**

##### **Uniform Dial Plan (UDP)**

- System Renum>UDP>block or single
  - Must be unique (cannot conflict with local dial plan)
  - Must include IP Office extensions and hunt group ranges
  - Sets up the extension ranges for the switches they are networked to
  - Must select the Pattern Number (1-20) to route the calls
  - Programming order does not matter
- Programming the UDP Routing
  - Tables>UDP routing>Enter Pattern Number>Enter route number (1-4)
  - Must also set up Pool, FRL, Absorb, Digits, Data
  - Program Magix for Merlin PBX

### **Private Networks Lines**

- Frame Format and Signaling
  - PRI ESF and B8ZS
  - Lines/trunks>GS/LS/DS1>PRI>Switch type>slot #>Magix PBX

**NOTE: Each switch should have at least one local line for 911 or emergency type calls.**

### **Clocking**

- Lines and trunks>More> More> Clock Synch

**NOTE:** If you have a T1 from the CO ensure that the Magix clock timing is set for Loop (versus Local) and that all other network nodes point back to the CO as the master clock. The IP Office clock should be set to network. If there is not a T1 from the CO coming into either switch use the Magix as the Primary clock by setting it to Local.

### **Tandem Switching**

On Magix if 2 switches are tied together they can utilize each other's lines for making calls and this is transparent to the user. This arrangement is called tandem switching. For instance: For a long distance call, the user dials the same 91xxx-xxx-xxxx, and in the ARS tables; administration is set up to delete 4 digits and adds the number 9 to route over the tandemed lines. At the other end the call goes out as a local call. (This type of arrangement can also be achieved on IP Office through the use of short codes).

On Magix:

- Tables > ARS
- DID calls can be routed to any of the switches:
  - Remote Access Restriction-must be set for unrestricted or DID calls will not complete
  - Lines/Trunks>Remote Access>Non Tie>Restriction

### **Display information**

On Magix:

- Extension>More>More>Display preference

Note: Configuration of this setting is ignored. The extension number will always appear on the display.

### **Switch Numbering (Magix only)**

- Prevents calls from automatically re-routing back to the originating system. (endless looping)
- Only administer a switch number on lines that are connected to the IP Office (network lines).

- If the IP Office that you are connecting to is:
  - < 200 miles away (satellite) switch numbering must be set to 51-60
  - > 200 miles away (non-satellite) switch numbering must be set to 41-50
- Lines/trunks>More>UDP>Single or Block>enter trunk numbers and assign a switch identifier

### **IP Office Requirements**

- Voice networking should NOT be checked
- PRI should be set for AT&T, 5ESS, ESF, B8ZS, CPE or 5ESS local
- Must program short code to dial Magix extensions:

**Short Code = 2XX**  
**Telephone Number = 2N**  
**Line Group ID = (PRI connection)**  
**Feature = Dial**

NOTE: If you want to access Magix lines for outbound calls, set up the following short code on IP Office:

**Short code = [9]N**  
**Telephone Number = 9N**  
**Line Group ID = (PRI connection)**  
**Feature = Dial**

- Must program incoming call route for calls coming from the Magix

**NOTE: CENTRALIZED VOICEMAIL IS NOT SUPPORTED BETWEEN MAGIX AND IP OFFICE IN THIS TANDEMED CONFIGURATION.**

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