JANUS REMOTE COMMUNICATIONS

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Janus POTSwap and DTMF (Dual-Tone Multi-Frequency tones) Signaling

DTMF Information

DTMF is the global standard for audible tones that represent the digits on a phone keypad. Mobile phone networks use digital signals instead of DTMF for direct dialing, but DTMF is still used over mobile phones to navigate automated systems such as phone menus, and for secondary dialing, such as using a calling card.

The POTSwap is often used with devices that utilize inbound DTMF tones on a voice call to provide programming and response functions.

We have found as a general rule that voice coding schemes (codecs) used in cellular communication do not support DTMF or single frequency tones very well. Cellular networks use special signaling techniques to overcome these limitations, but you may still encounter varying success with receiving inbound DTMF tones to the telephone equipment connected to the POTSwap.

Issues that exacerbate DTMF include: tower configuration, tower traffic, time of day, and location/Distance from Tower

Suggestions:

- Perform programming functions locally if possible during installation to avoid having to use remote DTMF programming.
- Adjust the inbound audio gain on the POTSwap. See the "Configuration" section in the User Manual.
- Some cell phones have a setting for sending longer length DTMF signals. Look for 'long DTMF' or something similar in the phone dialer settings menu – See example below. Note that enabling this setting on a sending device will not guarantee that a longer DTMF tone is received by the POTSwap.

Example:

Samsung Galaxy S10 - Manage DTMF Tones

1. From a Home screen, tap the Phone icon. (lower-left). If unavailable, swipe up or down from the center of the display then tap Phone.
2. Tap the Menu icon. (upper-right) then tap Settings.
3. Tap Other call settings.
4. Tap DTMF tones.
5. Select one of the following: Normal. Long.

Note: Better results may be achieved using a device from the same carrier as the SIM used in the POTSwap to send DTMF tones. e.g. if you are using a POTSwap on the Verizon network, use a cell phone on a Verizon plan to send DTMF tones.

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