AVAYA

IP Office Technical Tip

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Region: GLOBAL

Analog Trunk Standards

It has come to the attention of Avaya that in certain cases, IP Office systems have been installed into locations where the Analog trunks provided have not met the TIA (Telecommunications Industry Association) requirements for the United States.

All IP Office systems are engineered and rigorously tested to ensure that they meet the relevant local approvals standards.

If an IP Office is connected to trunks that fall outside of these standards, a number of issues may occur, the symptoms of which may include the IP Office being unable to seize a line, tones not being recognized, and noise on the line.

This can particularly cause issues where a previous system is replaced with an Avaya IP Office, as the IP Office has tighter tolerances than Magix, Partner and various other switches, and may not function correctly with poor quality trunks that have been used 'satisfactorily' with the previous system.   The customer may have noticed a hum or other noise on their lines previously, but as the trunks appeared to work, this may have accepted this as standard behaviour, despite being an indicator of poor trunk quality.

Explaining this to a customer can obviously prove difficult, as the earlier system appeared to work correctly, and can cause concern about the quality and reliably of the newer system.

As a result, Avaya would like to state that we can only guarantee compatibility with Analog trunks that meet the required standards.

The objective for all trunks should be an NMSa Reading (dBrnc) of less than 20 dBrnc, with a gain of -3.5 db within +/- 1dB.
Loop, or trunk noise of 21-30 dBrnc is marginal as 30 dBrnc is approached and requires investigation and possible intervention by the service provider.

Noise above 30 dBrnc is unacceptable, and will almost certainly lead to issues like those mentioned above – the service provider will need to investigate these trunks, and provide a remedy.

It is recommended that for all new installations, or where the IP Office is replacing an existing system, the customer should be advised to ask their service provider to check the line noise and gain levels on their Analog trunks in order to confirm that the lines are within the requirements.

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