Customer Guidelines for Analog CO Line Connections to the PSTN

This document is for FacetPhone customers who are currently using or plan to use analog CO lines to the PSTN in conjunction with their FacetPhone IP-PBX telephone system. The items below should be considered when preparing to install a FacetPhone system.

1) Loop Start Signaling – FacetPhone will only work with loop start lines. Ground start lines are not compatible with FacetPhone. Please insure the phone service provider only provides loop start lines.

2) Phone Line Measurements – Before installing FacetPhone, you should have your telephone service provider come out to your office and take a measurement of the line quality. Ask them for a printout of the loss, the power influence, and other readings they take when measuring the quality of the lines. They should provide this for each analog line you have. Then please send a copy of these printouts to FacetCorp.

   Analog lines are sensitive to something called power influence. We can use the loss reading to accurately set the gains on the gateways connected to the lines.

   The lines are twisted so that each side picks up the same voltage as they go by the power lines on the way to your building. So it all cancels out. The part that does not cancel out is called power influence. It is an AC voltage across the two wires. If the power influence is too high, it will induce a 60 cycle hum which can be audible on a phone call. Modern electronic equipment is more sensitive to power influence than a traditional telephone, so the power influence needs to be low. And, it will likely be different on each line.

3) Other Digital Alternatives – To avoid some of the issues raised by traditional analog phone lines, FacetCorp strongly encourages customers to consider an all digital alternative:
   a. SIP Trunking – For a small or large number of lines, SIP trunking is a very good alternative to traditional analog phone lines. With SIP trunks, the "dial tone" comes via an Internet connection. SIP trunks generally provide superior quality to analog phone lines. They may also provide the DID (direct inward dial) feature, and they are extremely cost effective relative to analog lines.

b. PRI T1 – Another option with superior quality compared to analog lines is a PRI T1 for voice. Or if a smaller number of voice channels are needed, ask the service provider about a flex or dynamic T1 option.

4) Line Features
   a. Caller ID & Caller ID Name – This feature is not required to use FacetPhone. However, this feature will be very useful with the FacetPhone system by providing the Caller ID information on the telephones and the FacetPhone graphical user interface. This feature is important if you want to use TAPI or UTAPI in order to provide customer 'screen pops' from your database applications.
   b. Call Forwarding – Call forwarding is a very useful telephone service provider feature if you ever plan to have user calls forwarded to an outside number (i.e. to their cell phone). FacetPhone supports call forwarding with analog lines only if you have the call forwarding feature from the phone service provider (sometimes called Centrex call forwarding).
   c. Call Waiting – Call waiting from the phone service provider is not supported on FacetPhone. Each call must come in on a separate line and then FacetPhone can provide the internal call waiting feature to any or all users.
   d. Analog DID – If you plan to purchase an analog DID feature from the phone service provider, then you will need to buy special analog DID device from FacetCorp to support this feature. For more details on this, contact your sales representative.