

Broadband SoHo

Voice ~ Data ~ DSL ~ Wireless

ADSL / POTS Network Interface Device



Corning SPS-H70-SR1 shown with In-Line filter , which is not used in this installation.

**** EDITED SAMPLE OF ORIGINAL BROADBANDSOHO CREATED DOCUMENT ,
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This document contains confidential & proprietary information , for the development and implementation of creating 802.11b Wireless Access Hotspots through the use of public gateways (payphones).

The enclosed document was written in a non-technical context to give you a basic technology overview , implementation , and service of the product. If you have any questions regarding this document or require more in-depth technical information , you may contact me.

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Wi-Fi Payphone Line-Sharing

ADSL service is delivered to the gateway (payphone) by a transmission method called Line - Sharing , a method that has been in use by RBOC's throughout its territory with the introduction of ADSL. This method of transmission is greatly beneficial due to copper being saved on the cable plant Infrastructure. RBOC's and CLEC's reduce the end user loop delivery time by not installing a separate conditioned loop , in a residence the customer may not be inconvenienced of having ISW (Inside Wiring) installed throughout there residence , and greatly increases self installs .

Line - Sharing is a transmission method that enables ADSL (Asymmetrical Digital Subscriber Line) data to be combined with POTS (Plain Old Telephone Service) analog dial-tone. The gateway's POTS service and features are still functional , just as in a residential installation the customer is able to surf the internet and make or receive POTS simultaneously. The C.O. (Central Office) DSLAM (Alcatel 7300-Digital Subscriber Line Access Multiplexer) is provisioned with the gateway requirements. The gateway's POTS service is rerouted and Xconn to the C.O. DSL Splitter Shelf , combining it with the DSLAM ADSL Signal. At this point the gateway POTS & ADSL are now transported on the same C.O. UG outgoing pair that the original payphone POTS Service was initially on .

Line - Sharing transmission is capable due to the frequency bandwidth present on a local loop , POTS operates in the narrow bandwidth range from 0-4 Khz , ADSL generally starts operating from 25 Khz – 1.1 Mhz . With this in mind the ADSL / POTS splitter is passive (no power required) , low pass filters that allow POTS to go through , without the ADSL data creating NEXT (Near End Cross Talk) aka " White Noise" and providing uninterrupted POTS service if the ADSL fails.

Just as you noticed the ADSL data and gateway POTS were combined they now must be separated again at the gateway's pedestal , with the installation of the passive Corning ADSL /POTS NID.

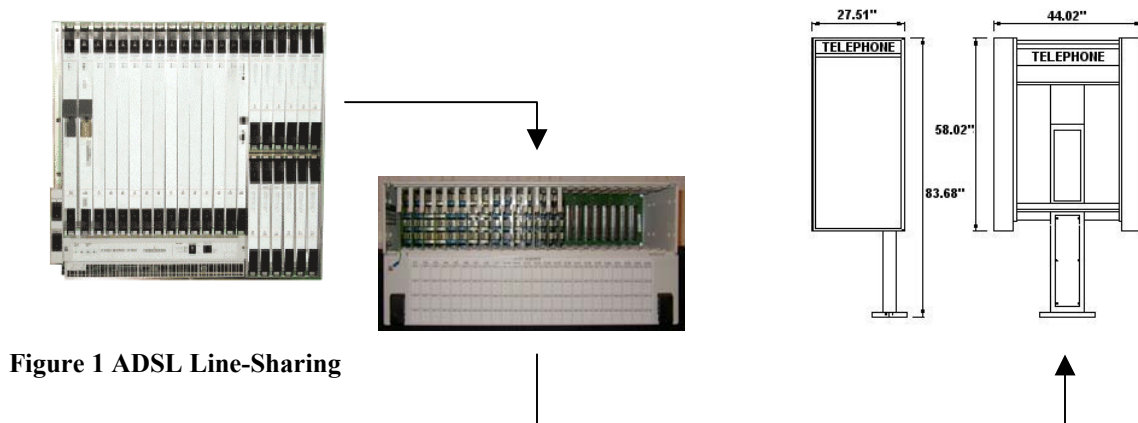
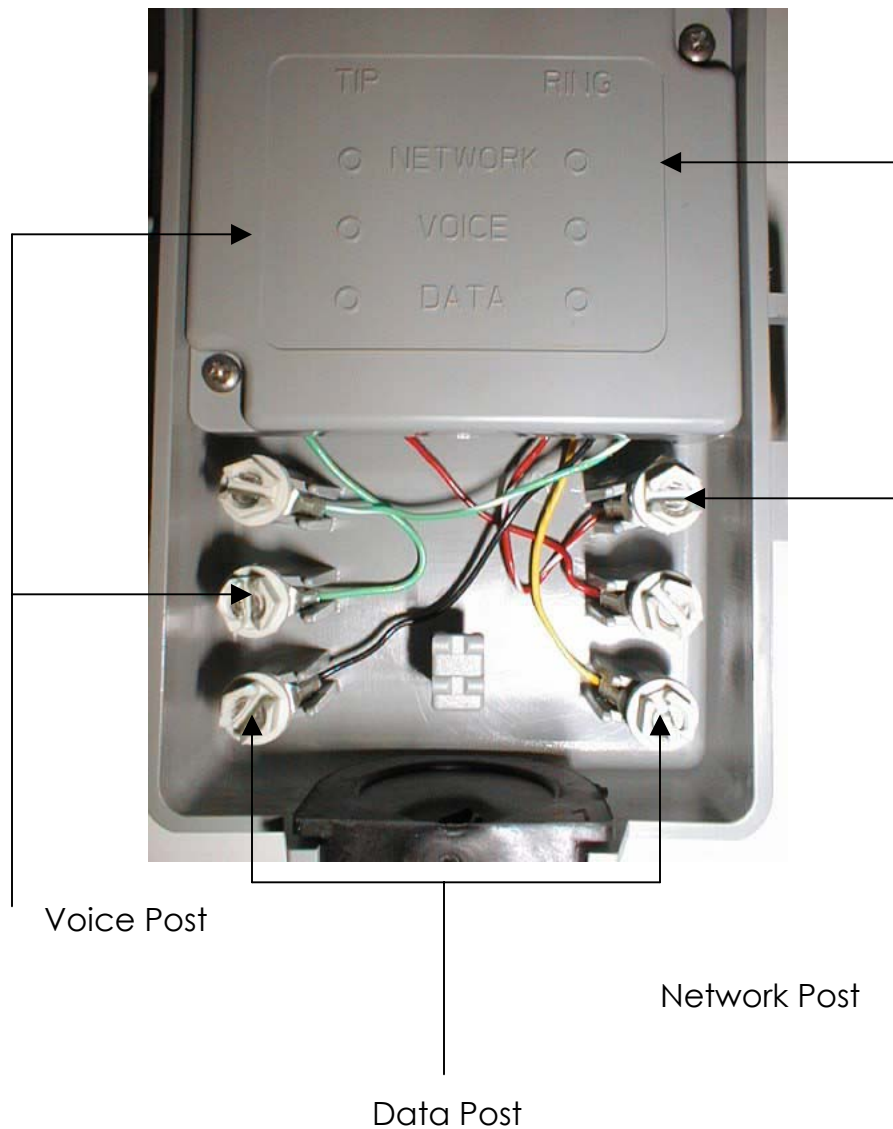


Figure 1 ADSL Line-Sharing

ADSL / POTS Splitter Connections



Network Post ~ The original UG pair feeding the payphone must be connected to this post. This UG pair now carries the Central Office POTS / ADSL .

Voice Post ~ The payphone terminal post must be connected to this post. This connection now contains the filtered POTS for the payphone.

Data Post ~ The VPOP twisted pair cable connects to this post. This is the ADSL POTS filtered signal.