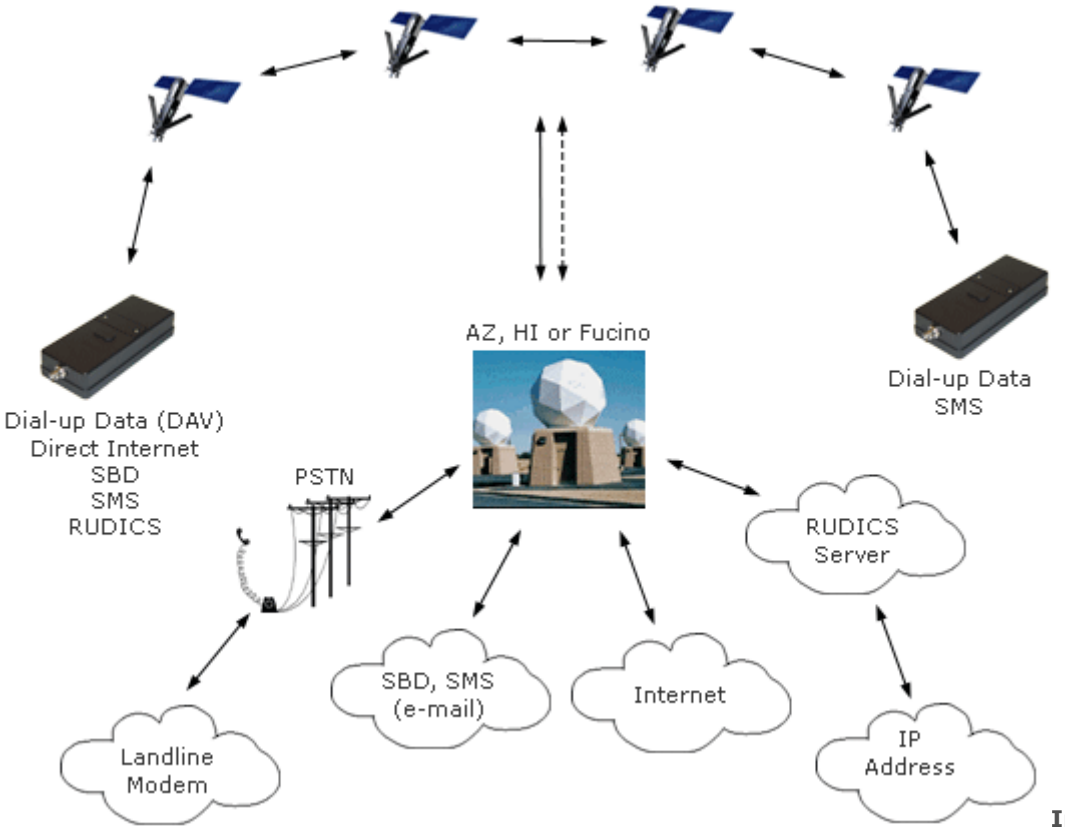
Iridium Data

Dial-Up Overview

For data communications, the Iridium network supports five different modes of operation as shown in figure below—dial-up data service, direct Internet/NIPRNet connection, short-burst data (SBD), short-messaging service (SMS) and router-based unrestricted digital internetworking connectivity solution (RUDICS).



Iridium Network

Data Capabilities

Many desktop and laptop computers are equipped with either an internal or external modem to perform dial-up data applications across the landline telephone network (PSTN). On these computers, terminal emulator software or a dial-up networking connection can be configured to a specific modem with a phone number to dial, user identification and password. The modem can then be used to call another computer, a remote LAN or an Internet service provider (ISP) as shown in figure below. The handshaking and protocols are established between the modems independent of the landline.

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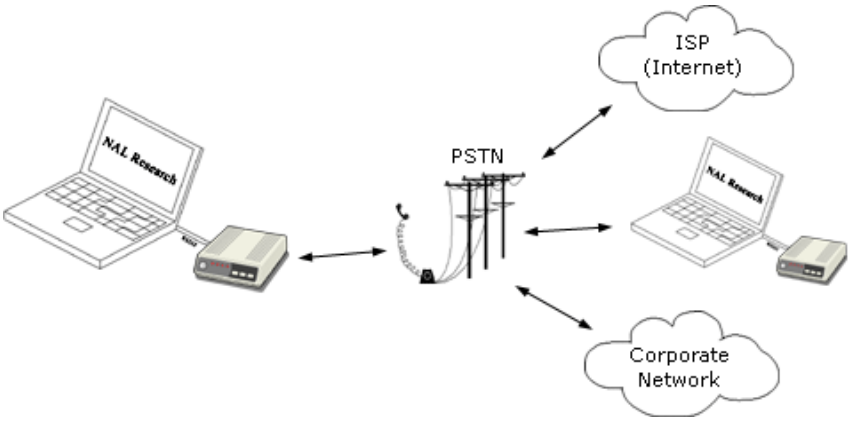
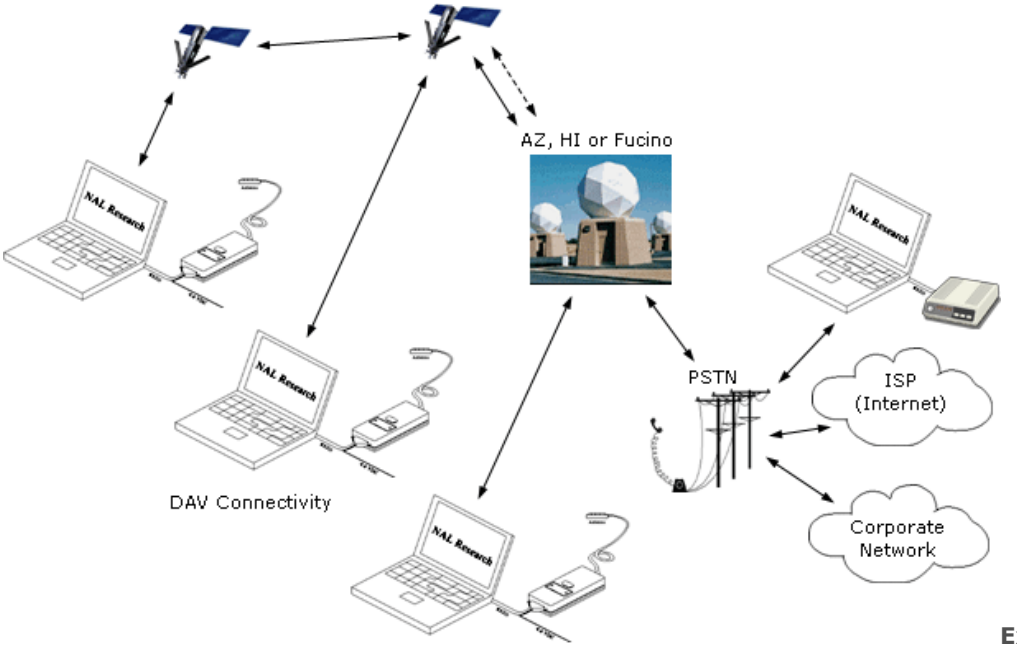


An Example of PSTN Dial-Up Data Service Connectivity

The Iridium dial-up data service functions in much the same way as the PSTN dial-up connectivity. From the perspective of a computer, the Iridium modem is just another external modem. The only difference is that the dialed telephone number must conform to the international dialing pattern used by Iridium. When a data call is placed, the Iridium modem actually dials and initiates a connection with the Iridium gateway through the Iridium satellite constellation. Since the Iridium modem is requesting to establish a data connection, the switch at the gateway routes the call through another modem. The modem at the Iridium gateway then dials into and connects to another modem at the other end. Figure below illustrates how an Iridium dial-up data service call is routed. The handshaking and protocols established between the modems independent of the Iridium network.

Iridium dial-up data service provides connectivity at a nominal data rate of 2.4 kilobits per second (Kbps). The connection time involving user authentication and handshaking (or modem training) can range from 15 to 30 seconds. For those ISU-to-ISU dial-up data calls where slight data transmission delay is critical such as the application of TCP/IP protocol, DAV should be considered in the design. This option eliminates the Iridium gateway in the network connection once authentication and registration is completed allowing truly ISU-to-ISU communications.



Examples of Iridium Dial-Up Data Connectivity

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