APPLICATION NOTE

Feature Discussion - Orbitor 6000 "Hunt Groups"

In the following application there are 4 remote sites that require high-speed (128 Kbps) network access and 24 sites needing low-speed (64 Kbps) connectivity, for this reason the B channels at the central site have been split into two calling groups. The first group has been configured for the 4 high-speed sites with multi-link enabled to support the 128Kbps connections. A second group has been configured with multi-link disabled for 64Kbps connections supporting the 24 low-speed sites. Both groups have multiple BRIs associated with them. For convenient access, the phone company has put the BRI lines for each group into rotaries or hunt-groups. This allows the remote sites in each group to call the same number and obtain B channels on a first-come first-serve basis.

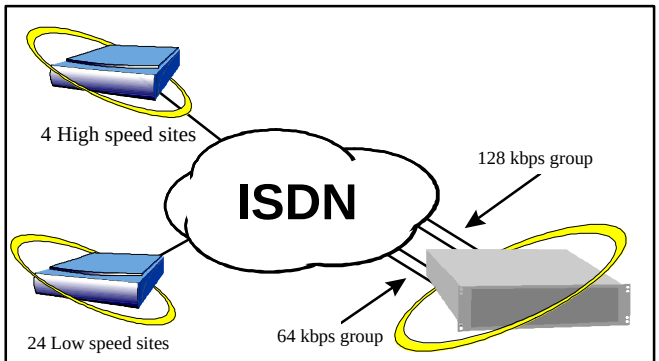

Figure #1 - Orbitor 6000 - Hunt Group Application

Additionally, remote users do not require constant communications with the central site. The high-bandwidth locations require periodic access for roughly half of the day while the small sites need access for only 5 or 10 minutes every few hours throughout the day. As a result, the network has been designed with a total of 7 BRIs (14 B channels); with 3 BRIs dedicated to support the 4 large sites, and 4 BRIs supporting the small sites. This will cause the sites to contend for network access with the larger sites having a 4:3 contention ratio; only 3 of the 4 sites can have 128Kbps connections at any given time. While the smaller sites are in a 24:8 or 3:1 contention ratio. This network configuration provides the benefit of reduced line charges by sharing the BRIs at the central site while providing all remotes with access to the central site LAN.

One other interesting point about the larger sites using 128Kbps calls. The remote routers can be configured with threshold enabled, providing a second B channel (to get 128Kbps) to the remote sites only when needed. The benefit to this is that, during periods of light traffic, all four remote sites contending for this group of BRIs can be connected simultaneously. Two of the four would have 128Kbps (2 B channels each) connections while the other two would be connected at 64Kbps (1 B channel each).