Efficient Drop and Insert

White
Paper

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RADYNE

Efficient Drop and Insert

Radyne's new Efficient Drop & Insert provides "Open Network" like functionality with minimal overhead, thereby saving customers valuable satellite bandwidth.

Compared to the Open Network standard of 6.7% overhead and other proprietary implementations that require 1.5% to 2.2% overhead for similar functionality, Radyne's Efficient Drop & Insert only requires 0.4% overhead making it the most bandwidth effective solution available today. And, while the Open Network standard-only addresses specific slot combinations, the Radyne solution provides the ability to drop or insert any number of timeslots.

Automatic Uplink Power Control, a satellite backward alarm, and a synchronous ES to ES communications channel at 1/512 or 1/528 the satellite data rate are all part of the Efficient Drop & Insert protocol. Users who prefer a higher rate communications channel can enable Radyne's Enhanced Asynchronous mode and select standard baud rates from 150 to 19200 for their Earth Station to Earth Station communications. And unlike other implementations where the asynchronous overhead rate is tied to the primary data rate, with Efficient Drop and Insert, the satellite overhead is adjusted to accommodate the baud rate selected by the user.

With Radyne's Efficient Drop and Insert, users can take full advantage of the following capabilities while enjoying the recurring benefit of lower satellite bandwidth:

- T1 terrestrial users can drop or insert 1 to 24 timeslots.

- E1 terrestrial users can drop or insert 1 to 31 timeslots.

- T1 Robbed Bit Signaling (RBS) and E1 Channel Associated Signaling (CAS) are fully functional. T1-RBS is passed transparently and only users of E1-CAS incur the extra overhead required to carry the signaling information.

- A satellite Backward Alarm is included and its functionality is identical to the one contained in the Open Network standard. Thus users who rely on this alarm, or the in station Prompt and Service alarms will retain this functionality when switching to Efficient Drop & Insert.

- Automatic Uplink Power Control (AUPC) is included and allows the modem to compensate for external conditions such as rain fade by automatically adjusting its power to maintain the desired Eb/No.

- For Earth Station to Earth Station communications, the user can select between a low rate synchronous channel or a baud rate selectable asynchronous channel.

Best of all, Radyne's Efficient Drop & Insert is available as a software upgrade on all DMD20, DMD2050, and DMD50 satellite modems equipped for Open Network Drop & Insert. There are no hardware changes required. All connectors and cabling retain their current functionality.

Radyne Efficient Drop and Insert

- Lowest available Drop & Insert overhead at only 0.4%
- Preserves standard Open Network functionality
- Automatic Uplink Power Control included in the 0.4% overhead
- No bandwidth penalty for users who don't require Channel Associated Signaling
- Extremely flexible asynchronous channel for those who need it

Contact your Radyne sales representative and start saving bandwidth and money today!