Product Bulletin
October 2, 2012

CDM-750 Advanced High-Speed Trunking Modem
Base Modem Firmware Release 1.6.1

Comtech EF Data is pleased to announce the availability of the base modem firmware release 1.6.1 for the CDM-750 Advanced High-Speed Trunking Modem. This new firmware release adds Multistream capability to the CDM-750.

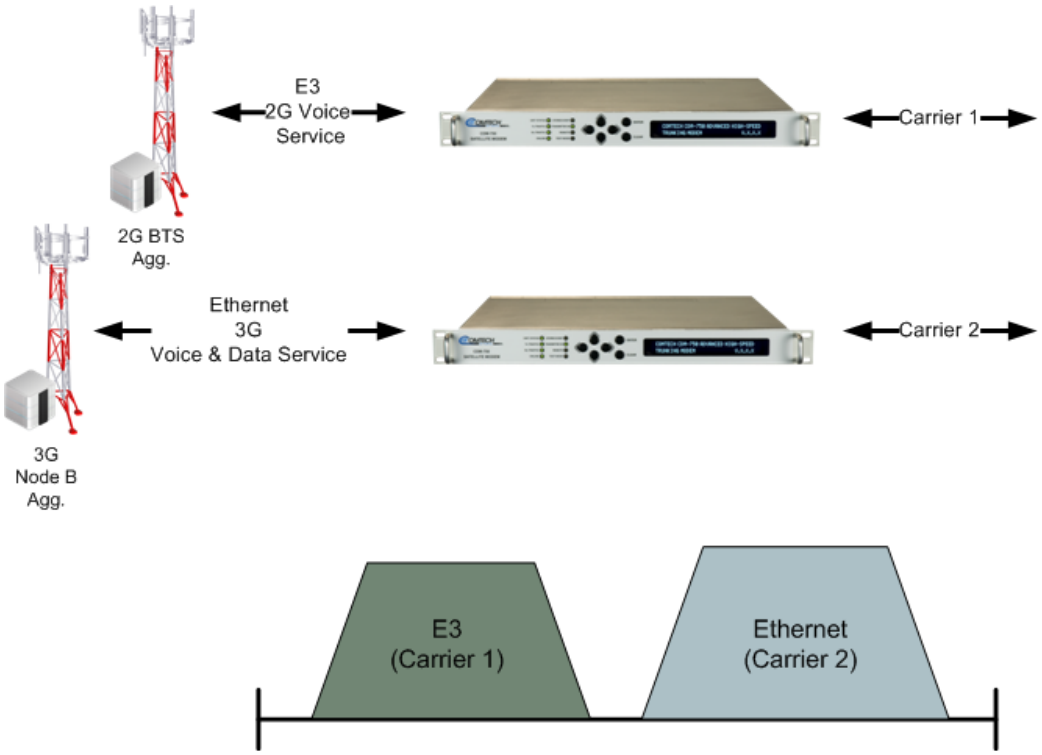
Multistream Operation

Multistream operation is the ability to aggregate multiple services of similar or different structures into a single transmission. The main goal of aggregation is to reduce the number of carriers being passed through the ground amplifier and / or a satellite transponder. From a ground station perspective, simply moving from two carriers (or services) per amplifier to one carrier per amplifier can reduce the required power by as much as 50%. This difference in required power is due to the negative effects of intermodulation. Intermodulation occurs when two or more carriers are passed through a non-linear medium such as an amplifier nearing saturation. These carriers interact with each other creating new signals at multiple frequencies and these signals steal available power from the amplifier. The more carriers per amplifier, the larger the issue becomes. By combining services into a single carrier, there are no interactions between carriers. A similar phenomenon happens with multiple carriers on a transponder. Usually each transponder on a satellite has a dedicated amplifier and the same physics apply.

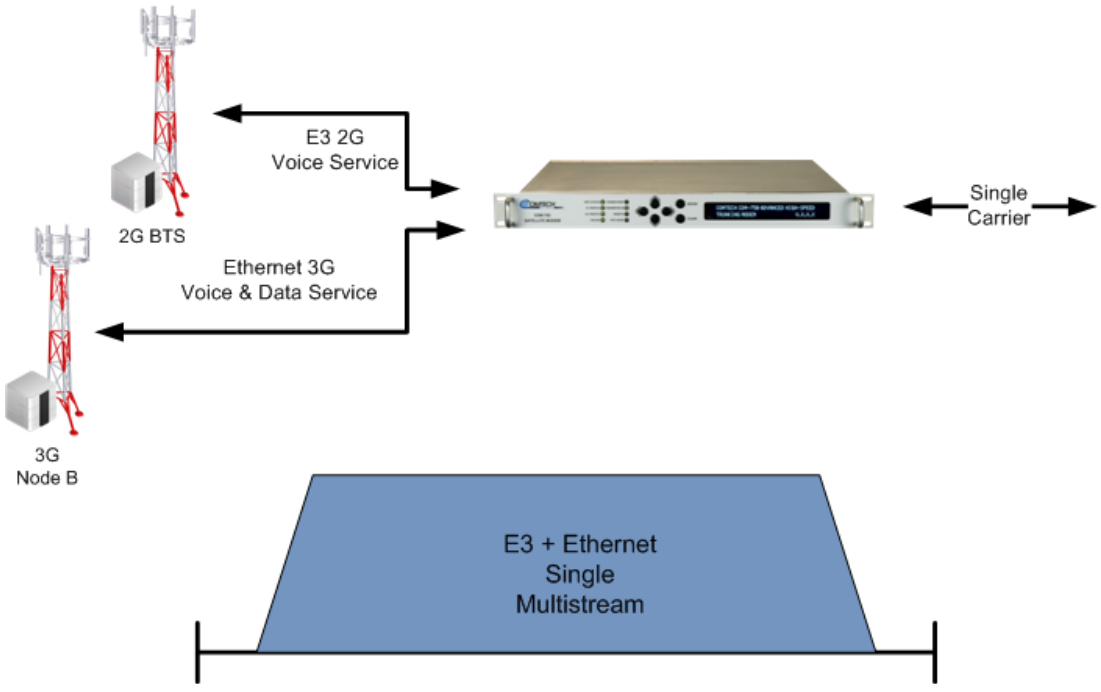
Typically, each service to be transmitted by an earth station (Ethernet data, G.703 voice, etc.) requires an independent data interface to an independent modem or carrier. If a link has more than one service, you need more than one modem and therefore more than one carrier. With our new Multistream operation, multiple services using multiple data interfaces and clocking schemes can co-exist on a single carrier transmission.

- Multistream aggregates different data streams historically needing multiple carriers onto a single carrier
- A single carrier requires less backoff on ground and spacecraft amps
- Multistream acts as a mux / demux
- Multistream can aggregate different data types (IP, G.703, OC-3)
- Clock and data per interface are independent of any other interface

An example of this type of solution is depicted below. A single GSM operator is concurrently transmitting 2G voice over E3 and a 3G voice and data over IP from location A to location B. Historically, this would require two carriers.



Using Multistream operation, these independent services can be combined into a single carrier while retaining data and clock integrity.



To learn more about the CDM-750 Advanced High-Speed Trunking Modem, please refer to our web site, www.comtechefdata.com. To place your order, please contact your Comtech EF Data sales associate.

sales@comtechefdata.com **+1.480.333.2200** **+1.480.333.2540**