NETWORK MONITOR/CONTROL CONCEPT FOR THE WESTERN UNION SATELLITE SWITCHED TDMA ADVANCED WESTAR SYSTEM

R. Markham, K. Sahai, and M. Schimenti, Jr.
Western Union
One Lake Street
Upper Saddle River, New Jersey 07458

ABSTRACT

A description of the network monitor and control and TT&C concepts for the Western Union Satellite Switched TDMA Advanced Westar System is presented. The paper includes a brief description of the major system elements, their functional relationship to the network management center, and the methods to be used for monitoring/responding to station/network performance, reallocating: burst assignments, satellite switch assignments and point-to-point (multipoint) connectivity; and failure restoration of satellite communication payload service.

Network monitoring and control is achieved via information exchanges between the system Network Management Center and the various system elements including: Network Earth Stations, Master Reference Stations, the White Sands TT&C Center, Western Union O&M Centers, and Western Union Administrative Center.

Communication between the TMC and these facilities will be established via both satellite (8 KBPS orderwire channel) and terrestrial links. Fine/Course timing between the network earth stations and the satellite switch will be provided via reference bursts transmitted by the system Master Reference Stations into each of the four zones associated with the individual satellite channels.