THE APS CONTROL SYSTEM NETWORK UPGRADE*

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When it was installed, the APS control system network was at the state-of-the-art. Different aspects of the systemhave been reported at previous meetings. As loads on the controlsnetwork have increased due to newer and faster workstations andfront-end computers, we have found performance of the system declineingand have implemented an upgraded network. There have been dramaticadvances in networking hardware in the last several years. The upgradedAPS controls network replaces the original FDDI backbone and sharedEthernet hubs with redundant gigabit uplinks and fully switched 10/100Ethernet switches with backplane fabrics in excess of 20 Gbits/s. Thecentral collapsed backbone FDDI concentrator has been replaced with aGigibit Ethernet switch with greater than 30 Gbits/s backplane fabric.Full redundancy of the system has been maintained. This paper willdiscuss this upgrade and include performance data and performancecomparisons with the original network.