USE CASE

JPS

SNV-12 VOTER

THE STORY

Voters such as the SNV-12 Signal-and-Noise Voter Comparator have long held a solidly reliable position in Land Mobile Radio (LMR) communications networks by determining the highest quality audio from systems that have multiple receiver sites. As with the inevitable evolution in communications systems, backhaul over IP network is growing. Current and new voter users may be wondering whether their voters are capable of handling both. Fortunately, the SNV-12 Voter can be used with traditional backhaul, with IP backhaul, or with any mix of these backhaul methods. Therefore, it is straightforward to add IP backhaul capability to an existing voter.

APPLICATION
Signal-and-Noise Voting

SCENARIO
Adding IP backhaul to an existing voter solution

THE SOLUTION

The SNV-12 can support both analog and IP network backhaul links between the voter chassis and the remote receiver sites. In fact, an SVM-3 digital Site Voter Module can simply be added to the existing SNV-12 chassis alongside existing SVM-2 analog Site Voter Modules to create a mixed backhaul solution. To complete the IP link between the SVM-3 in the voter chassis and the remote receiver/transmitter site, a QMT-1B IP Backhaul Remote is co-located with the receiver at the remote site. The SVM-3 module and the QMT-1B remotes work collectively to transport transmit and receive audio, and also to mitigate the ill effects of network jitter and loss of audio fidelity that would otherwise cause inaccurate receiver voting.
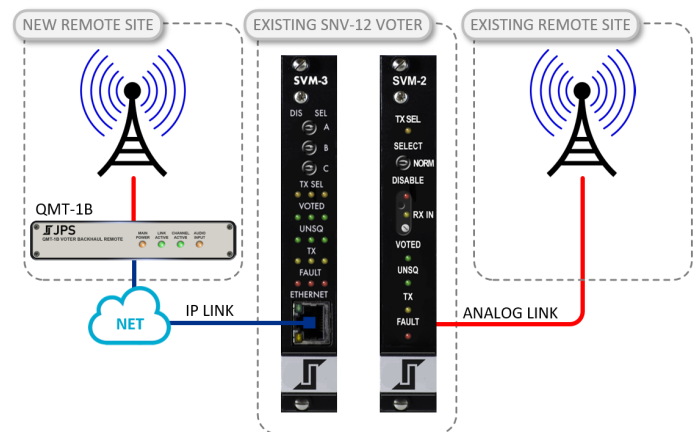
| STORY			
Leased lines and traditional backhaul are being replaced by IP backhaul methods.	**Challenge** — Transitioning takes time and often requires both types of backhaul.	**Solution** — The SNV-12 Voter provides a truly integrated approach.	**Benefits** — Cost-effective, phased migration and implementation.

THE RESULTS

Adding JPS IP backhaul capabilities to an existing SNV-12 is a cost-effective solution for those who need to swap existing analog backhaul links (i.e., lease lines, T1 microwave, etc.) for IP network links. This truly integrated approach does not rely on "bolt-on" middleman solutions that are costly and difficult to scale. Instead, working together as a system, analog SVM-2s work alongside digital SVM-3s to mitigate the effects of fluctuating backhaul path lengths due to network jitter. Remote QMT-1Bs work in concert with digital SVM-3s to directly capture receiver audio characteristics. The 64Kbps vocoder ensures IP backhaul delivers clear, high-quality audio.
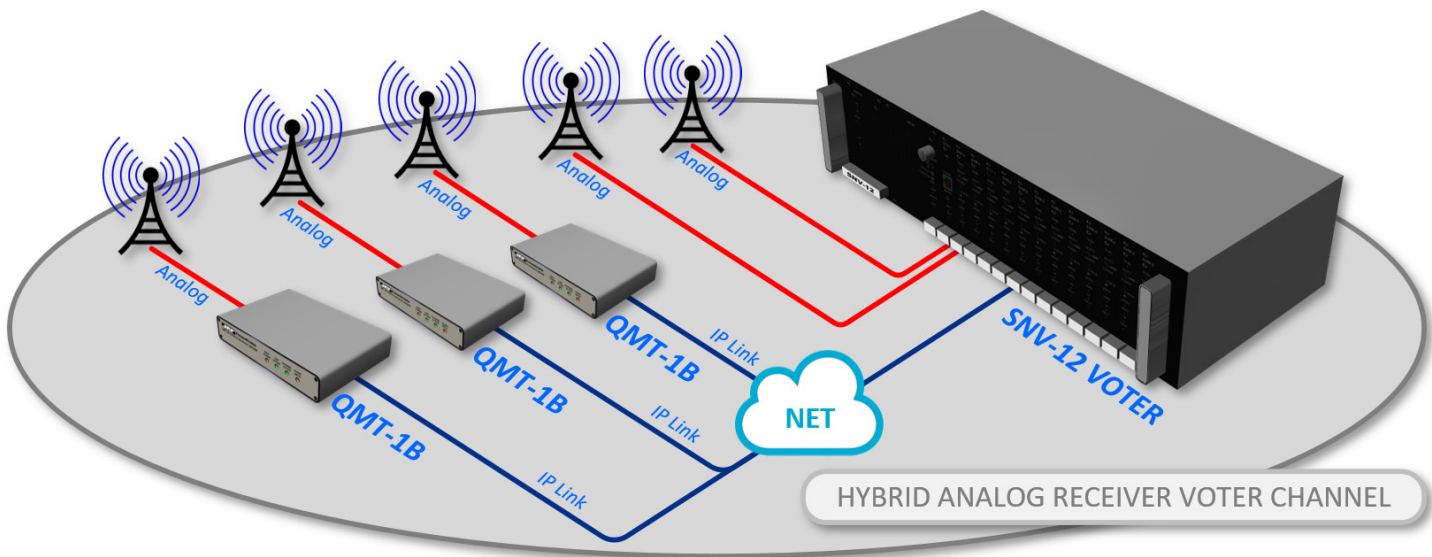
KEY BENEFITS

+ Allows existing SNV-12 Chassis, PSM-1A Power Supply Module, CPM-3 Control Processor Module, CIM-2A Console Interface Module, and SVM-2 Site Voter Modules to be retained

+ Purpose-designed modules - not a bolt-on third-party solution

+ Does not require costly master oscillators, GPS, time references, or Rubidium Standard

+ Phased migration approach allows anything from the execution of a single IP backhaul link to whole-chassis implementation

+ Each SVM-3 is capable of communicating with up to three QMT-1Bs/remote sites

+ Multi-chassis configurations support up to 36 analog backhaul sites, or up to 60 IP or mixed analog and IP backhaul sites