



TVU networks

TVUTransport Mobile

TM2000 Transmit & Receive



Highest Quality Live Video Transport for Mobile Newsgathering Transmissions

For field newsgathering and mobile broadcast professionals - quality and reliability are critical factors in getting your live content delivered back to the newsroom.

Whether for a news crew in a mobile ENG van needing to provide breaking coverage back to your studio, or for a backpack journalist out in the field solo-IP-based options for mobile newsgathering and live video transport have been problematic to date.

Traditional streaming transport requires an expensive, dedicated high bandwidth Internet connection throughout the network. Furthermore, existing IP streaming doesn't efficiently utilize available bandwidth for long distances between transmitter and receiver. Today, to transmit via IP, your only choice has been to accept lower quality video or to spend more for an expensive higher bandwidth connection, and to still be plagued with distance limitations.

Traditional IP video transport requires an expensive, dedicated high bandwidth Internet connection throughout the network in order to be reliable; typically this is logistically difficult or impossible to arrange. Ad hoc IP connections are risky and each added hop increases risks of a congested bottleneck that will ruin on-air performance. Your only choice has been to accept lower quality video or to spend more for an expensive higher bandwidth connection, and to still be plagued with distance liabilities.

And the public Internet? It just can't be depended upon to get your breaking news footage delivered reliably to your newsroom.

The TVU Difference

TVU Networks has designed TVUTransport Mobile to specifically address these mobile broadcaster pain points. As a pair, the TM2000T laptop and TM2000R newsroom appliance, deliver the highest quality live video available in the industry today, and what's more, does so reliably over low bandwidth networks, and over long distances.

TVUTransport Mobile automatically utilizes all available Internet connections, such as multiple 3G and WiFi connections, and aggregates the available bandwidth to deliver studio quality video to your feeds room in real-time, using multi-path connections to dynamically bypass Internet bottlenecks.

Prior to the introduction of TVUTransport Mobile, there was no effective way of combining more than two data connections to transmit a high quality live television feed; The TM2000T allows all available connections to be used and effectively aggregated.

And, unlike typical solutions today that deliver sub-D1 pixel count quality video over a dedicated T1 line, TVUTransport Mobile allows you to go HD, using multiple public Internet connections.

The Technology

The TM2000 appliances are powered by TVU's proven Real-time Packet Replication (RPR) technology for live video delivery, in use by major broadcasters around the world.

RPR, based on the understanding of dynamic network topology information and real-time traffic knowledge accumulated from TVU's 40+ million viewer installations, enables the intelligent distribution of packets in real-time, creating the most efficient way to deliver the highest possible quality of video across a network.

TVUTransport Mobile is the only solution that enables the use of up to six (6) public Internet connections. TVU's proprietary Real-time Multi-connection Protocol (RMCP) makes for the full utilization of each connection and the available bandwidth, continually optimizing the transmission as the broadband network environment changes. In real-time, the system monitors the data line quality and bandwidth of each connection, then dynamically allocates the packet rate across the connections.

Unlike other solutions that are at the mercy of a single connection, TVU's multiple connections and optimization are what make the difference in effectively transmitting high quality video over a 3G environment.

How it Works

On the transmit side, the TM2000T is a completely portable live video transport system, battery-driven, housed in an easy-to-carry and lightweight backpack. The TM2000T is equally at home in a mobile SNG van, or on the shoulders of your single backpack journalist covering the story in the trenches.

Your critical breaking news story is transmitted at the highest video quality available in the industry today, with a configurable latency of 2.5 to 50 seconds.



The ability to gather, edit, and transmit high quality live video, even from the most remote locations in hostile network environments, provides field reporters with the ultimate flexibility when reporting and delivering breaking news. Your reporter works the TM2000T at the push of a button, as a one-touch operation for live transmission, or edits and records for off-line transmission.

Back in the newsroom, your Producer or Assignment Editor has complete control, managing the speed of the transmission to go live on-air. **TVUTransport Mobile** offers your newsroom team the choice to receive the live field footage with only a 2.5 second latency, or adjusting it upwards for a higher quality picture.

What's more, the TM2000R enables selection from multiple feeds from multiple reporters in the field, going live on-air for one story, and capturing other footage for off-line editing as well.

Portability, performance, reliability and low latency – these attributes, coupled with the highest quality video over low data connections and flexible management options - distinguish **TVUTransport Mobile** from the rest, and make it the hands down choice for mobile broadcasters and newsroom management around the world.

Features

TM2000 Transmit – in field

- Completely portable
- Battery-driven
- Edit capabilities
- One-push live transmission
- Automatic recording for off-line transmission
- 6 Internet connections

TM2000 Receive – in studio

- Management console
- Configurable latency : 2.5 to 50 seconds
- Multiple feed capability



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