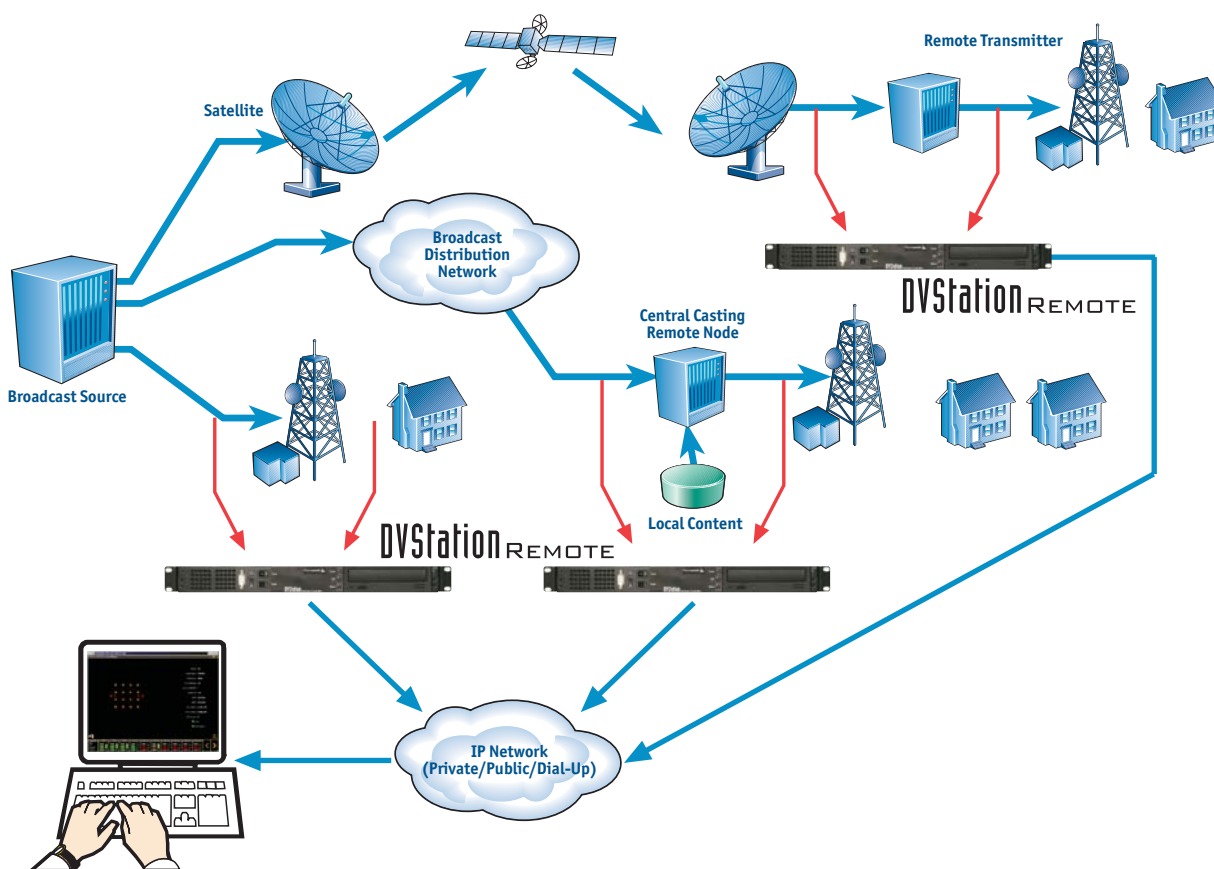DVStation REMOTE

DVStation-Remote
Distributed Preventive Monitoring

Consolidate Performance and Fault Information from Multiple Sites to a Single Location.

Identify Service, MPEG, and RF Problems in Real-time.

A Complete Solution

DVStation-Remote, a distributed preventive monitoring appliance, provides terrestrial, cable, and satellite operators with real-time performance and Quality of Service information from multiple check points in the broadcast chain. Built using the same technology as the 21-port DVStation, it provides physical, transport, and content monitoring in a consolidated system optimized for remote site deployment.

A Few Signals in Many Places

DVStation-Remote is a cost effective preventive monitoring system that scales from one to four physical interfaces. Its compact size, low entry level cost, and flexible user interfaces makes it the ideal system component for monitoring a number of remote installations each with just a few signals. Designed for unattended locations, the system can be completely operated by remote control.
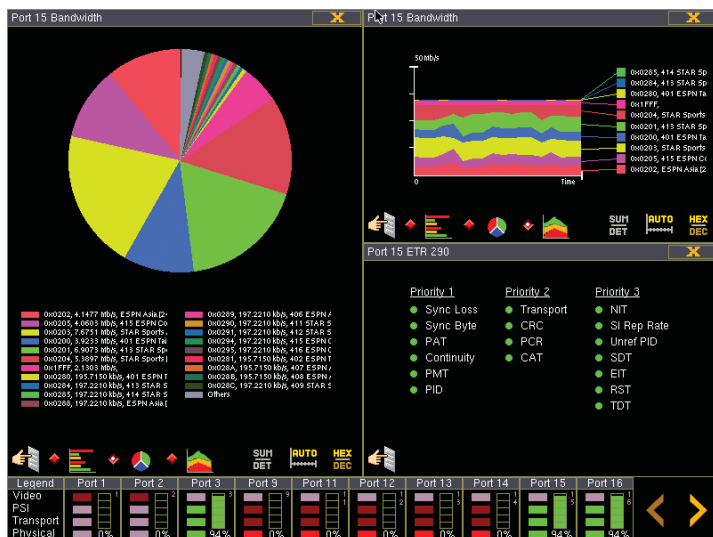
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corporation

The Physical Layer

Monitoring on the physical layer detects erosion of link quality before it results in service impairments. RF interfaces monitor modulation characteristics against user defined thresholds in real time. Graphical presentations such as constellation displays allow engineers to diagnose problems without making a trip to the remote site.
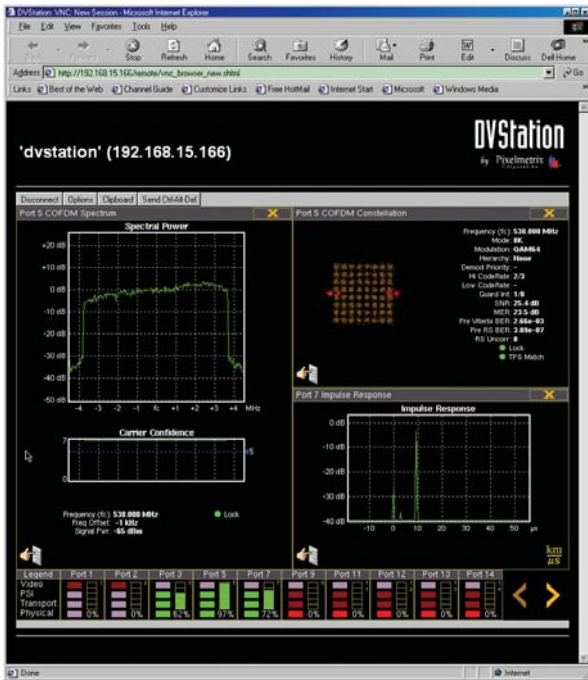
Transport Layer Compliance

A full suite of transport layer analysis tools is available. Starting with high level ETR-290 "Red Light – Green Light" health checks, through PCR testing and bandwidth measurement, down to PSIP/SI table decoding and PID content viewing. A violation of pre-set performance thresholds on any layer can trigger a 96 MB transport stream capture. The trigger point can be anywhere in the buffer so transport stream capture prior to fault is possible. Captured streams can be analysed on the system or off-loaded using a web browser.


Content Validation

Utilizing Pixelmetrix unique Service Content Validation, the system automatically detects and compares the actual broadcast against expectations. Incorrect services, service outages, missing simulcast languages, loss of subtitles/closed-captioning, loss of encryption, incorrect network feeds, etc. can be continuously validated.

Powerful Alarm Sub-System

Alarm thresholds can be set on virtually any parameter on any signal layer. For example, bandwidth of a particular service, RF modulation noise, picture quality, or a service content discrepancy can trigger an alarm event.

For each alarm event a specific action or actions can be executed. These can be making a log file entry, closing GPI contact or audible beep, or even sending a message to a pager or via email. Alarms can also trigger SNMP traps to alert a Network Management System of an exceptional condition.
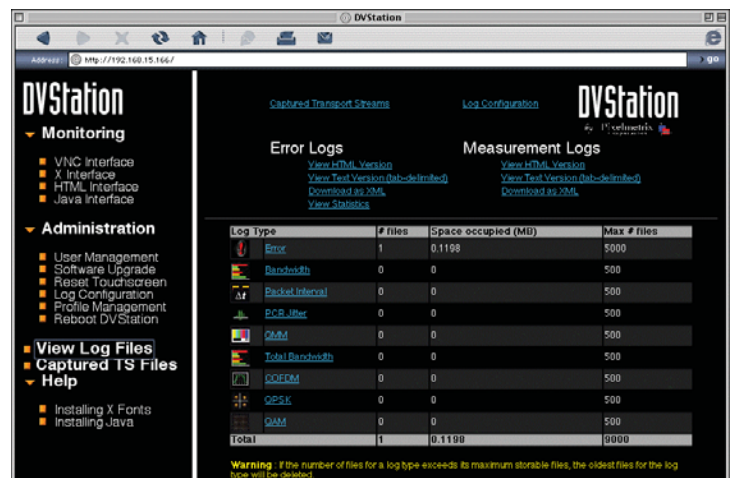
Flexible GUI

The DVStation-Remote offers several User Interface options. HTML pages provide a web browser based user interface for access to log files, transport stream captures, and text-only display of measurements for low bandwidth connections to DVStation-Remote. For higher bandwidth connections, the user may use a Java enabled browser such as IE 5/6 or Netscape 6 for a full graphical interface. Alternately, a native VNC client application may be used. DVStation-Remote's full graphical interfaces also support connections to X11R6 X servers.

All remote interfaces are multi-session. The user may also fit the DVStation-Remote with a mouse and SVGA compatible monitor for a local user interface console.

Consolidating Distributed Monitoring

In a distributed deployment, results can be monitored from a central location using several different approaches. Pixelmetrix Consolidator is a low cost tool for monitoring several DVStation-Remote systems simultaneously. Consolidator provides status-at-a-glance information and clicking on any remote signal port immediately connects the user to that DVStation-Remote system using a full window interface. DVStation-Remote provides connectivity to large scale Network Management Systems though its SNMP interface. The DVStation-Remote SNMP Agent supports Get and Set operations for data retrieval and configuration and generates SNMP Traps for alarm event notifications.
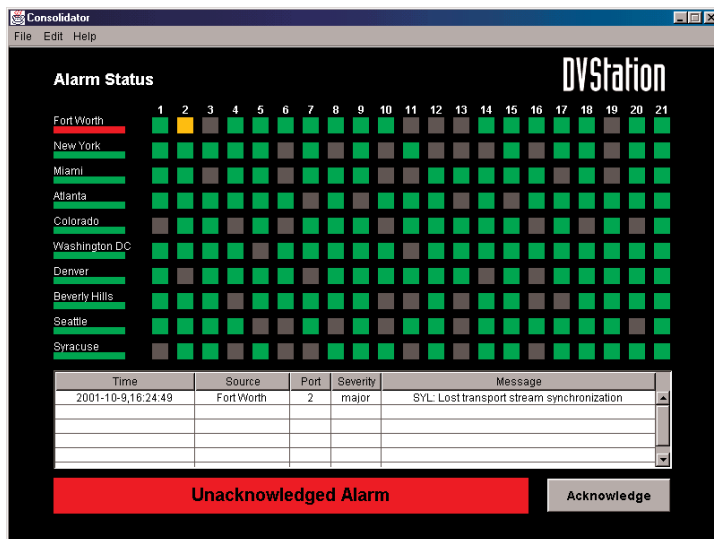
Fully customized applications can be implemented using CORBA to communicate with DVStation-Remote. The built-in Object Request Broker provides CORBA interfaces which enable users' applications to interact with objects on one or more DVStation-Remote systems, in order to retrieve measurements and change configurations.

Keeping Everything in Sync

When monitoring a distributed broadcast chain, proper time correlation of measurements is a must. Multiple DVStation-Remote units across a geography can accurately synchronize to each other using NTP (Network Time Protocol). As an option, the systems can be fitted with an internal GPS time reference receiver. The local timebase can also be synchronized to a 10/27 MHz studio timebase.

IP Based Communication

The DVStation-Remote communicates with remote users or applications over standard IP based links. Fitted standard is a 100BaseTX Ethernet interface, or the user can provide his own serial interface modem for dial-up PPP based links.

Additional Interfaces

One serial interface, one USB, and four GPI contact closures are available for interfacing to external devices.

Rack mount brackets for Pods are available as an option.
Up to two Pod units per each 1 RU.

DVStation-Remote

Signal Monitoring

• Four PodLink ports supporting any combination of up to four DVStation-Pod series modules.

System Interfaces

• Serial RS-232, DE-9P Connector
• USB
• GPI Contacts, 4 Poles, 24V/1A, DE-9P Connector
• PS/2 Keyboard/Mouse (2 connectors)
• VGA Out, 800x600 Operating Resolution
• 10/27 MHz Clock Input / 10 MHz Clock Output, SMA Connector
• Optional GPS Antenna, Powered, SMA Connector

Mass Storage

• 32X CD-ROM
• 80GB HDD

Mechanical / Power / Environmental

• 19" Rack Mount, 1RU
• 90~240 VAC, 47~63 Hz, 5.0 A @ 115 VAC / 2.5A @ 230 VAC Max
• Operating +10 to +30 ºC, Storage 0 to +50 ºC

Regulatory

• UL Listed
• CE Mark

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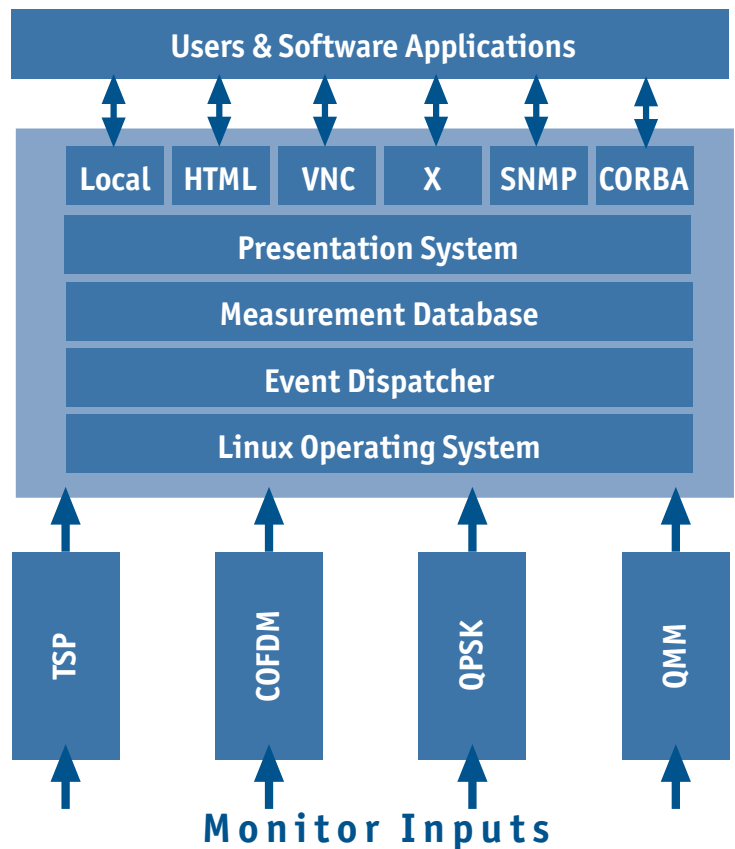Singapore 417818
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STANDARDS BASED OPEN ARCHITECTURE

The DVStation product family is based on open standards that allow maximum interoperability with existing systems and maximum flexibility to expand and integrate in the future.

Users & Software Applications

| Local | HTML | VNC | X | SNMP | CORBA |

Presentation System

Measurement Database

Event Dispatcher

Linux Operating System

TSP COFDM QPSK QMM

Monitor Inputs

Based on core standards like TCP/IP, HTML, VNC and the X Windows System, DVStation-Remote can be deployed in almost any network environment, providing full support for a users preferred interface method. SNMP and CORBA allow easy integration of external software applications. The Remote Controller runs Linux, which provides a stable and reliable foundation for the DVStation software.

Distributor Contact

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