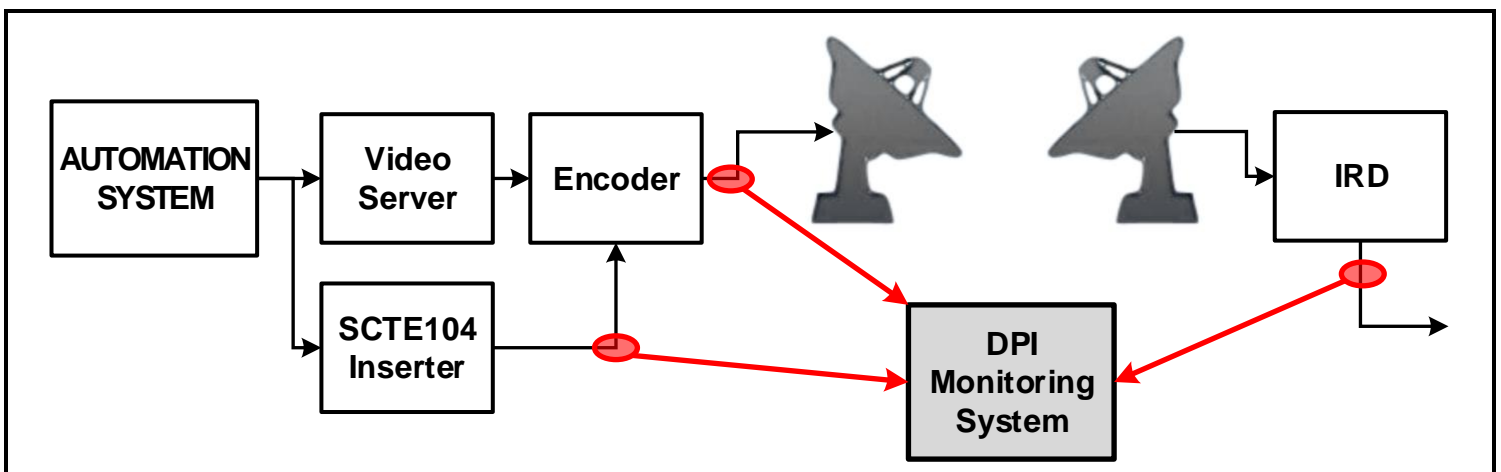


Go-To Solutions that Save Time, Budget and Get the Job Done

NEW

DPI Signal / System Monitoring

- **Real-Time Monitoring of Inbound / Outbound DPI Signaling Events and other Critical Events**
- **Two Modes of Operation:**
 - **Scheduled Mode** monitors Broadcast Playlist for DPI signals & events within the schedule
 - **Live Mode** monitors DPI signals & critical events as they happen
- **Immediate Alarms for Missed and Late Errors**
- **Monitor DPI Signals & Events on a single or multiple Playout Channels**
- **Monitors Events & Devices at *any* connected site, whether Local *or* Global**
- **Alerts Ops & Engineering with Visual Cues, Monitor Wall Text, Tallies and / or Email**



DPI Signal / System Monitoring

Overview

The DPI Signal / System Monitor offers real-time monitoring of SCTE 104 and SCTE 35 Digital Program Insertion(DPI) signals, as well as other elements critical for success. An easy-to-understand Windows® based Event Viewer application gives Operations and Engineering the timely information they need to quickly react and resolve issues.

The Event Viewer application runs on the operator's workstation displaying a reverse chronological listing of received, missing, and late events for all monitored playout channels. Missing and late events are easily identified to facilitate timely corrective action. Workstation may be configured to monitor all, or a selected group of playout channels.

Schedule Mode / Live Mode

DPI Signal / System Monitor offers two modes of operation:

1. *Scheduled Mode* monitors the Broadcast Playlist for DPI signals & events and notifies the Event Viewer of received, missing, and late events.
2. *Live Mode* monitors DPI signals & critical events as they happen and notifies the Event Viewer of received events.

Built on Flex Control Network®

All DPI signal and event monitoring is handled by Flex Control Network®, DNF's popular, field-proven, Ethernet-based, distributed control platform. Flex integrates control across devices and facilities. It enables monitoring and control from a single or multiple locations, either with exclusive or shared control.

Flex Control Network's DC21 Device Controller monitors a wide range of devices over Ethernet, Serial, and GPI/O. Using a standard web-browser, users can easily configure the DC21 to monitor selected signals and events. DPI signals are de-embedded from HD-SDI and ASI streams using off-the-shelf de-embedders, then fed into the DC21 for processing. Real-time notifications are sent from the DC21 to the Event Viewer when a monitored event occurs, is late, or has been missed. Also, error notifications may be sent to other DC21 Device Controllers and GTP-32 Control Processors to generate an email, display a monitor wall notification, and/or trigger visual & aural alert indicators. Error notifications may also be configured to trigger replacement SCTE messages and take other corrective action.

Scalable

The DPI Signal / System Monitor readily scales from a single DC21 Device Controller to multiple interconnected DC21s and GTP-32 Control Processors located within the facility or worldwide.

DC21 Device Controller



DPI Signal / System Monitoring

Real Time Operator Viewer Application

Channels Control							Errors			
Date	Time	Description	Channel							
2016-03-10	18:01:23:08	PID Not Received	Channel 1							
2016-03-10	17:53:16:03	OUTLIER	Channel 1							
2016-03-10	17:52:26:28	LATE	Channel 1							
2016-03-10	17:52:16:05	MISSED1	Channel 1							
2016-03-10	17:42:17:27	OUTLIER	Channel 1							
2016-03-10	17:24:09:04	OUTLIER	Channel 1							
2016-03-10	17:20:47:19	PID Not Received	Channel 1							

Time	Scheduled	Date	Channel	Description	Data Descrip	PID Descrip
18:21:04:15	---	2016-03-10	Channel 1	PID received while in LM	Out of Network = 1	Pid 500
18:20:08:18	---	2016-03-10	Channel 1	PID received while in LM	Out of Network = 1	Pid 1
18:12:08:25	---	2016-03-10	Channel 1	PID received while in LM	Out of Network = 1	Pid 500
18:01:54:21	---	2016-03-10	Channel 1	PID received while in LM	Out of Network = 1	Pid 500
18:01:23:08	18:01:23:08	2016-03-10	Channel 1	PID Not Received	None	Pid 2
18:00:02:09	---	2016-03-10	Channel 1	Live Mode ON 1		
17:53:16:03	00:00:00:00	2016-03-10	Channel 1	OUTLIER	Out of Network = 1	Pid 500
17:52:26:28	17:52:11:04	2016-03-10	Channel 1	LATE	Out of Network = 1	Pid 1
17:52:16:05	17:52:11:04	2016-03-10	Channel 1	MISSED1	Out of Network = 1	Pid 1
17:42:17:27	00:00:00:00	2016-03-10	Channel 1	OUTLIER	Out of Network = 1	Pid 500
17:24:09:04	00:00:00:00	2016-03-10	Channel 1	OUTLIER	Out of Network = 1	Pid 500
17:20:47:19	17:20:47:19	2016-03-10	Channel 1	PID Not Received	None	Pid 2
17:20:17:17	17:20:17:17	2016-03-10	Channel 1	PID Not Received	None	Pid 500
17:19:17:12	17:19:17:12	2016-03-10	Channel 1	PID Not Received	None	Pid 1
17:15:16:26	17:15:16:26	2016-03-10	Channel 1	PID Not Received	None	Pid 2
17:15:11:00	00:00:00:00	2016-03-10	Channel 1	OUTLIER	Out of Network = 1	Pid 500
17:14:16:03	17:14:06:02	2016-03-10	Channel 1	MISSED1	Out of Network = 1	Pid 1
17:14:14:19	00:00:00:00	2016-03-10	Channel 1	OUTLIER	Out of Network = 1	Pid 1

Out Of Network = 0 Description	Out of network = 0
Out Of Network = 1 Description	Out of Network = 1
Cancel Event Description	Cancel Event1
Break Start Out of Sequence Description	Break Start is out of sequence
Break Stop Out of Sequence Description	Break Stop is out of sequence
Live Mode ON Description	Live Mode ON 1
Live Mode OFF Description	Live Mode OFF1
PID received in Live Mode Description	PID received while in LM
List Not Active Description	List Not Active1 1
Outlier - List Not Active Description	Outlier List Not Active1
Maximum Expected DPI Interval	30 minutes
DPI Receipt Window - BEFORE:	5 seconds
DPI Receipt Window - AFTER:	5 seconds
No DPIs Received in Expected Interval	No DPIs Received
Specific PID Not Received in Expected Interval	PID Not Received
IN-OUT Order Error Warning	<input type="checkbox"/>

FLEXIBLE MONITOR CONFIGURATION

- Define the event messages displayed on the Operator's Event Viewer screen
- Define Before & After time periods to allow for early or late monitored signals
- Define maximum time period between signals; between events
- Define maximum time period between specific signals or events
- Monitor Break-Start / Break-Stop Sequence