

Overview

LTN M&C makes end-to-end monitoring, control and automation of any broadcast or general data ecosystem system easy. With a versatile yet powerful software platform, LTN M&C gives operators confidence that their systems are working as they should, and the tools to keep signals flowing when failures occur.

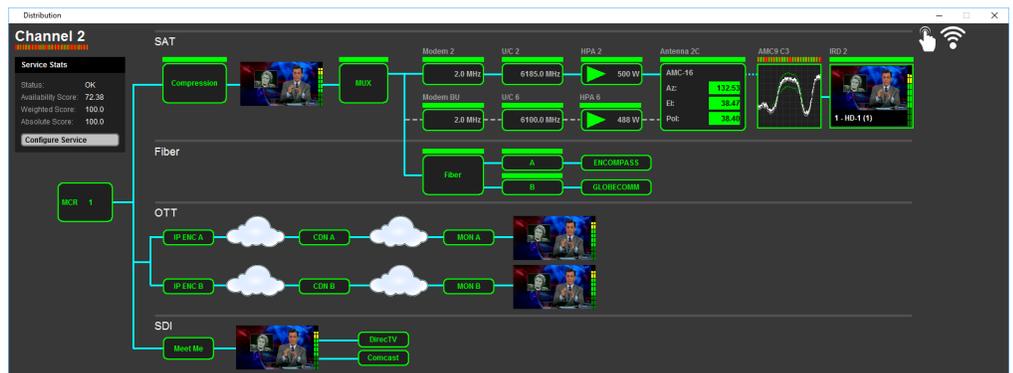
If your operation distributes or contributes video, either terrestrially, via satellite or OTT then LTN M&C improves the uptime and visibility of your system. The increasingly complex broadcast systems require operators to quickly a) switch to a redundant path or know when a switch occurs and b) dispatch the right engineers to the right place in the delivery chain.

Visualize

The LTN M&C drag and drop UI editor is used to create easy-to-understand dashboards that quickly indicate the health of equipment, signal flow, and services. Screens are designed in a hierarchical fashion so an operator can immediately see the source of an issue and quickly drill down to individual device elements. The LTN M&C UI supports widgets like:

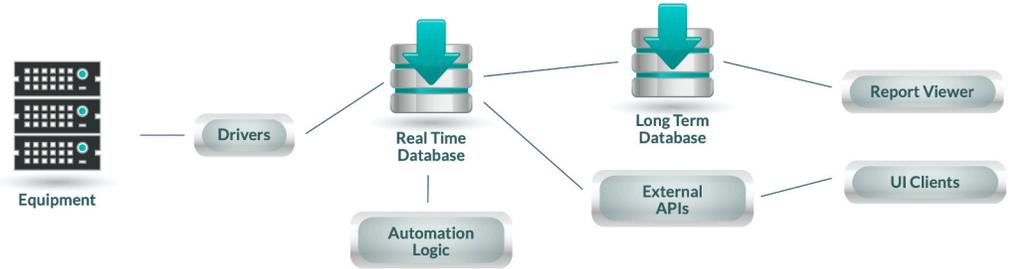
- Thumbnails
- Health stripes
- Strip charts
- Uniform device color states
- Connector line logic
- and more...

Signal flow is clear and tailored to your operations. System aggregates let you know that an entire channel or subsystem is working correctly. And all system faults are shown in a centralized window with options to acknowledge, mask, drill down, and/or view a fault's history.



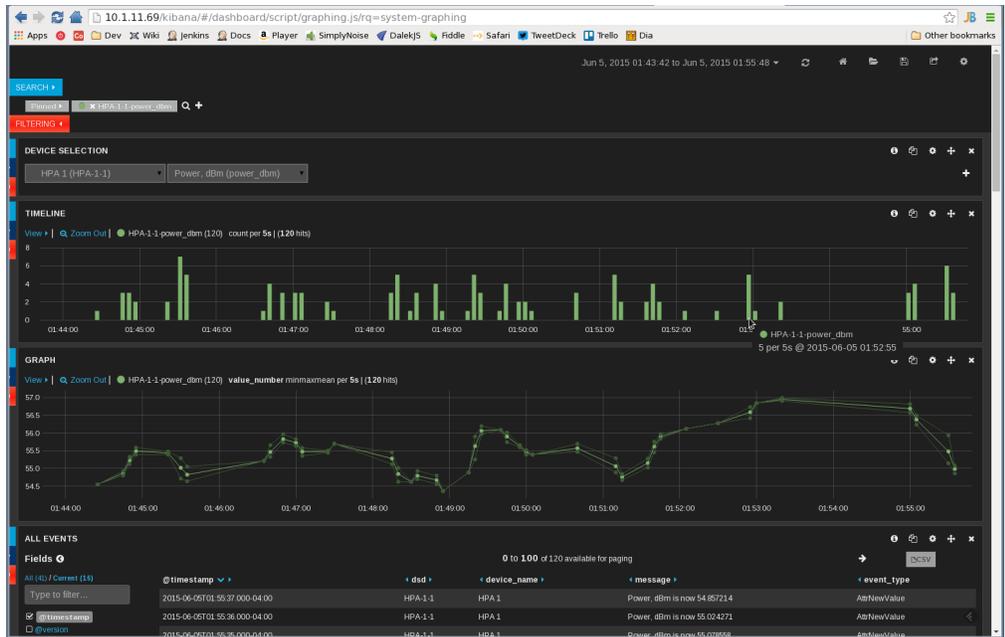
Automate

LTN M&C uses real time equipment data to drive fault protection, site diversity switching, automatic power control or any other type of automation. Automation logic is programmed using a JavaScript UI and/or an internal script recorder. Scripts can be scheduled for repetitive actions, and APIs are available for third party integration.



Report

LTN M&C records all activity, including operator/UI interactions, into a fast, web accessible database. Users can quickly find activity by time, component, or attribute. Filters and graphs are easy to apply, and insightful layouts can be saved and recalled as report dashboards. Reports can be automatically generated and emailed or exported.



Experience

Each pre-configured turnkey LTN M&C system gives total insight into something as small as a power supply to something as large as a multi-site networks. With over 30 years in the broadcast/satellite industry, Crystal has developed thousands of devices and interfaces. Our library is constantly expanding with a proven process for creating and validating Device Support Packages for new devices/APIs.

Specs

- Equipment polling rate – typically every second, but can be as quick as every 10 milliseconds
 - 65,000+ devices per node
 - 256 nodes per system
 - No central point of failure
 - SNMP (southbound and northbound)
 - RS-232
 - RS-422
 - XML
 - JSON
 - REST
 - GPIO
 - GPIB
 - TCP/IP
 - UDP/IP
 - WebSockets
 - RESTful services
 - Elastic search database
 - Linux OS for polling, automation, databases
 - Windows OS for UI
 - Web browser for reports
- and more...