



**CRYSTAL™**  
Wherever Content Flows...™

CONTROL



> **RESILIENT. RELIABLE. RESPONSIVE.**

# Crystal's products enjoy legendary reliability and resilience.

Beginning with robust multi-process architecture at the core, Crystal technology is built for complex, mission-critical environments. Crystal knows that failures – of hardware, software and humans – are unavoidable.

Crystal Control predicts, detects and reacts to problems, and then guides operators and engineers toward analysis, diagnosis and repair.



CRYSTAL

CONTROL



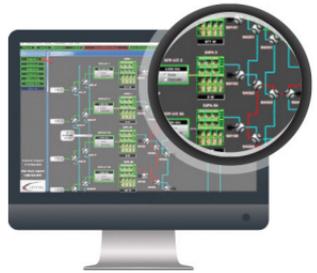
CRYSTAL™

Wherever Content Flows...®

## > NETWORK MANAGEMENT SYSTEM (NMS)

The Network Management System (NMS) sits at the heart of Crystal Control, centralizing, tracking, and visualizing how signals flow through entire video, satellite, and data network systems. Customized for every installation to enhance workflow, NMS connects all equipment, regardless of type, vendor, or age.

With a clean dashboard view of all operations and signal flow, normal functions and problem resolution are intuitive. Through automated routine execution, NMS enables rapid failure recovery and geographic diversity switching, which dramatically increases network resiliency and reliability.



Crystal Makes  
Your Content  
Flow... Let Us  
Show You How!

REQUEST A DEMO:  
[WWW.CRYSTALCC.COM/DEMO](http://WWW.CRYSTALCC.COM/DEMO)

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## > CONTRIBUTION SIGNAL VERIFICATION AND SMART ROUTING

Every day, billions of dollars of content flow through satellite and cable systems that rely on Crystal technology. Crystal thrives in this split-second, round-the-clock environment of news alerts, live events, program content, and commercial messages.

Quickly accessing inbound feeds, identifying core problems, and simplifying the toolset available to network operators is the key to success in this nonstop setting. Crystal Control includes Signal Verification and Smart Routing, developed with and proven at leading contribution operations such as ESPN, CNN, and ABC.

With one click, operators can auto-route and configure spectrum, network, and transport stream analyzers to rapidly resolve problems in acquiring contribution feeds.



## ➤ SITE DIVERSITY SWITCHING AND UPLINK POWER CONTROL (AUPC)

Signal quality and reliability remain paramount in today's world of satellite transmission. With the popularity and increased capacity of higher-frequency signals like the Ku, K, and Ka, bands, signal degradation due to atmospheric interference becomes a serious concern for operators. Transmitters must navigate a middle course between transmitting enough power to overcome the interference and over-saturating the satellite.

Crystal Control's Site Diversity Switching and Automatic Uplink Power Control (AUPC) solution attains that balance. A precise Logic Diagram, which unambiguously specifies what switching actions are to take place under what circumstances, underpins every custom Site Diversity implementation. Customizable algorithms drive AUPC to ensure the correct amount of power is produced by each transmission chain.

Crystal architects solutions for optimization and creates delivery mechanisms that ensure quality control. Crystal know-how and technology is the solution to connect complex, mission-critical environments on a global scale.



#### > CONTRIBUTION

Everyone's a content creator now—and effectively managing a myriad of incoming feeds is imperative for competitive success. From media companies and sports leagues to enterprises and individuals, contributors produce a flood of content that demands rapid and precise configuration, analysis, tagging, routing, storage, and access.



#### > PLAY OUT

Crystal takes the time to understand your unique needs and create an IT-based play out solution that seamlessly integrates the workflow across your network. This approach allows you to take advantage of the industry evolution towards delivering both linear and non-linear content to consumers.



#### > DISTRIBUTION

In a world of steadily growing content complexity, content distribution needs to remain agile, dependable, and flexible. Crystal is the leader in simplifying the flow of content across your network.



#### > OPERATIONAL RESILIENCY

The more complex multi-format content distribution evolves, the more opportunities for transmission interruptions. Crystal works with you to create a plan and build systems that anticipate and prepare for these eventualities before they happen.



#### > BUSINESS INTELLIGENCE

Building on knowledge of how your network is constructed and architected to run, Crystal puts all the information you care about in one place. This knowledge helps you understand how content is flowing across your network and determine how to maximize your investment.



Founded in 1986, Crystal designs and delivers network monitoring and management solutions that improve operational efficiency, analyze errors, and enhance system resiliency, particularly for businesses that deal with complex and dispersed distribution pathways. Every day, program and advertising content worth billions of dollars flows through equipment managed by Crystal for leading media, enterprise, and satellite customers – including Fox, CNN, Disney, and Intelsat. Crystal, a privately held company, is headquartered in Greater Atlanta, GA. For more information, please visit [crystalcc.com](http://crystalcc.com).