How to Build a Post-Print All-Media Command Center for Regional Newspapers

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Abstract

In the all-media era, as the influence and market power of traditional print media continue to decline, revolutionizing content production methods has become an inevitable choice for the media industry to adapt to the new communication landscape. The construction project for Yunnan Daily's All-Media Command Center (the "Central Kitchen") integrates the group's existing media carriers—including official WeChat and Weibo accounts, mobile apps, e-newspapers, mobile newspapers, and comprehensive new…

Full Text

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In the all-media era, as the influence and market power of traditional print media continue to decline, revolutionizing content production methods has become an inevitable choice for the media industry to adapt to the new communication landscape. The construction project for Yunnan Daily's All-Media Command Center (the "Central Kitchen") integrates the group's existing media carriers—including official WeChat and Weibo accounts, mobile apps, e-newspapers, mobile newspapers, and comprehensive news portals—into a deeply converged platform. Supported by new technologies and applications, this initiative creates a technical support and management platform for content production and resource sharing under the group's media convergence strategy. Following its completion, the project is being promoted across the province to establish a vertically integrated sharing system for content, users, and technology at the provincial, municipal, and county levels, enabling centralized control of converged media information and enhancing the news productivity of newspaper groups.

1. Key Elements of All-Media Command Center Construction

The All-Media Command Center serves as the fundamental infrastructure for the Central Kitchen project. Located on the third floor of the Yunnan Daily Newspaper Group's main hall, the facility covers approximately 400 square meters with a diamond-shaped structure. The clear height is about 4.5 meters, featuring a golden ceiling design.

1.1.1 All-Media Production Environment

The completed command center comprises a core command area for leadership decision-making, fixed workstations for all-media editorial production, flexible workstations for partners, and technical management rooms. The all-media news hall represents the physical manifestation and primary carrier of the "Central Kitchen," with the external corridor area serving as an information distribution and rest platform for the newspaper group.

1.1.2 Multi-Functional Layout Design

Beyond the fixed editorial workstations, all furniture in other areas features a movable design, allowing the command center to be flexibly reconfigured as a press conference venue, video live streaming studio, or cultural event space. The environmental lighting system is designed to meet broadcast studio standards.

1.1.3 Power Supply and Integrated Control Systems

The command center's audio system includes professional sound reinforcement, wired and wireless microphone systems, and digital audio processing capabilities to meet the requirements of on-site amplification and video conferencing. The introduction of a central control system also enables management of environmental lighting, air conditioning temperature, equipment power, and motorized devices, ensuring free and flexible signal switching.

2. Technology Implementation

2.1 Distributed Control Technology in the "Central Kitchen"

Based on the construction requirements of the All-Media Command Center, traditional centralized signal processing and matrix control methods proved unsuitable for the Central Kitchen concept. Consequently, we implemented a distributed interactive management platform that combines a fully-switched high-speed network with image fusion display technology. This approach optimizes conventional wiring into lossless transmission over a Category 6 network architecture, achieving frameless interactive experiences and integrated audio-visual control effects that satisfy the signal transmission and control requirements of the Central Kitchen.

2.1.2 Distributed Nodes The core computing unit of the entire distributed management platform is installed in the control room cabinet, with iPad tablets serving as control terminals that, after programming, enable signal calling, equipment power management, infrared device control, audio regulation, and environmental lighting and temperature control. The stage backdrop features a 7,000-lumen DLP three-unit fusion high-definition projection system with three fusion nodes, providing a display area of 11.98 meters by 2.7 meters that can support up to 18 simultaneous display windows. Mobile 84-inch interactive LCD screens flank the main display, while six 50-inch LCD monitors are suspended in a V-shaped configuration on the left, right, and rear sides of the hall, all equipped with output nodes. The central command area, control room, fixed editorial workstations, and flexible collaboration areas are each equipped with varying numbers of input nodes that convert different audio-visual signal formats into digital signals for lossless transmission within the dedicated network.

2.1.3 Network Architecture The distributed platform employs an independent network architecture that is physically isolated from the all-media editorial platform. Using a Category 6 cabling infrastructure, the floor workstations feature multimedia metal sockets configured with a 1:1:1 ratio for device, office, and voice modules, with color-coded modules to distinguish network properties. Cisco gigabit network switches serve as the information exchange backbone.

2.2 Digital Audio Technology in the "Central Kitchen"

According to the architectural drawings and technical requirements for the Central Kitchen, the all-media command center's audio system meets Class I standards for "sound reinforcement halls for both speech and music." The system delivers sufficient volume, uniform and reasonable sound field distribution, excellent sound quality, appropriate transmission gain, and flexible, reliable, and simple operation. We utilized digital audio bus technology to network the equipment throughout the all-media command center. The project employs three cascaded digital audio devices forming an audio management system with a total of 32 microphone/line inputs and 16 line outputs, enabling digital audio signal exchange and shared DSP resources that fully satisfy the distribution and routing requirements for various audio signals in the all-media command center.

3. Operational Performance Post-Launch

Since commencing construction at the end of March 2016 and completing installation and intelligent system commissioning in June 2016, Yunnan Daily Newspaper Group's "Central Kitchen" has functioned not only as a unified workspace for collection, editing, and distribution across all group media but has also hosted numerous practical events of varying scales. These include inspections by supervisory authorities, exchanges with peer organizations, operational training sessions, speech competitions, as well as multiple meetings

and guided tours. All systems have operated normally and received unanimous praise. The actual on-site effects are illustrated in the figure below.

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Note: Figure translations are in progress. See original paper for figures.