

Post-Print: Construction of the Convergence Media Command Center at Jiefang Daily

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Abstract

With the rapid rise of emerging online media, the integration of traditional and emerging media has become an urgent challenge for the print media industry. Liu Qibao, Minister of the Central Propaganda Department, has pointed out that the “Central Kitchen” model constitutes the primary task and standard configuration for the integrated development of traditional media. This paper summarizes the infrastructure, architectural principles, and operational effectiveness of the “Central Kitchen” at Jiefang Daily—the converged media news reporting command center. It briefly introduces the characteristics and functions of the converged media command center, offering empirical insights and reference points for print media seeking to achieve deep integration.

Full Text

Abstract

With the rapid rise of new online media, the integration of traditional and emerging media has become an urgent imperative for the newspaper industry. Liu Qibao, Minister of the Central Propaganda Department, has identified the “central kitchen” model as the primary task and standard configuration for traditional media convergence. This paper summarizes the infrastructure, architectural design, and operational outcomes of Jiefang Daily’s “central kitchen”—the Converged Media News Reporting Command Center. It introduces the key features and functions of the command center, offering practical experience and reference for print media seeking deep integration.

Keywords: Converged Media; Command Center; Large-screen Display Wall

Converged media represents the deep integration of traditional print media (newspapers, periodicals) with emerging digital platforms (websites, Weibo,

WeChat) in the internet era. This integration effectively strengthens the influence, guidance, and competitiveness of print media in public opinion dissemination. It serves as the focal point for transformation and development in today's traditional media industry. Converged media fully leverages existing print resources while complementing different media platforms, achieving comprehensive integration in human resources, content gathering, and public opinion dissemination across all stages—from news planning and command coordination to content collection, external communication, and impact assessment.

Jiefang Daily's Converged Media News Reporting Command Center provides a platform for integrating the newspaper's print and emerging media operations. Centered around a large-screen video wall, the command center integrates computer networks, digital remote conferencing, video matrix systems, command and control, background audio, power supply infrastructure, and facility construction. The system employs modular technology, offering excellent usability, versatility, and scalability to meet functional requirements for news gathering, information processing, terminal display, decision-making, dispatch monitoring, and video conferencing.

In line with its converged media transformation, Jiefang Daily established the command center to track hot news stories, display and analyze all-media content, monitor real-time access data, and enable real-time decision-making by duty leaders. The center also supports the transformation and upgrading of the all-media editorial process to better suit internet-era demands.

1. Project Design

The command center's design and construction adhere to industry-leading technologies while incorporating the newspaper's specific operational characteristics to maximize functional performance and achieve innovative objectives for converged media development.

The command center accommodates daily news duty shifts, command dispatching, and information processing, while also supporting emergency on-site command, remote connectivity, and implementation of response plans during breaking events.

Based on the site layout and floor area, a 3\$×\$4 video matrix wall was planned for the south wall, comprising twelve 55-inch LCD display units. The configuration includes twelve main display screens, one machine room monitoring screen, and two lift-type monitoring screens, with the video matrix controller utilizing a high-definition 16-input/16-output audio-visual intelligent controller.

A handheld wireless PAD terminal controls the large-screen content, enabling power on/off, switching of input signals, and multiple display modes including single-screen, full-wall, six four-screen combinations (upper/lower/left/right/center), and two nine-screen combinations (left/right). Six PC workstations handle outputs for public opinion monitoring and access

data analysis. Additional video sources include conference table laptops, HD TV set-top boxes, and HD cameras for video conferencing. A dedicated control computer serves as backup for PAD failure and doubles as a presentation system for PPT playback during editorial meetings and layout evaluations.

The technical support area behind the video wall houses weak-current cabinets containing computers, matrix equipment, and audio control systems. Sequential power supplies prevent high-current startup issues and stabilize power with filtering. The audio control unit consists of a mixing console and amplifier for switching and amplifying audio inputs from microphones, table inserts, televisions, and video conferences.

A medium-sized conference table occupies the center of the command center, with three information I/O panels (north, east, west sides) providing network interfaces, HDMI video connections to the video wall, and audio inputs. Two lift LED screens enable monitoring of video wall content for leaders. The surrounding space accommodates approximately 25 observers. The converged media editorial office area, primarily staffed by young editors, features a layout suited to their work preferences. The interior design harmonizes with the building's historic preservation architecture.

The public opinion monitoring system employs TRS big data technology with an online cloud-based internet public opinion analysis platform. It performs 24/7 real-time collection and categorization of internet data from news, forums, and social media, classifying content into international, domestic, local, and social media categories for display on the command center's video wall.

The newspaper's access data analysis system utilizes metrics from the all-media editorial platform and new media products, including layout placement, readership, and forwarding data. It generates real-time charts of influence and dissemination power for new media content, plus statistical analyses of daily or weekly publication volume, readership, comments, and likes for command center decision-making.

2. System Principles

The large-screen LCD video wall is fundamentally a multi-functional display device enabling free signal source switching and image composition in single-screen units. Audio-visual source signals pass through an HDMI matrix switcher, connect via a splicing processor to the HDMI inputs of LCD units, and are controlled through matrix, splicing processor, and central control software via PAD or control computer to achieve single-screen, full-wall, or various spliced display combinations.

Technical Specifications:

Display Units: Twelve 55-inch LCD units, one 40-inch monitoring LCD, and two conference table lift displays, all with HDMI digital interfaces and

1920×1080 resolution. Splicing control signal lines use Category 6 ethernet cable with maximum 100-meter transmission distance.

Matrix Switcher: High-definition 16×16 HDMI digital interface matrix with RS-232 communication interface for connection to central control and control computers, enabling software-based control.

Splicing Processor: Integrated image processor for HD video signal acquisition, switching, distribution, and processing, with HDMI input/output supporting 1920×1080 resolution.

Central Controller: Enterprise-level modular programming control system connecting via RS-232 serial ports to matrix, computers, and wireless router, which connects to the handheld IPAD for control of matrix switching and display functions.

Computers: Dell 7040 compact commercial desktops (15cm width × 35cm height), allowing three units side-by-side in a 60cm cabinet, with dual-HDMI graphics cards supporting two display units simultaneously.

KVM Switch: 8-port USB keyboard/mouse switcher connecting six workstations and one control computer, with wireless USB peripherals for remote control of displayed content.

Audio System: Rack-mounted digital mixing console with six mono analog inputs and four stereo analog inputs for computers, set-top boxes, microphones, table inserts, and video conferencing, plus two stereo analog outputs and recording outputs. 590W stereo amplifier with XLR and Euroblock inputs and Speakon/two-terminal outputs.

Sequential Power Supply: 10KVA capacity, 12-channel sequential control, each channel outputting AC 220V (10A) through universal sockets compatible with various plug types.

Operation Terminal: Apple 10.5-inch IPAD, 32GB, with large-screen control APP installed.

3. System Application

Jiefang Daily's Converged Media News Reporting Command Center was completed and accepted in December 2016, operating normally and meeting all functional and design requirements. Beyond daily converged media editorial meetings and on-site command for breaking news, the center also hosts small meetings and visits from external organizations.

During duty shifts, the large-screen system displays international, domestic, and local hot news, social media trends from Weibo and WeChat, and real-time data on new media content dissemination power, influence, and readership. This creates an integrated display wall for public opinion monitoring and newspaper new media data analysis, facilitating on-site command and decision-making by

duty leaders and editors. In practice, one staff member uses the IPAD to switch content or adjust screen layouts while using a wireless keyboard/mouse via KVM to operate the computer corresponding to the displayed content.

Since operation began, improvements have been implemented: the IPAD control interface now features one-touch buttons for four-screen and nine-screen display modes, simplifying operations. Public opinion monitoring keywords have been adjusted to better align with party newspaper priorities.

4. Conclusion

The establishment and operation of Jiefang Daily's Converged Media News Reporting Command Center has promoted the integrated development of traditional print and emerging media. It represents Jiefang Daily's implementation of municipal party committee directives and marks its transformation from traditional print to converged media—a new attempt at media convergence development. The center achieves interconnectivity of all newspaper resources, meeting functional requirements for news gathering, information processing, terminal display, decision-making, dispatch monitoring, and video conferencing. It fully leverages the party newspaper's dissemination power, influence, and guidance capabilities. The newspaper has established management mechanisms adapted to converged development, planning and handling numerous converged media news reports including national and Shanghai Two Sessions and breaking hot events. Jiefang Daily's converged media transformation is a change driven by news content as the core and technical support as the engine, with technical strength powerfully supporting media convergence development and demonstrating that technological means are the solid backing for newspaper transformation.

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

Source: ChinaXiv — Machine translation. Verify with original.