
BNCS - Broadcast Network Control System

We orchestrate IT for media

Atos' Broadcast Network Control System fully controls hybrid media infrastructures with powerful management and orchestration of physical and virtual resources and workflows.



By broadcast professionals for broadcast professionals

Atos has been working on continuous development since BNCS was first implemented for the world's leading public service broadcast organization. The system has been continuously refined, extended and industrialized. It has also been adopted as the integrated master control foundation by leading media companies

Most of the UK's major broadcasters rely daily on BNCS to **control** and **automate** their on-air transmissions. BNCS has become the world's most reliable and agile control platform—trusted to deliver content to millions of viewers. Around the clock. But, whilst the product has been in constant use for over two decades, it has definitely not stood still! **Atos** is constantly updating BNCS to include the very best features and are now introducing **AMWA NMOS** support in the next release.

Now you can monitor and control your IP-based **SMPTE ST2110** video, audio and metadata content—*taking you forward and well into the future.*

Today's broadcasting professionals must manage extraordinary complexity in real time. Switching sources, managing playout, transferring content between studios and outside broadcast units, etc. When you are juggling tens or even hundreds of functions, you need all the help you can get.

With complete access to all facilities from any of a number of designated control locations coupled with full signal path and resource assignment via the BNCS interface, any permutation is possible. And now with the widespread adoption of IP, this opens up enormous possibilities for monitoring and control of media in every conceivable format.

Control everything by touch

The digital revolution is hitting media companies from every conceivable direction. Audiences now take mobile, interactive and on-demand access for granted. The boundaries between professionally produced and user-generated content blur too. Means of payment and management of advertising opportunities are similarly disrupted by digital life-styles. How do we control all of this? By touch, of course...

Challenges

Cost- take advantage of **digital innovation** and acquire the **skills needed** for digital mastery

Monetization- turn digital delivery into direct **financial advantage** & maximise the **value** of all new and archived content

Control- control and monitoring systems are now **vital** to doing the job and have a **direct impact** on audience experience and industry reputation. Here are just three areas that impact this:

Craft

The broadcast and media industries have always relied on highly-skilled craft workers. The digital landscape does not eliminate the need for skills—but it does change the skills required.

Contentment

Everybody needs to focus on their core capabilities. How can skilled professionals give their best unless they are equipped with the tools for the job?

Cost

When the broadcast systems are effectively managed together, there are significant savings in operational cost. Equally, failing to integrate control systems leads to errors and missed opportunities.

NMOS support and future BNCS enhancements

Adopting NMOS brings significant benefits:

BNCS and NMOS- Working together

Atos recognized at an early stage that embracing AMWA NMOS specifications and the suite of SMPTE ST2110 standards as being pivotal to broadcasters maximizing control over their estate of devices and workflows in the emerging world of IP.

Since September 2015, through close involvement in the Network Media Incubator (NMI) Atos has participated in the majority of European workshops, contributing implementation and engineering tools and later on leading some of the design process with IS-07. Atos has showcased in a number of events including NAB, IBC and other IP Showcases.

Benefits of adopting NMOS

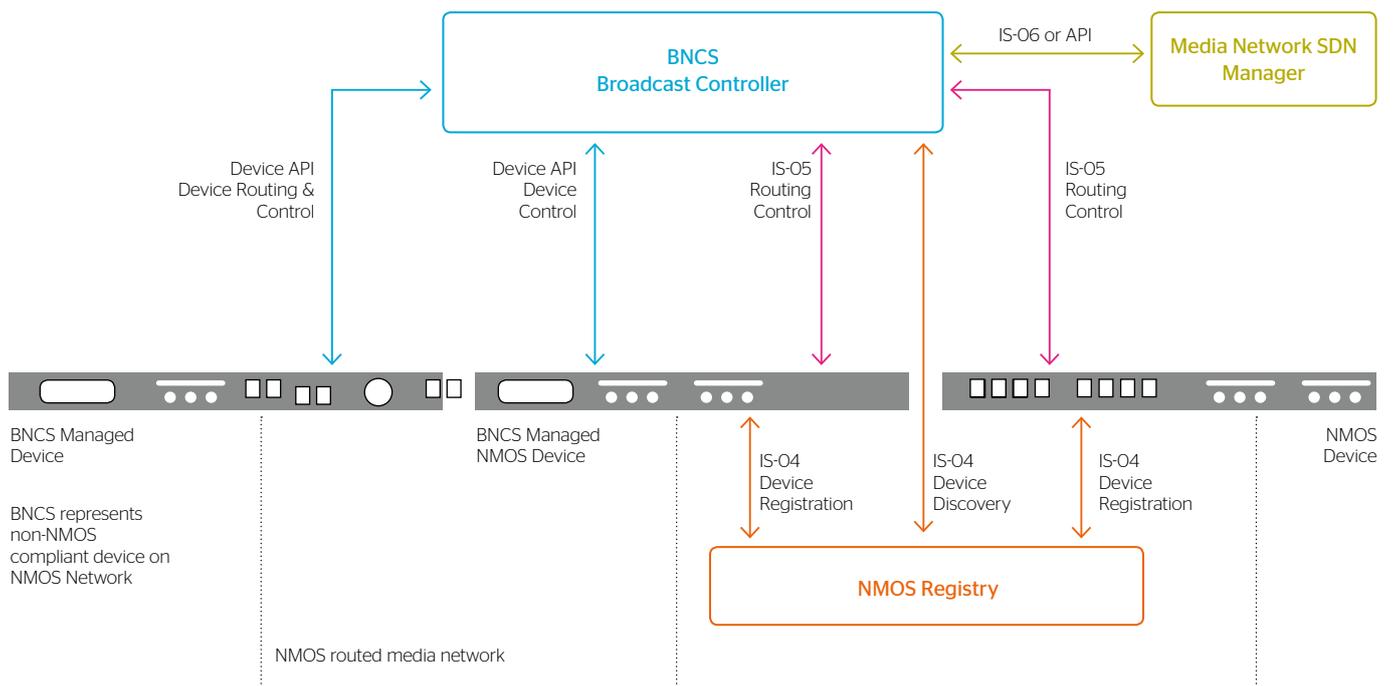
- Promotes interoperability between devices from different manufacturers
- Enables simplified integration - one implementation works with all compliant vendors

Key features:

- Dynamic central registry for all equipment
- Content identity can be traced
- Unified connection management
- Entirely open with the aim of achieving maximum interoperability

Future enhancements in new release

- NMOS support
- Extended infodriver slots
- Enhanced security
- Improved tooling for development and deployment
- Future compatibility hooks with NexGen (Slink, Shared Driver Framework)
- Current, latest supported version
- Access to new modules (Analytics, Machine Learning, Workflow)



Do More | Do Different | Do Better: reducing cost of operations

Every media company wants to reduce the cost of operations - and BNCS will contribute directly to this objective. But do not make cost reduction your primary objective: find better, more productive and more creative ways to work, and cost benefit will automatically follow.

Custom operator panels

BNCS will allow you to introduce practical innovations which until now, have been either impossible to achieve - or at least, impossible to achieve at acceptable cost.

Macro functions

In the real world, media specialists need to coordinate the activities between hundreds of devices from different manufacturers. In the past, interoperability has been a challenge. You can now store and recall macro functions involving multiple devices - saving time and reducing risk.

Common interface

Rather than being obliged to use multiple brand interfaces from device manufacturers, you can create a single (common) interface control panel which meets your own style, language and brand. This is not just about aesthetic control - it's about creating an environment in which professionals can work together with real adaptability.



BNCS features and architecture in detail

The BNCS software suite has been designed to address the widest possible range of operational and technical requirements in the broadcast remote control, alarms and monitoring arena. Products are completely configurable by the end users and fully scalable for future expansion as the business grows.



Functionality

Easy to use touch screen control for all broadcast equipment | integration of all essential control and monitoring needs into a simple, flexible and workflow-based interface | alarms and monitoring modules for event logging | simple to use remote control of broadcast systems | integration of broadcast infrastructure | remote and lights-out operation/monitoring of remote sites | integrated panel designer | easy to manage system updates | easy to use configuration tools



Look and feel

User interface designs model the workflow rather than just the equipment | consistent well thought-out colour schemes | consistent product styling and clear brand guidelines | fully re-skinnable control panels for "makeover"



Technology

Resilient per-to-peer based architecture with no single point of failure | full enterprise scalability | intelligent device modelling | alarms and monitoring based on an IFTTT (if-this-then-that) logic system, for easy configuration, management and reporting of system alarms | parallel integration of new and existing systems



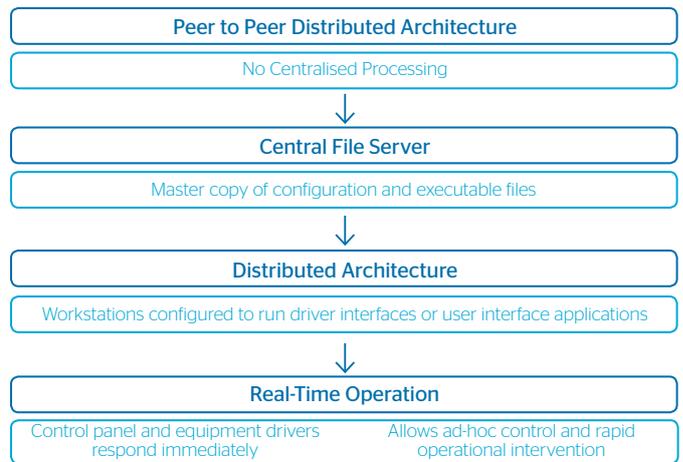
Operator panels

BNCS has been designed specifically to provide a standardised, well-organised process for controlling a wide range of equipment from consistent touch-screen operated control panels. Furthermore, being able to exclude the control of unwanted, confusing or dangerous parameters from the panel is a frequent requirement.



Hardware

To allow a fully integrated approach to control and monitoring, the BNCS architecture uses standard desktop PCs for the user interface workstations on a TCP/IP LAN. Broadcast equipment is connected to the LAN via dedicated device driver PCs, hosting driver applications to manage the communication between each device and BNCS



Integration

The BNCS system allows the exact parameters, capabilities and appropriate user interface elements to be described in a way that the system can understand. All equipment managed by BNCS must have suitable remote-control interfaces or APIs implemented by their respective manufacturers.

BNCS device drivers map the controls and alarms from the third-party equipment and present this information in a consistent way to the network. Once all the devices exist on the network and are described in the language, the necessary user interfaces can be intuitively/prescriptively designed and linked together to make complete operational systems.



Resilience

BNCS is a resilient managed system that monitors and reports its own health and that of the controlled devices. It also provides levels of control redundancy for critical broadcast equipment.

Configuration, management and administration tools are provided to enable super-users to review and manage the panels being run on each operator workstation. Further tools exist for the configuration of major system parameters, and a visual panel editor permits the WYSIWYG design and modification of user interface layouts and functionality.



About Atos

Atos is a global leader in digital transformation with over 110,000 employees in 73 countries and annual revenue of over € 11 billion.

European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information technology space. Its expertise and services support the development of knowledge, education as well as multicultural and pluralistic approaches to research that contribute to scientific and technological excellence. Across the world, the group enables its customers, employees and collaborators, and members of societies at large to live, work and develop sustainably and confidently in the information technology space.

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Let's start a discussion together

