

### OBJECTIVE

NSTPL decided to launch the JAINHITS platform, a Digital Cable TV Distribution Platform Service, in 2012. This was to incorporate the latest video broadcast technologies for its central facility.

This multi-million dollar Central HITS Headend located at Greater Noida, India was to have a fully automated monitoring system for

quality control of telecast channels; a fully redundant Central Equipment Room (CER) equipped with different sets of compression and RF equipment; a Conditional Access System (CAS); an Electronic Program Guide (EPG) and a Subscriber Management System (SMS).

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### SOLUTION

To incorporate state-of-the-art technologies for SD and HD multi-channel downlinking, distribution and transmission that enables all pay and Free-to-Air (FTA) channels to be downlinked at a central facility and then again uplinked with encryption on Intelsat Satellite IS-902. These signals can be downlinked by any existing Multi System Operator (MSO) and Local Cable Operators (LCO) using a single satellite antenna and trans-modulators and sent to their customers/subscribers through their existing cable network. Subscribers can then view these

channels through a high-end MPEG-4 Arris (formerly Motorola) set-top box.

The technology and solutions selected were Arris (formerly Motorola) for compression; Evertz for downlink equipment, routers, Multiviewers; Newtec for modulators; CPI for High Power Amplifiers (HPA) and Miteq for up-converters. This also includes encryption and EPG from NSTV (Novel Super TV) and the SMS solution from Magnaquest.

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### EXECUTION

The solution at the central Headend comprises downlinking 250 channels; encoding the channels to universal format MPEG4; performing a statistical multiplexing, encrypting, modulating; and up-linking using the Intelsat Satellite IS-902.

The solution includes 24 x 7 monitoring of incoming feeds to monitor channels. The solution and the network infrastructure will allow for later expansion to OTT/IPTV services seamlessly. All channels are 24x7 logged for compliance recording.

The MQ Subscriber Management System (SMS) is an integrated, powerful, comprehensive Subscriber management system and billing solution to manage subscribers, contracts, products, packages, distributors, inventory management and billing.

The NSTV Conditional Access (CA) system is capable of handling up to 10 million subs and has hot redundancy at every level.

The EPG and Middleware solution from NSTV provides program information and an efficient search engine, through which subscribers can browse and search for program information conveniently.

# BENCHMARK

**NSTPL JAINHITS –  
a case study**

## SUMMARY

The solution is user friendly, customizable, cost effective and pragmatic. Moreover, the solution is modular and flexible enough to be modified and seamlessly upgraded if the customer's future requirements necessitate upgrading.

## CUSTOMER COMMENTS

"NSTPL is delighted to work with Benchmark Broadcast Systems (BBS). BBS' technical vision and expertise on Broadcast system is outstanding. Team BBS has done a remarkable job in building the

JAINHITS platform which is both flexible and future-ready."

**Mr. Rakesh Gupta, Head, JAINHITS**

## ABOUT JAINHITS

JAINHITS is a Satellite-based Digital Cable TV Distribution Platform which provides digitised and encrypted satellite TV signals directly to Cable Network Owners. This is the only Direct-to-Network (DTN) service in India. This system has an advantage of having a centralized Conditional Access System (CAS) and Subscriber Management System (SMS).

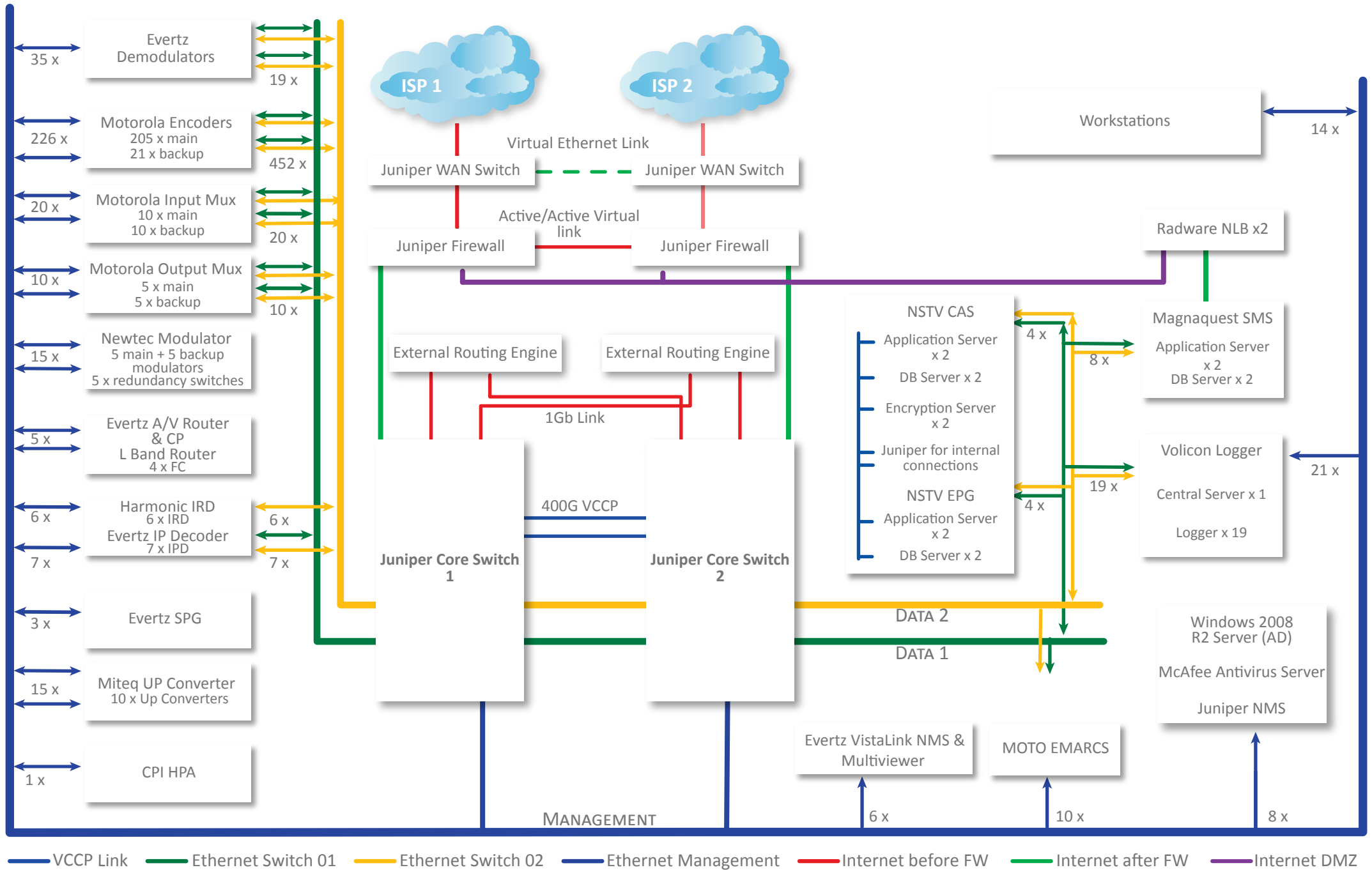
JAINHITS has partnered with ARRIS (formerly Motorola Home), one of the world's leading technology solution providers, as its Technology Partner; and Intelsat, the world's largest satellite company, as its Satel-

lite Partner. JAINHITS services are available on the Intelsat 902 Satellite.

JAINHITS offers Triple Play Service throughout India – Video, Data & Voice. It delivers more than 250 digital channels (including SD & HD), Broadband Services, Interactive and other Value Added Services.

JAINHITS aims to build digital highways through an active network of Independent Service Operators (ISOs)/Local Cable Operators (LCOs) across the country.

# NSTPL Network – High Level Design



— VCCP Link — Ethernet Switch 01 — Ethernet Switch 02 — Ethernet Management — Internet before FW — Internet after FW — Internet DMZ

## ABOUT BENCHMARK

Benchmark Broadcast Systems, is a consultant and technology partner for media and broadcast companies in Asia. Headquartered in Singapore, the Company has offices in Bangkok, Chennai, Delhi, Dhaka, Kuala Lumpur and Manila. Its on-site engineering, software programming, software & systems integration, testing and support services are highly specialised. It operates in network mode with senior managers functioning out of Singapore, Chennai, Delhi and Manila.

Benchmark focuses on providing complete solutions for broadcast and post production applications. The spectrum starts from simple mod-

ules to complete turnkey systems integration services for setting up a totally new TV station or upgrading/modernising existing ones. The Company also provides a complete range of services from pre-sale consultancy, through to systems design and integration, installation, user training, support and even to managed services. Benchmark Broadcast's capabilities extend to configuration of comprehensive enterprise-wide solutions, application support, systems installation and customer training and, importantly, to development of customised solutions.

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