

# Case Study

## NBC Nigeria

Moving quickly to bridge the country's digital divide, Nigeria has seen a move to digital broadcasting as key. The Nigerian Broadcasting Commission, NBC, has been working closely with Eurofins Digital Testing to prepare for the digital switchover.

Seen as something crucial for improving the country's skills base, increasing job opportunities, education and for taking a more significant role in the global economy, Nigeria is making significant technological progress. As part of this programme, the country has adopted an ambitious schedule for digital switchover, which mandates that the existing analogue service will be shut down within eighteen months of the launch of the first consumer DTT service.



The switchover scheme is managed through NBC, the state broadcaster that, in the lead up to the project, had selected DVB-T2 as the transmission standard for both DTT and, in the longer term, DTH broadcasts. It has also adopted the common hardware platform specified by the Economic Community of West African States (ECOWAS).

Eurofins was engaged by the Director General of NBC as the consultant for the digital receiver testing. NBC worked with UK-based, Inview to produce the middleware for NBC's digital rollout

[promoted under the 'Free TV' banner], who would also have responsibility for delivering the EPG and, in the longer term, additional functionality. This will include interactive services, interactive advertising and e-Government services.

Though the design has been specified by Inview, set-top-box production in Nigeria is strictly licenced, with Nigerian manufacturers exclusively participating in the assembly. This has led to the establishment of a major manufacturing plant in Lagos State and with production geared to deliver many millions of units in a very short time, it was crucial that prototypes and initial stock were rigorously tested.



Eurofins' involvement in the testing project was wide ranging and began with an initial analysis of requirements, liaising closely with the key stakeholders. From this, our technical team devised a detailed test plan for DVB-T2 and DTH receivers. Based on our comprehensive test materials (including Evora test streams), our teams built a bespoke Nigerian DTT and DTH test suite. These teams then worked closely with NBC and Inview to clarify, enhance and optimise receiver specification, ultimately leading to a successful pilot test run.

The testing services for both DVB-T2 and DTH receivers were run out of Hong Kong and just a few miles from Shenzhen. Here we provide extensive hosting facilities, allowing us to perform in-depth testing, clarify issues, recreate issues and debug platforms on behalf of both operators and manufacturers.

For NBC, the testing system covered:

DVB-T2 Modulation Modes	Performance Testing
Aspect Ratios	Stability Testing
EPG Event Information Tables	Parental Lock
Programme specific information/service information (PSI/SI)	Time and Date
MPEG4 video modes	Language and fonts
Output interfaces	Subtitling
Product inspection plan	Teletext
Audio testing	RF testing
Remote control testing	Over-the-air downloads

Nigeria's digital switchover programme was successfully launched in April, 2016 in the city of Jos, administrative capital of Plateau State. At the launch, the Nigerian Minister of Information and Culture, Alhaji Lai Mohammed committed to giving away more than 200,000 set top boxes to city residents, and made a further commitment to switching off analogue broadcasts nationwide by the end of the second quarter of 2017.

## About Eurofins Digital Testing

Eurofins Digital Testing is the world's leading end-to-end Quality Assurance (QA) service provider for Digital TV Operators and device testing specialists, operating globally with test lab facilities in the UK, Belgium, Sweden, Poland and Hong Kong. We provide specialised on-site test resources, testing tools and services to validate digital media delivery systems and device conformance for multiple standards and operators across the world. Eurofins Digital Testing was formed from the merger of Digital TV Labs and Testronic Labs Belgium and is part of the Eurofins Group. Eurofins has a network of more than 225 laboratories in 39 countries and has over 23,000 employees worldwide. Eurofins Digital Testing delivers complete testing solutions to manufacturers, broadcasters, operators and related media and device supply chains, covering terrestrial, satellite, cable, OTT and IPTV delivery.

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