

15 October 2024

MEDIA RELEASE

Fibre-like higher speeds demonstrated in planned evolution of the nbn[®] Hybrid Fibre Coaxial network

NBN Co's investments in network upgrades are designed to help deliver faster, more reliable nbn network connections to meet future consumer data demands, and in a live field trial today over its Hybrid Fibre Coaxial (HFC) network, the company showcased wholesale multi-gigabit download speeds.

The demonstration, involving the deployment of Distributed Access Architecture (DAA) on the HFC access network, delivered a wholesale download speed of 8.7 Gbps and an upload speed of 1.5 Gbps. This is an important milestone for the company as it strives to ensure the right technology is ready to support the nation's rapidly accelerating digital demands.

nbn's HFC network provides services via retail providers to around 2.5 million homes and businesses across Sydney, Melbourne, Brisbane, Adelaide and Perth, which are currently able to order nbn Home Ultrafast with near gigabit speeds.¹

nbn is designing prudent upgrades and investments in its HFC network as a cost-effective means of enabling growing customer data demands and higher speed tier products well into 2030 and beyond.

Delivered via CommScope's latest DOCSIS 3.1[®] DAA node and paired with a new generation DOCSIS 4.0[®] Cable Modem, the trial showed that fibre-like speeds could potentially be unlocked for millions of households and businesses connected to the HFC network.

The new equipment digitises the HFC optical node in the street, and in conjunction with nbn's deep fibre deployment, is expected to not only increase data capacity, but improve the performance, resiliency and reliability of the HFC network, while also reducing power consumption.

nbn is further modernising equipment in its HFC network by replacing legacy Amplifiers. The new generation Amplifiers aim to unlock additional capacity and enable efficient remote maintenance of these devices.

The telemetry streaming is designed to provide real-time network status and metrics, which when coupled with AI and Machine Learning analytics, is expected to provide early identification of issues in the network prior to them impacting customer services, leading to higher service availability and improved customer experience.



Dion Ljubanovic, Chief Network Officer at NBN Co, said:

“The investments we continue to make in fibre and HFC are expected to enable higher speeds through greater capacity aimed at enabling Australia to be equipped with the reliable and resilient infrastructure it needs to support the nation’s rapidly growing data needs.

“With DAA technology and Amplifier upgrades, nbn aims to grow the available Radio Frequency bandwidth over the HFC network to enable more DOCSIS 3.1® channels.

“Coupled with DOCSIS 4.0® Cable Modems to aggregate these channels, it is expected that wholesale capacities approaching near 10 Gbps can be unlocked, similar to nbn’s fibre network.

“This successful trial demonstrates the potential future technical capability of the HFC network to deliver fibre-like higher speeds in both the downstream and upstream direction which may help support the data needs of millions of households and businesses across the nation.”

Footnotes

1. Regardless of the retail service an end customer purchases, the actual wholesale speeds delivered by nbn® highest residential wholesale speed tier of 500 to close to 1000 Mbps will be less than 1 Gbps due to equipment and network limitations and the peak information rate may fall anywhere in this range. References to speeds are not customer speeds; they are wholesale layer 2 peak information rate bandwidth provided to retail providers.

NBN Co provides wholesale services to phone and internet providers. nbn® wholesale speed tiers available to providers vary depending on the access technology in an end user’s area. An end customer’s experience, including the speeds actually achieved over the nbn® network, depends on some factors outside nbn’s control (like equipment quality, software and how a retail service provider designs its network) and the nbn technology used for the connection.

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