



Media release

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Cutting edge Tech Lab set to transform nbn™ network experience

Machine learning, big data transforming nbn™ access network experience for all

nbn, the company building Australia's broadband network, has developed a Tech Lab that will leverage big data, machine learning and existing capability to improve end-user experience of the **nbn™** access network and help resolve issues sooner.

With an average of 45,000 premises connected every week, the company is working closely with industry to ensure continuous improvement and a seamless installation experience for end users.

While for the majority, the installation experience is positive, when faults do occur, **nbn's** Tech Lab will help the team determine whether a fault can be dealt with remotely and immediately or whether a field technician needs to visit an end-user home to resolve the fault.

This will potentially save significant time and disruption for the end user. The Tech Lab will also help **nbn** better understand the key factors that drive dissatisfaction and address them so people have a better experience.

The Tech Lab will explore and implement emerging technologies such as machine learning and graph technology – which will provide insights, identify patterns, preferences and trends in people's use and delivery of the services over the **nbn™** access network.

nbn is able to gather the information used in the Tech Lab through a series of surveys that are completed by the end user - with their express consent - about their experiences.

The open source technologies the **nbn** Tech Lab is working with include: Apache SPARK, Kafka, Flume, Cassandra and JanusGraph as well as partner technologies including Amazon Web Services S3 storage, RStudio, H2O.ai and ArangoDB. These technologies and the processes around them could all play a vital role in helping to transform end user experience and enjoyment of services over the **nbn™** access network.

nbn's Chief Systems Engineering Officer, John McInerney, said:

"Our Tech Lab sees us utilising existing capability to solve a complex problem and will help provide us with crucial insights about the way people are using the **nbn™** network.

"Developing these insights will help enrich the customer experience of services over the **nbn™** access network and make our systems and processes more agile by synthesising massive data sets. Once the investigation and implementation of the Tech Lab research is complete we could, for example, easily identify trends that occur in a failed activation in order to pre-empt problems before arriving at a house.

"Faults are an inevitable part of any technology network but minimising the disruption is key to improving the experience. We expect to see significant improvements as a result of early detection and quick resolution."



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