Training Course

CCG-TC-001

NBN Network Architecture

for

Final Year Students
Target Audience

This 1-day course targets final year tertiary students interested in commencing their ICT career through employment on the National Broadband Network.

Industry Focus

The course is presented by industry professionals who have many years of communications industry experience and 4 years NBN experience from both within NBN Co and for a NBN solutions provider.

Course materials include a bound copy of the presentation slides and supporting documents.

Employment Opportunities

Over the next 10 years, up to $70 Billion will be spent on the NBN with $30 Billion from the Government and the remainder from Industry. This investment offers employment opportunities in NBNCo, Telstra, Optus, Foxtel, other Retail Service Providers (RSPs) and their many industry partners. Additionally, there are many R&D opportunities to develop innovative solutions to NBN deployment problems.

The new NBN is now feature rich in technology learning opportunities, including a mix of Fibre to the Premises (FTTP - GPON); Fibre to the Node (FTTN - VDSL); Hybrid Fibre Coax (HFC); Fixed LTE Wireless; Next Generation Satellite; Ethernet Switching; 40/100 Gbit/s DWDM transmission; and associated software development support for Fibre Access Nodes (FANs); Point of Interconnect (POI) systems; security systems; management systems; geographic information systems; apps for tablets; and field data management systems.

Course Structure

Course CCG-TC-001 “NBN Network Architecture” is a top-level overview course aimed at familiarising the student with the end-to-end NBN architecture, including the switching nodes (FANs and POIs); transit networks; distributions networks; and access networks of each technology type.

As detailed below, each aspect of the NBN Network Architecture will be outlined in sufficient depth to give the student an appreciation of the technology involved should they wish to delve further into the details through follow-on NBN training courses offered by CCG and others.

- NBN Co Service Delivery
  This topic will introduce the student to the range of bandwidth services being provided by NBN Co as a wholesale access network provider.

- Switching Nodes
  This topic will outline the switching architecture, multiplexers and interfaces to RSPs; other NBN switching nodes; management nodes and NBN access networks for both FAN sites and POI sites. Telstra exchange lease arrangements, new NBN sites and Temporary FAN (T-FAN) sites for Greenfield deployments will also be discussed.

- Transit Networks
  This topic provides an overview of the multiplexing and transmission networks which connect the FAN sites and POI sites throughout Australia.

- Distribution & Access Networks
  Each access network type and topology will be outlined including FAN site equipment; remote network equipment; access protocols; data rates; cable types; splitters; splice boxes; connector types; RF bands; and end-customer equipment.

- Management Systems
  A brief overview of the NBN management systems will include both central and remote sites and the management protocols employed.

Course Enquiries

See contact details below to make enquiries regarding CCG-TC-001 course availability, pricing, student numbers, discounts and follow-on CCG course availability.