School of Information Technology & Engineering

Melbourne Institute of Technology

Networking/Telecommunication Project Exemplars

Network Project Exemplar

In a Networking project, students will design, develop and implement networking solutions for business problems or opportunities.

An example of networking project is as follows:

Design and Installation of Wireless Network for HCDC

Client: Mrs. XYZ, CEO

Happy Customer Daycare Centre (HCDC)

<<Street Address>>

<<Website>>

<<Email>>

<<Phone>>

Happy Customer Daycare Centre (HCDC) is located in Melbourne. It provides childcare services for parents and guardians of children from infants to pre-adolescents. The building is a new with no interior walls that will be built to suit the needs of the centre. The building is 250 square meters and has only one floor. HCDC wants wireless network systems, which will serve approximately 10 rooms within the building consisting of one nursery room, five classrooms, two administrative offices, a lobby, and an equipment room for all network devices. Mrs. XYZ wants to design and implement a wireless network in the centre. The design should include all network devices including adapters, routers and access points, antennas and repeaters.

Telecom Project Exemplar

In a Telecommunication project, students will design, develop and implement new business and customer solutions which requires the use of electronic hardware and where necessary software as well.

An example of Telecomm project is as follows:

Community Wireless Network for Wentworth, Victoria

Client: Mrs. XYZ

<<Street Address>>

<<Website>>

<<Email>>

<<Phone>>

Wentworth is a small border town in the far south west of the state of New South Wales, Australia. It lies at the confluence of Australia's two most important rivers, the Darling and the Murray, the latter forming the border with the state of Victoria to the south. Wentworth is a part of the rural sector of Australia and population is between 400 and 500. Wentworth residents are still depending on legacy equipment with little or no access to the internet. Slow speeds and outages of up to three weeks have plagued the area for years.

There is a need to design and plan a wireless broadband service for providing high-speed Internet access services in Wentworth and to simulate a pilot program using suitable design software.

This pilot project will create wireless Networks where all residents will have access to information and this knowledge will stimulate economic growth by creating new products, increasing productivity and promoting new commercial and administrative methods. The entire community will benefit from up-to-date information at their fingertips and will be able to grow towards developing an IT knowledgeable workforce.

The following outcomes are necessary:

- Estimate the traffic requirement of the area for broadband wireless services
- Identify the technology that is suitable for handling estimated traffic in the specified area.
- Identify the design software suitable for the selected technology.
- Design the wireless network and simulate using design software.
- Estimate the cost of the project and resources required
- Produce design drawings indicating locations of key network infrastructure as part of their report