



Australian Government

**Assessment Requirements for ICTTEN430
Design infrastructure for
telecommunications network installations**

Release: 1

Assessment Requirements for ICTTEN430 Design infrastructure for telecommunications network installations

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of ability to:

- determine potential earthing locations, cable routes, cables trays, data cabinets, telecommunication enclosures, distributors
- design metal superstructure
- design protective earth and functional earth installations
- design power infrastructure
- design, monitor and rectify faults in DC power distribution
- design locations and facilities for access network infrastructure.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- evaluate capabilities and performance of cabling types, connectors and cabling structures for given design parameters
- explore common carrier telecommunications applications and related equipment and infrastructure suited to a design
- determine the most appropriate connections to carrier infrastructure or equipment
- identify and recognise compliance requirements of current legislation relating to installation of telecommunications equipment and connection to carrier services
- evaluate environmental impacts including options for green information and communications technology (ICT) installations for network topologies, interfaces and interconnect solutions
- define work health and safety (WHS) requirements for the design to ensure a safe installation plan including:
 - confined spaces

- electrical safety
- working at heights
- manual handling and lifting
- materials handling
- physical hazards
- evaluate and summarise network and transmission supplies and equipment required for a design
- determine power requirements and electrical safety for a specific design
- specify warranty information for equipment supplies and contractor work guarantees
- devise an appropriate survey to determine design criteria for a given site
- explore and evaluate the nature of tools and equipment required for installation of the design
- consider power distribution work requirements and the impact on the design.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the telecommunications networks engineering field of work and include access to:

- special purpose tools, equipment and materials
- site where installation of supporting infrastructure may be conducted
- plant, tools and equipment currently used in industry
- relevant regulatory and equipment documentation that impact work activities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>