Assessment Requirements for ICTCBL323 Test cables and systems on customer premises

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Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Release 5.0.

Performance Evidence

The candidate must demonstrate the ability to perform the tasks outlined in the elements, performance criteria, and foundation skills, and to:

- perform certification tests on copper ethernet cables to cover common ethernet cable faults including:
  - crosstalk, attenuation to crosstalk ratio (ACR), delays, wiremaps, attenuation, length
- perform optical time domain reflectometer (OTDR) tests on fibre cables to cover common fibre cable faults and common waveforms for standard fibre cabling events, including:
  - breaks, distance, connectors, Numerical Aperture mismatches, end of fibre, ghosts, splitters
- check capabilities of ethernet cables for power over ethernet (PoE)
- provide power calculations and evaluation of viability and safety of cables providing PoE
- interpret test results
- use appropriate methods to escalate cable faults affecting service delivery
- report on completed cable and system test.

Note: Evidence must be provided at least once when a specific volume or frequency is not stated.

Knowledge Evidence

The candidate must demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria, and foundation skills, which includes knowledge about:

- legislation, codes, enterprise requirements, and other formal agreements that impact on the work activity
- specific WHS requirements and environmental factors relating to the activity and site conditions
- cabling types, connectors and cabling structures
- single-mode (SM) and/or multi-mode (MM) optical fibre links in point-to-point networks

- connections to carrier infrastructure or equipment, such as main distribution frame (MDF) or customer interface units (CIU) or network termination device (NTD)
- electrical and/or optical properties to be measured
- PoE potential hazards and performance specifications
- remote power feed method and system
- test results derived from test equipment and interpretation of test results against expected cable system performance specifications
- typical performance parameters and faults that may be encountered in customer cabling and related connection and transmission equipment
- types of equipment and manufacturer specifications suitable for tests to be carried out.
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Assessment Conditions

Skills must be assessed in a workplace or simulated environment where conditions are typical of those in a telecommunications work environment or workplace.

Access is required to:

- site/s where cable and system tests can be conducted
- cable and system testing equipment currently used in industry
- relevant regulatory and cable specifications that impact on cable and system testing installation activities, including PoE on new and legacy cabling.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. Refer also to the *Requirements for assessors* in the ICT Information and Communications Technology Training Package Companion Volume Implementation Guide.

Links

Companion Volume Implementation Guides are available from VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2