Customer Focused ▶▶
Quality Driven ▶▶▶▶

Certified Network Cable Installer (CNCI®)
10 Days

Program Overview

Become part of the biggest change in the Network Infrastructure Industry in many years...

The CNCI® is shaping the future of the Industry

The Certified Network Cable Installer (CNCI®) program and certification is helping to shape the future of the network cabling infrastructure industry by introducing professional and industry recognised certification to cable installers.

The CNCI® is designed for those wishing to demonstrate the highest levels of knowledge, skills and expertise in network cabling infrastructures. With a team of professionally trained and CNCI® certified individuals the risks are significantly reduced and organisations can feel confident that their staff are competent to meet today's industry demands. When you consider the huge risks associated with not employing professionally qualified people staff, coupled with the impressive Return on Investment (ROI) from utilising trained staff, the answer is to have trained and qualified employees you can rely on to deliver consistent results. The CNCI® offers the perfect solution for network cabling organisations to help ensure they continue to deliver quality of service and confidence to the market place, in addition to helping secure an organisation's professional reputation.

The CNCI® program is comprehensive and blends a perfect mix of theoretical study and practical installation, testing and survey exercises providing the right level of knowledge and skills for both copper and fibre cable installation practices. Official CNCI® certification proves that an individual is qualified to undertake cable installation projects to the highest possible calibre whilst working to the current industry standards and following the very latest codes of best practice.

In addition the CNCI® has achieved vendor acceptance and incorporates the Fluke Versiv™ CCTT program, providing full certification, and the Excel System In installation program, eliminating the need for individuals to attend the 2 day Excel program and just take the Excel Online training element.

This program is a must for individuals currently working within, or wishing to enter, the cable installation and infrastructure environments. Project managers, IT personnel, Installation Technicians, Network Engineers, Data Centre Technicians and electrical engineers would all benefit from attending the CNCI® program.

CNCI® Topics at a Glance

CNCI® Copper Cabling

- Introduction to Strutured Cabling
- LAN Hardware
- Installing Structured Cabling
- Network Overview
- Signal Theory
- Health & Safety
- Standards
- Fire Stopping
- Documentation & Labelling
- Ethernet in the LAN
- Practical
- Fluke CCTT (Copper)

CNCI® Fibre Optic Cabling

- Introduction to Fibre
- Safely Working with Fibre/General safety
- Network Overview
- Hardware
- Theory of Light Transmission
- Cable
- Enclosures
- Standards
- Outside Plant (OSP)
- Documentation & Labelling
- Testing
- Fire Stopping
- Cable Termination/Practical
- Fluke CCTT (Fibre)

"The CNCI® program provides the perfect opportunity for us to get behind a recognised certification that provides the right level of technical knowledge and gives reassurance to customers. The feedback we have had from our staff that have attended the program has been excellent, even those with lots of experience have found the program challenging and rewarding."

Operations Director
- Redstone Converged Solutions

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CNCI®

10 Day Program

Program Content

The CNCI® 10 Day Program consists of **408 pages of rich technical content** of learning and reference material.

Student Profile

The CNCI® program is perfect for individuals wishing to acquire the very latest skills and knowledge to enable them to complete both copper and fibre cable installation projects to the highest standards. It is relevant to new entrants to the cabling industry in addition to those already working within the cable installation environment wishing to formalise their skills. Project managers, IT personnel, installation technicians, network engineers and electricians would all benefit from attending this program.

Pre-requisites

No previous experience is required to attend this program. However, if you are working in the Network Infrastructure industry, it will prove advantageous.

Program Objectives

Successful students will have the knowledge and skills to confidently to install, test and certify a complete copper and fibre cable installation. This forms part of the entry level requirement into the Global Network Infrastructure and Data Centre Education Framework which allows delegates to progress their knowledge, education and skills in line with their career within these fast moving industries. *See www.cnet-training.com to view the the Global Network Infrastructure and Data Centre Education Framework.*

Qualifications

- Level 3 BTEC Advanced Award in Data Communications Cable Installation (Copper)
- Level 3 BTEC Advanced Award in Data Communications Cable Installation (Fibre)

Certification

- Official Certified Network Cable Installer (CNCI®) certification
- Use of the CNCI® logo
- Use of CNCI post nominal letters after your name

Additional Awards

- Eligibility for a CSCS (Construction Skills Certification Scheme) card for both Communications Installer Team Leader and the Communications Installer (Infrastructure).
- Continual Professional Development (CPDs)

Certified Network Cable Installer (CNCI®) Topics

CNCI® Copper Cabling

Introduction to Structured Cabling
- Cable media types
- Network topologies
- Categories

LAN Hardware
- PC's, switches, routers

Installing Structured Cabling
- Standards
- Interpreting drawings
- Project plan preparation
- On-site liaison
- Planning
- Containment installation
- Cable installation, cable termination
- Tool selection

Network Overview
- What is a network
- Characteristics of a network
- Resource sharing
- Why a network

Signal Theory
- Electrical principals
- DC current principals
- Analogue v digital

Health & Safety
- Electrical safety
- Working at heights
- Working in confined spaces
- General safety

Standards
- Why standards?
- Which standard, ISO, CENELEC, TIA/EIA?
- Categories/classes and where standards fit in

Fire Stopping
- Why fire stop?
- Types of fire stopping
- Three pillars of fire stopping

Documentation & Labelling
- Floor plans
- Naming conventions
- Symbols
- Records

Ethernet in the LAN
- Ethernet addressing
- Operation
- Standards

Practical
- Patch cord manufacture
- Cable installation
- Pin designations
- Patch panel/outlet termination, Cat 5e/Cat6

Fluke CCTT (Copper)
- Copper certification (DSX 5000)
- Set up DSX 5000
- Test using DSX 5000
- Troubleshoot
- Test standards/limits
- DSX Diagnostics
- HDTDX and HDTDR

CNCI® Fibre Optic Cabling

Introduction to Fibre
- Terminology
- Components

Safely Working with Fibre/General safety
- LED, VCSEL, laser safety
- Fibre preparation hazards, disposal of sharps
- Hazardous substances
- OSP safety, pits, gas detection
- General safety

Network Overview
- History of fibre
- Advantages
- The future
- What is a network
- Benefits of a network
- Topologies
- Why a network

Hardware
- Cable construction
- LED, VCSEL, laser sources
- Switches, routers, media convertors

Theory of Light Transmission
- Optical windows
- Electromagnetic spectrum
- Transmission
- Media choice

Cable
- Construction
- Choice of cable
- Installation practices
- Patchcords

Enclosures
- ODF
- 19" Splice tray
- Slack fibre management, protection, patch field

Standards
- CENELEC, ISO, TIA/EIA
- Classifications
- Application distances

Connectors
- Connector types
- Functionality
- Density (SFF)

Outside Plant (OSP)
- Fibre To The Home (FTTH)
- Procedures
- Media choice

Documentation & Labelling
- Plans
- Symbols
- Labelling
- Naming conventions
- Records

Testing
- Why test
- Visual inspection
- Continuity
- Tier 1 (OLTS)
- Tier 2 (OLTS + OTDR)
- Test methods/set up

Fire Stopping
- Why fire stop?
- Types of fire stopping
- Three pillars of fire stopping

Cable Termination/Practical
- Safety
- Pigtail manufacture
- Techniques, cold cure, mechanical splice, fusion splice
- Site survey/plan

Fluke CCTT (Fibre)
- Tier 1 fibre certification (CertiFiber® Pro)
- Tier 2 fibre certification (OptiFiber® Pro)
- Encircled Flux (EF)
- End Face Inspection
- Set a reference
- OTDR event types
- OptiFiber® Pro link testing