CNCI®

Certified Network Cable Installer - Resettlement

2 x BTEC Level 3 Awards (Copper & Optical Fibre)

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10 Day
WORK PLACEMENT

+

5 Days
CNCI OPTICAL FIBRE CABLING
BTEC Level 3 Award (Optical Fibre)

+

5 Days
CNCI COPPER CABLING
BTEC Level 3 Award (Copper)

CNet Training

Customer Focused ▶▶
Quality Driven ▶ ▶ ▶ ▶

The **Global Leader** in **Technical Education** for the **Digital Infrastructure Industry**

Resettlement Program Certified Network Cable Installer (CNCI®)

20 DAY PROGRAM

Split into:
- ▶ 5 Days Copper Cabling
- ▶ 5 Days Optical Fibre Cabling
- ▶ 10 Day Work Placement

Combined: 50% Theory 50% Practical

The CNCI® Program consists of 408 pages of rich technical content.

Service Leaver Profile
The CNCI® program is perfect for Service Leavers 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.

Pre-Requisites
No previous experience is required to attend this program.

Program Objectives
Successful Service Leavers will have the knowledge and skills to confidently install, test and certify a complete copper and fibre cable installation. This forms part of the entry level requirement into the Global Digital Infrastructure Education Framework which allows individuals 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 Global Digital Infrastructure Education Framework.

Qualification
- ▶ Internationally and industry recognised BTEC Level 3 Award Certified Network Cable Installer (Copper)
- ▶ Internationally and industry recognised BTEC Level 3 Award Certified Network Cable Installer (Optical Fibre)

Certification
- ▶ Official Certified Network Cable Installer (CNCI®) certification
- ▶ Use of CNCI post nominal title
- ▶ Use of the CNCI® logo
- ▶ Fluke CCTT® certification
- ▶ Use of the official Certified Network Cable Installer (CNCI®) Digital Badge

Certifications are a commitment to life-long learning and offer the perfect portal to ensure knowledge, skills and certification remain current and up-to-date. Each certification gained requires re-certifying every three years via an online learning management system.

Additional Awards
- ▶ Eligibility for an ECS (Electrotechnical Certification Scheme) Network Infrastructure Installer (Level 3) card
- ▶ Continual Professional Development (CPDs)
- ▶ 10 IEEE Continual Education Units (CEUs)

Shaping the future of the Network Infrastructure Sector

Certified Network Cable Installer (CNCI®) Resettlement Program

with a 10 Day Work Placement

The Certified Network Cable Installer (CNCI®) program is shaping the future of the network infrastructure industry as the first official industry standard certification for those working within the network cabling sector. It's the must-have certification for all those working within the sector and is endorsed by the sector's major organisations.

The CNCI® certification is perfect for Service Leavers, combining the **ten-day program** with a further **ten-day work placement** with one of the major installation companies with the potential for employment.

Program Overview

The Certified Network Cable Installer (CNCI®) resettlement program is for Service Leavers wishing to demonstrate the highest levels of knowledge, skills, expertise and competency in network cabling infrastructures and offers a real opportunity to gain employment.

It's a comprehensive program that 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 also provides two industry recognised Level 3 BTEC qualifications and proves that an individual is qualified to undertake cable installation projects to the highest possible calibre whilst working to the current industry standards including BS EN, TIA and ISO, and following the latest codes of best practice. During the program learners will also have access to current standards for reference purposes.

The program is endorsed by major installation companies, manufacturers, industry associations and consultants knowing that it provides the right level of technical knowledge, competence and confidence to the industry whilst demonstrating capability and credibility. Plus, CNCI® certification is now being specified as a must-have certification on tender documentation, ensuring installation teams are certified before being able to work on major new build projects.

This program is a must for Service Leavers who are looking to enter a potentially rewarding career with recognised qualifications and certification. There is also further opportunity to progress as CNet Training are the originators of The Global Digital Infrastructure Education Framework that provides further education programs that map to actual career progression within the industry.

CNCI® Benefits for Individuals
- ▶ Become one of the elite certified network cable installers in the country
- ▶ Demonstrate the highest levels of knowledge, skills and expertise in network infrastructure installation
- ▶ Plan individual tasks and materials required accurately and with confidence
- ▶ Install copper and fibre network cable infrastructure projects on time and within budget, maximising profit potential.

CNCI® Benefits for Business
- ▶ Confidence that employees have a full and rounded knowledge in network infrastructure installation, improving competency and productivity
- ▶ Reduced time and material wastage - employees can carry out tasks in an accurate and timely manner
- ▶ Delivering infrastructure installation projects to the highest quality standards resulting in increased client satisfaction and potential repeat business
- ▶ Meet contractual requirements reducing sign off and project hand over times

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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
- National and International standards
- Interpreting drawings
- Risk evaluation
- Working in containment routes
- Cable installation, cable termination
- Tool and equipment selection

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

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

Health & Safety
- Legislation
- Workplace risk
- Electrical safety
- Working at heights
- Working in confined spaces

Standards
- Why standards?
- Standards bodies BSI, ISO, CENELEC, TIA/EIA
- Categories and classes

Fire Safety
- Why fire stop?
- Types of fire stopping
- Three pillars of fire stopping
- Construction Product Regulation (CPR)

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

Testing & Commissioning
- Continuity testing
- Certification/acceptance testing
- Level IV testing
- Saving of results to database
- O&M manuals

Practical
- Patch cord manufacture
- Cable installation
- Termination techniques UTP/STP
- Patch panel/outlet termination, Cat 5e/Cat6

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

CNCI® Optical Fibre Cabling

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
- What is a network?
- Benefits of a network
- Topologies
- Why a network?

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

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

Connectors
- Connector types
- Functionality
- Density (SFF)

Outside Plant (OSP)
- Fibre backbone in the LAN
- Hardware
- Media choice

Fibre Splicing
- Safety
- Fusion splicer set up and operation
- Singlemode programs
- Multimode programs
- Splicing in patch panels

Fibre Termination
- Safety
- Pigtail manufacture
- Techniques, cold cure, mechanical splice, fusion splice
- End-face inspection techniques

Fluke CCTT (Fibre)
- Tier 1 fibre certification (CertiFibre® Pro)
- Tier 2 fibre certification (OptiFibre® Pro)
- Encircled Flux (EF)
- End face inspection
- Set a reference
- OTDR event types
- OptiFibre® Pro link testing

There are a number of individual practical activities and assignments leading to a group installation project.

> " 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. "
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> **OPERATIONS DIRECTOR**

> " This is a really good program. The content is comprehensive and relevant. The tutor is capable and knowledgeable with ample onsite experience to offer useful analogies and understands the issues faced by installers in the field. "
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> **PROJECT MANAGER**

> " The CNCI® program is comprehensive and at the depth that we were looking for, it also provides official certification and two level 3 qualifications as evidence of learning. "
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> **COURSE CO-ORDINATOR**
> **THE ROYAL CORPS OF SIGNALS**