

Supervisory



Certified Network  
Infrastructure Technician

BTEC Level 4  
Professional Award

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

## Certified Network Infrastructure Technician (CNIT®)

### 5 DAY PROGRAM

Combined:

40% Theory 40% Case Study 20% Practical

#### Learner Profile

This program is designed for those wishing to extend their knowledge, practical hands-on skills, qualifications and certifications into a wider project environment as a Site Delivery Manager with aspirations to progress into roles such as:

- ▶ Site Supervisor (Team Leadership, Health & Safety Management)
- ▶ Site Logistics (Task Management, Stores & Equipment Co-ordination)
- ▶ Technical Lead (Surveyor, Resolver, Quality Assurance, Project Closure)

#### Pre-Requisites

At least four years verifiable experience within the network infrastructure sector or relevant qualifications. Successful completion of the Certified Network Cable Installer (CNCI®) program would be an advantage.

#### Program Objectives

Successful learners will have the knowledge, competency and confidence in complex site environments.

#### Program Requirements

Learners are required to bring a laptop or suitable device with unrestricted internet connectivity, the latest internet browser and suitable applications for reading PDF and standard office documents.

#### Qualification

- ▶ Internationally and industry recognised BTEC Level 4 BTEC Professional Award Certified Network Infrastructure Technician

#### Certification

- ▶ Certified Network Infrastructure Technician (CNIT®) certification
- ▶ Use of CNIT post nominal title
- ▶ Use of the CNIT® logo

#### Additional Awards

- ▶ Eligibility for an ECS (Electrotechnical Certification Scheme) Datacomms Technician card (UK only)
- ▶ Continual Professional Development (CPDs)
- ▶ 5 IEEE Continual Education Units (CEUs)

## Certified Network Infrastructure Technician (CNIT®)

### Program Overview

Take your existing network infrastructure skills to new levels allowing you to successfully control and deliver major infrastructure projects.

The Certified Network Infrastructure Technician (CNIT®) program is a comprehensive program perfect for those with at least four years of verifiable experience within the network infrastructure sector, or relevant qualifications and certifications in a wider project environment.

The five-day program aims to develop the knowledge and skills required to perform the multi-faceted role of a site delivery manager. Learners will greatly enhance their supervisory and management skills through a series of complex case studies mastering the requirements for carrying out preliminary surveys, compiling detailed survey reports, establishing effective relationships and communications with principle stakeholders and managing the end to end project implementation cycle. They will develop an aptitude for logistics and resource management, including team health and safety, dealing with risks and issues that impact project delivery. A certified CNIT® will be undaunted when dealing with escalations and problem resolution within a strategic network infrastructure project.

The CNIT® also takes into account the requirements of the current BS EN, TIA and ISO standards, whilst also meeting the architectural and technical requirements. During the program learners will also have access to current standards for reference purposes. The impact to the project delivery of current and emerging networking technologies will also be explored including wireless access, security systems and VOIP. Learners will also gain significant experience in the management of test records using cloud-based applications, from the cable test through to the delivery of warranty certificates to the customer.

Practical hands-on sessions are incorporated throughout this program, including a focus on advanced copper and fibre infrastructure troubleshooting, as well as MPO inspection, testing and certification.

On successful completion learners can demonstrate the highest levels of knowledge, competency and confidence in delivering complex infrastructure projects, demonstrating efficiencies in both time and cost, coupled with a focus on quality and accuracy in order to achieve project closure on time and within budget.

A CNIT® can also feel confident that they are progressing through The Global Network Infrastructure Education Framework. They also gain an internationally recognised BTEC Level 4 Professional qualification and official CNIT® certification. This certification enters the learner into a commitment to life-long learning and offers the perfect portal to ensure knowledge; skills and certification remain current and up-to-date. Each certification gained from CNet Training requires re-certifying every three years. The process is simple, cost effective and easy via an online learning management system allowing knowledge to be brought up-to-date to reflect the very latest changes and technical developments. Re-certified learners can also benefit from utilising the latest program material, can continue to use the CNIT® logo and post nominal letters for the next three years.

## CNIT® Benefits for Individuals

- ▶ Can plan tasks and materials with confidence and accuracy
- ▶ New and improved technical skills, widening your scope of capability with up-to-date technology
- ▶ Greater understanding of project complexity enabling more effective delivery management
- ▶ Increased focus on service excellence resulting in a “right first time” approach
- ▶ Awareness of stakeholders enabling more effective communications
- ▶ Ability to effectively manage teams, resulting in improved team morale and performance
- ▶ Industry recognised qualification and official certification

## CNIT® Benefits for Business

- ▶ Increased confidence that your project delivery managers can successfully deliver projects with the minimum of supervision and oversight
- ▶ Improve confidence in project progression through accurate reporting
- ▶ Increased customer satisfaction leading to quicker project closure and final payment
- ▶ Greater opportunities for repeat business due to improved quality of service
- ▶ A more structured delivery methodology through standardised task planning and strategies
- ▶ Investment in team development, improves morale and job satisfaction leading to greater staff loyalty
- ▶ Realise cost savings through greater efficiencies

## Certified Network Infrastructure Technician (CNIT®) Topics

### CNIT®

#### Role of the CNIT®

- ▶ Role of the CNIT® in:
  - ▶ The network core layer
  - ▶ The network distribution layer
  - ▶ The network access layer

#### Networking Principles

- ▶ Benefits of networking
- ▶ Network characteristics
- ▶ Modern network components
- ▶ 3-level architecture

#### Standards and Compliance

- ▶ Defining standards
- ▶ Governance and compliance
- ▶ Contractual deliverables
- ▶ BS EN 50173 series
- ▶ BS EN 50174 series
- ▶ Structural hierarchy
- ▶ Technical requirements

#### Implementing Standards Through Project Delivery

- ▶ Understanding the scope of work
- ▶ Documentation
- ▶ Planning work activities
- ▶ Products and processes
- ▶ Project administration

#### Preliminary Survey Requirements

- ▶ Preparation
- ▶ LAN survey
- ▶ Desktop planning
- ▶ OSP walkthrough/pit surveys
- ▶ Cabinet/rack surveys
- ▶ Review existing infrastructure
- ▶ WLAN surveys

#### Outside Plant

- ▶ PPE
- ▶ Cable pits and manholes
- ▶ OSP pathways
- ▶ Building entrance facilities
- ▶ Segregation

#### Health and Safety

- ▶ Construction design and management regulations
- ▶ Site induction
- ▶ Tool box talks
- ▶ Incident reporting

#### Fire Stopping

- ▶ Construction product regulations
- ▶ Compartmentation
- ▶ Fire stopping materials
- ▶ Fire stopping methods
- ▶ Administration

#### Additional Network Architecture

- ▶ Principles of PoE
- ▶ CCTV
- ▶ Door access control
- ▶ Biometric security
- ▶ VOIP

#### Advanced Infrastructure Troubleshooting - Copper

- ▶ Custom setup
- ▶ Standards based setup EN vs TIA
- ▶ 3db/4db rule test and prove
- ▶ TCL +All testing
- ▶ HDTDR/TDX test and analysis
- ▶ POE testing
- ▶ Data centre test requirements
- ▶ Hands-on practical session for copper testing using latest industry test equipment

#### Advanced Infrastructure Troubleshooting - Fibre

- ▶ Loss budgeting
- ▶ Passive optical networks
- ▶ OTDR custom setup
- ▶ OLS/OTP test and certification
- ▶ MPO Tier 1 testing
- ▶ MPO inspection and certification
- ▶ Hands-on practical session for fibre testing using latest industry test equipment

#### Cloud-Based Project Structure

- ▶ Complex project structure
- ▶ Project creation
- ▶ Importing test results
- ▶ Cloud access
- ▶ Re-certification

#### Cabinets and Containment

- ▶ Cabinet structure and components
- ▶ Containment choices, types and construction methods
- ▶ Separation of services

#### Fixings

- ▶ Fixing choices, types and construction methods
- ▶ Tools
- ▶ Deflection calculations
- ▶ Structural Support

## CNIT® Program Breakdown



- Theory
- Case Study
- Practical

## CNIT® Role and Capabilities

