National Competitions

worldskillsuk

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Digital Support & Security Technical Handbook 2026

Contents

Contact Information

Toby Bell

WSUK Competition Organiser
tbell@worldskill

Digital Support & Security Sponsors

We would like to thank all our industry leading sponsors that are passionate about finding the top talented apprentices and make this competition possible

This WorldSkills UK competition is managed by WorldSkills UK (WSUK)

Overview

This competition focuses on all the essential requirements for a successful career in digital support and security.

This competition consists of a series of tasks that include the installation, configuration, maintenance and troubleshooting of ICT networks using predominantly CISCO devices. The competition will test the knowledge and skills learned in the Cisco Network Academy programme. This competition will also test your ability to configure IT hardware and software to meet customer requirements. This will involve setting up a Client / Server network with a domain controller.

This WorldSkills UK competition is managed by WSUK. This competition consists of:
• an entry stage, a virtual task to indicate to yourself and WorldSkills U K you have the competences to proceed
• a national qualifier, which will be delivered as a virtual/remote competition.
• the WorldSkills UK national final, taking place at a venue in the UK. In 2026 this will be Newport in South Wales.

Competitors will undertake a series of practical tasks which will demonstrate their abilities and skills in PC technology and Cisco networking.

The tasks will be carried out using Cisco Packet Tracer at entry stage and Cisco Packet Tracer and cloud based virtual machines using Microsoft Hyper-V at the national qualifier stages. During the national final which will be a in person event real cisco devices will be used alongside virtual machines, Cisco Packet Tracer and Cisco Modelling Labs software.

Further information, including pre-competition sample materials, are available on the WorldSkills UK website.

Pre-Competition Activities:

Competitors should try to familiarise themselves with competition style activities even if you have a fellow student to judge a completed work task during a practical session at college/training provider, this will help prepare you for the competition.

Also, familiarise yourself with current industry processes and procedures for completing a range of task you may need to complete.

One resource that competitors should familiarise themselves with to prepare for competition is the pre-competition activity, made available on our website.

Resources and Registration:

For information and resources, including how to register, competition rules, and the steps to competing, visit our website.

Competition Structure

The Digital Support & Security competition is split into 3 stages:

Stage 1: Entry Stage

A virtual/remote activity used to illustrate competence and skill for digital support and security and allow to selection to Stage 2

Stage 2: National Qualifier

This will be a virtual/remote competition. You will be competing amongst other people across the country at this stage. The top 8 scores from the qualifiers will be then allowed to go through to stage 3.

Stage 3: National Finals

Competitors who achieve the highest marks across all national qualifiers will be invited to compete at the UK Final. There is no automatic entrance to the UK Finals for winners of national qualifiers. WSUK will inform finalists following moderation of marks.

Competitors will undertake a series of practical task which will demonstrate their abilities and skills in PC Technology and Cisco networking.

The Entry and Qualifier stages will be carried out using cloud based virtual machines with nested VMs and the latest version Cisco Packet Tracer.

The National Finals will utilise a combination of Cisco Packet Tracer, real networking kit, Cisco Modelling Labs and virtualized PCs and Servers.

The full competition brief will be provided to each competitor on the morning of the competition qualifiers.

The Digital Support & Security competition will be based on the learning objectives of online courses available through the Cisco Networking Academy, namely Networking Essentials, Linux Unhatched and Linux Essentials.

Competitors will be presented with a variety of virtual hardware and software components:
- storage
- wireless
- cables and switches
- Microsoft Client (Windows 10/11)
- Microsoft Server 2019/2022
- Linux based OS
- Hyper-V used to host Virtual Machines (VMs)

The scope of this competition is as follows:
- setting up a client/server network
- the installation of Active Directory
- the creation of users and groups
- configuration of software RAID
- server services (DHCP, DNS, etc.)
- file and folder security
- local and group policy
- remote access
- IPv6, IPv4, Subnetting,
- Router and switch configuration
- Static routing
- Dynamic Routing Protocols [OSPF, EIGRP]
- NAT/ PAT & DHCP
- VLAN's and inter VLAN routing
- Etherchannel

Specification of the Tasks

Competitors taking part in this competition should have familiarity with the following:

Competence	Entry	Qualifier	Final
Internetworking Device Hardening Securing and managing devices	Yes	Yes	Yes
IP addressing - IPv6, IPv4, Subnetting	Yes	Yes	Yes

	Entry	Qualifier	Final
Router configuration NAT/ PAT ,DHCP	No	Yes	Yes
Switch configuration Etherchannel, VLAN's, Port configuration	No	Yes	Yes
Routing Protocols OSPF, EIGRP inter VLAN routing Static routing / default routes	No	No	Yes
Troubleshooting and debugging routers and switches	No	No	Yes
Configuration based upon customer requirements Interpretation of customer requirements	No	Yes	Yes
Wireless Installation (external) • Android tablet • wireless access point • WIFI dongle 802.11 or NIC	Yes	Yes	Yes
Networking Equipment • hub / switch / wireless access point • network cables (Straight Thru and Crossover) • network components, correct IP / subnet mask address	Yes	Yes	Yes
Software Installation / Security • configuration of software RAID [Microsoft] • setting up a client/server network • the installation of Active Directory • the creation of users and groups • server services (DHCP, DNS, etc.) • file and folder security • local and group policy • remote access	No	Yes	Yes

Marking and Assessment

Each competition module will be assessed and marked independently of any other competition activity.

A panel of judges has been selected from a range of industry, college and training provider representatives. The judges' decisions will be moderated, and quality assured by WorldSkills UK before being confirmed.

Please note that competitors who achieve the highest marks across all national qualifiers will be invited to compete at the UK Final. There is no automatic entrance to the UK Final of winners of national qualifiers. WSUK will inform finalists following moderation of marks.

Judges Top Tips:

Preparation and Practice

A successful competitor will need to be confident, calm and self-assured when competing. Prepare by practicing your skills and techniques to ensure you get the required standard/results you want without any surprises.

Time Management

Learner to manage your time effectively when completing tasks by working smart not fast! The task have allocated times, so practice working to time and under pressure to perfect your timing. If you run out of time in the competition you will lose marks.

Planning

Make your own plans for how to complete each task, work methodically and even write it down to help you prepare.

Organisation

Make sure you are organised, make sure all stages of task are completed. Organise all your equipment and materials for the task.

Time constraints

Time yourself when completing tasks, making a note of any mistakes. When practicing for the competition, each time you complete a task reduce the time and reduce the number of mistakes. Identify ways of reducing the time to complete tasks (shortcuts).

Health & Safety

In any IT work environment Health & Safety is especially important, make sure you use the appropriate PPE for the task, keep your work area tidy and work safely.

Clean and Tidy

Keep your working area tidy as you can be more efficient in a tidy work area. Make sure that when you present your work to the judges it is clean and ready for final judging.

Understanding

Read the task brief thoroughly and make sure you understand what you need to do. Do not be afraid to ask questions, remember there is only one silly question the one you don't ask

Do not worry!

If a part of a task has not gone as well as you might have wanted don't worry or dwell on it, just draw a line under that and get on with the next tasks. Always focus on the marks you can gain not what you might have lost.

Enjoy

To get to the WorldSkills UK national qualifiers or the WorldSkills UK national finals is a massive achievement that you should be extremely proud of! Make the most of the whole WorldSkills UK/ITST Skills Competitions process and enjoy it!

National Final - what to expect

The National finals will take place over 4 days in November. Day 1 involves familiarization, Day 2-3 are competition days and Day 4 has a grand Medal Ceremony in the evening.

The competitors will complete a series of tasks over 2 days of competition. Each competitor will rotate from task to task in the morning and afternoon of each day.

Day 2 AM – IT System design and setup

Day 2 PM - Networking

Day 3 AM – Active Directory configuration

Day 3 PM – Network and system security

Task duration will be 2.5 hours [5 hours per day] starting at approximately 10:00 and finishing at approximately 16:00. Each task is a distinctly separate from every other task,

A period of familiarisation is scheduled to allow you to become acquainted with the tools, materials and equipment you will use during the competition and the tasks to be completed. Use this time to ensure you are conifdent in the use of the applicaitons of all the equipment you will use,

Training for the National Finals

The IT competition manager will provide a range of documentation to prepare you for the national final.

Digital Resources

Cisco online platform will provide full training required; however further practice can be found using the following links
- NetworkLessons.com
- Jeremy's IT Lab
- Geek's Lesson

Competition Rules

A completed registration is an indication that you have agreed to the following:
a) WorldSkills UK Competition Rules
b) Please ensure that you are familiar with these documents ahead of any competition activity.

In addition, competitors must abide by the following competition-specific rules:
- mobile phones to be switched off during competition activity
- listening to music via headphones is not permitted during competition activity
- any question during competition activity should be addressed to the competition Judge
- competitors should not communicate with other competitors during competition activity
- it is the responsibility of each competitor to arrive on time for each competition session. No additional time will be allowed if you arrive late.
- technical failure of your equipment should be reported immediately to your judge. Additional time will be allocated if the fault is beyond the control of the competitor.

Beyond the National Finals

The WorldSkills UK / Network Infrastructure Technician competition's national finals also form part of the selection process for WorldSkills International competitions.

Further details of the international competitions including eligibility criteria can be found on the WorldSkills International website.

You will be notified if you are age eligible.

Those who are not eligible for international competitions may join the Champions programme, which allows continued involvement, including the opportunity to work with WorldSkills UK and visit schools, colleges, and events to inspire the next generations.

Alternatively, if training is of interest to you, you could consider supporting WorldSkills UK with organising and training, and even helping to run the National finals.

Get inspired and become a part of Team UK today!

Career Pathway

What is the job role

IT systems and computer networks are critical parts of almost every organisation. Network and computer systems administrators are responsible for the day-to-day operation of these networks. They organise, install, and support an organisation's computer systems, including local area networks (LANs), wide area networks (WANs), network segments, intranets, and other data communications.

Roles and Responsibilities

Network and computer systems administrators typically do the following:

- determine an organisation's system needs and install network hardware and software

- make needed upgrades and repairs to networks and ensure that systems are operating correctly

- maintain network and computer system security

- evaluate and optimise network or system performance

- add users to a network, and assign and update security permissions on the network

- train users in the proper use of hardware and software

- interpret and solve problems when a user or an automated monitoring system alerts them that a problem exists.

Administrators manage an organisation's servers and desktop and mobile equipment. They ensure that email and data storage networks work properly. They also make sure that employees' workstations are working efficiently and stay connected to the central computer network.
Some administrators manage telecommunication networks.

Administrators may help network architects design and analyse network models. They also participate in decisions about buying future hardware or software to upgrade their organisation's network. Some administrators provide technical support to computer users, and they also may supervise computer support specialists who help solve users' problems

Qualifications

There are several technical qualifications including: Microssoft (MOU), Cisco (CCNA)

A minimum of a BTEC, degree or equivalent relevant practical experience.

Average UK salary for IT careers
- Information technology and telecommunications directors - £78,637
- IT business analysts, architects, and systems designers - £50,127
- Information technology and telecommunications professionals - £45,943
- IT project and programme managers - £54,545
- IT specialist managers - £52,716
- IT user support technicians - £30,825
- IT operations technicians - £32,813
- Programmers and software development professionals - £45,153
- Information technology technicians

Average salary rates sourced from here

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WorldSkills UK is registered at
52-54 St John Street
London EC1M 4HF

T: 0800 612 0742
E: getintouch@worldskillsuk.org
W: worldskillsuk.org