IT Support Technician

Technical Handbook

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

Overview:

This competition focuses on all the essential requirements for a successful career as an IT Support Technician within any industry.

This competition tests 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 you have the competences to proceed.
- a national qualifier, which will be delivered as a face-to-face competition.
- the WorldSkills UK national final, taking place at a venue in the UK.

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

The practical tasks will be carried out using virtual machines hosted on a Windows 10 base PC
All competition machines will be hosted in a virtual environment using Oracle Virtual Box or Microsoft Hyper-V.

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

Career Pathway:

What is the job role?
IT systems and computer networks are critical parts of almost every organisation. Network and IT Support Technicians 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 and intranets. The role of an IT Technician is to provide both remote support and attend site visits to install and maintain a range of different technologies.

Roles and Responsibilities
Network and IT Support Technicians typically do the following:
- 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

IT Support Technicians support and 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.

Qualifications

There are a number of technical qualifications including:

Microsoft (MOU), CompTIA,
A minimum of a BTEC, degree or equivalent relevant practical equivalent.

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 – £31,731

Average salary figures taken from this link

Resources and Registration:

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

Pre-Competition Activities:

Competitors should try to familiarise themselves with competition style activities even if you ask 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 undertaking a range of tasks you may need to complete.

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

Competition Structure:

The IT Support Technician competition is split into three stages:

Stage 1: Entry Stage

A virtual led competition activity to illustrate competence and skill for IT Support Technician and allow selection to Stage 2.

Stage 2: National Qualifier

This will be a face-to-face competition round. You will be competing amongst other people across the country in this round. The top 8 highest scorers from the qualifiers will be then allowed to go through to the national finals.

Stage 3: National Final

The top 8 highest scorers from across all the national qualifiers will be invited to compete at the UK National Final. There is no automatic entrance to the UK National Final for winners of each national qualifier heat. WSUK will announce the finalists following moderation of marks.

This competition tests 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.

Competitors will be presented with a variety of hardware and software components:
- storage
- wireless
- peripherals including printers
- cables and switches
- Microsoft Client (Windows 10)
- Microsoft Server 2016/2019
- Linux based OS
- Oracle Virtual Box used to host Virtual Machines (VMs)
- Hyper-V used to host Virtual Machines (VMs)

The scope of the competition is as follows:
- installation of Windows operating systems
- configuration of software RAID
- 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

They should be familiar with application software Microsoft Office 2016 or later

Specification of the Tasks

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

Competence	Entry	Qualifier	Final
Internal component installation • HDD / Additional HDD • Memory • NIC / VGA / Sound Card / WIFI NIC • Power Unit • BIOS	No	No	Yes
Peripheral Installation (external) • printer • web cam / digital camera / scanner • external HDD / DVD	No	No	Yes

Competence	Entry	Qualifier	Final
Wireless Installation (external) • Android tablet • wireless access point • WIFI dongle 802.11	Yes	Yes	Yes
Networking Equipment • hub / switch / wireless access point • network cables (Straight Thru and Crossover)	Yes	Yes	Yes
Software Installation / Security • installation of Windows/Linux Operating systems • peripheral drivers • network components, correct IP / subnet mask address • 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.

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

Learn to manage your time effectively when completing tasks by working smart not fast!

The tasks 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 a 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 & Safely

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 task. 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!
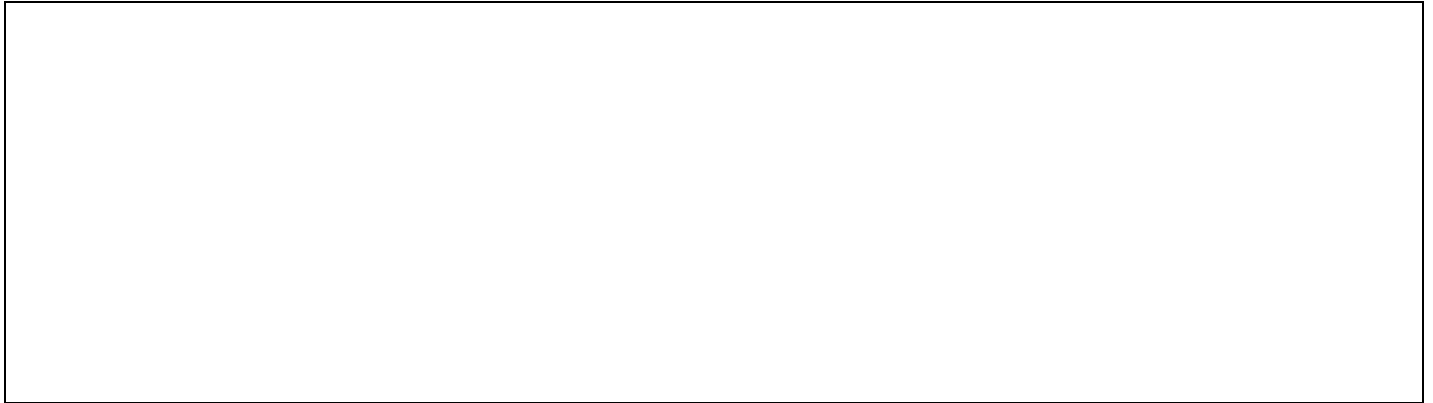
National Final

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

The competitors will complete a series of tasks over 2 days and steadily construct a working internetwork of wired and wireless devices.

There will be discrete Troubleshooting/IT Help Desk tasks that will occur in 30-minute slots during the two competition days. Task duration will be 5 hours per day. Completed tasks will be marked on the same days.

A period of familiarisation is scheduled the day before the competition days 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 confident in the use of the applications of all the equipment you will use.

Networking Team Challenge. This activity gives you a chance to work in a team and complete a fun but challenging task to demonstrate your skills to the public and visitors without the pressure of the competition.

Training for the National Finals

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

Digital Resources:

Useful 'How to Guides' from our sponsors can be used to help you prepare for the competition:

- technology for teachers and students

- sakitech

- geek's lesson

Competition Rules

A completed registration is an indication that you have agreed to the following:
- a) WorldSkills UK Competition Rules
- b) WorldSkills UK Terms and Conditions

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 questions 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 / IT Support 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!