

IT Solutions Technician

Hardware or Software (Level 3)



Phase 1

Induction & Onboarding



Phase 2

Training modules and 1 to 1 sessions



CISCO IT
Essentials



Security &
Legislation



Core Technical
IT Knowledge



Methodologies &
Principles



Hardware
or
Software



MTA
HW or SW
Path



Phase 3

Assessment Gateway



Phase 4

End Point Assessment



Programme delivery

All of our modules are trainer-led remote training sessions.

Phase	Month	Training Modules	Length	Session Times
Phase 1		Induction and Onboarding	1 - 2 days	All training days are delivered across three online sessions at the following times: 9am - 10.30am 11am - 12.30pm 1.30pm - 4pm
Phase 2	1	Cisco IT Essentials	5 days	
	2	Security & Legislation Part 1	3 days	
	2	Security & Legislation Part 2	3 days	
	4	Core Technical IT Knowledge Part 1	3 days	
	4	Core Technical IT Knowledge Part 2	3 days	
	5	Core Technical IT Knowledge Part 3	3 days	
	5	Core Technical IT Knowledge Part 4	3 days	
	6	Methodologies & Principles Part 1	3 days	
	6	Methodologies & Principles Part 2	3 days	
	8	Hardware or Software Path Part 1	4 days	
	9	Hardware or Software Path Part 2	3 days	
	9	Hardware or Software Path Part 3	3 days	
	10	Hardware: MTA Networking Fundamentals (Optional) Software: MTA Software Development Fundamentals C# (Optional)	5 days	
Phase 3	11	Assessment Gateway (EPA Prep)	4 days	
Phase 4	13	End Point Assessment	5 days	

Course Details



Induction and Onboarding

Our Induction and Onboarding team will assist apprentices in understanding their programme.

Functional Skills

If required, apprentices will complete functional skills in Maths and English. Sessions can take up to 3 days. Exams take 2 hours.

CISCO IT Essentials

- Introduction to PC hardware
- PC Assembly
- Advanced computer hardware
- Preventive maintenance and troubleshooting
- Networking concepts
- Applied networking
- Laptops and other mobile devices
- Printers
- Virtualisation and Cloud
- Windows installation
- Windows configuration
- Mobile, Linux, and OS X Operating systems
- Security
- The IT Professional

Security & Legislation

- Operational requirements including policies, standards, legislation, professional ethics and confidentiality documentation.
- Legislation, policies and standards.
- Business performance, continuity and resilience.
- Cyber security for IT solutions including key elements of cyber security and security controls.
- Working securely including security incidents and risk mitigation strategies.
- Risk and risk management.

Core Technical IT Knowledge

- Concepts of networking.
- Network devices, routers and switches, their relationship to the stack model and the use of firewalls.
- IT Solutions.
- Computer system components and their purpose including servers, end user computers and mobile devices.
- Operating systems, platforms and virtualisation.
- Cloud including storage, computing and cloud based services.
- Emerging technologies including the Internet of Things (IoT) and Artificial intelligence (AI).
- Numerical skills
- Configuration management
- Database concepts including the key concepts behind relational and non-relational databases.
- Vendor support.

Methodologies & Principles

- The solution delivery lifecycle including comparisons with other lifecycles and the stages.
- Solution delivery methodologies and service management frameworks, including waterfall, agile and their applicability.
- DevOps including approaches and benefits.
- Principles of solution architecture and the importance of re-use.
- Testing including functional and non-functional testing, and different types of testing available.

Pathway Options

Note

At this point learners will embark upon their chosen pathway. This will either be a Hardware or a Software pathway, and the completion of the final option is the culmination of all modules of study.

Hardware Pathway

- Principles of solution architecture including solving business problems with hardware, identifying constraints and implementing the solution.
- Hardware configurations including laptops, tablets, desktops, servers and NUC.
- Cabling and connectivity including copper, fibre, connectors and configurations.
- Standard builds including compatibility, fault finding, maintenance and security.
- Mobile technology concepts including 3G/4G/5G, WiFi, NFC.
- Storage including local, SAN, NAS and RAID configurations.
- Safety
- Installing and configuring.

Software Pathway

- Principles of solution architecture including solving business problems with software, identifying constraints and implementing the solution.
- Coding practices and standards, including understanding and implementing good coding principles and practices.
- Languages including exploration of paradigms, classifying modern languages and consideration of markup languages.
- Developing code including stages, key roles and team working.
- Implementing software solutions.
- Data and databases.

MTA Options

- MTA Networking Fundamentals.
- MTA Software Development Fundamentals C#.

Assessment Gateway, Assessment Preparation & Administration Week

A 2-day period of remote trainer-led sessions to prepare for End Point Assessment including EPA mock interview and Synoptic Project guidance.

Assessment Phase

- Knowledge Tests
- Project
- Interview

Achievement of Apprenticeship

**BCS
IT Solutions Technician
Apprenticeship
(Level 3)**