Systems & Network Training

Network automation demystified

A 1 day training course

Description

This course concentrates on the technical side of tools and languages for network DevOps rather than the soft skills. These tools include Python, Ansible, Git and NAPALM

By the end of the course delegates should be able to recognise the tools that they can use to automate their networks and be able to use the knowledge gained to feel confident approaching network automation.

Key outcomes

By the end of the course delegates will be able to:

✔ Describe network DevOps.

✔ Choose network automation tools.

✔ Explain the role of various network automation technologies including:
   Python
   ansible
   git
   NAPALM.

Training approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.

Details

Who will benefit?
Those wishing to learn about the tools of network automation.

Prerequisites
Introduction to data communications.

Duration: 1 day

Overal rating: ★★★★★

Generic training	Small class sizes	Hands On training	Our courseware	Customise your course
Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".	We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.	The majority of our courses use hands on sessions to reinforce the theory.	We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.	Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.
"Friendly environment with expert teaching that teaches the why before the how." G.C. Fasthosts	*"Excellent course. The small class size was a great benefit..."* M.B. IBM	*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."* J.W. Vodafone	*"Comprehensive materials that made the course easy to follow and will be used as a reference point."* V.B. Rockwell Collins	*"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."* S.R. Qinetiq

Network automation demystified

What is DevOps and network automation
Programming and automating networks, networks and clouds, AWS, OpenStack, SDN, DevOps for network operations. Unit testing. Hype vs reality. Benefits and features.

Network monitoring and troubleshooting
Traditional methods, SNMP. Netflow and xflow. Traditional automation. Streaming telemetry. Event driven automation. gRPC, Protocol buffers.

Configuration management
Catch 22 and initial configuration. ZTP, POAP. Traditional automation. TFTP. Ansible vs the rest (chef, salt, puppet). Jinja2 and templating. How ansible works.

Network programmability
Programming languages. Linux, shell scripting. Python vs the rest. Off box vs on box automation.

Python network libraries
Sockets pysnmp, ncclient, paramiko, netmiko, pyez, NAPALM.

APIs
Proprietary APIs, CLI, NETCONF, RETCONF. YANG, XML, YAML, JSON.

Other tools
Git, GitHub, Jenkins, JIRA and others.

What our customers say

"Absolutely brilliant, very knowledgeable and helpful trainer would recommend to teach anyone. Kept me interested 100% of the time which is very impressive as this does not happen often, if at all!"

O. B. Network Rail

"The best technical course I've been on!."

L. W. Fujitsu Telecoms Europe

"Very well thought out and structured course. Would recommend 100%. Lots of equipment, good quality."

A.R. Unipart

"Course content is interesting. Relevant to current systems and presented well."

S.S-T. Arqiva

Step back

Introduction to data comms and networking → Network automation demystified

Step forward

Essential NFV

Essential SDN