Systems & Network Training

Ansible for network engineers

A 2 day `Hands on` training course

★ Description

An introduction to network automation using ansible. The course focusses on the use of ansible for network devices instead of its usual server use case. The course progresses from the basics of ansible and playbooks onto using network specific modules including NAPALM. The use Jinja2 templating with ansible is also studied. Hands on sessions with ansible configuring routers and switches follow all major sections.

👍 Key outcomes

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

✔ Automate tasks with ansible

✔ Write ansible playbooks.

✔ Configure network devices with ansible.

✔ Troubleshoot network devices with ansible.

✔ Use ansible network modules

✔ Use jinja2 templates with ansible.

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?
Network engineers.

Prerequisites
TCP/IP foundation for engineers.

Duration: 2 days

Customer rating: New course

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

Ansible for network engineers

Course content

What is ansible?
The language, the engine, the framework. Uses of ansible, orchestration. Hands on: Installing ansible, enabling SSH on network devices.

ansible architecture
How ansible "normally" works, Agentless, SSH, ansible and Python, modules, how ansible work on network devices, Configuration management, inventories, playbooks, modules, `ansible.cfg`. Hands on: Getting started, running ad hoc commands.

Playbooks
ansible-playbook, users, YAML, plays, tasks, modules. `ansible-vault`. Hands on: Running playbooks.

More playbooks
Handlers, variables, environmental variables, playbook variables, inventory variables, variable scope and precedence, accessing variables, facts, ansible vault. Conditionals, `wait_for`. Hands on: Using variables and conditions in playbooks.

Inventories
`/etc/ansible/hosts`, inventory variables, static inventories, dynamic inventories. Hands on: Inventories and variables.

ansible network modules
Built in modules, custom modules, return values. `ansible-doc -l.connection: local`, Cisco modules, Juniper modules, Hands on: Using modules for your network devices.

ansible templating
The template module, the assemble module, jinja2 templates, for, if else. Hands on: Configuring network devices from templates.

Roles and includes
Dynamic includes, Handler includes, playbook includes. Roles, role parts: handlers, files, templates, cross platform roles, ansible galaxy. Hands on: includes example, building roles.

Ansible and NAPALM
Installation, napalm-ansible, NAPALM modules: `napalm_diff-yang`, `napalm_get_facts`, `napalm_install_config`, `napalm_parse_yang`, `napalm_ping`, `napalm_translate_yang`, `napalm_validate`. Hands on: Using NAPALM modules in ansible.

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

TCP/IP foundation for engineers → Ansible for network engineers

Step forward

Ansible for network engineers → Python for network engineers

Ansible for network engineers → Git for network engineers