

REST and RESTCONF for engineers

A 1 day **Hands on** training course



Description

An introduction to REST and RESTCONF using Python. The course progresses from how to use them onto how they work and then looks at using them from within Python all the time on network devices.



Key outcomes

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

- ✓ Explain what REST and RESTCONF are.
- ✓ Use the REST API on network devices.
- ✓ Use RESTCONF.



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

Python for network engineers.

Duration: 1 day

Customer rating: New course

Generic training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

"Friendly environment with expert teaching that teaches the why before the how."
G.C. Fasthosts

Small class sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

"Excellent course. The small class size was a great benefit..."
M.B. IBM

Hands On training



The majority of our courses use hands on sessions to reinforce the theory.

"Not many courses have practice added to it. Normally just the theoretical stuff is covered."
J.W. Vodafone

Our courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

"Comprehensive materials that made the course easy to follow and will be used as a reference point."
V.B. Rockwell Collins

Customise your course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."
S.R. Qinetiq

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Course content

Using REST

Curl, Browser plugins, Postman, RESTClient, Python. Hands on: Using the REST API on network devices.

What is REST?

What is REST? Architecture, APIs, RESTful APIs, APIs over HTTP/HTTPS, URIs, resources, HTTP methods, GET, POST, PUT, DELETE. CRUD. Comparison with other APIs. Hands on: REST analysis with Wireshark.

Rest conventions

Passing parameters, return values, HTTP status, JSON. XML. Hands on: Configuring REST on network devices, changing format of responses, POST requests, using parameters.

Configuring network devices with REST

Invoking multiple RPCs. Hands on: Device configuration with REST.

The request library

RESTFUL APIs in Python, the request library, Installation, example to retrieve the interface configuration. Hands on: Using the Python requests library on network devices.

RESTCONF

What is RESTCONF? YANG and NETCONF, relationship with REST, RESTCONF URIs, A RESTCONF example with ietf-interfaces, RESTCONF responses. PATCH. Hands on: Using RESTCONF to update a network device configuration.

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

