

BGP demystified

A 1 day training course



Description

A study of BGP for non engineers working in the Internet. The course starts with a review of the basics of routers and routing tables and then moves on to a simple overview of how BGP works with a focus on BGP metrics influencing the route traffic takes through the Internet. Hands on with routers follow the major sessions to reinforce the theory. Note these hands on sessions are more demonstrations by the trainer but some can be followed along and done by delegates (e.g. looking at Internet routing tables.)



Key outcomes

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

- ✓ Explain how routing tables influence Internet traffic.
- ✓ Describe how BGP works.
- ✓ Explain the methods BGP can use to influence Internet traffic.
- ✓ Use traceroute, peeringdb, route collectors and looking glasses to analyse traffic flows.
- ✓ Explain the difference between bi lateral and multilateral peering using a route server.



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.



Details

Who will benefit?

Non technical staff wishing to know more about BGP.

Prerequisites

None.

Duration: 1 day

Customer rating:

New course

Generic training



Generic training complements 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

BGP demystified

Course content

Networks, routers and routing tables

What is a network, what is a router, routing tables, static routes, routing protocols. When an ISP uses static routes and when they use BGP. IP addresses, subnet masks, groups of IP addresses. IPv6. Hands on: Showing a full routing table. Seeing traceroute being used.

Route servers

What are route servers? LINX route servers, route server policy control and communities, What are route collectors, Looking glasses. Hands on: Seeing the LINX route server details in peeringdb, using a looking glass.

Basic BGP

What's BGP? BGP versus other routing protocols, ASs, AS numbers. RIPE database, peeringdb. Hands on: Finding AS numbers. Showing simple BGP configuration and routing tables in an EVE-NG example.

How BGP works

Simple walk through of BGP incremental updates and how routes change when links go down. Hands on: Showing packets and route changes when a link goes down/comes up.

BGP path selection

Transit, peering, routing policy and route filtering. Longest matching rule in routing tables, route selection order, Local preference, AS prepend, MEDs. Hands on: Seeing BGP influencing traffic. Looking at peering policies in RIPE and peeringdb.

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

