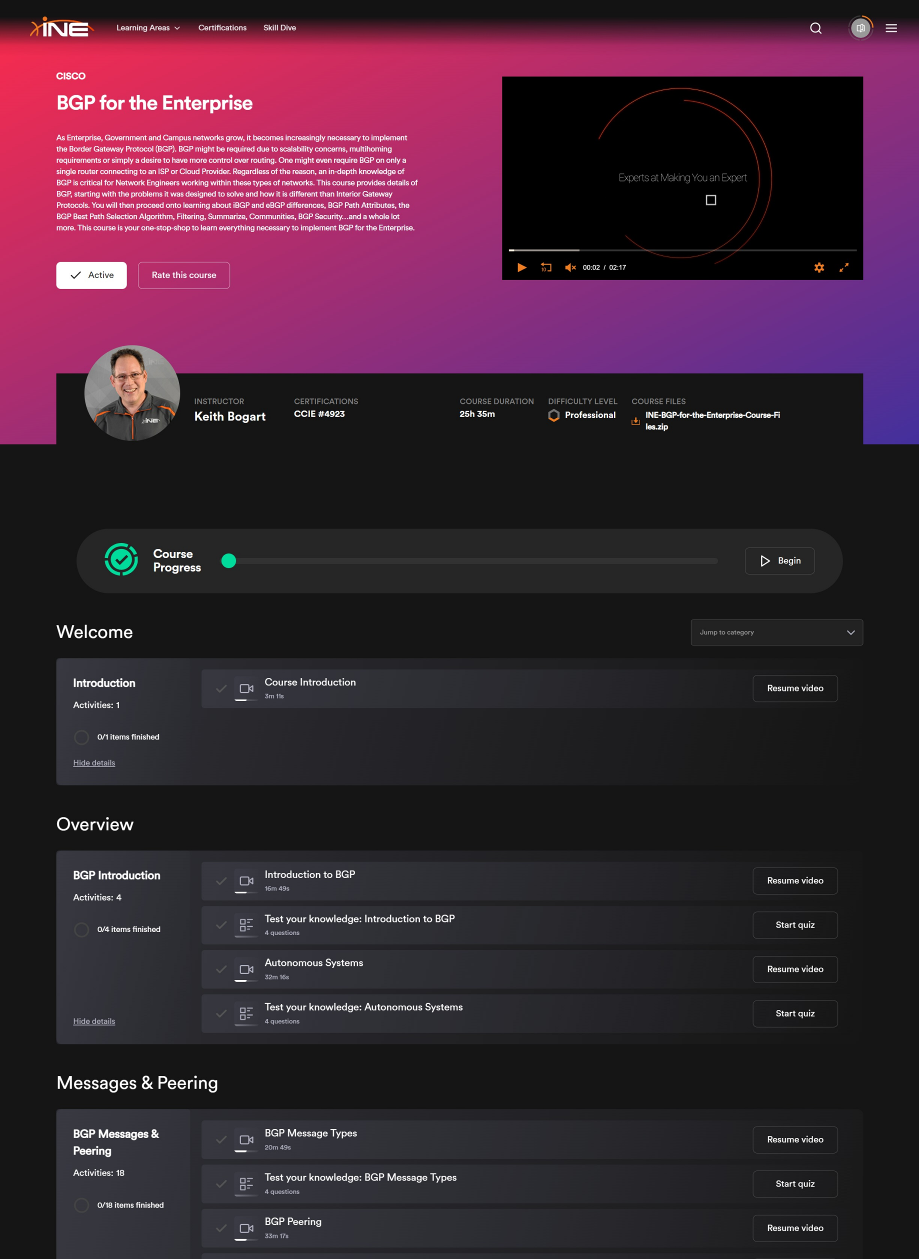


CISCO

BGP for the Enterprise

As Enterprise, Government and Campus networks grow, it becomes increasingly necessary to implement the Border Gateway Protocol (BGP). BGP might be required due to scalability concerns, multihoming requirements or simply a desire to have more control over routing. One might even require BGP on only a single router connecting to an ISP or Cloud Provider. Regardless of the reason, an in-depth knowledge of BGP is critical for Network Engineers working within these types of networks. This course provides details of BGP, starting with the problems it was designed to solve and how it is different than Interior Gateway Protocols. You will then proceed onto learning about iBGP and eBGP differences, BGP Path Attributes, the BGP Best Path Selection Algorithm, Filtering, Summarize, Communities, BGP Security...and a whole lot more. This course is your one-stop-shop to learn everything necessary to implement BGP for the Enterprise.

INSTRUCTOR	CERTIFICATIONS	COURSE DURATION	DIFFICULTY LEVEL	COURSE FILES
Keith Bogart	**CCIE #4923**	**25h 35m**	**Professional**	**INE-BGP-for-the-Enterprise-Course-Files.zip**

Course Progress

Welcome

Introduction

Activities: 1

0/1 items finished

Hide details

- **Course Introduction** 3m 11s — Resume video

Overview

BGP Introduction

Activities: 4

0/4 items finished

Hide details

- **Introduction to BGP** 16m 49s — Resume video
- **Test your knowledge: Introduction to BGP** 4 questions — Start quiz
- **Autonomous Systems** 32m 16s — Resume video
- **Test your knowledge: Autonomous Systems** 4 questions — Start quiz

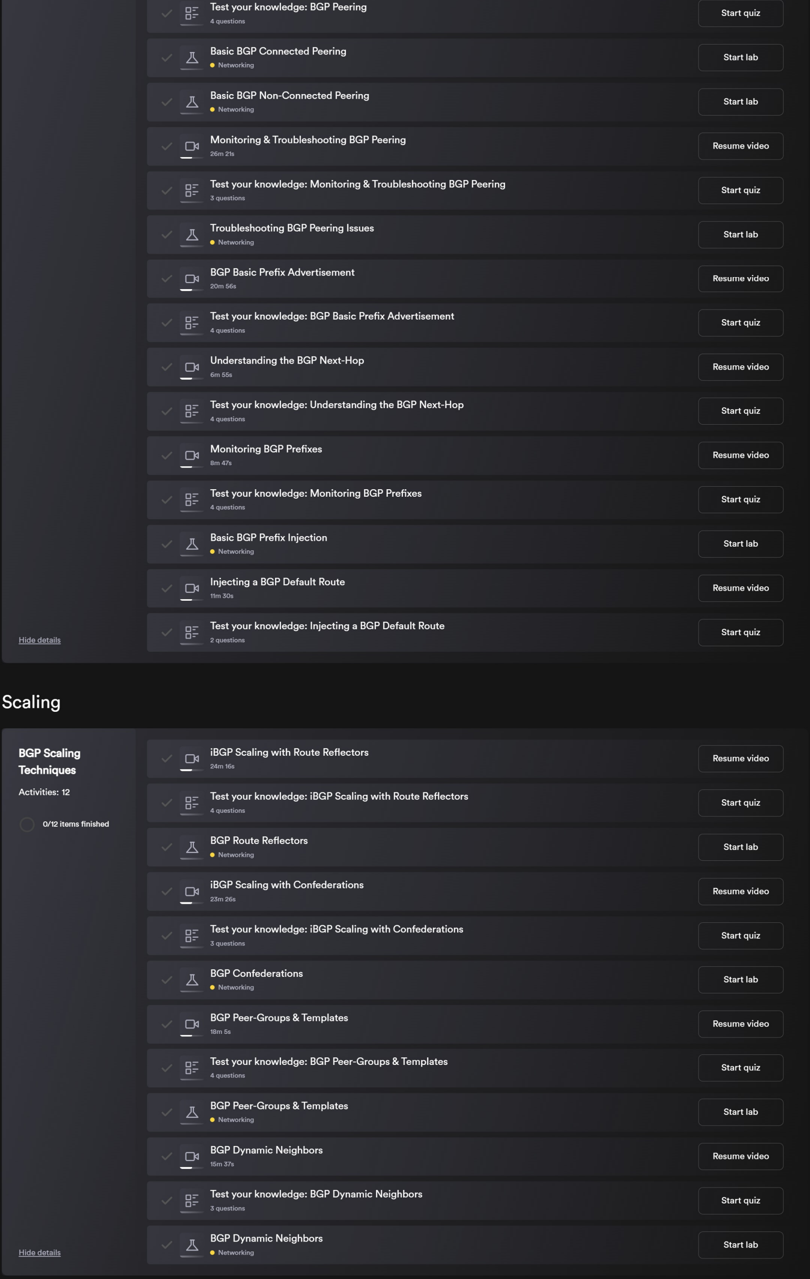
Messages & Peering

BGP Messages & Peering

Activities: 18

0/18 items finished

- **BGP Message Types** 20m 49s — Resume video
- **Test your knowledge: BGP Message Types** 4 questions — Start quiz
- **BGP Peering** 33m 17s — Resume video



Test your knowledge: BGP Peering
4 questions
Start quiz

Basic BGP Connected Peering
● Networking
Start lab

Basic BGP Non-Connected Peering
● Networking
Start lab

Monitoring & Troubleshooting BGP Peering
26m 21s
Resume video

Test your knowledge: Monitoring & Troubleshooting BGP Peering
3 questions
Start quiz

Troubleshooting BGP Peering Issues
● Networking
Start lab

BGP Basic Prefix Advertisement
20m 56s
Resume video

Test your knowledge: BGP Basic Prefix Advertisement
4 questions
Start quiz

Understanding the BGP Next-Hop
6m 55s
Resume video

Test your knowledge: Understanding the BGP Next-Hop
4 questions
Start quiz

Monitoring BGP Prefixes
8m 47s
Resume video

Test your knowledge: Monitoring BGP Prefixes
4 questions
Start quiz

Basic BGP Prefix Injection
● Networking
Start lab

Injecting a BGP Default Route
11m 30s
Resume video

Test your knowledge: Injecting a BGP Default Route
2 questions
Start quiz

Hide details

Scaling

BGP Scaling Techniques

Activities: 12

○ 0/12 items finished

iBGP Scaling with Route Reflectors
24m 16s
Resume video

Test your knowledge: iBGP Scaling with Route Reflectors
4 questions
Start quiz

BGP Route Reflectors
● Networking
Start lab

iBGP Scaling with Confederations
23m 26s
Resume video

Test your knowledge: iBGP Scaling with Confederations
3 questions
Start quiz

BGP Confederations
● Networking
Start lab

BGP Peer-Groups & Templates
18m 5s
Resume video

Test your knowledge: BGP Peer-Groups & Templates
4 questions
Start quiz

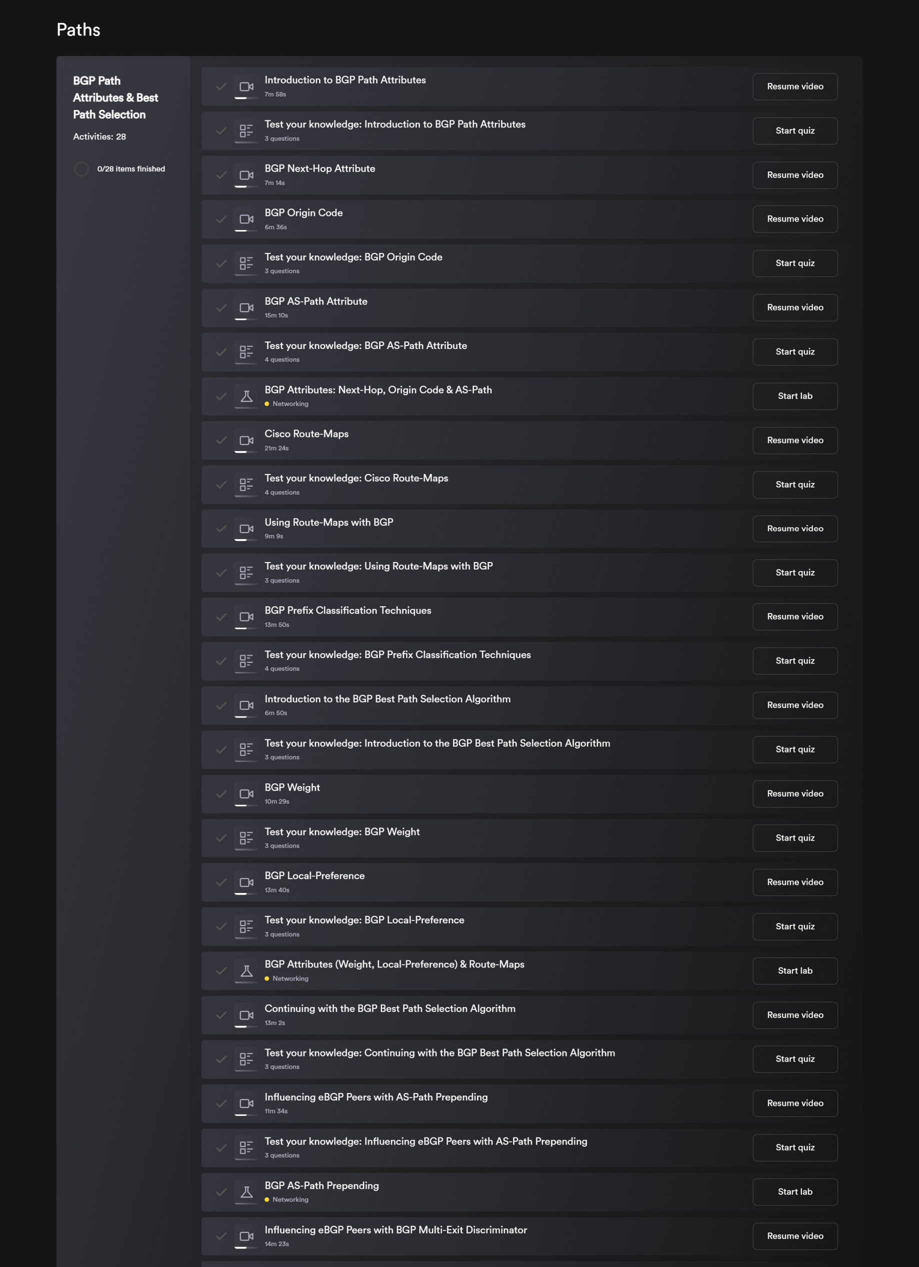
BGP Peer-Groups & Templates
● Networking
Start lab

BGP Dynamic Neighbors
15m 37s
Resume video

Test your knowledge: BGP Dynamic Neighbors
3 questions
Start quiz

BGP Dynamic Neighbors
● Networking
Start lab

Hide details



Paths

BGP Path Attributes & Best Path Selection

Activities: 28

○ 0/28 items finished

Introduction to BGP Path Attributes	7m 58s	Resume video
Test your knowledge: Introduction to BGP Path Attributes	3 questions	Start quiz
BGP Next-Hop Attribute	7m 14s	Resume video
BGP Origin Code	6m 36s	Resume video
Test your knowledge: BGP Origin Code	3 questions	Start quiz
BGP AS-Path Attribute	15m 10s	Resume video
Test your knowledge: BGP AS-Path Attribute	4 questions	Start quiz
BGP Attributes: Next-Hop, Origin Code & AS-Path	● Networking	Start lab
Cisco Route-Maps	21m 24s	Resume video
Test your knowledge: Cisco Route-Maps	4 questions	Start quiz
Using Route-Maps with BGP	9m 9s	Resume video
Test your knowledge: Using Route-Maps with BGP	3 questions	Start quiz
BGP Prefix Classification Techniques	13m 50s	Resume video
Test your knowledge: BGP Prefix Classification Techniques	4 questions	Start quiz
Introduction to the BGP Best Path Selection Algorithm	6m 50s	Resume video
Test your knowledge: Introduction to the BGP Best Path Selection Algorithm	3 questions	Start quiz
BGP Weight	10m 29s	Resume video
Test your knowledge: BGP Weight	3 questions	Start quiz
BGP Local-Preference	13m 40s	Resume video
Test your knowledge: BGP Local-Preference	3 questions	Start quiz
BGP Attributes (Weight, Local-Preference) & Route-Maps	● Networking	Start lab
Continuing with the BGP Best Path Selection Algorithm	13m 2s	Resume video
Test your knowledge: Continuing with the BGP Best Path Selection Algorithm	3 questions	Start quiz
Influencing eBGP Peers with AS-Path Prepending	11m 34s	Resume video
Test your knowledge: Influencing eBGP Peers with AS-Path Prepending	3 questions	Start quiz
BGP AS-Path Prepending	● Networking	Start lab
Influencing eBGP Peers with BGP Multi-Exit Discriminator	14m 23s	Resume video

Activity	Details	Action
Test your knowledge: Influencing eBGP Peers with BGP Multi-Exit Discriminator	3 questions	Start quiz

Hide details

Enterprise Design

BGP Enterprise Design

Activities: 2

○ 0/2 items finished

Hide details

Activity	Details	Action
Enterprise Intra-AS BGP Peering	24m 53s	Resume video
Test your knowledge: Enterprise Intra-AS BGP Peering	3 questions	Start quiz

Summarization & Filtering

BGP Summarization & Filtering

Activities: 16

○ 0/16 items finished

Hide details

Activity	Details	Action
BGP Communities	28m 12s	Resume video
Test your knowledge: BGP Communities	4 questions	Start quiz
BGP Route Tagging & Filtering with Communities	● Networking	Start lab
BGP Prefix Filtering Techniques	10m 44s	Resume video
Test your knowledge: BGP Prefix Filtering Techniques	3 questions	Start quiz
BGP Prefix Filtering	● Networking	Start lab
BGP Prefix Summarization (Auto-Summary)	11m 21s	Resume video
Test your knowledge: BGP Prefix Summarization (Auto-Summary)	2 questions	Start quiz
BGP Prefix Summarization (Aggregate-Address)	25m 55s	Resume video
Test your knowledge: BGP Prefix Summarization (Aggregate-Address)	2 questions	Start quiz
BGP Prefix Summarization with Aggregate Address	● Networking	Start lab
Controlling BGP Prefix Summarization with Maps	15m 39s	Resume video
Test your knowledge: Controlling BGP Prefix Summarization with Maps	3 questions	Start quiz
BGP AS-Path Filtering	25m 6s	Resume video
Test your knowledge: BGP AS-Path Filtering	5 questions	Start quiz
BGP AS-Path Filtering	● Networking	Start lab

Security

BGP Security

Activities: 12

○ 0/12 items finished

Activity	Details	Action
BGP Hijacking & Leaking	16m 58s	Resume video
Test your knowledge: BGP Hijacking & Leaking	2 questions	Start quiz
BGP Authentication	11m 25s	Resume video

Test your knowledge: BGP Authentication
4 questions
Start quiz

BGP Security with Authentication
● Networking
Start lab

BGP TTL-Security
30m 27s
Resume video

Test your knowledge: BGP TTL-Security
4 questions
Start quiz

BGP Maximum-Prefixes
7m 49s
Resume video

Test your knowledge: BGP Maximum-Prefixes
3 questions
Start quiz

BGP Security with Maximum-Prefixes
● Networking
Start lab

BGP Route Origin Validation & RPKI
31m 40s
Resume video

Test your knowledge: BGP Route Origin Validation & RPKI
4 questions
Start quiz

Hide details

Goodbye

Conclusion

Activities: 1

○ 0/1 items finished

Hide details

Course Conclusion
1m 33s
Resume video

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