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The workshop materials are based on the content of the extremely successful Cisco ISP/IXP Workshop programme which ran from 1997 until 2011. While the programme is sadly no longer active within Cisco, many industry friends and volunteers still use and develop the materials for use in workshops taking place in the Network Operations Group fora and other gatherings around the world.

If you like the materials, and want to make derivative works, Philip is happy for you to do that. Just please acknowledge Philip, Cisco, and the Network Startup Resource Center, without whom this collection of training materials would simply not be available.

If you have any suggestions for improvements, or any contributions you'd like to make to the materials, these would be most welcome, with full acknowledgements, of course.

Category	Presentation	Notes
Routing	Internet Introduction	Introductory slideset
	Routing Introduction	How routing works
	OSPF Introduction	25 slide primer on OSPF
	OSPF for ISPs	A lot more detail about OSPF
	OSPF in detail	Out dated now
	ISIS Introduction	25 slide primer on IS-IS
	ISIS for ISPs	A lot more detail about IS-IS
	ISIS in detail	Out date now
	Comparing ISIS with OSPF	Valuable comparison between the two protocols
	Migration from OSPF to ISIS	The simple steps to move from one to the other
BGP	BGP Introduction	
	Scaling BGP	
	32bit AS Numbers	
	BGP Attributes	
	BGP Policy	
	BGP Best Current Practices	
	Transitioning to BGP	
	Simple Multihoming	
	Advanced Multihoming	
	BGP Communities	

Category	Presentation	Notes
IPv6	IPv6 Introduction	
	The IPv6 Protocol	
	IPv6 Address Planning	
	IPv6 Address Planning Exercise	
	IPv6 Routing	
	Introduction to OSPFv3	
	ISIS for IPv6	
	BGP for IPv6	
	IPv6 Transition Planning	
	Securing IPv6 Transition Mechanisms	
	IPv6 Deployment Study	
	IPv6 Deployment Planning	
	IPv6 Security	
	IPv6 Device Hardening	
	IPv6 Routing Security	
Design	The Value of Peering	
	ISP Network Design	
	ISP Systems Design	
	IXP Design	
	LINX History	
	Network Monitoring	
	Choosing Routers	
Security	Remotely Triggered Blackhole Filtering	

Category	Lab Modules	Notes
IPv4	Workshop Setup	
	Introducing ISIS or Introducing OSPF	
	Introducing iBGP	
	OSPF Areas	
	BGP Route Reflector	
	Cisco IOS Essentials	
	Policy Routing	
	ISIS, iBGP & eBGP or OSPF, iBGP & eBGP	
	ISIS, iBGP & eBGP from scratch	For IXP Workshop
	BGP Route Filtering	
	BGP Policy	
	BGP Best Practices	
	Simple IXP	
	Advanced ISIS & iBGP or Advanced OSPF & iBGP	
	Multi-AS (ISIS) & Advanced IXP or Multi-AS (OSPF) & Advanced IXP	
	Address Plan for single AS lab	
	Address Plan for 4 AS lab	

Category	Lab Modules	Notes
	Workshop Setup	
	Introducing ISIS or Introducing OSPFv3	
	Introducing iBGP	
	OSPF Areas	
	BGP Route Reflectors	
	Migrating from OSPF to ISIS	
	Migrating Dual Stack OSPF to ISIS	
	ISIS, iBGP & eBGP or OSPFv3, iBGP & eBGP	
IPv6	ISIS, iBGP & eBGP from scratch	for IXP Workshop
	BGP Route Filtering	
	BGP Policy	
	IPv6 Access	
	Simple IXP	
	Advanced ISIS & iBGP or Advanced OSPFv3 & iBGP	
	Multi-AS (ISIS) & Advanced IXP or Multi-AS (OSPF) & Advanced IXP	
	Address Plan for single AS Labs	
	Address Plan for 4 AS Labs	

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