

Multi-link Distribution Node (MDN) Cutsheet

(See reverse for detailed instructions)

Participating Lateral Link Node Information			
1. Your location and POC Information:			
2. Adjacent Node #1 (Attach LLC Cutsheet)		3. Adjacent Node #2 (Attach LLC Cutsheet)	
4. Exterior Routing Protocol used for LLCs (Both LLCs must use the same exterior routing protocol)			
<input type="checkbox"/> BGP		<input type="checkbox"/> EIGRP	
5. EIGRP: LLC Process Number		6. EIGRP: LLC Process Number	
7. BGP: Distant End ASN (Node 1)		8. BGP: Distant End ASN (Node 2)	
9. LLC Distant End Router Port IP		10. LLC Distant End Router Port IP	
11. LLC IP Network Number		12. LLC IP Network Number	
13. LLC IP Network Subnet Mask		14. LLC IP Network Subnet Mask	
15. Networks From Node 1's LLC Cutsheet that are allowed to traverse MDN	16. LLC Node 1 Networks Subnet mask	17. Networks From Node 2's LLC Cutsheet that are allowed to traverse MDN	18. LLC Node 2 Networks Subnet mask
<p>Sample Additional BGP Router Entries (See LLC Cutsheet for original Sample)</p> <pre>router bgp 65020 no synchronization bgp log-neighbor-changes network 205.109.53.4 mask 255.255.255.252 neighbor 10.10.0.1 remote-as 65010 neighbor 10.20.0.2 remote-as 65030 (node 2's information) no auto-summary</pre> <p>Sample EIGRP Entry for Networks using OSPF Internally (Redistributing OSPF information) (See LLC Cutsheet for original Sample)</p> <pre>router eigrp 10 redistribute ospf 21 metric 2048 10 255 1 1500 match internal network 10.10.0.0 0.0.0.3 network 10.20.0.0 0.0.0.3 (node 2's information) network 144.106.0.0 distance eigrp 85 89 no auto-summary</pre>		<p>Sample EIGRP Entry for Networks using EIGRP Internally Router Commands/Entries</p> <pre>router eigrp 10 redistribute eigrp 1775 network 10.10.0.0 0.0.0.3 network 10.20.0.0 0.0.0.3 network 205.109.53.4 0.0.0.3 network 205.109.53.8 0.0.0.3 network 205.109.53.128 0.0.0.15 distribute-list 12 out no auto-summary no eigrp log-neighbor-changes</pre> <p>Sample Access List for above Distribute-List</p> <pre>access-list 12 permit 10.10.0.0 0.0.0.3 access-list 12 permit 10.20.0.0 0.0.0.3 access-list 12 permit 205.109.53.4 0.0.0.3 access-list 12 permit 205.109.53.8 0.0.0.3 access-list 12 permit 205.109.53.128 0.0.0.15 access-list 12 permit [all authorized Node 1 Networks] . . access-list 12 permit [all authorized Node 2 Networks] . . access-list 12 deny any</pre>	

This MDN Cutsheet is to be used in addition to the existing LLC Cutsheets developed for each of your LLCs. Those Cutsheets contain not only POC information, but also important configuration information you will need to complete this MDN Cutsheet. You should have a copy of distant end's LLC Cutsheet so that you can build your Access Control Lists (ACLs) properly.

Your Contact Information (block 1)	Your Name, DSN number, and e-mail, along with your unit information
Adjacent Node #1 (block 2)	Service and Unit designation of your 1 st lateral link connection. You should have all POC information available on your LLC Cutsheet as well.
Adjacent Node #1 (block 3)	Service and Unit designation of your 2nd lateral link connection. You should have all POC information available on your LLC Cutsheet as well.
MDN Exterior Routing Protocol (block 4)	Select BGP or EIGRP, then complete only the specific blocks pertaining to this selection. JMNO has only tested MDNs using the same exterior routing protocol on both LLCs. MDNs should use BGP for both LLCs whenever possible.
EIGRP LLC Process (block 5 and 6)	The specific EIGRP process running on the border routers for this LLC
BGP ASN (blocks 7 and 8)	The BGP Autonomous System Number (ASN) of the distant end, used for this LLC
Distant End Router Port IP (blocks 9 and 10)	Provide the specific IP address of the distant end router.
LLC Network Number (Blocks 11 and 12)	Provide the IP network number for the LLC
LLC Network Subnet Mask (Blocks 13 and 14)	Provide the subnet mask for the appropriate IP network in the block above
Authorized Node 1 Networks (Blocks 15 and 16)	<p>List the specific networks and their subnet masks shown on the distant end node's LLC Cutsheet that are allowed to traverse the MDN to connect to another Service's network. If all will be allowed, indicate "All" in this block. This information will be used to build Access Lists for distribution, and also Access Control Lists (ACLs) for the border routers. You can copy those networks into this form for quick reference, or simply indicate "See LLC Cutsheet for Node"</p>
Authorized Node 2 Networks (Blocks 17 and 18)	<p>List the specific networks and their subnet masks shown on the distant end node's LLC Cutsheet that are allowed to traverse the MDN to connect to another Service's network. If all will be allowed, indicate "All" in this block. This information will be used to build Access Lists for distribution, and also Access Control Lists (ACLs) for the border routers. You can copy those networks into this form for quick reference, or simply indicate "See LLC Cutsheet for Node"</p>
A Note on Access Control Lists (ACLs)	<p>Significant modifications will need to be made to the ACLs for an MDN, to allow one Service's networks to pass traffic to another Service's network via the MDN. The "Inbound" ACLs on Node 1's LLC port will need to be mirrored on the "Outbound" ACLs for Node 2, and vice versa, for all authorized networks shown in blocks 15 and 17. If there are four services participating, then the process extends to cover the fourth Service's networks as well.</p>