How to Setup Access Control Lists

Step 1 – GLOBAL - Naming and Security		
Prompt	**Command**	**Comment**
router>	enable	
router#	configure terminal	
router(config)#	hostname ***SNx***	Where x is the subnet.
router(config)#	enable secret ***class***	
Step 2 – INTERFACE - Addressing Interfaces and Host Naming		
Prompt	**Command**	**Comment**
router(config)#	interface serial 0/0 interface serial 0	For A Model 260X Router For A Model 250X Router
router(config-if)#	ip address ***x.x.x.x y.y.y.y***	Where x is S0's IP address. Where y is the subnet mask.
router(config-if)#	clock rate 56000	
	encapsulation ppp	Initiate PPP encapsulation.
router(config-if)#	no shutdown	
router(config-if)#	interface fastethernet 0/0 interface ethernet 0	For A Model 260X Router For A Model 250X Router
router(config-if)#	ip address ***x.x.x.x y.y.y.y***	Where x is S0's IP address. Where y is the subnet mask.
router(config-if)#	no shutdown	
router(config-if)#	exit	No IP hosts need to be set.
Step 3 – ROUTING		
Prompt	**Command**	**Comment**
router(config)#	router igrp ***x***	Initiate IGRP protocol where x is number (autonomous system number) that matches the directly connected router
router(config-router)#	network ***x.x.x.x***	Where x is network address to DO
router(config-router)#	ping ***x.x.x.x***	Test connection to District Office where x is the ip address for D0 S0
router(config-router)#	Exit	
Step 4 – LINE		
Prompt	**Command**	**Comment**
router(config)#	line con 0	
router(config-line)#	Login	
router(config-line)#	exec-timeout ***480***	
router(config-line)#	password ***cisco***	
router(config-line)#	line vty 0 4	
router(config-line)#	Login	
router(config-line)#	exec-timeout ***480***	
router(config-line)#	password ***cisco***	
router(config-line)#	Exit	

Step 5 – Setup Access Control List		
Prompt	**Command**	**Comment**
router(config)#	ping ***x.x.x.x*** **Comment:** Test connection to District Office where x is the IP address for D0 S0	
	Comment: Setup the Workstations IP, SM, and Default Gateway before testing the connection between the workstation to D0 with ping. First… Set the IP so it falls within Range 1 and test. Then, set the workstation's IP within range 2 and test. One setting will allow telnet to D0 and the other won't.	
router(config)#	Access-list 101 p/d tcp X.X.X.X x.x.x.x Y.Y.Y.Y y.y.y.y eq 23	
	Comment Range 1: Where p/d is permit or deny, tcp is the filtered protocol, X is the source address and x in the wildcard, Y is the destination address and y is the wildcard, eq 23 select the tenet port.	
router(config)#	Access-list 101 p/d tcp X.X.X.X x.x.x.x Y.Y.Y.Y y.y.y.y eq 23	
	Comment Range 2: Where p/d is permit or deny, tcp is the filtered protocol, X is the source address and x in the wildcard, Y is the destination address and y is the wildcard, eq 23 select the tenet port.	
router(config)#	Access-list 101 permit IP any any	
	Comment: This permits all other conditions not meeting the filter of the ACL.	
router(config)#	interface fastethernet 0/0 interface ethernet 0	Select the interface closest to the source to apply the ACL.
router(config-if)#	IP access-group 101 in	This applies the ACL to the inbound traffic on E0.
router(config-if)#	Exit	
Step 6 – SAVE – Test		
Prompt	**Command**	**Comment**
router(config)#	banner motd #***message***#	
router(config)#	service password-encryption	
router(config)#	Exit	
router#	show running-config	
router#	copy running-config startup-config	
	press enter on confirm?	
router#	Reload	
	press enter on confirm?	