

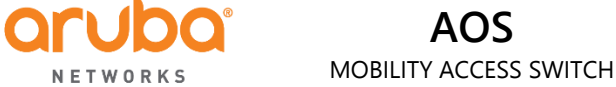




Mobility Access Switch
Cheat sheet for Juniper + Cisco engineers



PART 1: BASIC CONFIGURATION

	 IOS	 JUNOS	 AOS MOBILITY ACCESS SWITCH
BASIC CONFIGURATION			
Save configuration	# copy running-config startup-config // OR // # write mem	# commit	# copy running-config startup-config // OR // # write mem
Set admin credentials	# username admin privilege 15 password 0 <password>	# set system root-authentication plain-text-password <password>	# mgmt-user admin root # <password>
Default gateway	# ip default-gateway <ip-address>	# set routing-options static route 0.0.0.0/0 next-hop <next-hop>	# ip-profile # default-gateway <next-hop>
Set hostname	# hostname <hostname>	# set system host-name <hostname>	# hostname <hostname>
NTP servers	# ntp server <ip-address> ((key <key>))	# set system ntp server <ip-address> ((key <key>))	# ntp server <ip-address> ((key <key>))
Timezone/DST (ex: EST -5)	# clock timezone <tz-abbrev> <hour-offset> # clock summer-time <tz-dst-abbrev> recurring <start-week-number> <start-day> <start-month> <start-time> <end-week-number> <end-day> <end-month> <end-time> <minute-offest>	# set system time-zone <time-zone-name>	# clock timezone <tz-abbrev> <hour-offest> # clock summer-time <tz-dst-abbrev> recurring <start-week-number> <start-day> <start-month> <start-time> <end-week-number> <end-day> <end-month> <end-time> <hour-offest>
examples >	clock summer-time EDT recurring 2 sunday march 02:00 first sunday november 02:00 240	set system time-zone America/New_York	clock summer-time EDT recurring 2 sunday march 02:00 first sunday november 02:00 -4

KEY: // COMMENTS // ((optional)) <user-input> # newline

Enable spanning-tree	# spanning-tree vlan <vlan-id>	# set protocols <rstp, mstp, vstp>	# spanning-tree # mode <pvst, mstp>
Disable spanning-tree	# no spanning-tree vlan <vlan-id>	# set protocols <rstp, mstp, vstp> disable	# spanning-tree # no mode
VLAN CONFIGURATION			
Create VLAN	# vlan <id> # name <name>	# set vlans <name> vlan-id <vlan-id>	# vlan <id> # description <description>
ROUTED INTERFACES			
Create RVI/SVI (L3 VLAN interface)	# interface vlan <vlan-id> # ip address <w.x.y.z> <mask w.x.y.z> # ipv6 address <address/prefix>	# set vlans <vlan-name> l3-interface vlan.<vlan-id> # set interfaces vlan unit <vlan-id> family inet address <w.x.y.z/mask> # set interfaces vlan unit <vlan-id> family inet6 address <address/prefix>	# interface vlan <vlan-id> # ip address <w.x.y.z> <mask w.x.y.z> # ipv6 address <address/prefix>
examples >	interface vlan 30 ip address 10.100.30.254 255.255.255.0 ipv6 address 2001:400:e247:2050:ffff:ffff:ffff:fffe/64 !	# set vlans WIRELESS-A l3-interface vlan.1201 # set interfaces vlan unit 1201 family inet address 10.20.50.254/24 # set interfaces vlan unit 1201 family inet6 address 2001:400:e247:2050:ffff:ffff:ffff:fffe/64	interface vlan 30 ip address 10.100.30.254 255.255.255.0 ipv6 address 2001:400:e247:2050:ffff:ffff:ffff:fffe/64 !

DHCP/BOOTP Relay (helper address)	# interface vlan <vlan-id> # ip helper-address <server-ip>	# set forwarding-options helpers bootp interface vlan.<vlan-id> server <server-ip>	//create DHCP relay profile// # interface-profile dhcp-relay-profile <name> //apply DHCP relay profile to VLAN interface// # interface vlan <vlan-id> # dhcp-relay-profile <name>
examples >	interface vlan 10 ip helper-address 10.100.60.80 !	# set forwarding-options helpers bootp interface vlan.2051 server 10.100.60.80	interface-profile dhcp-relay-profile "AD-DHCP-CPPM" helper-address 10.100.60.80 helper-address 10.100.60.101 ! interface vlan "30" dhcp-relay-profile "AD-DHCP-CPPM" !
INTERFACE CONFIGURATION			
Access Port	# interface <PHY> <port> # switchport-mode access # switchport access vlan <vlan-d>	# set interfaces <interface> unit 0 family ethernet- switching port-mode access # set interfaces <interface> unit 0 family ethernet- switching vlan members <access-vlan-name>	//create interface profile// # interface-profile switching-profile <name> # access-vlan 254 # switchport-mode access //apply profile to switchport// # interface gigabitEthernet <switch/slot/port> # switching-profile <name>
examples >	interface TenGigabitEthernet 1/1/1 switchport-mode access switchport access vlan 254 !	# set interfaces ge-0/0/5 unit 0 family ethernet-switching port-mode access # set interfaces ge-0/0/5 unit 0 family ethernet-switching vlan members WIRELESS_2051	interface-profile switching-profile VLAN254-ACCESS access-vlan 254 switchport-mode access ! interface gigabitEthernet 0/0/0 switching-profile VLAN254-ACCESS !

Trunk Port (802.1Q)	<pre># interface <PHY> <port> # switchport trunk encapsulation dot1q # switchport mode trunk # switchport trunk allowed vlan <vlan-range></pre>	<pre># set interfaces <interface> unit 0 family ethernet- switching port-mode trunk # set interfaces <interface> unit 0 family ethernet- switching vlan members [<vlan-name> <vlan-name>]</pre>	<pre>//create interface profile// # interface-profile switching-profile <name> # switchport-mode access # trunk allowed vlan <vlan-range> //apply profile to switchport// # interface gigabitEthernet <switch/slot/port> # switching-profile <name></pre>
examples >	<pre>interface TenGigabitEthernet 1/1/1 switchport trunk encapsulation dot1q switchport mode trunk switchport trunk allowed vlan 10,20,30,100-105 !</pre>	<pre># set interfaces ge-0/0/7 unit 0 family ethernet-switching port-mode trunk # set interfaces ge-0/0/7 unit 0 family ethernet-switching vlan members [EDGE- L2_2100 EDGE-L2_2101]</pre>	<pre>interface-profile switching-profile CORE- TRUNK switchport-mode TRUNK trunk allowed vlan 10,20,30,100-105 ! interface gigabitEthernet 0/0/0 switching-profile CORE-TRUNK !</pre>
Port-channel/LAG (802.3ad) LACP **trunk or access config/profile from above	<pre>//PORT-CHANNEL CONFIGURATION// # interface port-channel <pc-number> # switchport mode <access,trunk>** // ADDING PORTS TO PORT-CHANNEL // # interface <PHY> <port> # channel-group <pc-number> mode <on,active,passive></pre>	<pre>// LAG CONFIGURATION // # set interfaces ae<number> aggregated-ether-options minimum-links <number-of-links> # set interfaces ae<number> aggregated-ether-options lacp <active,passive> # set interfaces ae<number> aggregated-ether-options lacp periodic <fast,slow> // ADDING PORTS TO LAG // # set interfaces <interface> ether-options 802.3ad ae<number></pre>	<pre>// LACP GROUP CONFIGURATION // # interface-profile lacp-profile <profile-name> # group-id <pc-number> # mode <active,passive> // PORT-CHANNEL CONFIGURATION // # interface port-channel <pc-number> # switching-profile <profile-name>** # enet-link-profile pc_default // ADDING PORTS TO PORT-CHANNEL // # interface gigabitethernet <switch/slot/port> # lacp-profile <lacp-profile-name></pre>
examples >	<pre>interface port-channel 1 switchport mode trunk switchport trunk encapsulation dot1q switchport trunk allowed vlan 10,20,30,100-105 ! interface TenGigabitEthernet 1/1/1 channel-group</pre>	<pre># set interfaces ae1 aggregated-ether- options minimum-links 1 # set interfaces ae1 aggregated-ether- options lacp passive # set interfaces ae1 aggregated-ether- options lacp periodic fast # set interfaces ge-0/0/9 ether-options 802.3ad ae1</pre>	<pre>interface-profile lacp-profile "CORE" group-id 1 mode active ! interface port-channel 1 switching-profile "CORE-TRUNK" enet-link-profile pc_default ! interface gigabitethernet "0/1/1" lacp-profile "CORE" !</pre>

ROUTING			
Add Static Route	# ip route <destination-network> <network mask> <next-hop-ip/next-hop-interface> ((<metric>))	# set routing-options static route <destination-network/mask> next-hop <next-hop-ip>	# ip-profile # route <destination-network> <destination-mask> <next-hop-ip> ((<metric>))
Basic OSPF - Advertise routed links - Advertise loopback (router-id) - Redistribute local L3 interfaces in OSPF (advertise them) **stops OSPF LSAs from being sent out this interface thus preventing OSPF adjacencies from being formed	# router ospf <instance> # router-id <ip-address> # passive-interface <user-vlan-id>** // ADVERTISE VLANS // # interface vlan <id> # ip ospf <instance> area <area> // ADVERTISE LOOPBACK, ROUTER-ID // # interface <loopback/vlan-interface> # ip ospf <instance> area <area> // ADVERTISE ROUTED LINK OR VLAN UPSTREAM // # interface <vlan-id or port> # ip ospf <instance> area <area>	// ADVERTISE LOOPBACK, ROUTER-ID // # set protocols ospf area <area> interface <interface> // ADVERTISE ROUTED LINK OR VLAN UPSTREAM // # set protocols ospf area <area> interface <interface> # set policy-options policy-statement <policy-name> term connected from protocol direct # set policy-options policy-statement <policy-name> term connected then accept # set protocols ospf export <policy-name>	# router ospf <cr> # router-id <ip-address> # area <area-id> # redistribute vlan <local-vlan-interfaces-range> // CREATE OSPF PROFILE // # interface-profile ospf-profile <name> # area <area-id either w.x.y.z or number> // ADVERTISE LOOPBACK/ROUTER-ID // # interface loopback 0 // OR VLAN-ID // # ospf-profile <name> // ADVERTISE ROUTED LINK OR VLAN UPSTREAM // # interface vlan <uplink-vlan-id> # ospf-profile <name>
examples >	router ospf 3022 router-id 10.50.1.1 passive-interface Vlan10 passive-interface Vlan20 passive-interface Vlan30 ! interface vlan 10 ip ospf 3022 area 0 ! interface vlan 20 ip ospf 3022 area 0 ! interface Loopback0 ip ospf 3022 area 0 ! interface Port-channel1 ip ospf 3022 area 0 !	# set protocols ospf area 0.0.0.0 interface lo0.0 # set protocols ospf area 0.0.0.0 interface ge-0/1/1.0 # set protocols ospf area 0.0.0.60 interface ae2.0 # set protocols ospf export Local2OSPF # set policy-options policy-statement Local2OSPF term connected from protocol direct # set policy-options policy-statement Local2OSPF term connected then accept	router ospf router-id 10.60.1.1 area 0.0.0.60 redistribute vlan 10,20,30,100,200 ! interface-profile ospf-profile "AREA60-OSPF-PROFILE" area 0.0.0.60 ! interface loopback "0" ospf-profile "AREA60-OSPF-PROFILE" ip address 10.60.1.1 ! interface vlan "254" description "TO-CORE" ospf-profile "AREA60-OSPF-PROFILE" !