SWITCH STACKING

Switch stacking is generally used for access switches; chassis aggregation is generally used for distribution and core switches. FlexStack modules can be inserted into each switch in a stack allowing stacking cables to connect the switches in a full-duplex ring topology independent of the normal Ethernet ports. Stacking creates a single logical switch with the following benefits:

- Single management IP (SVI) address
- One configuration file controlling all access ports in each member switch. The ports would all appear to be on one switch
- STP, CDP, and VTP would run on just one switch in the stack. This would reduce the complexity of the STP topology.
- One MAC address table for the whole stack
- Uplinks from separate physical switches in the stack to the same distribution switch can be EtherChanneled

Stack Master—One switch in the stack that holds the MAC address table and makes forwarding decisions.

Capabilities

	FLEXSTACK	FLEXSTACK-PLUS
Link Speed (full-duplex sum of both directions)	10 Gbps	20 Gbps
Maximum Stacked Switch Count	4	8
Compatible Switch Models	2960-S, 2960-X	2960-X, 2960-XR

SWITCH CHASSIS AGGREGATION

Switch Aggregation—Aimed more at high-availability for distribution and core switches. Works between a pair of higher end switches, using normal Ethernet interfaces and is more functional but more complex. Aggregation provides:

- MEC (Multichassis EtherChannel)
- Active/Standby Control Plane—one switch handles STP, VTP, EtherChannel, ARP, and routing protocols
- Active/Active Data Plane—The switches synchronize their MAC and routing tables so that both can forward frames
- Single Switch Management—Telnet, SSH, and SNMP run only on the active switch. Configuration in synchronized in case the other ever needs to take over

Combining switch stacking at the access level and aggregation at the distribution level produces a very simple logical topology of one logical switch per level.