

# Catalyst 9000 Deployment Checklist

Day-zero to production for Cisco Catalyst 9300 / 9500 Layer 3 switches running IOS-XE. Companion to the WUC field guide: [wuctechnologies.com/resources/blog/cisco-layer-3-switch-setup-guide/](http://wuctechnologies.com/resources/blog/cisco-layer-3-switch-setup-guide/)

## Phase 0 · Decisions before unboxing

<input type="checkbox"/>	Role and physical location decided (access / distribution / core) and uplink architecture drawn
<input type="checkbox"/>	Management plan: out-of-band via dedicated Gi0/0 port in Mgmt-vrf (not in-band SVI)
<input type="checkbox"/>	IP plan in IPAM: management IP, every SVI subnet, routed links, routing peers
<input type="checkbox"/>	IOS-XE target version chosen from the Cisco recommended-release page (prefer Extended-Maintenance trains)
<input type="checkbox"/>	Catalyst Center / PnP decision made — if not used, PnP disable is step one

## Phase 1 · Physical and first boot

<input type="checkbox"/>	Racked, grounded to rack bond (chassis ground lug), dual PSUs on separate circuits
<input type="checkbox"/>	Console at 9600 8N1; uplinks left unplugged until config is staged
<input type="checkbox"/>	Refurb / returned units: write erase, delete vlan.dat, factory-reset all secure, reload

## Phase 2 · Day-zero configuration

<input type="checkbox"/>	PnP disabled (pnp profile transport removed / pnpa service discovery stop on 17.6+)
<input type="checkbox"/>	Hostname per naming convention; clock timezone; two NTP servers with source interface
<input type="checkbox"/>	Admin user with script secret; default admin / cisco accounts removed; service password-encryption

## Phase 3 · Smart Licensing (day one, not day 89)

<input type="checkbox"/>	Transport configured (smart / on-prem SSM / SLR for air-gapped)
<input type="checkbox"/>	CSSM trust token installed; show license status reads REGISTERED and AUTHORIZED, not EVAL

## Phase 4 · Management access

<input type="checkbox"/>	Gi0/0 in Mgmt-vrf with OOB address; default route in vrf Mgmt-vrf
<input type="checkbox"/>	RSA keys generated with label; SSHv2 only; VTY transport input ssh, login local
<input type="checkbox"/>	Management ACL applied with vrf-also; deny logged

## Phase 5 · Layer 3 routing

<input type="checkbox"/>	ip routing (and ipv6 unicast-routing if applicable) enabled and verified in running-config
<input type="checkbox"/>	VLANs created and named; one SVI per routed VLAN; ip helper-address on user/voice SVIs
<input type="checkbox"/>	Trunks: allowed VLAN lists explicit on both ends; native VLAN set to dedicated unused VLAN
<input type="checkbox"/>	Default route: static toward edge router, or OSPF with passive-interface default + BFD

## Phase 6 · Redundancy and hardening

<input type="checkbox"/>	HSRPv2 with explicit priorities and preempt; hosts point at the virtual IP
<input type="checkbox"/>	STP root aligned with HSRP active; rapid-pvst; portfast + bpduguard on edge ports

<input type="checkbox"/>	LACP port-channels on inter-switch links; HTTP server / small-servers / finger / pad disabled
<input type="checkbox"/>	DHCP snooping + Dynamic ARP Inspection on user VLANs, uplinks trusted
<input type="checkbox"/>	SNMPv3 only; TACACS+ with local fallback; remote syslog shipping from day one

## Phase 7 - Stacking (C9300)

<input type="checkbox"/>	Identical IOS-XE version pre-staged on every member before cabling the ring
<input type="checkbox"/>	Stack ring closed (redundant return cable); master election verified with show switch

## Phase 8 - Verify and document

<input type="checkbox"/>	show ip route / show ip interface brief / show vlan brief / show interfaces trunk reviewed
<input type="checkbox"/>	show interfaces trunk forwarding stanza matches intent; show cdp neighbors matches the diagram
<input type="checkbox"/>	show license summary, show standby brief, show etherchannel summary clean; write memory
<input type="checkbox"/>	IPAM + CMDB updated: serials, version, licensing, rack, uplinks, SMARTnet dates
<input type="checkbox"/>	Automated config backup (Oxidized / RANCID) capturing the device; restore tested

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Deploying or refreshing Catalyst at scale? WUC scopes model selection, licensing, stacking, and post-SMARTnet support — vendor-agnostic, written quote in 14 business days.

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