

WOLEX / NETWORK FIELD REFERENCE

Cisco routers | Troubleshooting

IOS XE 17.x / IPv4 | Revision 1.0 | Reviewed 2026-10-10

Default IPv4 routing context. For VRFs, use the matching VRF-aware command syntax; a default-table result does not describe every tenant.

Read-only inspection unless labeled otherwise. Replace every example address, interface and <PLACEHOLDER>. Confirm syntax with device help for your release.

Destination unreachable

Read-only inspection

```
show ip route 192.0.2.10
show ip cef 192.0.2.10
```

Inspect: Compare the selected route with the forwarding entry, resolved next hop and outgoing interface.

Next: Verify next-hop reachability and the destination-side return route in the same routing context.

192.0.2.10 is a documentation address; replace it. CEF output alone does not prove hardware forwarding or firewall permission.

BGP established, missing reachability

Read-only inspection

```
show ip bgp summary
show ip bgp 192.0.2.0
```

Inspect: Distinguish neighbor state from received prefixes and selected paths. A numeric prefix count indicates an established session.

Next: Check address family and import/export policy; confirm that the selected prefix is actually installed in the IP routing table.

A healthy TCP/BGP session does not guarantee the needed prefix is accepted or advertised.

One source works, another fails

Read-only inspection

```
show ip cef exact-route 198.51.100.10 192.0.2.10
```

Inspect: Identify the forwarding choice for this source/destination pair.

Next: Compare source networks, routing context, ACL/NAT policy and return path; reproduce the failing application tuple.

Documentation addresses; replace both. Policy-based routing can alter the path. This is not a complete PBR or security-policy evaluation.

WOLEX / NETWORK FIELD REFERENCE

Cisco routers | Deployment

IOS XE 17.x / IPv4 | Revision 1.0 | Reviewed 2026-10-10

Default IPv4 routing context. For VRFs, use the matching VRF-aware command syntax; a default-table result does not describe every tenant.

Route-change acceptance

Read-only inspection

```
show ip route 192.0.2.10
show ip cef 192.0.2.10
show ip bgp summary
```

Inspect: Compare next hop, forwarding choice and expected peers with the pre-change baseline.**Next:** Verify application traffic from affected source networks; use the reviewed recovery plan if acceptance fails.
Save only the accepted configuration.

IOS XE changes normally affect running state immediately. Configuration replacement needs a compatible full backup and platform-specific preparation; do not paste a generic rollback command.

Change acceptance checklist

Before: approved scope, baseline, compatible software/optics, protected backup, console access and recovery owner.**After:** compare links, VLANs, peers and routes; test management from a separate path, real application traffic, intended denies and redundancy. Record evidence and time.**Close:** save or confirm the accepted configuration, update documentation and retain the reviewed recovery path.

Vendor references

[Cisco IP route reference](#)[Cisco CEF reference](#)[Cisco IOS XE BGP reference](#)[Cisco configuration replacement](#)

Not executed on customer equipment. Documentation-reviewed examples; platform features and syntax vary. No login, config upload or device connection.

Live reference: wolex.net/tools/network-cheat-sheets/Deployment and migration help from Wolex | [Network security review](#)