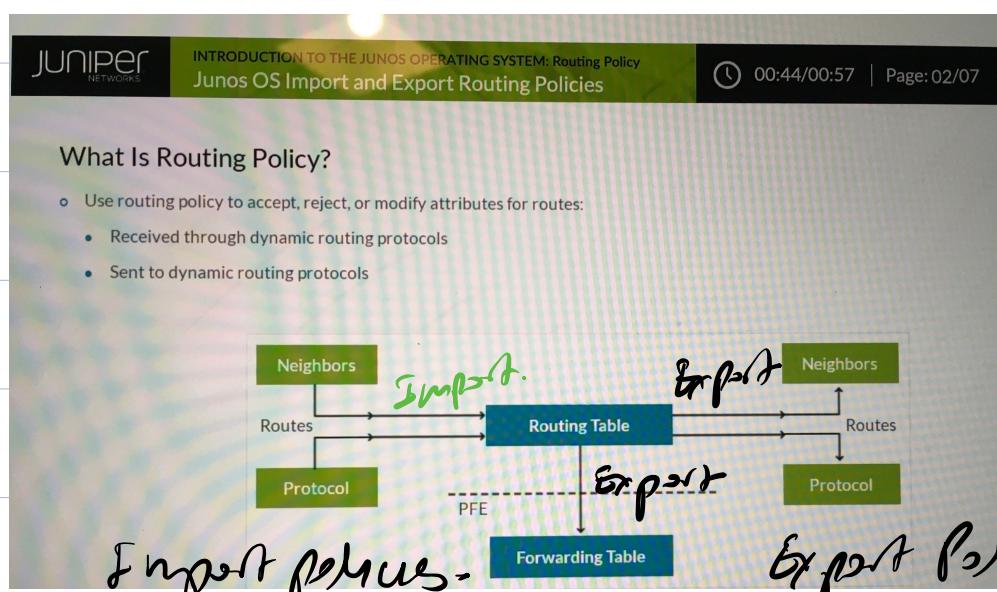


Junos OS Import & Export Routing Policies

Routing Policy

- Routing policy controls the flow of routing information to and from the routing table also known as routing information Base (RIB)
- Choose accept, reject , or modify attributes for routes



Default Routing Policies: BGP, OSPF, IS-IS

Default Routing Policies: BGP, OSPF and IS-IS		
Every protocol has a default import policy and a default export policy.		
Protocol	Import Policy	Export Policy
BGP	Accept all received BGP IPv4 routes and import into the inet.0 routing table	Re-advertise all active BGP routes to BGP speakers, while following protocol-specific rules
OSPF	Accept all OSPF routes and import into the inet.0 routing table	Reject everything (The protocol uses flooding to announce local routes and any OSPF learned routes)
IS-IS	Accept all IS-IS routes and import into the inet.0 routing table	Reject everything (The protocol uses flooding to announce local routes and any IS-IS learned routes)

Building Blocks of Routing Policy:

- routing policies contained ordered groups of terms:

INTRODUCTION TO THE JUNOS OPERATING SYSTEM: Routing Policy
Routing Policy: Match Criteria and Action Blocks

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Building Blocks of Routing Policy: Part 1

Routing policies contain ordered groups of terms:

```

graph TD
    myPolicy[my-policy] --> termFirst[term firstterm]
    termFirst --> fromFirst[from]
    termFirst --> thenFirst[then]
    termFirst --> noMatchFirst[no match]
    termFirst --> termSecond[term seconderm]
    termSecond --> fromSecond[from]
    termSecond --> thenSecond[then]
    termSecond --> noMatchSecond[no match]
    termSecond --> termThird[term thirdderm]
    termThird --> fromThird[from]
    termThird --> thenThird[then]
    termThird --> noMatchThird[no match]
  
```

The diagram illustrates the structure of a routing policy named "my-policy". It contains three sequential terms: "term firstterm", "term seconderm", and "term thirdderm". Each term consists of a "from" statement (which describes match conditions) and a "then" statement (which specifies actions). If a match occurs with a "from" statement, the corresponding "then" statement is executed. If no match occurs, the "no match" block is executed, and the process moves to the next term. The "User-Defined Policy and Term Names" section highlights the names of the policy and terms, while the "The then statements describe the actions to take if a match with the from statement occurs." section describes the purpose of the "then" statements.

-Part #2 :

{ OR & AND } criteria

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Routing Policy: Match Criteria and Action Blocks

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Common Match Criteria

Common match criteria for routing policy:

- o Prefix (route-filter or prefix-list)
- o Protocol (OSPF, static, BGP, and so forth)
- o Routing protocol attributes
 - OSPF area ID, AS path, community, and so forth
- o Next hop
- o Neighbor

The **from** statements describe the match conditions.

```

graph LR
    fromFirst[from] --> thenFirst[then]
    fromFirst --> matchFirst[match]
  
```

A callout box points to the "from" statement in the first term of the policy, explaining that it describes the match conditions. A note at the bottom states: "When you omit the **from** statement, all routes match and take the specified action. You can view the full list of match criteria in the CLI interactive help and in the Junos OS Routing Policies, Firewall Filters, and Traffic Policers User Guide in the Juniper Networks TechLibrary website. You can access this website from the Reference Links document."

Prefix List

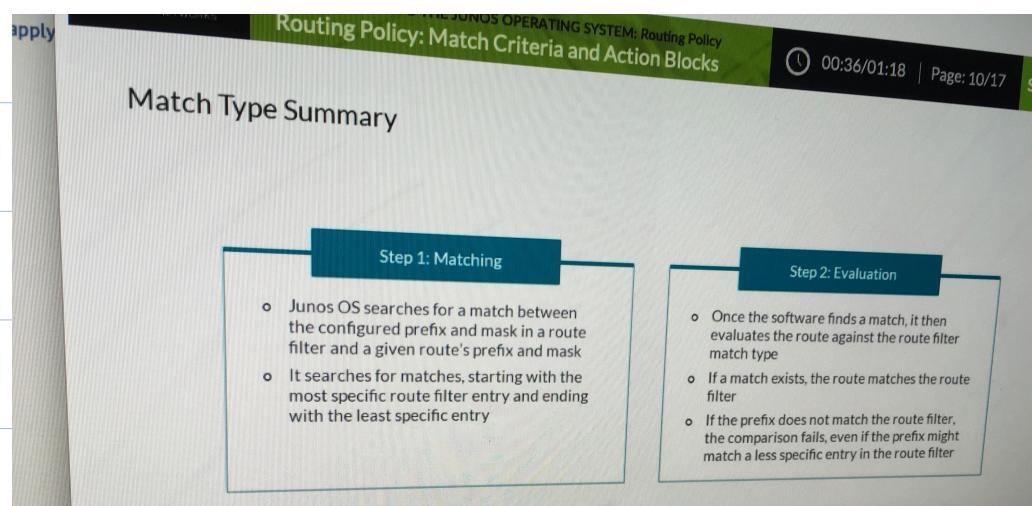
- Route filter

↳ under: edit policy - options] . hierarchy

- Route filter: matches individual routes
within a policy

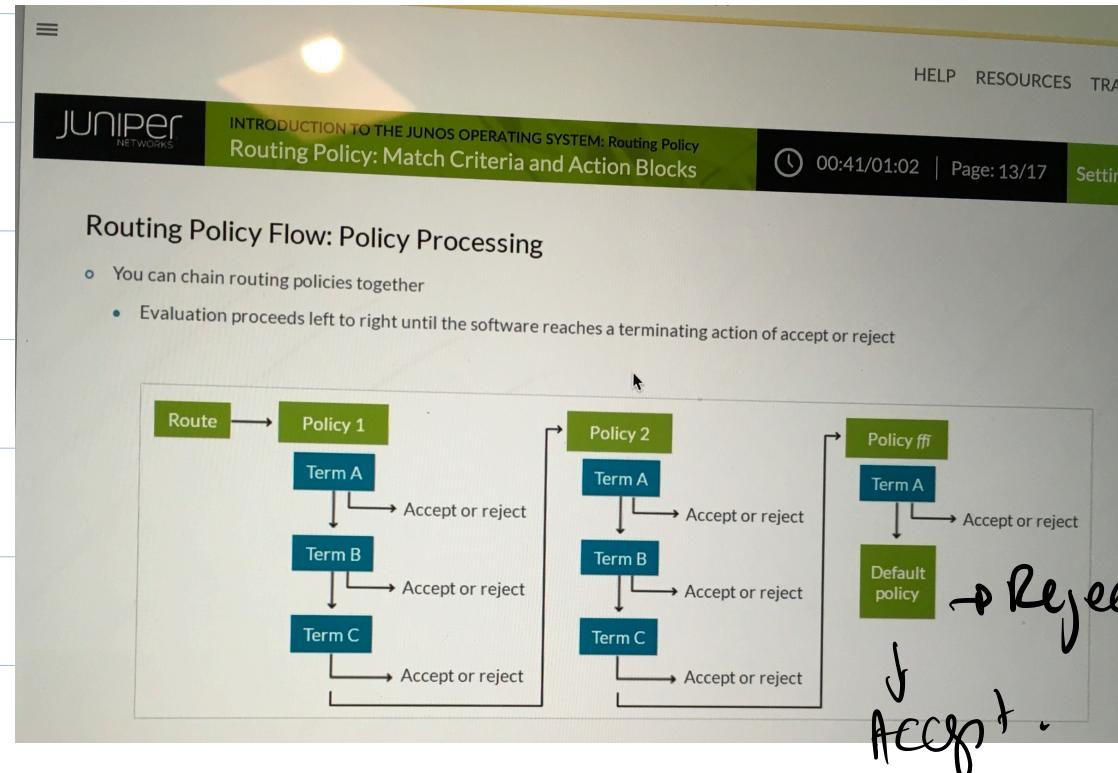
Match Types

- Exact match types



Implementing Routing Policy

Routing Policy Flow: Policy Processing



Match each image with its route filter match type.
Drag each option to its target and click Submit.

Q1

exact	longer	orlonger	upto	prefix-length-range /x-/y

≡

HELP RESOURCES TRANSCRI

JUNIPER NETWORKS INTRODUCTION TO THE JUNOS OPERATING SYSTEM: Routing Policy A Routing Policy Use Case 00:12/00:18 | Page: 05/06 Settings

Use Case: Monitoring the Results

Sample verification step to ensure that the routing policy works as expected (capture is taken from R4):

```
user@R4> show route protocol ospf exact 0/0
inet.0: 12 destinations, 12 routes (12 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both
0.0.0.0/0      *[OSPF/150] 00:03:33, metric 0, tag 0
                > to 172.19.3.1 via ge-0/0/2.0
                to 172.19.4.1 via ge-0/0/3.0
```

R4 installs the external default OSPF route flooded by R1.

The network diagram illustrates an OSPF Area 0 with four routers: R1, R2, R3, and R4. Router R1 is connected to the Internet with the IP address 172.30.25.0/30. Router R4 is also connected to the Internet. A callout box points to Router R4 with the text "R4 installs the external default OSPF route flooded by R1." The routers are interconnected, forming a mesh within the area.

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++ LAB!
