

Valid JN0-364 Study Notes & Free JN0-364 Updates

Science Valid Notes

PW1: Energy transfer through different mediums can be explained using wave and particle models.

- a) Explain, in terms of the particle model, the processes underlying convection and conduction of heat energy
 - **Conduction** occurs when particles in hot regions of a material vibrate and collide with neighbouring particles in colder regions transferring the heat energy through direct contact
 - E.g. cooking a pancake occurs through conduction and the heat from the flame is transferred to the skillet which is then transferred to the pancake batter.
 - **Convection** occurs when hotter and colder parts of a material are mixed together. Since the hot parts of the liquid rise up (more dense) and the cooler parts sink (Less Dense), the mixing occurs automatically. Convection only occurs in liquids and gases where particles can freely move.
 - E.g. cooking a pancake occurs through conduction and the heat from the flame is transferred to the skillet which is then transferred to the pancake batter.
 - **Radiation** occurs when heat is transferred by electromagnetic waves. The types of waves emitted by an object depends on its temperature. This kind of heat transfer does not require the particle model.
 - E.g. A space heater uses radiation to heat up an individual's body due to the infrared waves that are released from it.
- b) Identify situations where waves transfer energy
 - Everyday situations use waves to transfer energy the most common example being sound waves being released from our mouth as sound energy as we speak
- c) Describe, using the wave model, the features of waves including wavelength, frequency and speed
 - A wave is a disturbance of oscillation that travels through space and matter and is accompanied by a transfer of energy from one point to another
 - A wave is a carrier of energy not matter
 - Transverse waves - particles oscillate perpendicular to wave direction
 - Longitudinal waves - particles oscillate parallel to wave direction
 - The **period (T)** is the time taken for **one complete wave cycle to pass a point**
 - Period is measured in **seconds (s)**
 - The **frequency (f)** is the **amount of complete wave cycles (wavelengths)** that pass a point **per second**
 - Frequency is measured in **Hertz (Hz)**
 - The **wavelength (λ) (lambda)** is the **distance between adjacent crests or troughs**
 - Wavelength is measured in **metres (m)**

With constantly updated Juniper pdf files providing the most relevant questions and correct answers, you can find a way out in your industry by getting the JN0-364 certification. Our JN0-364 test engine is very intelligent and can help you experience the interactive study. In addition, you will get the scores after each JN0-364 Practice Test, which can make you know about the weakness and strengthen about the JN0-364 real test, then you can study purposefully.

The Juniper JN0-364 certification exam is one of the hottest and career-oriented certifications in the market. This Service Provider Routing and Switching, Specialist (JNCIS-SP) (JN0-364) certification exam has been inspiring beginners and experienced professionals since its beginning. Over this long time period, countless Service Provider Routing and Switching, Specialist (JNCIS-SP) (JN0-364) exam candidates have passed their Service Provider Routing and Switching, Specialist (JNCIS-SP) (JN0-364) certification exam, and now they are offering their services to the top world brands.

>> Valid JN0-364 Study Notes <<

Free JN0-364 Updates | Latest JN0-364 Exam Pattern

The software is designed for use on a Windows computer. This software helps hopefuls improve their performance on subsequent attempts by recording and analyzing Service Provider Routing and Switching, Specialist (JNCIS-SP) (JN0-364) exam results. Like the actual Juniper JN0-364 Certification Exam, Service Provider Routing and Switching, Specialist (JNCIS-SP) (JN0-364) practice exam software has a certain number of questions and allocated time to answer.

Juniper Service Provider Routing and Switching, Specialist (JNCIS-SP) Sample Questions (Q18-Q23):

NEW QUESTION # 18

Which term describes the router where traffic enters an MPLS label-switched path (LSP)?

- A. egress router
- **B. ingress router**
- C. penultimate router
- D. transit router

Answer: B

Explanation:

In the architecture of a Label-Switched Path (LSP), routers are categorized based on their role in the handling of a specific packet's lifecycle through the MPLS network. Juniper Networks documentation defines these roles clearly:

The Ingress Router (Option B), also known as the Ingress Label Edge Router (LER), is the entry point of the LSP. Its primary responsibility is to take an incoming "unlabeled" packet (usually a standard IPv4 or IPv6 packet), perform a route lookup, and determine which LSP the packet should follow. Once determined, the Ingress router performs a Push operation, where it encapsulates the packet with an MPLS label header and forwards it toward the next hop. This is where the transition from IP-based forwarding to Label-based switching occurs.

To contrast this with the other options:

* Transit Router (Option D): These are routers located between the ingress and egress. They perform Swap operations, replacing an incoming label with an outgoing label based on the Label Forwarding Information Base (LFIB).

* Egress Router (Option A): This is the "tail-end" of the LSP where the packet exits the MPLS domain and the final label is removed (if it hasn't been removed already by the penultimate hop).

* Penultimate Router (Option C): This is the second-to-last router in the path. As discussed in previous questions, it often performs the Pop operation (Penultimate Hop Popping) to remove the transport label before sending the packet to the Egress LER. Therefore, the router where traffic first "enters" the LSP and receives its initial label is strictly defined as the Ingress router.

NEW QUESTION # 19

You must ensure that your routing platform with redundant REs continues to forward packets, even if one RE fails. Which technology would you use to accomplish this task?

- A. LAG
- B. NSB
- C. BFD
- **D. GRES**

Answer: D

Explanation:

For Juniper platforms equipped with dual Routing Engines (REs), the fundamental technology required to provide high availability during a hardware or software failure of the primary RE is Graceful Routing Engine Switchover (GRES).

According to Juniper Networks technical documentation, GRES allows the backup RE to stay in a "hot" standby state. When GRES is enabled, the primary RE synchronizes critical state information with the backup RE, specifically the chassis state and the interface state. This synchronization includes the Packet Forwarding Engine (PFE) configuration.

When the primary RE fails, the backup RE takes over immediately. Because the PFE (which resides on the line cards) was already synchronized and is not restarted during the switchover, the router continues to forward packets that are already in flight or part of established flows. This prevents a complete network outage during an RE failover.

Comparison with other options:

* NSB (Non-Stop Bridging - Option A): Focuses specifically on maintaining Layer 2 protocol states (like STP) during a switchover.

* LAG (Link Aggregation - Option B): Provides redundancy for physical links, not the control plane or the RE.

* BFD (Bidirectional Forwarding Detection - Option C): Is a protocol used for rapid detection of link or neighbor failures; it does not protect the RE or maintain forwarding during an internal switchover.

It is important to note that while GRES maintains the forwarding state, it does not by itself maintain the routing protocol state (adjacencies). To keep OSPF or BGP sessions from dropping during the switchover, GRES must be paired with Non-Stop Active Routing (NSR). However, as the question focuses on the core requirement of continuing to forward packets, GRES is the foundational technology.

NEW QUESTION # 20

Exhibit:

```

user@R2> show route 198.51.100.1
inet.0: 19 destinations, 19 routes (19 active, 0 holddown, 0 hidden)
Restart Complete
+ = Active Route, - = Last Active, * = Both
198.51.100.1/32 *[Static/5] 5d 21:02:26
> to 203.0.113.65 via ge-0/0/3.0
user@R2> show route 172.20.110.0/24
inet.0: 19 destinations, 19 routes (19 active, 0 holddown, 0 hidden)
Restart Complete
+ = Active Route, - = Last Active,
* = Both
172.20.110.0/24 *[Static/5] 10:43:01
> via gr-0/0/0.0
Referring to the exhibit, traffic destined to which network will be sent through the tunnel?

```

- A. 198.51.100.1/32
- B. 203.0.113.65
- C. 0.0.0.0/0
- **D. 172.20.110.0/24**

Answer: D

Explanation:

To determine which traffic is being sent through a tunnel in a Junos OS environment, an administrator must analyze the routing table output for the exit interface associated with each destination prefix. The provided exhibit shows the results of the show route command on router R2 for two specific destination networks.

In the first output, the destination 198.51.100.1/32 is an active static route. The next-hop information specifies that traffic for this address is sent to the gateway 203.0.113.65 via the interface ge-0/0/3.0. According to Juniper Networks interface naming conventions, the prefix ge- denotes a Gigabit Ethernet interface, which represents a standard physical connection. Therefore, this traffic does not traverse a tunnel.

In the second output, the destination 172.20.110.0/24 is also an active static route. However, the next-hop for this network is listed as via gr-0/0/0.0. In the Junos operating system, the gr- prefix explicitly identifies a Generic Routing Encapsulation (GRE) tunnel interface. GRE is a widely used protocol in service provider networks to encapsulate various network layer protocols over an IP backbone, effectively creating a virtual point-to-point link. Because the routing table has installed the route for 172.20.110.0/24 specifically via the gr- interface, all traffic destined for this network will be encapsulated and sent through the tunnel.

The other choices are incorrect for the following reasons:

- * 203.0.113.65 (Option B): This is the next-hop IP address for the physical Gigabit Ethernet path; it is not a destination network directed to a tunnel.
- * 0.0.0.0/0 (Option C): There is no information in the exhibit regarding a default route.
- * 198.51.100.1/32 (Option D): As identified by the ge- interface prefix in the exhibit, traffic for this destination is sent via a physical Ethernet link.

NEW QUESTION # 21

You have configured an MPLS LSP that begins on R1 and terminates on R5 using the Junos default settings. Referring to the exhibit, which router will perform only label swap operations?

- A. R5
- **B. R3**
- C. R1
- D. R4

Answer: B

Explanation:

In an MPLS network, routers are categorized by their role along a Label Switched Path (LSP). In this scenario, the LSP originates on R1 (Ingress LER) and terminates on R5 (Egress LER). Between these two endpoints are the Provider (P) routers, also known as Transit Label Switching Routers (LSRs), which include R2, R3, and R4.

To identify which router performs only label swap operations, we must look at the standard Junos data plane behavior:

- * R1 (Ingress LER): Performs a Push operation. It receives native IP traffic from Networks 1 or 2, looks up the destination, and imposes (pushes) an MPLS label onto the packet before sending it to R2.

* R2 and R3 (Transit LSRs): These routers perform a Swap operation. They receive a labeled packet, look up the incoming label in their Label Forwarding Information Base (LFIB), replace it with an outgoing label provided by the downstream neighbor, and forward it.

* R4 (Penultimate Hop): By default, Junos uses Penultimate Hop Popping (PHP). Because R4 is the second-to-last router before the egress (R5), the egress router R5 advertises an "implicit-null" label (Label 3) to R4. This instructs R4 to perform a Pop operation—removing the MPLS label entirely—and sending the native IP packet to R5.

* R5 (Egress LER): Receives the packet (which is already unlabeled due to PHP) and performs a standard IP route lookup to reach the final destination in Network 3 or 4.

Among the options provided, R3 is the only router that is a transit LSR but not the penultimate hop. While R2 also performs a swap, it is not an option. R4 performs a Pop (due to PHP), R1 performs a Push, and R5 performs an IP lookup. Therefore, R3 is the correct answer as it solely performs the label swap operation.

NEW QUESTION # 22

Exhibit:

Referring to the exhibit, R1 and R2 are configured to run IS-IS. The IS-IS adjacency between R1 and R2 is up. What does the output of the show isis interface command tell you about R1?

- A. R1 is not configured to use wide metrics.
- **B. R1 only forms a Level 2 adjacency with R2.**
- C. R1 advertises a Level 1 metric of 100 and a Level 2 metric of 100 toward R2 in its link-state PDU.
- D. R1 sends Level 1 hello PDUs to R2.

Answer: B

Explanation:

In the IS-IS (Intermediate System to Intermediate System) protocol as implemented in Junos OS, routers can operate at two hierarchical levels: Level 1 (L1) for intra-area routing and Level 2 (L2) for inter-area backbone routing. By default, a Juniper router and its interfaces are configured to act as Level 1/2, meaning they will attempt to form adjacencies at both levels simultaneously.

According to Juniper Networks technical documentation, the show isis interface command provides a granular view of how the protocol is interacting with specific local links. In the provided exhibit, we must examine the L (Level) column and the DR (Designated Router) status columns to understand R1's operational state.

* Level Configuration: Under the L column for both the physical interface ge-0/0/0.0 and the loopback lo0.0, the value is strictly 2. This indicates that these interfaces have been explicitly configured to operate only at Level 2.

* Adjacency Capabilities: For the interface ge-0/0/0.0, the Level 1 DR field is marked as Disabled. This confirms that R1 is not participating in Level 1 operations on this link; it will not transmit Level 1 Hello PDUs, nor will it listen for them. Consequently, R1 is incapable of forming a Level 1 adjacency with R2 on this segment.

* Metric Implications: The exhibit shows an L1/L2 Metric of 100/100. In Junos, "narrow" metrics (the default) are limited to a maximum value of 63 per interface. A metric of 100 indicates that wide metrics (wide-metrics-only) have been enabled. Therefore, option A is incorrect because the router is using wide metrics.

Since the prompt states the adjacency is "up," and the interface is restricted to Level 2, we can conclude that R1 only forms a Level 2 adjacency with R2 (Option B). Even though an L1 metric of 100 is displayed in the table as a configured value, it is not actually "advertised" in a Link-State PDU because the Level 1 protocol is disabled on that interface.

NEW QUESTION # 23

.....

There are many other advantages of our JN0-364 exam questions. To gain a full understanding of our JN0-364 learning guide, please firstly look at the introduction of the features and the functions of our JN0-364 exam torrent. The page of our product provide the demo to let the you understand part of our titles before their purchase and see what form the software is after the you open it. The client can visit the page of our product on the website. So the client can understand our JN0-364 Quiz torrent well and decide whether to buy our JN0-364 exam questions or not at their wishes.

Free JN0-364 Updates: <https://www.verifieddumps.com/JN0-364-valid-exam-braindumps.html>

Our JN0-364 exam braindumps speak louder than words as our forceful evidence, Juniper Valid JN0-364 Study Notes We made the practice materials for conscience's sake to offer help, I believe it is a wise thing to choose JN0-364 study guide as your useful helper while attending real test, JN0-364 certification can provide you with several benefits that can assist you to advance your career and achieve your professional goals, The Service Provider Routing and Switching, Specialist (JNCIS-SP) (JN0-364) exam credential paves the way toward landing high-paying jobs or promotions in your organization.

