Oracle Communications Session Border Controller Certified Implementation Specialist Exam Study Guide
Getting Started

The Oracle Communications Session Border Controller Certified Implementation Specialist Exam Study Guide is designed to help you prepare for the Oracle Communications Session Border Controller Essentials Exam (1Z0-400).

Earning this certification helps OPN members differentiate in the marketplace through proven in-depth expertise, and helps their partner company qualify for the Enterprise Communications Specialization and Network Session Delivery and Control Infrastructure Specialization.

Target Audience

The Oracle Communications Session Border Controller Certified Implementation Specialist exam audience defines the type of participants who are likely to pass the exam and targets individuals with a specific level of education and expertise:

**Job Role:**
- Architect
- Configuration Consultant
- Configuration Implementer
- Network Administrator
- Project Manager
- Support Engineer
- System Integrator

**Level of Competency:**
- Candidates should be able to perform routine operations (system access, configuration, backup/restore)
- Knowledge of TCP/IP Networking and VoIP Telephony is recommended.

Exam Topics

The Oracle Communications Session Border Controller Certified Implementation Specialist exam covers **nine topics**:

- Intro to Session Initiation Protocol
- Intro to H.323
- Intro to Session Border Controller
- Initial Configuration
- Session Director
- Provisioning Interfaces
- Configuring for High Availability
- SIP Configuration in a Peering Environment
- SIP Configuration in an Access-backbone environment
Levels of Knowledge
Each exam topic contains objectives and each objective is categorized by learner or practitioner level of knowledge.

**Learner** items test foundational grasp and require product comprehension (not recognition or memorization).

Example:
“When setting up price list modifiers in Advanced Pricing, which three steps must be completed in order to successfully activate surcharge and price break features?”

**Practitioner** items present on-the-job scenarios and require the ability to: integrate and apply knowledge in new contexts, analyze and troubleshoot complex issues, and solve problems.

Example:
1) “You are creating price list modifiers in Advanced Pricing. Your customer has three requirements: X, Y, Z. Identify the two steps that must be completed in order to meet those requirements.

2) “You are running a two-instance database with six redo logs defined. You decide to add a third thread to support a third database instance, on the third node of the cluster. Using command line administration, which two commands will you execute to achieve this?”

Training Options
Throughout the study guide each exam topic recommends one or several training formats:

- **OPN Boot Camps**
- **Online Training**
- **Oracle University Training**

While the Oracle PartnerNetwork facilitates free access to online training, in class trainings often require a fee.
Exam Details per Topic

This section covers details associated to all exam topics such as: exam topics overview, objectives, levels of knowledge, recommended trainings and sample questions. Specialization exams include all application functionalities not only the most frequently used ones.

Topic 1: Intro to Session Initiation Protocol

Objective

<table>
<thead>
<tr>
<th>Level</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner</td>
<td>• Describe SIP Operation, as it relates to Oracle Communications Enterprise Communications Infrastructure products.</td>
</tr>
<tr>
<td></td>
<td>• Apply knowledge of general SIP Configuration within Oracle Communications Enterprise Communications Infrastructure products.</td>
</tr>
<tr>
<td>Practitioner</td>
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</table>

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

A Session Description Protocol (SDP) offer is appropriately communicated in which two SIP messages?

A. INVITE  
B. 200 OK  
C. ACK  
D. CANCEL  
E. 300 or 302

When processing either a 300 or 302 response, a SIP device will use information located in a header to formulate one or more new requests.

Which header?

A. Contact:  
B. Via:  
C. To:  
D. Route:  
E. Record-Route:
Topic 2: Intro to H.323

Objective

- Articulate H.323 theory within a broader context as well as within the context of the Oracle Communications Enterprise Communications Infrastructure product portfolio.
- Configure the SBC for H.323 inter-operation.

Level

Learner
Practitioner

Recommended Training

- See section H.323 Signaling Services in SBC configuration guide.

Sample Questions

Which H.323 component originates and terminates calls?

A. Terminal
B. Gateway
C. Gatekeeper
D. Media Gateway Controller
E. Media Gateway

Which are two examples of Q.931 messaging?

A. CALL PROCEEDING
B. RELEASE COMPLETE
C. DRQ
D. CANCEL
E. MDCX
Topic 3: Intro to Session Border Controller

Objective

- Identify and describe the software and hardware architecture

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

Topology hiding on the Session Border Controller (SBC) is performed by:

A. Replacing Layer 2 information in signaling and media packets
B. A combination of rewriting Layer 3/Layer 4 data in media packets and a signaling-aware session layer
C. Topology hiding is never performed by the Net-Net SD
D. A SIP Application Layer Gateway (ALG) and a media firewall
E. Using Header Manipulation Rules (HMR) on media packets

Which two statements are TRUE of the rear management interface ports on the Net-Net 4500?

A. FTP and telnet are supported on any of the three inline ports.
B. The berpd process only communicates via mgt1 and mgt2 ports, which must be allocated for HA functionality when needed.
C. SSH access is limited to the mgt0 port.
D. SNMP traps can be issued from any of the three rear-facing management ports.
E. Any of the rear-facing management ports can be provisioned to provide an additional console port.
Topic 4: Initial Configuration

Objective

- Navigate the ACLI and perform system administration tasks on Oracle's Acme Packet Net-Net 4000 series Session Director.

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

There are two access modes on the Session Border Controllers. Which is TRUE regarding the ACLI's User Mode access?

A. The User may view the configuration but not modify it.
B. The User may modify the configuration but neither save nor activate it.
C. The User may modify the configuration and save it, but not activate it.
D. The User may not view the configuration.
E. The User may delete the configuration.

After creating new configuration objects and issuing a "save-config" command, the new configuration objects exist in:

A. The editing and saved configurations
B. The editing configuration
C. The saved configuration
D. The running configuration
E. The running and saved configurations
Topic 5: Session Director

Objective

- Explain the key features and concepts that apply to Oracle's Acme Packet Net-Net 4000 series Session Director.

Level

Practitioner

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

The realm-id for a Session-Agent can be wild carded using "*" (asterisk). If you still wanted to send OPTIONS heartbeats from a given sip-interface, what configuration parameter would need to be set?

A. egress-realm-id
B. ping-method-realm-id
C. uri-fqdn-domain
D. dns-realm
E. options-interface

Which sip-config option in the Net-Net 4500 will suppress the inclusion of a registration cache cookie in the Contact header of forwarded messages?

A. reg-cache-mode=from
B. reg-cache-mode=none
C. reg-cache-mode=append-from
D. reg-cache-mode=no cache
E. reg-cache-mode=append
Topic 6: Provisioning Interfaces

Objective

- Complete a system-wide configuration of Oracle's Acme Packet Net-Net Enterprise Session Director.

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

Which three statements about Net-Net 4500 network interfaces are correct?

A. For each physical interface, you must have at least one network interface with a sub-port-id of 999

B. More than one realm can be assigned to a network interface

C. By configuring the hip-ip-list and icmp-address parameters, you enable the Net-Net 4000 network processor to respond to PING

D. Network interfaces define a subnet of useable addresses, not necessarily the address that signaling and media has to be directed to

E. Network interfaces are bound to physical interfaces

The __________ parameter allows for multiple network interfaces to be bound to a single physical interface.

A. vc-id-addr

B. vlan-id

C. hip-ip-addr

D. vlan-ip-id

E. sub-port-id
Topic 7: Configuring for High Availability

Objective

- Explain how high availability operates in a Session Border Controller environment.
- Configure two SBCs for a high availability installation.

Level

Learner

Practitioner

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

When provisioning the Session Border Controller for High Availability, which network-interface element must be provisioned?

A. pri-utility-address
B. virtual-utility-address
C. phy-utility-address
D. standby-utility-address
E. stby-utility-address

In which configuration branch do you define the virtual-mac address?

A. phy-interface
B. network-interface
C. sip-interface
D. redundancy-config
E. virtual-config
Topic 8: SIP Configuration in a Peering Environment

Objective

- Configure the SBC for a peering environment.
- Describe how peering pertains to Oracle's Acme Packet Net-Net Enterprise Session Director.

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

The peering Policy-based Realm Bridging (PBRB) model is an attractive architecture due to which inherent characteristic?

A. PBRB reduces processing overhead by utilizing local-policies rather than sip-nats for routing purposes.
B. PBRB performs sip header manipulation on egressing SIP messages.
C. PBRB is not capable of steering media therefore reducing processing overhead.
D. PBRB is the only architecture that works in conjunction with MGCP to perform SIP-MGCP interworking.
E. PBRB is the only architecture that provides the necessary means for DoS security to be provisioned.

The first and most preferable approach for peering is the bridged realm approach, using __________ statements to route traffic from realm to realm.

A. local-policy
B. access-list
C. sip-nat
D. session-group
E. realm-config
Topic 9: SIP Configuration in an Access-backbone environment

Objective

- Configure the SBC for an access-backbone environment.
- Describe how access-backbone architecture relates to Oracle's Acme Packet Net-Net Enterprise Session Director as well as all applicable features and functions.

Recommended Training

- Oracle SBC Configuration and Administration Oracle University
- Oracle SBC Troubleshooting Oracle University

Sample Questions

The Session Border Controller provisioned for the SIP Access Backbone Environment will cache those endpoints it detects are NOT behind a NAT when the following condition is met.

A. registration-caching enabled
B. The Session Director will always cache endpoints not obscured by NAT devices
C. caching-challenges enabled
D. registration-proxy disabled
E. allow-anonymous enabled

You want to pass Real Time Control Protocol (RTCP) for devices behind firewalls. Which element do you configure to "enabled"?

A. hnt-rtcp
B. rtcp-enable
C. enable-rtcp-hnt
D. pass-rtcp-hnt
E. allow-rtcp
Exam Registration Details

Full exam preparation details are available on the exam page Oracle Communications Session Border Controller Essentials Exam (1Z0-400), including learning objectives, number of questions, time allowance, pricing and languages available.

The OPN Certified Specialist Exams appointments are available worldwide at Pearson VUE Testing Centers. Reservations can be made via phone or online.

Candidates must have an Oracle Web Account to access CertView and check their exam results. In order to have their certifications reflected on OPN Competency Center, both CertView and Pearson Vue accounts must be updated with the current OPN Company ID. Your Company ID can be obtained by contacting your local Oracle Partner Business Center or by signing in to your OPN account.

Additional Resources

- Oracle Session Border Controller Partners Information
- Oracle Communications Session Border Controller Essentials Exam (1Z0-400)
- Enterprise Communications Knowledge Zone
- Network Session Delivery and Control Infrastructure Knowledge Zone
- Enterprise Communications Implementation Specialist Guided Learning Path
- Network Session Delivery and Control Infrastructure Implementation Specialist Guided Learning Path
- Network Session Delivery and Control Infrastructure (Acme Packet) Education