Getting Started

The Oracle Communications WebRTC Session Controller 7 Certified Implementation Specialist Exam Study Guide is designed to help you prepare for the Oracle Communications WebRTC Session Controller 7 Implementations Essentials Exam (1Z1-431).

Earning this certification helps OPN members differentiate in the marketplace through proven in-depth expertise, and helps their partner company qualify for the Oracle Communications Service Delivery Platform 5.

Target Audience

The Oracle Communications WebRTC Session Controller 7 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:**
- Integration Developers
- Systems Architects
- Application Developers

**Level of Competency:**
- Basic telecom knowledge

Exam Topics

The Oracle Communications WebRTC Session Controller 7 Certified Implementation Specialist exam covers fourteen topics:

- Oracle Communications WebRTC Session Controller Overview
- WebRTC Concepts
- Architecture
- Installation
- Javascript SDK
- WebRTC Session Controller Extensions Groovy
- WebRTC Session Controller Media Integration
- Border Security
- Authentication and Authorization
- HA Concepts and Deployment Models
- PCRF Integration
- WebRTC Media Handling Concepts
- Patching and Upgrade
- Troubleshooting
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: Oracle Communications WebRTC Session Controller Overview**

**Objective**

- Describe WebRTC Session Controller
- Identify the main challenges of the technology
- Describe the key functional areas
- Describe deployment and reliability

**Recommended Training**

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

**Sample Questions**

Which role does the WebRTC Session Controller fulfill in the Service Delivery Platform (SDP) industry?

A. Web database functions
B. Web Real Time Communications into IMS or VoIP networks
C. Web Services
D. Service Brokerage
Topic 2: WebRTC Concepts

Objective

- Describe WebRTC concepts
- Describe standard APIs
- Identify Signaling issues
- Identify NAT/Firewall components

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Which three statements related to the creation of applications using WebRTC are true?

A. Is based in HTML5 APIs
B. Needs diverse browser support
C. Needs Client-Server coordination for back-end integration
D. Applications are already created in the WebRTC standard, it is not necessary to create new applications
Topic 3: Architecture

Objective

- Identify Network Integration components
- Set up Signaling and Media Integration
- Use the JSON-RTC protocol

Level

Learner
Practitioner
Practitioner

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Which three elements are components of WebRTC Session Controller?

A. Signaling Engine
B. Media Engine
C. Translation Engine
D. Software Development Kit (SDK)
E. Policy Engine
Topic 4: Installation

Objective

- Install and set up the Signaling Engine
- Install and set up the Media Engine

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

In which three product/technologies does Signaling Engine run?

A. WebLogic Server
B. Oracle Communications Converged Application Server
C. Oracle Communications Converged Application Server – Service Controller
D. Java
Topic 5: Javascript SDK

Objective

- Identify the concepts of WebRTC API
- Identify the concepts of the Javascript API
- Analyze sample Javascript code snippets

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Which three capabilities must be supported by the browser in order to support WebRTC?

- A. Acquiring Media (getUserMedia)
- B. Acquiring Signalling (getSignallingChannel)
- C. Communicating Media (RTCPeerConnection)
- D. Communicating arbitrary data (RTCDataChannel)
**Topic 6: WebRTC Session Controller Extensions Groovy**

**Objective**
- Use Groovy extensions
- Analyze the WebRTC Session Controller Entities

**Level**
- Practitioner

**Recommended Training**

**Online Training**
- Oracle Communications WebRTC Session Controller Implementation Specialist

**OPN Boot Camps**
- Oracle Communications WebRTC Session Controller Implementation Boot Camp

**Sample Questions**

For what is Groovy used in the Signaling Engine?

A. To manage Websockets
B. To maintain SIP session state
C. Protocol Mapping and Translation
D. To make the right node process each message (local if possible)
Topic 7: WebRTC Session Controller Media Integration

Objective

- Identify the components of Media Integration
- Identify Use Cases
- Set up the Media Engine
- Use Groovy APIs
- Analyze Call Flow
- Use the Media Engine Load Balancing

Level

Learner
- Identify the components of Media Integration
- Identify Use Cases

Practitioner
- Set up the Media Engine
- Use Groovy APIs
- Analyze Call Flow
- Use the Media Engine Load Balancing

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

What is the role of Media Engine when anchoring media?

A. Proxy
B. Registrar
C. B2BUA
D. PSTN Gateway
Topic 8: Border Security

Objective

- Identify Security components
- Set up examples
- Set up border security

Level

Learner
Practitioner
Practitioner

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Which security feature does WebRTC Session Controller include to enable login with social media credentials?

A. OAuth
B. OpenId
C. HTTP BASIC authentication
D. NTLMSSP
Topic 9: Authentication and Authorization

Objective

- Describe the main features of authentication and authorization
- Set up authentication providers
- Set up the mapping from web to SIP credentials
- Set up handling challenges from the SIP network
- Set up resource limits

Level

Learner
- Practitioner
- Practitioner
- Practitioner
- Practitioner

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

In addition to the authentication methods provided with WebLogic Server (HTTP basic, form-based, and client certificate), which two authentication methods are supported by WebRTC Session Controller?

A. Email validation: WebRTC Session Controller will keep all the authorized emails to establish a WebSocket connection

B. Identity Asserter. This will validate tokens from OAuth providers (such as Facebook and Google)

C. Kerberos Authentication: a trusted third-party authentication system that relies on shared secrets

D. HTTP authentication provider: HTTP authentication validates the supplied user name and password against an HTTP endpoint (for example, a REST endpoint)
### Topic 10: HA Concepts and Deployment Models

**Objective**
- Describe deployment models
- Set up load balancing
- Set up high availability

**Level**
- Learner
- Practitioner

### Recommended Training

**Online Training**
- [Oracle Communications WebRTC Session Controller Implementation Specialist](#)

**OPN Boot Camps**
- [Oracle Communications WebRTC Session Controller Implementation Boot Camp](#)

### Sample Questions

Which three features regarding High Availability are available in Signalling Engine?

A. **Supports N+1 redundancy**  
B. **Active Sessions transparently failover**  
C. **Flash Recovery Area**  
D. **Supports service continuity**
Topic 11: PCRF Integration

Objective

- Identify PCRF and Network concepts
- Analyze Signaling Flow and Rx Messages
- Set up Groovy APIs
- Analyze the Call Flow

Level

- Learner
- Practitioner

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Can integration with PCRF be configured using the Groovy API?

A. Yes, using Diameter protocol
B. No
C. Yes, using REST protocol
D. Yes, using SIP protocol
### Topic 12: WebRTC Media Handling Concepts

**Objective**

- Describe the role of ICE/STUN and DTLS-SRTP
- Set up WebRTC events
- Set up anchored and released media flows

**Level**

- Learner
- Practitioner

**Recommended Training**

**Online Training**

- Oracle Communications WebRTC Session Controller Implementation Specialist

**OPN Boot Camps**

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

**Sample Questions**

In order to provide secure and reliable transmission across a variety of network topologies, which two features must be supported by all WebRTC endpoints?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td><strong>DTLS-SRTP</strong></td>
</tr>
<tr>
<td>B.</td>
<td>SIP over WebSocket</td>
</tr>
<tr>
<td>C.</td>
<td>ICE</td>
</tr>
<tr>
<td>D.</td>
<td>SOAP</td>
</tr>
</tbody>
</table>
Topic 13: Patching and Upgrade

Objective

- Set up the Media Engine
- Set up the Signaling Engine

Level

Practitioner

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Complete the sentence with the most appropriate: from WebRTC Session Controller console it is possible to know if Media Engine Node is _____

A. up

B. up, and allowed to receive traffic

C. up, allowed to receive traffic, and whether debug level logs are activated

D. up, allowed to receive traffic, whether debug level logs are activated, and load factor
Topic 14: Troubleshooting

Objective

- Troubleshoot the Media Engine
- Troubleshoot the Signaling Engine

Recommended Training

Online Training

- Oracle Communications WebRTC Session Controller Implementation Specialist

OPN Boot Camps

- Oracle Communications WebRTC Session Controller Implementation Boot Camp

Sample Questions

Which three resource limits can be established for an application?

A. Max. sessions
B. Max. sessions per user
C. Max. subsessions per user
D. Min. sessions
E. Min. sessions per user
Exam Registration Details

Full exam preparation details are available on the exam page Oracle Communications WebRTC Session Controller 7 Implementations Essentials Exam (1Z1-431), 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 Communications WebRTC Session Controller Overview
- Oracle Communications WebRTC Session Controller Partners Information
- Oracle Communications WebRTC Session Controller 7 Implementations Essentials Exam (1Z1-431)
- Oracle Communications WebRTC Session Controller Sales Specialist Guided Learning Path
- Oracle Communications WebRTC Session Controller PreSales Specialist Guided Learning Path
- Oracle Communications WebRTC Session Controller Implementation Specialist Guided Learning Path
- Oracle Communications WebRTC Session Controller Implementation Boot Camp
- Oracle Communications WebRTC Session Controller Documentation