



Ericsson Composition Engine (ECE) 18

Training Programs

Catalog of Course Descriptions



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Introduction

Ericsson has developed a comprehensive Training Programs service to satisfy the competence needs of our customers, from exploring new business opportunities to expertise required for operating a network. The Training Programs service is delineated into packages that have been developed to offer clearly defined, yet flexible training to target system and technology areas. Each package is divided into flows, to target specific functional areas within your organization for optimal benefits.

Service delivery is supported using various delivery methods including:

Delivery Method

Instructor Led Training (ILT)

Web-based Learning (WBL)

Blended Learning/Training (BLD)



Ericsson Composition Engine (ECE) 18 CSS Operation & Maintenance

LZU1082784 R1A

Description:

Do you need to operate and maintain ECE (Ericsson Composition Engine) 18?

There are many aspects to Ericsson Composition Engine and its components. There are also multiple interfaces and management tools available. ECE has three main deployments: Converged Services Studio (CSS), Service Capability Exposure Function (SCEF) and Unified Service Exposure (USE).

CSS provides a service enablement platform for services based on SS7 and SIP.

USE provides a platform for exposing network capabilities using Service Exposure and Advanced Composition.

SCEF provides a means to securely expose the services and capabilities provided by 3GPP network interfaces. SCEF use cases focus on Machine-Type Communication (MTC) within the IoT Domain.

This course covers the various capabilities of ECE CSS. It includes placing ECE in the overall network, using SS7 and SIP, service selection and troubleshooting procedures.

With the help of the ECE 18 CSS manual provided in this course and the guidance of the instructor, the participants will be able to learn the most efficient ways of performing essential system administration tasks. This includes maintaining services, handling alarms and statistics, performing backup and restore procedures and troubleshooting.

The course consists of two parts – a Web-Based Learning (WBL, Learning Objectives 1) and an Instructor-Led Training (ILT, Learning Objectives 2-8).

Learning situation:

This is a Blended Learning.

The WBL component(s) is self-paced interactive learning with multimedia content, delivered online and the ILT component is based on theoretical and practical instructor-led lessons given in a technical environment using equipment and tools.

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Learning objectives:

On completion of this course the participants will be able to:

- 1 Provide an introduction to ECE 18
 - 1.1 Give an introduction to ECE and its features
 - 1.2 Describe some of the ECE Value Packages
 - 1.3 Place ECE in the context of the overall network
 - 1.4 Explain the ways ECE can be deployed
 - 1.5 Outline the main Operation and Maintenance tools
- 2 Explain the Reference Setup and networking principles
 - 2.1 Investigate the Reference Deployment setup
 - 2.2 Compare virtualized setup with cloud-based setup
 - 2.3 Determine the software components of ECE
 - 2.4 Analyze the network setup of ECE CSS
 - 2.5 Describe the load-balancer use in ECE
- 3 Explore JBoss and MySQL cluster setup for ECE
 - 3.1 Determine the JBoss Server configuration in ECE 18
 - 3.2 Execute basic procedures in JBoss CLI
 - 3.3 Describe the setup of MySQL cluster on ECE 18
 - 3.4 Explain Geographic Redundancy
- 4 Implement Operation & Maintenance procedures
 - 4.1 Describe the Configuration Manager component
 - 4.2 Evaluate the Ericsson SNMP Agent (ESA) component
 - 4.3 Investigate ESA fault management
 - 4.4 Investigate ESA performance management
- 5 Define SS7 in ECE
 - 5.1 Explain the SS7 configuration
 - 5.2 Determine the Service Selection configuration
 - 5.3 Practice SS7 configuration
- 6 Define SIP in ECE
 - 6.1 Explain the SIP configuration
 - 6.2 Determine the Application Router configuration
 - 6.3 Practice SIP configuration
- 7 Execute ECE backup and restore procedures
 - 7.1 Evaluate the backup and restore procedures for ECE 18
 - 7.2 Perform partial backup and restore procedures
 - 7.3 Describe node backup and node restore procedures
- 8 Define health checks and troubleshooting procedures
 - 8.1 Describe the basic health checks that can be performed on ECE
 - 8.2 Implement these checks to ensure the ECE system is healthy

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- 8.3 Locate and interpret relevant log files
- 8.4 Explain basic troubleshooting tasks
- 8.5 Use central logging tools for system monitoring
- 8.6 Collect information for CSR reporting

Target audience:

This course is suitable for anyone who is required to be able to configure, operate, maintain and administer ECE 18 CSS.

Prerequisites:

Successful completion of the following courses:

The participants should be familiar with IP networking and routing and Linux CLI. Knowledge of Intelligent Networks, SS7 and SIP is beneficial.

Duration and class size:

The length of WBL component(s) is approximately 1 hour and 30 minutes.

The length of ILT component is 3 days and the maximum number of participants per session is 8.





Ericsson Composition Engine (ECE) 18 SCEF Operation & Maintenance

LZU1082712 R2A

Description:

Do you need to operate and maintain Ericsson Composition Engine (ECE) 18?

There are many aspects to Ericsson Composition Engine and its components. There are also multiple interfaces and management tools available. ECE has three main deployments: Converged Services Studio (CSS), Unified Service Exposure (USE) and Service Capability Exposure Function (SCEF).

CSS provides a service enablement platform for services based on SS7 and SIP. USE provides a platform for exposing network capabilities using Service Exposure and Advanced Composition. SCEF provides a means to securely expose the services and capabilities provided by 3GPP network interfaces. However, SCEF use cases focus on Machine-Type Communication (MTC) within the IoT Domain.

This course covers the various capabilities of ECE SCEF. It includes placing ECE in the IoT network, exposing network capabilities using Service Exposure, creating flexible skeletons with Advanced Composition and troubleshooting procedures.

With the help of the ECE 18 Operation and Maintenance manual provided in this course and the guidance of the instructor, the attendees will be able to learn the most efficient ways of performing essential system administration tasks, such as maintaining services, configuration management, handling alarms and statistics and performing backup and restore procedures.

The course consists of two parts – a Web-Based Learning (WBL, Learning Objectives 1) and an Instructor-Led Training (ILT, Learning Objectives 2-8).

Learning situation:

This is a Blended Learning.

The WBL component(s) is self-paced interactive learning with multimedia content, delivered online and the ILT component is based on theoretical and practical instructor-led lessons given in a technical environment using equipment and tools.

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Learning objectives:

On completion of this course the participants will be able to:

- 1 Provide an introduction to ECE
 - 1.1 Give an introduction to ECE and its features
 - 1.2 Explain what ECE is and the principles surrounding its development
 - 1.3 Place ECE in the context of the IoT/IMS/CS networks
 - 1.4 Mention some of the components which comprise ECE SCEF
- 2 Explain the Reference Setup and networking principles
 - 2.1 Investigate the Reference Deployment setup
 - 2.2 Describe Deployment Profiles
 - 2.3 Compare virtualized setup with cloud-based setup
 - 2.4 Analyze the network setup of ECE 18
 - 2.5 Describe load-balancer use in ECE 18
 - 2.6 Determine the software architecture for ECE
- 3 Explore Application Server and database setups for ECE
 - 3.1 Determine the Application Server configuration in ECE 18
 - 3.2 Describe the setup of database clusters on ECE 18
 - 3.3 Identify basic procedures in MySQL, Cassandra and Redis clusters on ECE 18
 - 3.4 Explain Geographic Redundancy
- 4 Implement Operation & Maintenance procedures
 - 4.1 Describe the Configuration Manager component
 - 4.2 Evaluate the Ericsson SNMP Agent (ESA) component
 - 4.3 Investigate ESA fault management
 - 4.4 Investigate ESA performance management
- 5 Explain SCEF Web Console
 - 5.1 Describe SCEF Web Console and what it is used for
 - 5.2 Define the SCEF data model
 - 5.3 Demonstrate SCEF in ECE 18
 - 5.4 ENM Integration
- 6 Service Capability Exposure Function (SCEF)
 - 6.1 Describe the Service Capability Exposure Function and what it is used for
 - 6.2 Describe SCEF within the IoT context
 - 6.3 Describe typical integrations with SCS
 - 6.4 Describe Non-IP Data Delivery (NIDD)
 - 6.5 Describe Monitoring Events (MONTE)
 - 6.6 Describe High Latency Communication (HLCOM)
 - 6.7 Describe communication Pattern (CP)
 - 6.8 Describe Device Mgmt and Device Communication
 - 6.9 Describe Security aspects of SCEF (Northbound and Southbound)
- 7 Execute ECE 18 backup and restore procedures

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- 7.1 Evaluate the backup and restore procedures for ECE 18
- 7.2 Perform partial backup and restore procedures
- 7.3 Describe node backup and node restore procedures
- 8 Define health checks and troubleshooting procedures
 - 8.1 Describe the basic health checks that can be performed on ECE
 - 8.2 Implement these checks to ensure the ECE system is healthy
 - 8.3 Locate and interpret relevant log files
 - 8.4 Explain some basic troubleshooting tasks
 - 8.5 Collect information for CSR reporting

Target audience:

This course is suitable for anyone who is required to be able to configure, operate, maintain and administer ECE 18 SCEF.

Prerequisites:

Successful completion of the following courses:

The participants should be familiar with IP and Linux CLI. Knowledge of IoT Networks and Webservices would also be beneficial.

Duration and class size:

The length of WBL component(s) is approximately 1 hour and 30 minutes.

The length of ILT component is 4 days and the maximum number of participants per session is 8.

