



Ericsson Content Delivery System (ECDS) 4.0

Learning Solutions

Package Description



Table of Contents

1	Introduction	3
2	Why invest in Ericsson Content Delivery System (ECDS) 4.0 Package?	6
3	What are the target audiences for the Ericsson Content Delivery System (ECDS) 4.0 package?	7
4	Fundamentals	8
5	Operations Centre.....	9
6	IS/IT Support	11
7	Related training packages.....	12
8	Third party related training references	13



1 Introduction

Ericsson has developed a comprehensive competence development service to satisfy our customers' need for expertise, which varies from the skills and knowledge required to operate a network to the expertise required to develop new end-user services.

1.1 Learning Solutions

Traditional pre-defined training programs can only go a certain distance in building the expertise to meet organizational demands. Today, organizations need to be guaranteed that they will have timely access to the exact skills, knowledge and expertise needed in the complex, and evolving, world of mobile Internet and Third Generation Networks. Such organizations need to be able to build just-in-time competence rapidly so that they can meet new market demands or deploy new technology. What is increasingly required is a competence solution that addresses job performance requirements and has clear links to the customer's business and operational requirements. The training needs to be tailor-made to suit the actual level of expertise of the staff. In addition, staff need to be trained on the exact tasks with which they have to work on a daily basis. Ericsson has state-of-the-art processes, methods and tools to meet these requirements.

1.1.1 Training based on Competence Gap Analysis

Ericsson's Learning Architects can help operators to analyze their competence needs from a business perspective, using *Competence Gap Analysis (CGA)*, and then assist them to deliver a flexible competence development program suited to their needs. The experts can also assist with the evaluation of the training effectiveness against *Key Performance Indicators (KPIs)*, conducting pre-tests before the program begins and post-tests to evaluate progress made during the program.

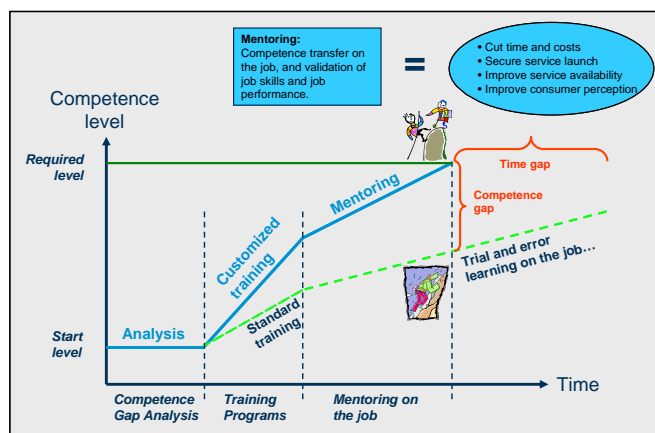


Figure 1. Analysis (CGA), Customization and Mentoring – How to add value relating to your business.



The result is a flexible program which is not only aligned with the business and operational requirements but is also customized to suit the requirements of the group or individuals to which it is directed. Flexibility is ensured; those with expertise spend less time achieving the required standard for task completion, while those at a more basic level get the help and time they need to reach this standard.

1.1.2 Mentoring or Instructor Led Training

Ericsson offers the operator two routes to optimized training for the main training activities described in this package: mentoring in the customer's work environment or instructor led training in an Ericsson lab environment.

Structured Knowledge Transfer (SKT) provides intensive on the job mentoring. A mentor works with a small group (max. 4) on live equipment in the customer's work environment, and ensures that the participants master the tasks from a job task list. This list is drawn up for each identified job role and duty or responsibility, and is agreed with the customer in advance. The result is accelerated learning tailor-made to the customer's needs and objectives.

Most (approx. 80%) of the training material will be prepared in advance. However, for the remaining (approx. 20%) material, it will be necessary for the Ericsson Learning Architect to customize the material at the customer site.

As there is no room for error when working on live equipment and to maximize the benefits of the training, it is essential that the participants have completed the prerequisite theoretical and practical training courses before undertaking the SKT.

The mentor demonstrates the tasks involved in the job, working with the participants until they successfully perform each duty and task. Therefore, while participants complete the essential tasks for their job they complete them in their own working environment.

As an alternative to SKT, "off-the-shelf" training can be taken on Ericsson test equipment with a larger group (max. 8). The training is standard but can be tailored (to a certain extent) if requested.

A task driven methodology – often termed Task Oriented Learning (TOL) – is employed to encourage participants to learn how to carry out practical job tasks based on the responsibilities, work processes and procedures of their specific job role. The instructor/expert acts as a facilitator by enabling the participants to work proactively with the tools and resources to perform job tasks and solve typical problems. Staff become productive shortly after undergoing this form of training.



In summary Ericsson offers operators the following suite of Learning Solutions components:

- Competence Gap Analysis and Report
- Pre-tests / assessments
- Pre-requisite training
- Structured Knowledge Transfer (SKT) or Instructor Led Training (ILT), including checklists which provide a step-by-step guide for the tasks and responsibilities of each identified job role.
- Post-tests / assessments.

When choosing between the two training approaches the operator has to consider the circumstances of the business, the costs involved and the following differences between the two forms of training:

	ILT	SKT
Max. Participants	8	4
Equipment/Network	Ericsson lab	Customer site
Trainer	Instructor	Mentor/Coach
Range of Tasks	More configuration type tasks possible. Less customer solution adapted tasks.	Some tasks may not be possible on commercially live system.
Time to Job Competence Level	Fast, but not learning in own environment.	Very fast and customer specific, since learning job in own environment.
Travel	Travel is usually required.	No travel required. Performed on customer site.

Figure 2. Comparison of Instructor Led Training (ILT) and Structured Knowledge Transfer (SKT).

2 Why invest in Ericsson Content Delivery System (ECDS) 4.0 Package?

ECDS is the core component in Ericsson's Mobile TV & Video offering, and is a complete system for supporting a wide range of multimedia streaming and download services, such as news, entertainment, sports and music. ECDS supports content creation, content storage, content delivery and integration services.

The solution consists of a number of Ericsson developed and non-Ericsson components, including: a full-featured proxy for integration of multimedia services, content encoding tools, content browsing, download, streaming servers, content delivery network and mobile multimedia enabled devices.

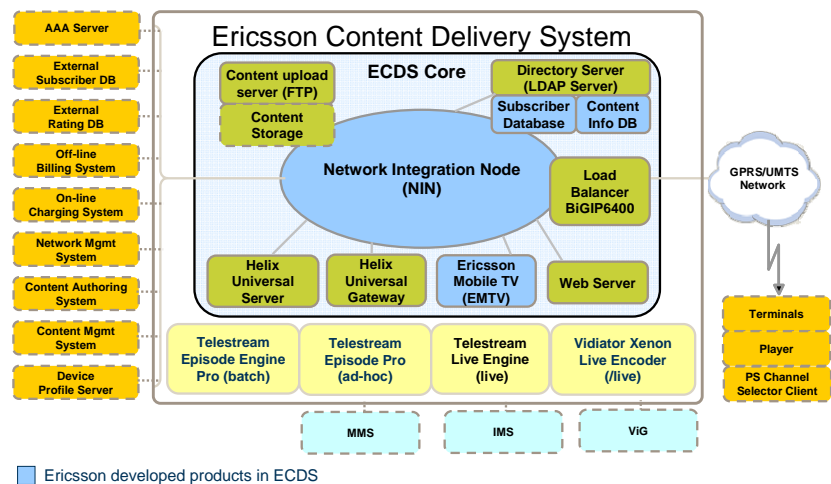


Figure 3. Overview of Ericsson Components.

This learning solution has been designed to provide the background knowledge and practical skills essential for managing the service and system aspects of the ECDS 4.0 solution. Routine tasks for managing solution components (Ericsson and third-party) are performed in addition to subscriber provisioning and content management.

Competence Gap Analysis will determine the relevant tasks for your particular solution (components and customization) based on your job roles and duties.

The Ericsson ECDS 4.0 Learning Solution enables the network operator to optimize the value and impact of their competence investment through customized training which allows them to:

- Provision and manage content and subscriber databases to ensure correct content delivery**
 Participants attending this flow will be able to administer the Content Information Databases, and interfaces, to provide



access to content providers. In addition, they will be able to administer the Subscriber and Identity Databases to ensure that the subscribers can access and use system features securely and correctly.

- **Implement flexible charging features to support your services and business models**

Participants will be able to administer ECDS charging features, including pre-paid and billing charging types, fixed and time-based charging methods, CDR generation, internal content rating and external charging interfaces.

- **Manage and configure your ECDS solution using best practices for cost-efficient operations**

Participants, by completing relevant job tasks, will be able to use system tools to perform essential O&M tasks (monitoring - access, event, alarm and performance - backup, configuration and essential troubleshooting) on all the system nodes in order to provide a high-quality uninterrupted service to end-users.

3 What are the target audiences for the Ericsson Content Delivery System (ECDS) 4.0 package?

The following section describes each of the flows in detail. Each flow states the prerequisite knowledge. This training focuses on the following job categories:



Note: It is assumed that the System Administrator performs the duties of both the Service and System Engineers.

4 Fundamentals

4.1 ECDS 4.0 Fundamentals (FAB 102 2272)

4.1.1 What is achieved by attending the Flow

Participants will gain a clear overall understanding of ECDS in terms of its: role and position in multimedia delivery, features, components, interfaces, management tasks and main use cases.

4.1.2 Rationale for Flow design

This flow provides the necessary background knowledge for anyone requiring a good overview of ECDS. This includes engineers who require further specialized training or staff, such as business managers and business developers, who simply need an overview of the product and its features.

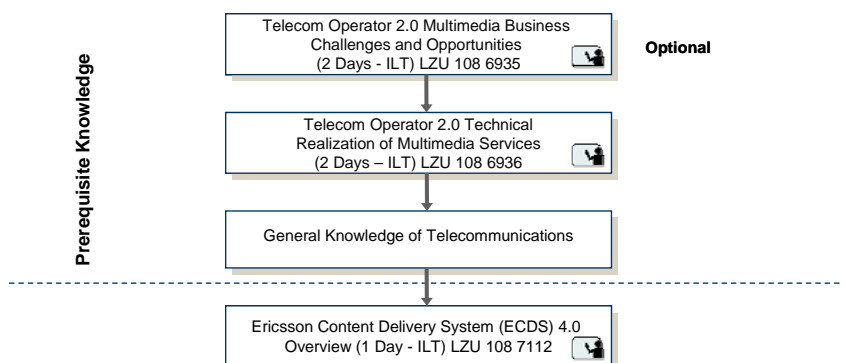
4.1.3 Prerequisites

ECDS interacts with many different products in the service network environment and a good understanding of this environment (and general mobile Internet) from a technical perspective and, optionally, from a business perspective will provide a solid background for ECDS training.

The Telecom Operator 2.0 Technical Realization of Multimedia Services (LZU 108 6936) course is recommended as a prerequisite since it provides a good overview of Multimedia Services environment in terms of enablers, standards and protocols, service delivery platforms and so on. The Telecom Operator 2.0 Multimedia Business Challenges and Opportunities (LZU 108 6935), while useful for providing a business perspective, is optional.

The participants should have a general knowledge of telecommunications.

4.1.4 Training Flow



5 Operations Centre

5.1 ECDS 4.0 System Engineer (FAB 102 2296)

ECDS provides a number of Ericsson and third party components that provide multimedia delivery functions and a number of support components that provide underlying IT functions (storage, high-availability, load balancing and access). The System Engineer needs the essential background knowledge and skills to administer, configure, monitor and restart these components to provide a highly-available, efficient and secure platform for ECDS services.

5.1.1 What is achieved by attending the Flow

Participants will be able to use relevant system tools to perform essential tasks for monitoring and administering the following service and platform components: NIN Server, EMTV Server, Helix Servers, Sun Web Server, NFS, F5 Load balancer, EMC Storage Array and Veritas Cluster Server.

After this training, students will be competent in performing essential administration tasks, including: alarm monitoring, performance and access log files monitoring, backing up, component configuration and start, to ensure the correct and efficient functioning of each component

5.1.2 Rationale for Flow design

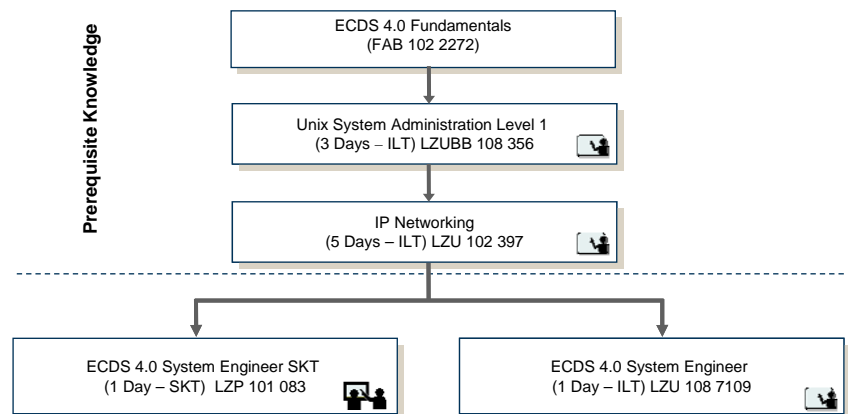
This flow provides the necessary hands-on skills for System Engineers to administer ECDS nodes efficiently and effectively based on your particular system configuration and job role tasks.

5.1.3 Prerequisites

Students must have completed the Fundamentals flow, as described above, to have the necessary background knowledge of ECDS.

Students require UNIX administration and IP Networking knowledge to understand and perform certain administration tasks.

5.1.4 Training Flow



5.2 ECDS 4.0 Service Engineer (FAB 102 2297)

ECDS provides a number of Ericsson and third party servers, such as, NIN Server, EMTV Server, Helix Mobile Server and Proxy, Vidiator Live Encoder that the Service Engineer needs to administer from a service, or functional perspective. Content and subscriber related databases must also be administered correctly.

5.2.1 What is achieved by attending the Flow

Participants will be able to use relevant system tools to perform hands-on tasks to administer ECDS nodes in terms of: monitoring alarms, analyzing performance and access log files, backing up, changing configuration values, managing streaming content and provisioning content providers and subscribers.

5.2.2 Rationale for Flow design

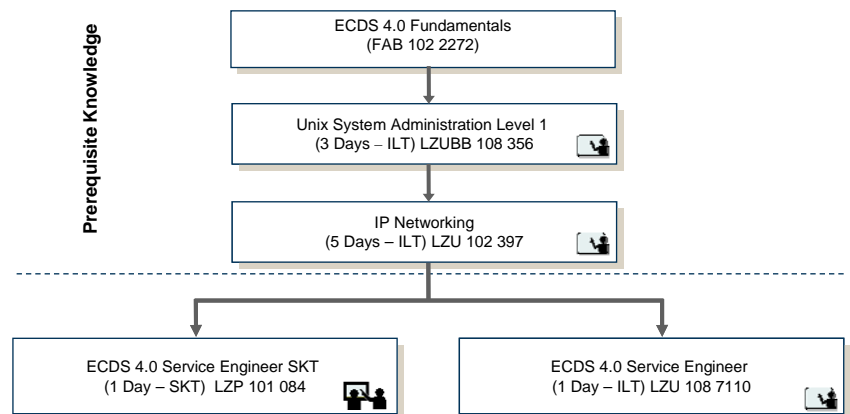
This flow provides the essential hands-on skills for Service Engineers to administer ECDS nodes and databases efficiently and effectively based on your particular system configuration and job role tasks.

5.2.3 Prerequisites

Students must have completed the Fundamentals flow, as described above, to have the necessary background knowledge of ECDS.

Students require UNIX administration and IP Networking knowledge to understand and perform certain administration tasks.

5.2.4 Training Flow



6 IS/IT Support

6.1 ECDS 4.0 System Administrator (FAB 102 2298)

ECDS provides a number of Ericsson and third party components that provide multimedia delivery functions and a number of support components that provide underlying IT functions, such as, storage, high-availability, load balancing and access. The System Administrator needs the competence to administer the complete system, that is, the service delivery and underlying platform part in order to provide a highly-available, efficient and secure platform for ECDS services.

6.1.1 What is achieved by attending the Flow

Participants will be able to use relevant system tools to perform essential tasks for monitoring and administering all service and platform components.

Students will gain a clear understanding of ECDS and will be competent in performing administration tasks, including: monitoring alarms, analyzing performance and access log files, backing up, changing configuration values, managing streaming content and provisioning content providers and subscribers.

6.1.2 Rationale for Flow design

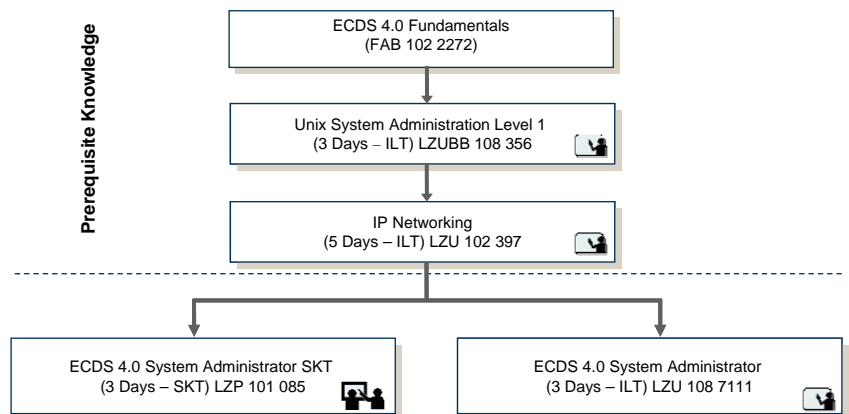
This flow provides the necessary background knowledge and subsequent hands-on skills for System Administrators to administer ECDS nodes and databases efficiently and effectively based on your particular job role tasks and system configuration.

6.1.3 Prerequisites

Students must have completed the Fundamentals flow, as described above, to have the necessary background knowledge of ECDS.

Students require UNIX administration and IP Networking knowledge to understand and perform certain administration tasks.

6.1.4 Training Flow



7 Related training packages

The related training packages:

- Mobile TV & Video (MTV&V) 4.0
- Video Gateway System (ViG) 3.0
- Service Delivery Platform (SDP)

can be found at:

http://www.ericsson.com/solutions/learning/find_training.shtml

Further information about the following Learning Solutions components:

- Competence Consulting
- Structured Knowledge Transfer (SKT)

can be found at :

<http://www.ericsson.com/solutions/learning/>

8 Third party related training references

The training outlined in this package adequately covers the use of third party products for performing essential ECDS tasks. However, if you wish to take specific training for these products then please visit the following sites:

- Sun Microsystems:
<http://www.sun.com/training>
- F5:
<http://www.f5.com/training-support/>
- Symantec (Veritas):
<http://www.symantec.com/business/training/index.jsp>
- Real Networks:
<http://www.realnworks.com/products/training/index.html>