Ericsson Network Engineer
Release 6.2

Training Course Catalog

OSS BSS Education Services
Commercial in Confidence
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Ericsson OSS BSS Education Services Overview

From an initial product launch to its smooth-running operation, every technology investment depends on and requires an investment in people. Their knowledge, productivity, and competence are critical components of any carrier's continued success.

To help ensure that your project begins with the best possible start and continues to provide the highest Return on Investment (ROI), we have created a portfolio of "best practice" tried and tested education and training offers for our products.

A Heritage of Education

Known for getting it right the first time, we've been training telecommunications professionals worldwide for more than 25 years. We're proud of the quality and skills of our education consultants, and it's our goal to help our clients and partners complete the same rigorous education regimen and achieve the same benchmarks that we have set for ourselves.

Sometimes, "off-the-shelf" can be slightly off-the-mark.

No matter how varied and adaptable we make our courses and materials we understand that some companies and situations require their own arrangements. Our flexible training options are designed to give you the training content and format that serve your methods and procedures, work center technologies and environments, performance objectives, and/or employee roles and responsibilities.

Our training solutions help our partners and clients get the best business results from their software investments. To help ensure that we deliver just the information that you need, when you need it, our consulting engagements begin with a Training Needs Analysis. Then, our comprehensive training consulting services can adapt or custom-design instructor-led or online courses, as well as supporting materials. We can also work with your employees as coaches and mentors.

Ericsson OSS BSS Education Services provides the following:

- Training Needs Analysis (TNA)
- Instructor-led Classes
- E-Learning based Classes
- Customized Training

Our instructor led courses can be delivered either at the client's site or at an Ericsson training center. In addition, we frequently run a series of public courses at a number of global locations that allow "fast track" progression of knowledge transfer, using real world exercise sets and instructional aides.

Ericsson OSS BSS Education Services envisions education as an integral part of your continued success. This model is supported by our exceptional Training Needs Analysis methodology, which is designed to ensure that your staff receives the best, most convenient education at a competitive cost. Our experts also fully support your staff throughout the lifecycle of your relationship with Ericsson by providing frequent follow-up analysis of training requirements and values.

Ericsson looks forward to exceeding your training needs.
About Ericsson Network Engineer

Ericsson Network Engineer is a GIS (Geographic Information System)-based planning tool to manage the multiple deployment stages of physical network inventory. From conception to construction, it helps telecommunication service providers keep accurate records of their inventory. With real-time, accurate network views, service providers can streamline engineering and construction operations, accelerate revenue realization through faster network builds, and avoid unnecessary capital expenditures.

Network Engineer supports copper, coax, wireless, and fiber networks in two environments: Detail Views and Outside Plant (OSP).

Ericsson Network Engineer’s extensible data model is the foundation for its flexibility and functionality. Business rules, objects, and reference data enable business process modeling, development of equipment model libraries, and system configurations to support any technology and service.
Ericsson Network Engineer Analyst

Ericsson Network Engineer Analyst training course is intended to provide participants with an overview of the capabilities of the Network Engineer system; introduce GIS concepts and the Network Engineer data model. The Network Engineer Analyst product is intended to allow users to view and query an existing network only. Skills required for planning new telecommunications networks are covered in the Network Engineer End User training course. Users responsible for product configuration and creating telecommunications models should attend Model Builder & Configuration training.

OBES NE-01

Description
This instructor-led course with hands-on activities is designed to introduce participants to capabilities of Ericsson Network Engineer and provide them with an understanding of how to operate the system. The course allows participants to visualize a simulated telecommunications network in place and use skills developed during training to query the network, perform a trace and generate maps and reports.

Learning objectives
On completion of this course the participants will be able to:
1. Understand the capabilities of a GIS
2. Navigate through the Network Engineer interface
3. Query information from data in Network Engineer
4. Understand the Network Engineer Work Order Management System
5. Generate standard Network Engineer reports from an existing telecommunications dataset

Target audience
The target audience for this course is Business Developer, Customer Care Administrator, Network Design Engineer, Network Deployment Engineer, and System Administrator

Prerequisites
Successful completion of the following courses:
- Understanding of telecommunications network architecture is recommended but, not required
- Previous experience with GIS is recommended but, not required

Topics in the course
Topics in this course include:
- Introduction to GIS
- Add spatial data to the map; manipulate view using the map tools; query and edit features
- Network Engineer environment
- View sample telco dataset; introduce the concept of database versioning; view existing features and connections; conduct a network trace
- Collaborating and reporting
- Generate bill of materials; trace, splice, and connections reports

Duration and class size
- The length of the course is 1 day.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Design Assistant

The Ericsson Network Engineer Design Assistant training course is intended to provide participants with the necessary skills required for configuring design wizards to automate the Network Engineer workflow. This course is designed for those users who are responsible for configuring Network Engineer for their business needs. Participants should be familiar with the core product functionality before attending this course.

OBES NE-08

Description
This instructor-led course with hands-on activities is designed to make participants proficient with the use of existing Design Assistant and demonstrate how to create new wizards based on business rules.

Learning objectives
On completion of this course the participants will be able to:
1. Use and existing Design Assistant wizard to place and connect new network features
2. Use Network Engineer Toolbox tools to configure new rule sets or use existing rule sets to create a new Design Assistant wizard

Target audience
The target audience for this course is Service Design Engineer, Service Deployment Engineer, Network Design Engineer, Network Deployment Engineer, System Administrator, and Application Developer

Prerequisites
Successful completion of the following courses:
- Network Engineer End User
- Network Engineer Model Builder and Configuration
- Understanding of Teleoms network architecture and business rules is recommended

Topics in the course
Topics covered in this training course include:
- Use an existing Design Assistant wizard
  - Place and connect new network features using an existing Copper Rider wizard
- Use existing rule sets to build a new copper lead Design Assistant wizard
  - Create a work order and use the wizard to design a new copper lead network
- Create a new design template and wizard
  - Configure new rule sets and use them to create a new fiber rider network

Duration and Class Size
- The length of the course is 2 days.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning Situation
- This course is based on instructor led lessons, demonstrations and exercises.
Network Engineer Developer API

In addition to the user interface, Network Engineer delivers an Application Programming Interface (API) that contains a comprehensive set of objects with which the application can be customized. Using these programmable objects a custom command or application can be written to view, query, insert, update and report on the telco inventory.

The Network Engineer Automation API is delivered as a .NET assembly that supports COM interop so you are able to use any .NET language (C#, VB.NET) or COM language (Visual Basic6, Visual C++) to develop your custom program.

The Ericsson Network Engineer Developer API training course is designed to provide participants with the necessary skills to use the Network Engineer Automation API objects to develop a custom program that works with Network Engineer.

OBES NE-02

Description
This instructor-led course with hands-on activities provides participants the instruction to become proficient with the use of the Network Engineer API and Wizard Designer to develop custom commands and applications.

Learning objectives
On completion of this course the participants will be able to:
1. Develop a custom command for Network Engineer that uses the Automation API components
2. Operate on map data (OSP) programmatically
3. Operate on detail view data (ISP) programmatically
4. Place, connect, and trace a telco network using a custom program
5. Develop a custom wizard to operate on telco equipment and cables

Target audience
The target audience for this course is Network Design Engineer, Network Deployment Engineer, System Administrator, and Application Developer

Prerequisites
- Proficiency or knowledge of a .NET language (C# is the programming language used in the course) and ESRI ArObjects is required

Topics in the course
Topics covered in this training course include:
- Introduction to .NET, Visual Studio and C#
- Develop a simple application that reads data from the Network Engineer database
- ArcObjects overview
- Review applicable ArcObjects components
- Network Engineer Automation API overview
- Examination of available events and how to work with extensions. Develop an editor listener
- Feature placement and detail views
- Review how features are added in both the map and detail view. Build feature placement command
- Examination of objects to make telco connections. Build connection viewer command.
- Design and develop a custom wizard that walks the user through several tasks using Designer Wizard

Duration and class size
- The length of the course is 4-1/2 days.
- The maximum number of participants is 6

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer End User

The Ericsson Network Engineer End User training course is intended to provide participants with the necessary skills required for planning new telecommunications networks as well as mapping and querying existing infrastructure. Users responsible for product configuration and creating telecommunications models should obtain additional training.

OBES NE-03

Description
This instructor-led course with hands-on activities will instruct engineers, planners and managers on the required navigation and operations skills for managing their day-to-day operations using Ericsson Network Engineer.

The course structure provides participants with a simulated telco network where users learn basic and in-depth concepts from work order creation to engineering output using day to day scenarios as hands-on exercises.

Telco tools and create workbooks

Target audience
The target audience for this course is: Service Planning Engineer, Service Design Engineer, Service Deployment Engineer, Network Design Engineer, Network Deployment Engineer Business Developer, and Customer Care Administrator.

Prerequisites
- An understanding of telco network architecture
- GIS experience

Topics in the course
Topics covered in this training course include:
- Introduction to Network Engineer
- Telecom and Mapping: adding map layers
- Analyze and understand data using navigation, selection and search tools; labeling data
- Telco Data and the GIS: Understand data model and rules for placement
- Outside Plant Planner Work Flow: understand the work order system; create new work orders, and segregate work orders for printable output; editing network data
- Introduce the concept of database versioning; conflict detection and validating work for posting
- Connecting and managing network features
- Engineering Output: reports and layout views
- Indoor and Underground Planning: building and maintaining floor plans, placing risers and labels with detail views
- Duct Management: split an existing conduit; place new structures, equipment, and cables

Duration and class size
- The length of the course is 5 days.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Field Tools End User and Administration

The Total Perspective Planning (TPP) application seamlessly integrates physical and logical inventory data maintained in Ericsson’s Network Engineer and Granite databases (respectively) into a single data set that is accessible in both a tabular format and a map-based (GIS) view.

The data set is accessed through the field client portion of this application, referred to as the Field Client, which is an easy-to-use Microsoft Silverlight application that runs within your web browser (Microsoft Explorer, Mozilla Firefox, etc.). The Field Client is built on the default Network Engineer Field Client, which represents a common set of functionality available across all field clients.

OBES NE-12

**Description**
This instructor-led course with hands-on activities provides participants with the knowledge and skills necessary to use the TPP Field Tools application and how to install and configure, if required.

The course introduces new features and functions in the latest release of the TPP Field Tools application. This course covers the use of the tools from an end user perspective and admin module with an additional training day.

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

1. View containment hierarchy of selected map objects using the Field Tools
2. Use Field Tool Redlining functionality
3. View tasks associated with splicing or connection information: including adding, modifying, and removing connections
4. Be familiar with Field Task categories and statuses
5. Understand attachment capability for task objects

**Target audience**
The target audience for this course is:
Service Design Engineer, Service Deployment Engineer, Network Design Engineer, Network Deployment Engineer, and System Administrator

**Prerequisites**
Successful completion of the following courses:
- Network Engineer End User
- Network Engineer Model Builder and Configuration
- Network Engineer Installation & Administration (if opted for installation)

**Topics in the course**
Topics covered in this training course include:
- View existing redline edits, create new redline features
- Place cable trays and risers within an existing detail view
- Use the connection browser to view connection information and any associated field tasks
- Understand which inventory items can be associated with field tasks and understand field task status transitions.
- Attaching documents to field task objects and retrieve attachments from the field task client
- Installation and configuration (if opted for)

**Duration and class size**
- The length of the course is 2 days.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

**Learning situation**
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Installation and System Administration

The Ericsson Network Engineer Installation and System Administration training course is designed for system administrators, technical users, and product resellers. Participants will learn how to install and configure ESRI's ArcGIS Desktop, and Oracle for use with Network Engineer. Best practices for performance optimization and periodic system maintenance will also be discussed.

OBES NE-06

Description
This instructor-led course with hands-on activities provides participants instruction on the installation initial configuration, and administration of the Network Engineer product suite.

Learning objectives
On completion of this course the participants will be able to:
1. Verify the proper hardware configuration requirements including physical connectivity.
2. Set-up and install all required ESRI and Ericsson software products on both the server and clients.
3. Install the ESRI license manager and configure the ESRI software licenses for client usage.
4. Import the default control and reference data, and install a set of sample instance data

Target audience
The target audience for this course is: System Engineer, Service Engineer, Network Deployment Engineer, and System Administrator

Prerequisites
Successful completion of the following courses:
- Network Engineer End User
- Network Engineer Model Builder and Configuration
- Familiarity with Windows Server operating system and working knowledge of Oracle RDBMS is highly recommended
- Previous experience with ESRI's GIS products, the Spatial Database Engine (ArcSDE), or general familiarity with GIS concepts are beneficial, but not required

Topics in the course
Topics covered in this training course include:
- Installing ArcGIS Desktop on the client machine
  - Install the products and service packs
  - Configure the license manager
- Installing ArcSDE (Spatial Database Engine), if supported by the release
  - Install the program, setup the home directory and register the license file
- Create the Network Engineer instance in Oracle
  - Create the Network Engineer Schema and workspaces using the Network Engineer database wizard
- Create the land base and telco feature datasets
  - Create the datasets used by the product
  - Define the spatial extents of the data
- Create Network Engineer users
  - Create new users and specify their permissions using the Network Engineer configuration utility
- Performance tuning and maintenance
- Batch processes and database monitoring tools

Duration and class size
- The length of the course is 2 days.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Integration Assistant (NEIA) Service

Network Engineer Integration Assistant (NEIA) Service - the Network Engineer Integration Assistant application enables the integration of Network Engineer with an external provisioning and inventory product. The NEIA application includes a Windows-based service to support batch synchronization and command integration.

The Network Engineer Integration service hosts a number of applications and software components. In addition to a web services adapter, the service will run the Network Engineer application and the Network Engineer Message Broker (NEMB).

OBES NE-05

Description
This instructor-led course with hands-on activities provides participants instruction on how to pass data from Ericsson Network Engineer to other software packages. Presentation slides will guide participants through material. No standard exercises document will be distributed to participants as this session is geared toward specific product integration.

This course provides administrators with skills necessary to implement and maintain the messaging queue and synchronization between Ericsson Network Engineer and Granite Inventory or other logical provisioning systems.

Learning objectives
On completion of this course the participants will be able to:
1. Install Network Engineer Integration Assistant
2. Set up the NEIA service
3. Configure the web services application
4. Perform Network Engineer server configuration for synchronization such as through Network Engineer Toolbox, configure Inventory Synch service, DB for storage payloads, network design order service and more.

Target audience
The target audience for this course is:
System Administrators and Service Deployment Engineers

Prerequisites
- A clear, programmatic understanding of the software being interfaced with Ericsson Network Engineer
- An understanding of web services, HTTP and SOAP
- A good understanding of queuing- and messaging-based integration and a working knowledge of the latest ESRI's ArcGIS and Ericsson Network Engineer versions
- Knowledge of Oracle Advanced Queues is also recommended

Topics in the course
Topics covered in this training course include:
- Data model alignment
- Batch synchronization
- Event publish synchronization
- Command integration
- GUI integration

Duration and class size
- The length of the course is 3-5 days; this course may be customized depending on the product integrated with Network Engineer
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Model Builder and Configuration

The Ericsson Network Engineer Model Builder & Configuration training course is intended to provide participants with the necessary skills required for building telecommunications models for use in Network Engineer. This course is designed for those users who are responsible for configuring Network Engineer for their business needs. Participants may want to consider also attending the Network Engineer System Administration training course.

OBES NE-04

Description
This instructor-led course with hands-on activities provides participants instruction on the concepts and practices to configure Ericsson Network Engineer suite their specific company’s needs, through using both the Network Engineer Model Builder and Toolbox applications.
Participants learn how to create new Telco models used for building or editing telecommunication networks for their GIS maps. Additional exercises build on the ability to create new work order types, association rules and other rule sets that can change data validation.

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

1. Build simple, compound and complete models with detail views for use in Network Engineer
2. Create new categories and types to help define model classifications in Network Engineer
3. Use their understanding of the current work order life cycle to plan or record telecommunication networks in Network Engineer
4. Create new work order types and work order transition statuses
5. Create new inventory settings and associations for work order types
6. Use Network Engineer Toolbox to configure security settings and track changes

Target audience
The target audience for this course is:
Service Planning Engineer, Service Design Engineer, Service Deployment Engineer, Network Design Engineer, and, Network Deployment Engineer

Prerequisites
Successful completion of the following courses:
• Network Engineer End User
• An understanding of Telco network architecture

Topics in the course
Topics covered in this training course include:
• Create new models in Model Builder
• Create a new model based on an existing model
• Define a new model category and type
• Define the inventory status symbology for a model
• Build a new cable and conduit model
• Create a detail view containing graphics for the span, span units, and transmedia
• Create a new work order type
• Map work order transitions
• Perform security measures for work orders
• Create new inventory statuses and configure to ensure for proper work order validation
• Configure Network Engineer users, privileges and track changes in Toolbox

Duration and class size
The length of the course is 3 days.
The maximum number of participants is 6.

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Schematic Assistant

Schematic Assistant is a data-driven solution – producing an overall representation of the network and providing for optimal object location. Logical representations of network data display network features without scaling constraints, while a network object model delivers real-time management of connectivity.

OBES NE-10

Description
This instructor-led course with hands-on activities provides participants instruction on the use of Schematic Assistant and demonstrates how to generate schematic diagrams from the training dataset. The structure of this course teaches participants the Schematic Assistant data model. Participants will learn how to create high- and low-level schematic diagrams using Schematic Assistant. Participants will also gain familiarity with the Schematic Assistant toolbar and Network Engineer Toolbox tools.

Target audience
The target audience for this course is: Service Design Engineer, Service Deployment Engineer, Network Design Engineer, and, Network Deployment Engineer

Prerequisites
Successful completion of the following courses:
- Network Engineer End User
- Network Engineer Model Builder & Configuration
- An understanding of telecom network architecture and business rules is also recommended

Duration and class size
- The length of the course is 2 days.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.

Learning objectives
On completion of this course the participants will be able to:
1. Show views of a traced path that outlines the connectivity relationship between Network Engineer features, independent of spatial depiction/location
2. Generate a schematic view of a trace from a given port down-stream for faster analysis of the selected facilities and verification of available devices
3. Produce high-level, low-level and flow through network diagrams

Topics in the course
Topics covered in this training course include:
- Generate a high-level schematic based on a network trace and Utility Network Analyst in Network Engineer
- Generate a high-level schematic based on a network splice
- Generate a low-level schematic based on a port level network trace, if supported by the release being taught
- Generate a duct schematic for a limited duct network
- Generate a flow-through diagram which shows connections as they flow through a splice closure or equipment feature at each individual fiber or pair level
Ericsson Network Engineer TPP Web Viewer End User and Administration

OBES NE-13

Description
This instructor-led course with hands-on activities provides participants instruction on the use of the TPP Web Viewer application and how to install and configure the application, if required.

The structure of this course teaches participants the functionality and architecture of the TPP client. Participants will learn to use the TPP web viewer and installation modules will be offered with an additional training day.

Target audience
The target audience for this course is:
Service Deployment Engineer and System Administrator

Prerequisites
Successful completion of the following courses:
• Network Engineer End User
• Network Engineer Model Builder and Configuration
• Network Engineer Installation and Administration (if opted for installation)

Learning objectives
On completion of this course the participants will be able to:
1. Use the default Network Engineer field client tools to set up and navigate the map display as well as view additional physical inventory data.
2. Use the default TPP Field Client tools
3. View and interact with logical inventory data from Granite Inventory displayed in TPP
4. Learn how to install and configure the TPP Web Viewer, if required

Topics in the course
Topics covered in this training course include:
• Setting-up the screen display — resizing and collapsing/expanding areas of the screen to better suit your needs
• Setting-up the map display — selecting the data to display on the map and setting its transparency
• Navigating the map — panning, zooming, and rotating the map display
• Selecting Network Engineer items: setting which inventory classes are included when selecting items, selecting inventory items, and removing items from the selection set
• Viewing Network Engineer data — viewing the underlying Network Engineer symbology and administrative labels for a portion of the map as well as attributes for inventory items
• Overlaying multiple logical inventory paths onto the corresponding physical inventory network
• Providing details such as hierarchies, consumers, components, and attributes of each path
• Installation and configuration (if opted for)

Duration and class size
• The length of the course is 2 days.
• The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises.
Ericsson Network Engineer Upgrade Training

The Ericsson Network Engineer Upgrade training course is intended to provide participants with information associated with new features and functions included in the latest release and previous releases when required. Users interested in upgrading to the new release or partners keeping up to date with recent technological advancements should attend this course.

OBES NE-11

Description
This instructor-led course with hands-on activities provides participants instruction on the skills necessary to use the new features in the latest Ericsson Network Engineer release. This course introduces new features and functions in the latest release as well as provides a retrospective view of recent features from the previous releases. This course takes a look to the future of Network Engineer by providing a glimpse of major enhancements to come.

Learning objectives
On completion of this course the participants will be able to:
1. Create Network Engineer worksheets and workprints
2. Place mid-span terminals onto an existing cable
3. Create graphics for pass-through transmedia and splice closures within a manhole layout
4. Define intelligent labels for Detail View Graphics
5. Determine available equipment ports and generate reports using the Port Explorer
6. Understand Detail View Enhancements
7. Understand enhanced work order level security
8. Review new Telco Tools such as Field Task Management and Wiring Limit association

Target audience
The target audience for this course is:
Service Planning Engineer, Service Design Engineer, Service Deployment Engineer, Network Design Engineer, and, Network Deployment Engineer Business Developer, and Customer Care Administrator,

Prerequisites
Successful completion of the following courses:
- Network Engineer End User
- Network Engineer hands-on experience

Topics in the course
Topics covered in this training course include:
- Generate Workprints – Create worksheet templates, use detail view data frames, use symbology overrides, redlining and work tasks
- Detail View Labeling – Define labeling rules and see results in Detail View Graphics for spans, vaults, or floor plans
- Port Explorer – View unused ports of a selected equipment, customize dialog column and color selections, and create reports.
- Connection Editor Enhancements – Learn about Connection Manager and the latest updates to the Network Engineer Connection Editor
- New Telco Tools: Learn Field Task Management, Blown Fibre enhancements and Wiring Limit Association
- Security – Understand work order assignments and configure work order level security based on user and work order state.
- Detail View Enhancements – See new tabs added to ISP Table of Contents. View graphic changes in Model Builder for Daughter cards and see improvements to importing CAD graphics into Detail Views

Duration and class size
- The length of the course is 2 days.
- The maximum number of participants is 12 (limit 8 – Huntsville, AL)

Learning situation
This course is based on instructor led lessons, demonstrations and exercises