Nokia IP Training Services Description

ConnectSuperior Fiber Network Equipment and Services



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Customer Training Services

Evolving networks and consumer demands require a skilled workforce that acts as a differentiator. Nokia's training portfolio consists of training solutions focused on enabling customers to gain the required standards, technology and product knowledge. Our learning solutions are focused on individual learning needs. Our flexible delivery models for blended learning supports customers to learn at their convenience to complement their business objectives.

1. Nokia Training Description

Nokia training includes curriculum paths to gain the necessary understanding, knowledge & generic skills to build, operate and optimize our customers' networks & services.

Our extensive training portfolio offers everything to help our customers' workforces become skilled on Nokia's products and technology solutions.

2. Job Functions in the Network

Dimensioning & Planning courses

Focus on skills for the definition, planning and implementation of Nokia Solutions. Identify new requirements, new capabilities and design and develop new or enhanced infrastructure to

Identify new requirements, new capabilities and design and develop new or enhanced infrastructure to support products.

Respond to requirements of unit cost reductions, product quality improvements, new products, etc.

Operation & Maintenance courses

Focus on skills for the execution of proactive and reactive maintenance activities Ensure continuous availability and attainment of SLA or QoS performance levels. Perform continuous status and performance monitoring to proactively detect possible failures.

Network Optimization courses

Focus on skills to analyse root causes of performance problems like capacity bottlenecks, sub optimal-configurations etc.

Skills to develop proposals to resolving issues

3. Course Levels

"Aware"

Introductory level learning provides a general overview of a network element, product or technology. The introductory level also comprises technology and product independent courses. The courses offered under introductory level are common for all technical personnel and some of these courses are also recommended for non-technical learners.

"Standard"

Intermediate level learning typically takes place in the early phases of network implementation. These combined theory and practical sessions aim to make the participants adept at operating and maintaining a specific network element or subsystem. These are designed to equip installation, commissioning, operation and maintenance personnel with the fundamental skills required to perform the day-to-day tasks associated with the equipment.

"Advanced"

Advanced level learning provides participants with the knowledge and skills to perform higher level tasks required in a telecommunications network. These tasks involve network troubleshooting, network design, and reconfiguration as well as network performance analysis.

"Expert"

Expert level learning provides mainly product-based background knowledge to experts in our customers' organizations. The goal is to provide deeper background knowledge for engineers to enhance their skills.

4. Delivery Modes

Nokia believes in using training delivery models which fit in with customers' business models, competence needs and planned learning solutions. For example, blended learning helps people learn at a time, place and path which is most convenient.

Learning delivery formats available:

- Web Based Training
- Instructor Led Virtual Classroom Training
- Instructor Led Classroom Training
- Workshops
- Mobile Learning
- Blended Learning a mix of web-based training and virtual, instructor-led trainings / workshops

4.1 Prerequisites

Web Based Training

Participants are enrolled in the Web Based Training individually, according to the target group and prerequisites defined in the training descriptions available in the Nokia website. Nokia is not obliged to





take special steps to meet the demands of participants that do not have the required prerequisite knowledge.

Virtual Classroom Sessions

Participants should have a secluded and peaceful area around the computer while attending Virtual Classroom Training. To be sure of this, it is worthwhile to check that PC facilities are available in case employees do not have offices and/or PCs of their own.

Participants are selected by the customer according to the target group and prerequisites defined in the learning program descriptions. Nokia is not obliged to take special steps to meet the demands of participants that do not have the required prerequisite knowledge.

Classroom Sessions

Participants are enrolled according to the target group and prerequisites defined in the training descriptions available at the Nokia internet. Nokia is not obliged to take special care to meet the demands of participants who do not have the required prerequisite knowledge.

4.2 Web Based Training

Content and Scope

Nokia supports this delivery model where customer can learn & gain knowledge at their own pace by requesting Nokia eLearning Services on a demand basis. It includes a wide range of online learning events supporting self-paced learning.

With Web Based Training Services Nokia helps its customers to enhance their learning environment by extending the availability of effective knowledge resources in their organization.

Web Based Training includes a wide range of content, covering systems, network architecture, products and platforms as well as new releases.

4.3 Virtual Classroom Training

Content and Scope

Instructor Led Virtual Classroom Training is a learning event provided via virtual classroom through the internet. Participants attend instructor guided online sessions, which can be accessed from any location that has a suitable internet connection.

The training description consists of the name of the training, the target group(s), objectives, nominal duration, prerequisites, modules, maximum number of participants and a basic description of the learning environment. The training offering is continuously updated in Nokia's Customer Learning Store https://learningstore.nokia.com/customer/

On enrolment to an Instructor Led Virtual Classroom session, participants will receive an enrolment email, which includes instruction on how to access the Virtual Training The learning session may include practical exercises on Nokia learning equipment, available through Remote Lab access.

It may be possible to tailor a dedicated Virtual Classroom to meet the requirements of the customer. But this must be agreed with Nokia prior to any training booking.

Deliverables

The deliverables of Instructor Led Virtual Classroom Training include:

- Virtual Classroom Training event delivered by Nokia instructor
- Learning material
- Training confirmation of attendance

Tools

A synchronous tool to provide real-time interaction between the instructor and a group of participants is used as a platform for Instructor Led Virtual Classroom Training.

End-user computer requirements include internet connection, audio capabilities, and Virtual Classroom client software.

4.4 Classroom Training

Content and Scope

Instructor Led Classroom Training is provided by Nokia's qualified instructors, carried out in a physical learning environment.

Instructor Led Classroom Training is provided in a suitably appointed room located in either a Nokia Training Centre, customer premises or training facility. Training equipment may be located within the same room or nearby test bed for practical sessions or made remotely available through access to a Nokia lab.

It may be possible to tailor the training to meet the requirements of the customer. But this must be agreed with Nokia prior to any training booking.

Deliverables

The deliverables of Instructor Led Classroom Training include:

- Classroom Training event delivered by a Nokia instructor
- Learning material
- Training confirmation of attendance

4.5 Workshops

Content and Scope

A Workshop is an instructor-led face-to-face or virtual learning provided by Nokia to the participants. A workshop is delivered in an informal collaborative manner between the instructor and participants. The workshop is typically skill-oriented, delivered on a test bed in either a Nokia Training Centre or at the mobile operator premises. Workshops normally focus on specific tasks or skills.

4.6 Mobile Learning

Content and Scope

Nokia supports this delivery model where customer can learn & gain knowledge at their own pace by requesting Nokia Learn mobile App on a demand basis.

With mobile learning, Nokia helps its customers to enhance their learning environment by extending the availability of effective knowledge resources in their organization where learning can be consumed anywhere and at any time.

Mobile Learning includes a wide range of content, covering systems, network architecture, products and platforms.

Mobile Learning conducted on and delivered through mobile devices like smartphones and tablets supporting informal learning.

5. Offered Courses

Nokia highly recommends that the courses contained within this section are taken to achieve the minimum knowledge, skills and use of Nokia products and solutions.

All courses contained within this section are valid at the time of offer. Should the courses not be available to the customer at the time of request Nokia will advise the customer of alternative solutions that can be taken to deliver similar or equivalent learning.

5.1 SR OS Self-Paced Fundamentals | ER00580-K-1800

| Course number | ER00585-K-1800 |
|----------------------------------|---|
| Brief Description | This modular selection of self-paced SR OS learning, begins with the fundamental SR OS concepts and basic commands used for Command Line Navigation of SR OS routers, additional modules describe the provisioning of Interior Gateway Protocols (IGPs), Multi Protocol Label Switching (MPLS), and SR OS services. |
| Target Group | |
| Objectives | |
| Prerequisite | |
| Contents | |
| Delivery Type | Curriculum with Self-Paced Learning |
| Duration | 13:47 hrs |
| Maximum Number of Students | n.a. |
| Course Type | THY - Theoretical course |
| Course Level | Standard |

5.2 7250 Product Overview | ER00327-V-2200

| Course number | ER00327-V-2200 |
|-------------------|---|
| Brief Description | Course Overview This course provides an overview of 7250 IXR product family and introduces the latest chassis of this 7250 IXR product family. The course is designed to help system planners, installers and commissioning engineers become familiar with the components and architecture of the 7250 IXR products like, IXR-s, IXR-Xs, IXR,X1, IXR- R4, IXR-R6 and IXR-e etc., to gain an understanding of the features and characteristics of the hardware and software, and to learn how the 7250 IXR products are in the deployed in the aggregation and backhaul segments of a converged network. |
| Target Group | |
| Objectives | Upon completion of this course, you will be able to: Explain the role of 7250 IXR in the network Describe the features of the 7250 IXR Describe the various chassis of 7250 IXR Explain the role of the modular chassis 7250 IXR product family in the aggregation and backhaul networks Nokia Optical breakout solution Overview |
| Prerequisite | |
| Contents | Section 1: 7250 IXR Product Overview 7250 IXR Product Family Section 2: 7250 IXR Product Features Overview 7250 IXR-e Features Overview 7250 IXR-A4 Features Overview 7250 IXR-R6 Features Overview 7250 IXR-S Features Overview 7250 IXR-Xs Features Overview 7250 IXR-A5 Features Overview 7250 IXR-10 Features Overview 7250 IXR-10 Features Overview 7250 IXR-10 Feature Overview 7250 IXR-X1 Feature Overview 7250 IXR-K1 Feature Overview 7250 IXR-K6d Feature Overview 7250 IXR-R6d Feature Overview 7250 IXR-R4 Hardware Overview 7250 IXR-R6 Hardware Overview 7250 IXR-S Hardware Overview 7250 IXR-S Hardware Overview 7250 IXR-S Hardware Overview 7250 IXR-10 Hardware Overview |





| | Section 4: Nokia Optical breakout solution Nokia Optical breakout solution Overview Target Audience: System planners, installers, commissioning engineers, NOC personnel responsible for managing 7250 IXR product family Recommended Training Technical English |
|----------------------------------|---|
| Delivery Type | Classroom |
| Duration | 1 days |
| Maximum Number of Students | 12 |
| Course Type | THY - Theoretical course |
| Course Level | Standard |

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5.3 7250 IXR Basic QoS Operation, Administration, Maintenance & Provisioning | ER00054-V-2000

| Course number | ER00054-V-2000 |
|-------------------|--|
| Brief Description | This course is intended for the network personnel responsible for the operations, administration, and maintenance activities in support of Quality of Service (QoS) for 7250 IXR SR OS based services. This course consists of a combination of theoretical discussion to develop an understanding of, and practical hands-on exercises to reinforce the basic concepts and principles associated with deploying, monitoring, and maintaining QoS in IP/MPLS networks. These activities allow service providers to offer differentiated services and guarantee service level agreements (SLAs). The general focus of this course is how to use the Command Line Interface (CLI) to provision and verify QoS network configurations. Prerequisite: TER36067K-001 CLI and Interior Gateway Protocol Provisioning, TER36067K-003 SROS Services Provisioning. Technical English |
| Target Group | This course is intended for the network personnel responsible for the operations, administration and maintenance activities that support SR OS based service provisioning on 7250 IXR. |
| Objectives | List the existing traffic types and their characteristics Explain the QoS models Describe traffic rates List rate limiting mechanisms Explain traffic management by 7250-IXR Identify Nokia 7250 IXR QoS building blocks Configure CoS classification policy with dot1p marking and its application Create SAP ingress policy to police traffic Create Network ingress policy to police traffic Create Network egress policy to shape traffic Create egress-remarking-policy Create HQoS policy Course Outline: Student Guide QoS Provisioning for 7250-IXR: QoS Lab |
| Prerequisite | IP MPLS, Switch and routing for SROS, basic concepts of quality of services like policing, queueing, marking, remarking and scheduling. TER36067K-001 CLI and Interior Gateway Protocol Provisioning, TER36067K-002 SROS Multiprotocol Label Switching Provisioning, TER36067K-003 SROS Service Provisioning, ER00327-V-1700 7250 IXR Product Overview QoS configuration of 7750 SR would be an added advantage. Equipment: |

| | High-speed Internet connection to remote standard 7250 IXR lab (8 routers and 4 vPCs) with the current SR OS release installed for the instructor and each student. This training is supported on Azure Cloud Lab. Template (sros_22-2-ixr_standard_2022-v1 Template) |
|----------------------------------|--|
| Contents | |
| Delivery Type | Classroom |
| Duration | 2 days |
| Maximum Number of Students | 8 |
| Course Type | PTB - Practical and theoretical course with testbed |
| Course Level | Standard |

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6. Additional Recommended courses:

7. Training Facilities

Instructor Led Classroom Sessions

Where classroom sessions are delivered at Nokia premises with Nokia test beds then Nokia assumes full responsibility for ensuring the suitability of both the classroom and testbed for the training session. Where classroom sessions are delivered at customer premises using remote connectivity to a Nokia lab Nokia is responsible for ensuring the test bed is prepared and suitable for the training session. The customer is responsible for providing a suitable room for the session and appropriate connectivity for connection to Nokia remote lab.

Where the classroom sessions are delivered on customer premises using a customer testbed then the customer is fully responsible for ensuring both the room & testbed are suitable for the training session. Nokia will provide details of the facilities, configuration, equipment & connectivity required in advance of the sessions using customer classrooms and/or customer testbeds.

Where needed Nokia will provide access to Learning Platform to facilitate the delivery of training content for the classroom sessions.

Virtual Classroom Sessions

Where sessions are delivered Virtually using remote connectivity to a Nokia lab Nokia is responsible for ensuring the test bed is prepared and suitable for the training session. The customer is responsible for providing suitable environment for the session and appropriate connectivity for connection to Nokia remote lab.

Nokia will provide details of the facilities, configuration, equipment & connectivity required in advance of the Virtual sessions.

Where needed Nokia will provide access to the Nokia Learning Platform to facilitate the delivery of training content for the virtual classroom sessions.

8. Training Documentation

The default method for delivering training documentation is in electronic format (e-Documentation). Each participant will receive prior to the training, an email with which contains a download link, enabling each participant to download and save a copy of the documentation. Downloads will be available one (1) week prior to course start date and four (4) weeks after the course end date. The electronic documentation is provided in .pdf format and allows the participant to add / edit and save notes within the course material. It is advised that course participants bring their laptops to the training event or download and print a copy of the training documentation.

9. Course Evaluation

The default method for providing the end of course evaluation is via electronic format. Participants will receive an email with a URL for accessing the evaluation. On the final day of the training the Training will allow time for the evaluation to be completed. The evaluation can be accessed via PC, smartphone and tablets.

10. Certificate of Participation

The default method for providing the Certificate of Participation is via electronic format, which can be downloaded, saved and printed

11. Terms and Conditions for Customer Training Services

This Amendment (hereinafter "Amendment") to the [insert name of Care agreement], is entered into by and between:

NOKIA Legal Entity, a corporation validly organized and existing under the laws of Governing Law, having its principal place of business at Legal Entity Address, business identity code Legal Entity Registration Information, including its Affiliates ("Nokia"); and

Customer Legal Entity, a company incorporated under the laws of Country with its principal office at Composite Address registration number Tax Code 1 (the "Buyer"). registration number Tax Code 2 (the "Supplier"). registration number VAT Registration Number (the "Supplier").

Each of the above referred to individually as a "Party" and jointly as the "Parties".

WHEREAS the Parties have entered into a Agreement Name agreement effective [insert date] (hereinafter "Agreement"); and

WHEREAS now the Parties wish to make changes to the Agreement as follows.

NOW THEREFORE IT IS HEREBY AGREED:

Changes to the Agreement

The Parties have agreed to replace and amend the present section "Terms and Conditions for Training Services" of the Agreement to read as in the following Section 15

No Other Modifications

All other terms and conditions of the Agreement and any other Amendment or Addendum made thereto, shall remain in force and effect unchanged, unless explicitly stated in this Amendment, and shall apply to this Amendment in full and this Amendment shall form an integral part of the Agreement.

Capitalised terms shall have the meaning ascribed to them in the Agreement, except to the extent explicitly set out otherwise in this Amendment.

Order of Precedence

In the event of a conflict between the terms of this Amendment and the terms of the Agreement, the terms of this Amendment shall prevail with respect to the subject matters herein.

Effective Date

This Amendment becomes effective Agreement Start Date (hereinafter "Effective Date").

Signatures.

This Agreement may be executed in any number of counterparts by either handwritten signatures or esignatures. By using e-signature to sign this Agreement, the Parties acknowledge that execution in this manner creates a binding contract between the Parties.

IN WITNESS WHEREOF, the Parties have caused this Amendment to be signed in two (2) identical originals by their duly authorized representatives.

12. Definitions

Delivery" refers to a training service which may be delivered as a self-study through electronic means, as a delivery with clear objectives via Instructor led classroom delivery or Instructor led virtual delivery, as a workshop with loosely defined subjects, as a seminar with specific theoretical topics, or as any other training product provided by Nokia.

"Private Delivery" is a training service which is delivered for a single Customer.

"Public Seat" is a training service open for all of Nokia Customers and for which the Customer has licensed a seat.

"Training Proposal" means the document issued by Nokia detailing the Training services to be provided.

"Training Venue" means the address at which the Training is to be provided by Nokia as set out in the Training Proposal.

"Training Day" Unless otherwise agreed, the standard length of a classroom training day is seven (7) hours, including a one-hour lunch break and appropriate morning/afternoon breaks.

Participant is a person of the customer's organization who has been enrolled on the training.

13. Training Services

In order for Nokia to ensure that Training Services can be delivered, Buyer needs to provide the following information: course name, training description, dates, location, preferred training venue, duration, and number of participants

Customer acknowledges that Nokia training schedule and offer have a validity period of fourteen (14) calendar days., Nokia reserves the right to use scheduled resources otherwise and without further notice if no written acceptance is received.

Training is provided only for Nokia Customers, their authorized employees. Nokia competitors and their personnel may not attend Training, e-learning or virtual classroom training

Nokia reserves the right to request proof of identify of a Participant before the Training Services are being delivered not identified participants will be excluded from the training.

Classroom & virtual classroom sessions have a maximum number of students that can be accommodated within the session. Should additional students attend a session without prior agreement then Nokia reserves the right to either cancel the session or charge an additional fee per student

14. Confidential Information, Equipment and Intellectual Property

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Ownership of all copyright and other intellectual property rights of course materials provided during the training, including but not limited to documentation, data, technical information, know-how specifications, drawings, and designs (hereafter "Information") furnished or produced by the Customer to or for Nokia, together with the copyright, design rights, or any other intellectual property rights shall be the exclusive property of Nokia and shall be treated as confidential by the Customer

Nokia grants the Customer a non-exclusive, non-transferable, non-assignable limited license to use, internally, a single copy of the Nokia course material for the sole benefit of each eligible participant registered for the applicable Training irrespective of the delivery format (e-learning, dedicated or virtual Instructor-Led classroom training.)

All material and Information provided by Nokia to participants during the Training cannot be re-used to provide or assist in the delivery of, a similar Training to any Customer personnel or Customer third party.

For those situations where Nokia provides its customised course content, the intellectual property ownership contained in such content remains the property of Nokia.

15. Fees and Payment Terms

The fees for the Training Services shall be set out in the purchase order. All invoices shall be payable within 30 (thirty) days of the date of the applicable invoice. For all instructor-led training Nokia shall be entitled to invoice the Customer upon completion of the training. For all self-paced learning (including web-based training and videos) Nokia shall be entitled to invoice the Customer after it has made the learning available to the Customer's employees.

Nokia's invoice shall quote the number of the agreement or order – on the provision that the Customer has provided a specific reference.

All prices are expressed exclusive of value added tax and the Customer shall pay the applicable VAT in addition to the price.

16. Training Venue

The Training shall be performed at the Training Venue on the date agreed and specified in the applicable purchase order. The Training Venue cannot be changed, without prior approval by Nokia

If the Training Venue is at the Customer's premises, the Customer shall be responsible for providing an appropriate environment, necessary equipment and connectivity to deploy the Training. In addition, Customer shall be responsible for identifying a contact person with whom Nokia will coordinate any applicable logistics.

The Customer is responsible for providing the list of participants to Nokia no later than 14 (fourteen) days prior to the Training start date.

Nokia will provide the participant with course material in electronic format (e-doc) prior to the Training service in order for the material to be downloaded by the participant and printed if required paper format documentation may be provided, upon request, with an additional cost to the Customer.

17. Training services Cancellation Terms

Cancellation 28 calendar days prior to commencement of training session

No fee will be charged

Cancellation 21 - 28 calendar days prior to commencement of training session

If the Customer cancels or reschedules the Training 21-28 calendar days prior to Training start day, 50% of the course fee plus non-reimbursable travel costs will be charged to Customer.

If Nokia cancels a Training during this time, an alternative Training delivery date will be provided in accordance to a date agreed with the Customer.

Cancellation within 20 calendar days of the commencement of the training session

If the Customer cancels the Training 0 -20 calendar days prior to Training start day, 100% of the course fee plus non-reimbursable travel costs will be charged to Customer.

If Nokia cancels the Training during this time, an alternative Training delivery date will be provided in accordance to a date agreed with the Customer. Any cancellation of self-study bookings is only possible upon prior agreement between the participant and Nokia.

18. Limitation of Liability

Nokia's liability for any direct losses, damages, costs and expenses, including legal fees, awarded against or incurred or paid by the Customer Nokia as a result of Nokia' breach of this Agreement shall be limited to the total amount paid by the Customer for the Training.

19. Disputes

Any dispute or claim must be registered with Nokia within 7 days of completion of the relevant Training, otherwise the Customer shall be deemed to have waived such claim.

20. Nokia obligations

Nokia agrees to provide a quality training experience to Customer. This includes: an instructor qualified to conduct the course(s) as well as all necessary training materials sufficient for the number of registered participants on the scheduled dates.

The Customer will assure that the participants have completed the necessary pre-requisites otherwise Nokia cannot be held liable for delivery quality.

Every Training will be evaluated upon completion with a training evaluation, conducted online evaluation only; the participant is requested to complete the online evaluation during the last day of the course.

The online evaluations submitted by Customer participants on the training delivery will be considered a key indicator of the Training quality.



Whenever a Training event is evaluated by Customer as of inadequate quality, Nokia will investigate the incident and determine the underlying root causes. This investigation will take into account the input of the Customer participants as well as the instructor. Nokia will share the result of the investigation with the Customer.

In case of inadequate quality, corrective actions will be decided upon by Nokia. Corrective actions could include among others (i) repetition of the same Training for the same group of Customer participants without any additional fees chargeable to customer except for travel and accommodation expenses, (ii) refund of the training fees, partially or totally, except for travel and accommodation expenses.

Each participant of a Training Course is required to attend for at least 80% of the Training duration in order to be considered 'Successful'. If a participant does not attend 80% of the training the Trainer will have the option not to mark the participant 'Successful' and therefore the said participant will not be able to download their Recognition of Participation and their Training History will not be updated as having completed the Training.