OSS and BSS Integration for Telecom Professionals Training Course



21 - 25 Dec 2026

California

7900 € (Per Person)

Ref: #TEL5876_147033

Course Introduction / Overview:

This course provides a comprehensive exploration of Operations Support Systems (OSS) and Business Support Systems (BSS), the two critical pillars of any telecommunications service provider. In an era of rapid digital transformation, the effective integration and evolution of OSS and BSS are paramount for delivering superior customer experience, enabling new services like 5G and IoT, and achieving operational excellence. This program moves beyond theoretical definitions to provide a deep, functional understanding of how these systems work, interact, and drive business value. We will delve into the core domains of both BSS, such as CRM, billing, and order management, and OSS, including service fulfillment, assurance, and network management. Drawing on industry standards like the TM Forum Frameworx, as discussed in the works of experts like Thomas M. Chen, participants will learn the principles of modern architecture and integration. BIG BEN Training Center has designed this course to equip professionals with the strategic insights and practical knowledge needed to navigate the complexities of modern telecom operations, ensuring they can lead and contribute to critical transformation projects.

Target Audience / This training course is suitable for:

- Telecommunications Engineers and Technicians.
- IT Architects and Systems Analysts working in telecom.
- OSS and BSS Solution Designers and Developers.
- Network Operations Center (NOC) Managers and Staff.
- Product Managers and Marketing Professionals in the telecom sector.
- Billing and Revenue Assurance Specialists.
- Project and Program Managers overseeing telecom system implementations.
- Business Analysts involved in process improvement for service providers.

Target Sectors and Industries:

- Mobile Network Operators (MNOs).
- Fixed-Line and Broadband Service Providers.
- Internet Service Providers (ISPs).
- Cable and Satellite Television Providers.
- Managed Service Providers (MSPs).
- Telecommunications Infrastructure Companies.
- Government and Public Sector Communications Agencies.
- Vendors and Suppliers of telecom hardware and software.

Target Organizations Departments:

- Information Technology (IT) and Systems Architecture.
- Network Operations and Engineering.
- Product Development and Management.
- Customer Relationship Management (CRM) and Customer Service.
- Billing and Revenue Management.
- Strategic Planning and Business Transformation.
- Sales and Marketing.
- Corporate Strategy.

Course Offerings:

By the end of this course, the participants will have able to:

- Distinguish clearly between the functions and responsibilities of OSS and BSS.
- Analyze the complete customer and service lifecycle across both system domains.
- Apply the principles of the TM Forum Frameworx, including eTOM, SID, and TAM.
- Map core telecom business processes to specific OSS and BSS applications.
- Understand modern integration patterns and the role of APIs in connecting systems.
- Evaluate the impact of 5G, IoT, and cloud computing on OSS/BSS architecture.
- Identify key challenges in service assurance and fulfillment processes.
- Develop a high-level strategy for OSS/BSS transformation and modernization.
- Contribute effectively to projects involving system integration and vendor selection.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, engaging, and practical, ensuring that participants not only learn the concepts but can also apply them in their professional roles. This course utilizes a blended approach that combines expert-led instruction with collaborative learning activities. Sessions will feature detailed presentations on core OSS and BSS principles, followed by in-depth group discussions that allow participants to share their unique experiences and challenges. Real-world case studies from global telecommunications operators will be analyzed to illustrate successful strategies and common pitfalls in system integration and transformation. Practical exercises and workshops will challenge participants to apply frameworks like eTOM to model business processes and design high-level solution architectures. Throughout the course, there is a strong emphasis on a two-way communication flow, with continuous opportunities for questions and answers. This immersive learning environment ensures a robust understanding of both the technical and strategic aspects of OSS and BSS.

Course Agenda (Course Units):

Unit One: Foundations of Modern Telecommunications Operations

- Introduction to the telecommunications landscape.
- Defining Operations Support Systems (OSS) and their core functions.
- Defining Business Support Systems (BSS) and their role in the value chain.
- The historical evolution and convergence of OSS and BSS.
- Understanding the relationship between networks, services, and customers.
- Key drivers for OSS/BSS transformation in the digital age.
- The role of industry standards and forums in telecom operations.

Unit Two: A Deep Dive into the Business Support Systems (BSS) Domain

- Customer Relationship Management (CRM) and customer journey mapping.
- Product Catalog Management and service creation.
- Order Management, from customer capture to service activation.
- Billing, Charging, and Revenue Management systems.
- Partner and Supplier Relationship Management.
- Understanding the flow of information within the BSS ecosystem.
- Challenges and innovations in customer experience management (CEM).

Unit Three: Mastering the Operations Support Systems (OSS) Domain

- Service Fulfillment and Provisioning processes.
- Service Assurance, including Fault and Performance Management.
- Network Inventory and Resource Management.
- Workforce Management and field service operations.
- The role of the Network Operations Center (NOC).
- Connecting service quality to network performance metrics.
- Automation in network monitoring and fault resolution.

Unit Four: Architecture, Integration, and the TM Forum Frameworx

- Introduction to the TM Forum and its strategic importance.
- The enhanced Telecom Operations Map (eTOM) for process modeling.
- The Shared Information/Data Model (SID) for standardized data exchange.
- The Telecom Application Map (TAM) for application architecture.
- Modern integration patterns: APIs, microservices, and event-driven architecture.
- Challenges of integrating legacy systems with modern platforms.
- Designing a cohesive and scalable OSS/BSS architecture.

Unit Five: Future Trends and Strategic Transformation of OSS/BSS

- The impact of 5G, Network Slicing, and IoT on OSS/BSS.
- Leveraging Cloud-Native principles for agility and scalability.
- The role of Artificial Intelligence (AI) and Machine Learning (ML) in autonomous operations.
- Data analytics for predictive maintenance and proactive customer care.
- Developing a business case and roadmap for OSS/BSS modernization.
- Managing organizational change during a transformation project.
- The future vision: Towards a zero-touch, fully automated operational environment.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

As telecom networks evolve towards autonomous, zero-touch operations, how must the traditional boundaries between OSS and BSS dissolve to create a unified, data-driven system for proactive customer experience management?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by focusing on the strategic integration of OSS and BSS, rather than treating them as isolated technical silos. While many programs cover the functions of individual systems, our curriculum emphasizes the critical data and process flows that connect network operations with business outcomes. We move beyond mere definitions to explore the "why" behind the architecture, using the TM Forum Frameworx not as an academic exercise, but as a practical tool for designing and managing complex telecom environments. The content is forward-looking, dedicating significant time to the impact of transformative technologies like 5G, cloud-native architecture, and AI, equipping participants with the foresight needed to build future-proof systems. By blending deep technical concepts with strategic business perspectives, the course provides a holistic understanding that is essential for leaders, architects, and managers who are tasked with driving efficiency, innovation, and superior customer experience in the modern telecommunications landscape. The focus is on developing a mindset geared towards cohesive, end-to-end service management.