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TONEX Global Training Courses & Seminars

"Customization is Our Secret"

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|-----------------------|---------------------------|
| ■ Telecom | ■ Wireless Communication |
| ■ IT Training | ■ Business Management |
| ■ Storage Networking | ■ IP Networking |
| ■ Engineering | ■ Enterprise Architecture |
| ■ Certification | ■ RF Engineering |
| ■ Workshop & Seminars | ■ Boot Camps |

Quality Training

Delivered

Boot Camps

580: LTE (Long Term Evolution) Training Boot Camp

Duration: 4 Day(s)

TONEX LTE (Long Term Evolution) Training Boot Camp ® is the answer to your LTE-EPC/EPS technology needs. This innovative and intensive learning experience covers the essential elements of LTE and SAE/EPC/EPS in a nutshell by the industry experts.

LTE (Long Term Evolution) Training Bootcamp can combine the following training courses into a 4-days intense bootcamp based on the customer needs and requirements:

- OFDM and MIMO Training
- LTE Air Interface and Core Network Training
- LTE Core Network Planning and Design Training
- LTE RF Planning and Design Training
- LTE Protocols and Signaling Training
- LTE RAN Signaling and Operations for 1x/1xEV-DO and UMTS Training
- LTE RF Performance Training
- LTE QoS Training
- LTE Capacity Planning and Traffic Engineering Training
- LTE Security
- LTE GSM/UMTS and 1x/1xEV-DO (eHRPD) Interworking Training
- IPv6 and MPLS Training
- LTE-Advanced (R10) Training
- IMS and Voice over IMS for LTE-EPC Training

Objectives

Upon completion of this training, the attendees will be able to :

- Understand HSPA/HSPA+ and Migration to LTE/EPC/EPS
- Understand how Different End User Services are performed in LTE/EPC/EPS
- Understand and Comprehend the basics of LTE/EPC/EPS
- Understand HSPA, HSPA+ and LTE Architecture, Protocols and Signaling
- Understand LTE Network Architecture and Protocols (Radio and Core)
- Understand the Main Functionality in the Evolved UMTS Radio Access Network, E-UTRA/E-UTRAN or LTE
- Understand LTE Multiple Access Methods: OFDMA and SC-FDMA and MIMO
- Describe Evolved Packet Core (EPC), SAE (System Architecture Evolution) and Evolved Packet System (EPS)
- Describe UTRAN, All IP Network (AIPN) and E-UTRA/E-UTRAN architecture
- Highlight E-UTRA Air Interface and physical layer (downlink and uplink) functionalities and procedures
- Highlight E-UTRA Layer 2 and 3 Signaling functionalities and Procedures
- Highlight LTE Planning and Design Procedures
- Identify LTE Interworking
- Identify the following aspects of LTE networks: Quality of Service (QoS), Call setup procedures, Mobility support, LTE and EPC Security Architecture
- Describe Call flows and operational scenarios in HSPA/HSPA+ and LTE

602: IPv6 Training Boot Camp - Public Class

Cost: Call for Details | Duration: 3 Day(s)

Tonex IPv6 training boot camp provides a succinct, in-depth technical overview of all the new features and functions in IPv6, guiding you through everything you'll need to know to get started, including how to configure IPv6 on hosts and routers, and which applications currently support IPv6. Aimed at system and network administrators, engineers, network designers, and IT managers, this boot camp will help you plan for, design, and integrate IPv6 into your current IPv4 infrastructure. Whether you're ready to start implementing IPv6 today or are planning your strategy for the future, IPv6 boot camp will provide the solid foundation you need to get started.

Our experienced instructors work with you, tailoring the Boot Camp content to your needs. We can even conduct this Bootcamp onsite at your business location! Using real-life examples and interactive exercises, we teach practical ways to maintain your valuable customer base, win repeat business, and measure your organization's ability to meet customer expectations.

TOPICS COVERED

- Intro to IPv6
- IPv6 operation and Architecture
- IPv6 Protocols
- IPv6 Name Services
- IPv6 Technical Details
- IPv6 Migration
- IPv6 Deployment Strategies and scenarios
- IPv6 Security and mobility
- Voice and Video over IPv6
- IPv6 QoS
- IPv6 Deployment and migration
- IPv4-IPv6 transition and integration technologies

8312: Product Safety Engineer Certification Training Bootcamp

Duration: 4 Day(s)

This bootcamp prepares you for NARTE Product Safety Engineer Certification exam.

Objectives

PS ENGINEER CERTIFICATION PREPARATION

- Hazard Analysis Fundamentals
- Safety in design, manufacture, installation and operational Fundamentals
- Product Safety Engineering Fundamentals
- Introduction to UL, CE, CSA, cUL
- Design Verification Testing Fundamentals
- Project Management Fundamentals
- Quality System Engineering Fundamentals
- Quality System Auditing Fundamentals
- 21CFR820, ISO 9001, ISO 46001, ISO 13485 Fundamentals

9001: Optical Networking Boot Camp

Duration: 5 Day(s)

TONEX Optical Networking Boot Camp is the answer to your Optical Networks technology needs from current to next generation technologies for public and private networks. Our mission is to clarify highly complex technical standards and topics.

9002: Wireless Training Boot Camp

Duration: 4 Day(s)

TONEX Wireless Boot Camp ® is the answer to your wireless technology needs, from wireless PANs, LANs, MANs to WANs: Bluetooth/Zigbee, 802.11, WiMAX, cellular (GSM, EGPRS, UMTS/HSPA/HSPA+, LTE, LTE Advance, CDMA, CDMA2000 91xEV-DO), SATCOM/VSAT, current to next generation technologies for public and private wireless networks. This intensive, weeklong learning experience covers the essential elements of current and future wireless communications.

The boot camp includes:

- Experienced instructors including senior technology leaders, project managers, technical authors, engineers, educators, consultants, course developers, and CTOs.
- Real life examples and practices.
- Small class size.
- Personalized instructor mentoring.
- Pre-training discussions
- Ongoing post-training support via e-mail, phone and WebEx.

Objectives

Our interactive, accelerated learning program teaches you the fundamentals of modern wireless communication systems. The Wireless Boot Camp provides participants with a solid understanding of wireless networks, technologies, protocols, and comprehensive vendor-neutral exposure to wireless solutions and supporting technologies, such as RF, microwave, Bluetooth, RFID, ZigBee, Wireless LANs, 802.11n, 802.16/WiMAX, HF/VHF/UHF, SATCOM/VSAT, GPS, GSM/EGPRS, CDMA, CDMA2000 1x, 1xEV-DO, UMTS/W-CDMA, HSPA/HSPA+, OFDM/MIMO, LTE, SAE/EPC, Wireless core network technologies, IP/MPLS, Mobile IP, Security, QoS, Ethernet Backhaul, Services, VoIP, SS7, SIGTRAN, SIP, Diameter and IP Multimedia SuUbsystem (IMS) are discussed.

9003: Telecom Boot Camp

Duration: 5 Day(s)

TONEX Telecom Boot Camp is the answer to your telecom technology needs from current to next generation technologies for public and private networks. Our mission is to simplify highly complex technical telecom standards and topics.

Objectives

Telecom Boot Camp provides participants with a solid understanding of telecom networks, technologies, protocols, and comprehensive, vendor-neutral exposure to telecom solutions and supporting technologies, such as voice, optical networking, signaling, switching, convergence, wireless networking, network management and operations support systems (OSS).

UPON COMPLETION OF THIS BOOT CAMP, THE PARTICIPANTS WILL:

- Understand telecom deregulation, the new telecommunications technologies and industry trends
- Understand the technical aspects of the new telecommunications industry
- Explore access, signaling, transport and transmission networks
- Examine the components of voice and data networks
- Understand xDSL, cable modems, PSTN/SS7, SONET/SDH, DWDM and wireless technologies
- Explore advanced optical networking
- Explore modern fixed and mobile wireless Technologies (including SATCOM)

- Understand TCP/IP, frame relay, ATM, Ethernet, MPLS and GMPLS
- Comprehend advanced voice and data communications technologies
- Understand private voice and data network design alternatives
- Cover voice and data traffic engineering
- Explore voice-enabling data network architecture alternatives
- Understand voice/data/multimedia convergence
- Understand voice over packet (IP, cable, DSL, Frame Relay, and ATM)
- Understand H.323, SIP, MGCP, Megaco
- Explain what Soft switches are
- Understand IPTV

9006: Revenue Assurance Boot Camp

Duration: 4 Day(s)

The TONEX Revenue Assurance program helps you understand basic concepts and best practices. The aim of the Revenue Assurance Boot Camp is to provide processes and methodologies that help plug the drain on revenue and maximize profits for telecom service providers. Our industry experts cover all aspects of the revenue assurance discipline, including: switch to bill, prepaid/IN, inventory reconciliation, configuration management, billing verification, cost management, fraud, interconnection, content settlement, partner management applied to voice, Internet, 3G/4G, mobile data, applications, content, video, cloud services, MPLS, IPTV, VPN and managed services.

Objectives

LEARN HOW TO:

- Optimize end-to-end Revenue Assurance Strategies and Implementation
- Outsmart fraud by subscribers and distributors
- Discover the importance of cost-effective service provisioning
- Understand how the mediation system can be helpful as a revenue assurance tool
- Understand the impact of copyright issues
- Receive and utilize a review of fraud management systems and processes
- Review audits and tests that can be used to identify errors in network integrity
- Discover cost-effective customer retention strategies
- Understand proper data mining and data warehousing will impact the Revenue Assurance implementation
- Understand the impact of next generation networks and services on Revenue Assurance.

KEY TOPICS

- Overview of TONEX Revenue Assurance framework
- Revenue assurance objectives, processes, best practices and standards
- Tools and methods for RA initiatives
- Revenue Assurance Functions and Applications
- Revenue Leakage Issues
- Billing and Mediation
- Interconnect Billing
- Overview of CDRs, AMA, CIBER, TAP, IPDR
- Inter-Carrier Billing
- Inter-Carrier Billing Verification
- Inter-Carrier Billing Validation
- CABS Verification
- Customer Data and Records

- Usage
- Price/rate Plans
- Telecom Fraud Management
- SLA Management and QoS
- Margin Management
- Mediation Functions and Features
- Terrifying
- Invoicing and Collection Process
- Usage Analysis
- Order Entry Errors
- Detecting Fraud
- CRM
- Churn Management
- RA KPIs
- Taxation and Regulation
- Credit Management
- Risk Mitigation
- Network Optimization (PSTN, SS7, GSM/GPRS/EDGE, UMTS, CDMA2000, ATM, IP, Cable)
- Traffic Engineering
- Switch-to-Bill Reconciliation
- Network Management / Inventory / Reconciliation
- SS7 Usage Analysis
- Ordering, Provisioning & Network Reconciliation Systems
- Emerging services: VoIP, IP Centrex, MPLS and IP VPN
- 'End-to-End' RA success

9007: BSS / OSS Boot Camp

Duration: 4 Day(s)

TONEX OSS/BSS Boot Camp is the answer to your OSS/BSS technology needs from current to next generation technologies. Our mission is to simplify highly complex OSS/BSS technical standards and topics.

Objectives

LEARN HOW TO:

- Reduce opex and capex
- Increase loyalty and revenue assurance
- Reduce fraud
- Improve ROI
- Reduce churn
- Understand H.323, SIP, MGCP, Megaco
- Explain what Soft switches are
- Understand IPTV

TOPICS COVERED:

- Business Needs and Drivers
- Different Service Providers and their Needs
- Critical Business Processes
- Automation and Integration
- Operations Re-engineering Efforts
- Effectiveness of BSS/OSS Infrastructure
- Evaluating OSS and BSS Technology Investments
- BSS and OSS ROI Model
- Current BSS/OSS Development
- Enterprise Application Integration (EAI)
- Planning and Engineering (P&E)
- Service Provisioning
- Service Activation
- Workflow
- Inventory
- Customer Care and Billing (CCB)

- Interconnection
- Billing Mediation
- Rating and Tariffing
- CRM
- Fraud
- Revenue Assurance
- Risk Management
- Capacity Planning
- Network Management
- TMF TOM/eTOM
- NGOSS
- CORBA and XML
- J2EE and .NET
- Web Services
- OSS for Next Generation Services - Multiple Case Studies (Cable/MSO, Wireless and Telco Examples)
- Products and Services

9010: Wireless and RF Engineering Combo Training Bootcamp

Duration: 4 Day(s)

Wireless and RF Engineering Combo Training Bootcamp for Wireless Communications Systems

Stay competitive and on the leading edge in the dynamic wireless marketplace with training and certification for wireless networking and RF professionals.

This innovative and unique training bootcamp will cover basic and advanced topics in wireless communications for voice, data, and multimedia and RF technology, Infrastructure and Applications. We begin with a brief overview of modern wireless systems and standards including mobile and fixed broadband communications systems GSM, CDMA, WCDMA, CDMA2000, UMTS/WCDMA, HSPA/HSPA+, LTE, WiMAX, WiFi, SATCOM, VSAT and Microwave.

We then characterize the RF and wireless channel, including Spectrum allocation and characteristics, multiple and random access techniques, path loss for different environments, propagation models, antenna theory, MIMO and modulation. Next we examine the fundamental capacity limits of wireless channels and the characteristics of the capacity-achieving transmission strategies

9012: Traffic Engineering Training Boot Camp

Duration: 4 Day(s)

This Innovative Traffic Engineering Training Bootcamp provides a thorough coverage of the principles behind Traffic Engineering for voice, data, video and next generation networks.

Our experienced instructors work with you, tailoring the Boot Camp content to your needs. We can even conduct Boot Camp onsite at your business! Using real-life examples and interactive exercises, we teach practical ways to maintain your valuable customer base, win repeat business, and measure your organization's ability to meet customer expectations.

Objectives

UPON COMPLETION OF THIS COURSE, THE PARTICIPANT WILL:

- Have a technical understanding on the state of the telecommunications industry, the new and emerging technologies, and the direction of the industry.
- Have a thorough understanding of the telecom traffic engineering
- List the relevant topics associated to telecom traffic engineering including voice and IP Networking/NGN
- Explore the management of traffic through telecommunications networks

- Review the acronyms and jargon associated with traffic engineering
- List the knowledge necessary to evaluate telecommunications network traffic solutions
- Have an understanding of network design associated with traffic engineering
- Explore PSTN, and IP traffic engineering concepts
- Traffic Engineering Techniques in Telecom
- Traffic Distribution and Trunk Provisioning
- Understand Busy Hour Traffic (BHT) Measurement
- Understand Erlang B Calculation and Erlang C Calculation
- Understand Engest Calculation and Poisson Calculation
- Understand Binomial Calculation Traffic Engineering With IP Routing Protocols
- Understand VoIP Traffic Calculation
- Have an understanding of Cable TV systems and head-end trunking
- Have an understanding Traffic Engineering for GSM/GPRS/EDGE, UMTS and LTE Networks
- Have an understanding Traffic Engineering for CDMA and 1xEV-DO Networks
- Have an understanding Traffic Engineering for WiMAX and WiFi Networks
- Understand what MPLS TE is
- Explore IP Traffic Management Applications
- Understand Measurement, Analysis, and Optimization of IP Traffic
- IP Traffic Engineering Before MPLS
- MPLS Traffic Engineering

9015: Billing and Fraud Boot Camp

Duration: 5 Day(s)

This Innovative Bootcamp provides a thorough coverage of the principles behind Billing and Fraud.

Our experienced instructors work with you, tailoring the Boot Camp content to your needs. We can even conduct Boot Camp onsite at your business! Using real-life examples and interactive exercises, we teach practical ways to maintain your valuable customer base, win repeat business, and measure your organization's ability to meet customer expectations.

Objectives

BOOT CAMP GRADUATES UNDERSTAND:

- PSTN Billing and Fraud
- GSM and GPRS Billing
- Roaming Billing
- Interconnect Billing
- IP Billing Fundamentals
- UMTS Billing
- CDMA2000 Billing
- WiMAX Billing and Fraud
- Mobile TV and Video Billing
- IPTV Billing and Fraud
- Telecom Fraud Management
- Fraud identification, profiling, Analyzing, Risk Management and FMS
- GSM and GPRS Fraud
- UMTS Fraud
- CDMA2000 Fraud

9016: CISSP Boot Camp

Duration: 4 Day(s)

Our experienced instructors work with you, tailoring the Boot Camp content to your needs. We can even conduct Boot Camp onsite at your business! Using real-life examples and interactive exercises, we teach practical ways to maintain your valuable customer base, win repeat business, and measure your organization's ability to meet customer expectations.

The CISSP examination consists of multiple choice questions, covering topics such as Access Control Systems, Cryptography, and Security Management Practices, and is administered by the International Information Systems Security Certification Consortium or (ISC)2. (ISC)2 promotes the CISSP exam as an aid to evaluating personnel performing information security functions. Candidates for this exam are typically network security professionals and system administrators with at least 3 years of direct work experience in one or more of the 10 test domains. This course maps to the exam objectives and offers numerous features such as exam tips, case studies, and practice exams.

Objectives

Our interactive, accelerated learning program prepares you for the CISSP exam. For experienced professionals in the computer security field who are responsible for developing the information security policies, standards, and procedures and managing their implementation across an organization.

This certification is the premier credential for security professionals pursuing higher levels of recognition and responsibility in the industry, and is seen as a requirement for many technical, mid-management, and senior management positions.

UPON COMPLETION OF THIS PROGRAM, YOU'LL LEARN:

- Learn what you need to know to master the CISSP security technology
- Master Information Security skills by experts & get CISSP certified
- Learn what you need to know to master the CISSP security technology
- Master Information Security skills by experts & get CISSP certified
- How to identify and correctly answer the any type of CISSP questions
- Important key test-taking tips for the CISSP exam
- Proven techniques for scoring high on the CISSP exam
- Important aspects of Security Policy development and Security Management Practices
- The goal of this course is to bring the CISSP® 10 domains of knowledge to life. By explaining important topics with stories, examples, and case studies, the practical workings of this information can be discovered.

THIS TRAINING PROGRAM WILL PREPARE YOU FOR THE CISSP EXAM BY COVERING KEY EXAM OBJECTIVES & THE GREAT BREADTH OF INFORMATION FOUND IN THE 10 DOMAINS OF THE COMMON BODY OF KNOWLEDGE:

- Security Basics
- Access Control Systems and Methodologies
- Security Architecture and Models
- Disaster Recovery and Business Continuity Planning
- Security Management Practices
- Law, Investigation, and Ethics
- Physical Security
- Operations Security
- Cryptography
- Telecommunications and Network Security
- Application and System Development

9018: Customer Relationship Management (CRM) Training Boot Camp

Duration: 4 Day(s)

Uncover the secrets of outstanding customer service with TONEX's CRM Training Seminars. CRM Training Boot Camp is an accelerated four-day course that provides comprehensive, accelerated vendor-neutral training.

Take the first step toward becoming more customer service centered, and making every client connection a positive one. This innovative Boot Camp emphasizes the principles behind customer care and managing customers.

Objectives

BOOT CAMP GRADUATES UNDERSTAND:

- Definitions and objectives of customer care
- How to deliver better, faster service and increase customer satisfaction
- Customer care processes and customer expectations
- New customer care tools and procedures
- How to turn complaints into opportunities
- How to create a mission statement, service level agreements (SLAs), and standard operating procedure documents
- How inbound and outbound call center environments differ
- How to assess, select and use today's current and emerging call center technologies
- Hiring techniques, coaching styles, and staffing logistics
- How to approach training and certification, orientation, strategic support skills, and technical training

9021: WiMAX / WiBro Boot Camp

Duration: 4 Day(s)

TONEX WiMAX/WiBro Certification Boot Camp ® is the answer to your WiMAX/WiBro technology certification needs. WiMAX/WiBro Certification proves that you have the skills to define, architect, design, operate and troubleshoot WiMAX/WiBro networks.

Objectives

Our interactive, accelerated learning program teaches you the details of WiMAX and WiBro systems. WiMAX/WiBro Boot Camp provides participants with a solid understanding of WiMAX/WiBro networks, OFDM/OFDMA technologies, protocols, and comprehensive vendor-neutral exposure to WiMAX/WiBro solutions and supporting technologies.

The boot camp begins with an overview of the motivations and justifications for WiMAX/WiBro, and a review of the key technical constraints inherent in 802.16/802.6e communications. We'll then proceed to an overview of how WiMAX/WiBro RF works, and a look at key RF challenges and new developments in fundamental wireless technologies. From there we will explore different technologies and protocols in the radio and core networks.

LEARN HOW TO:

- kimphetsinor8691@yahoo.com WiMAX/WiBro Technology Overview
- WiMAX/WiBro Network Overview
- WiMAX/WiBro Network Architecture
- WiMAX/WiBro Radio Network Architecture
- WiMAX/WiBro Operations
- WiMAX/WiBro RF Engineering
- WiMAX/WiBro Link Budget Calculation
- Antennas for WiMAX/WiBro
- WiMAX/WiBro Core Network Architecture
- IP Options and Features in WiMAX/WiBro Networks
- WiMAX/WiBro Network Design
- WiMAX Access Architecture

- WiMAX/WiBro Optimization
- WiMAX/WiBro Backhaul Operations
- WiMAX/WiBro Performance and Coverage
- WiMAX/WiBro Troubleshooting
- WiMAX/WiBro Implementation Case Studies

9040: Information Assurance Boot Camp

Duration: 4 Day(s)

The aim of Information Assurance Boot Camp insures overall operating integrity in government and business, while protecting and defending physical and virtual assets from unauthorized access, damage, removal, conversion, diversion, duplication or denial of service, as well as from computer-based or computer-facilitated threats.

Our experienced instructors work with you, tailoring the Boot Camp content to your needs. We can even conduct Boot Camp onsite at your business! Using real-life examples and interactive exercises, we teach practical ways to maintain your valuable customer base, win repeat business, and measure your organization's ability to meet customer expectations.

BOOT CAMP TOPICS AND COVERAGE

- Information Assurance (IA) Fundamentals
- Cryptography and Network Security
- Trusted Systems Fundamentals
- Electronic Business Security Fundamentals IA Success Strategies

9042: Train-the-Trainer Boot Camp

Duration: 4 Day(s)

This boot camp is designed for instructional designers, developer, instructor, facilitator, training managers, directors, training performance consultants, e-Learning specialists, technical trainer, training managers.

Our experienced instructors work with you, tailoring the Boot Camp content to your needs. We can even conduct Boot Camp onsite at your business! Using real-life examples and interactive exercises, we teach practical ways to maintain your valuable customer base, win repeat business, and measure your organization's ability to meet customer expectations.

Objectives

TOPICS COVERED

- Training Needs Analysis and Assessments
- Training Planning and Designing
- Training 101
- Project Management for Trainers
- Writing Skills for Trainers
- Instructional Design
- Instructional Techniques
- E-Learning Strategy Development
- Designing Computer-Based Training
- Web-Based Training
- Games in Training
- Adults Learning
- Influencing People
- Humor and Psychology in Training
- Presentation Skills
- Creativity in Training Development
- Evaluation of Training
- Training Development KPIs

9043: Six Sigma Training Boot Camp

Duration: 4 Day(s)

Green Belt (1 week), Black Belt (2 weeks) and Master Black Belt (3 weeks) Certification

TONEX Six Sigma Training is about building a measurement system in transactional/service environments working with various information systems. In its most simple sense, Six Sigma is a highly disciplined approach to decision making that helps people focus on improving processes to make them as near perfect as possible. Done properly, Six Sigma ensures that internal processes are running at optimum efficiency.

Six Sigma achieves dramatic improvement in business performance through a precise understanding of customer requirements and the elimination of defects from existing processes, products, services, or plants.

At its core, Six Sigma revolves around a few key concepts:

- Critical to Quality: Attributes most important to the customer
- Defect: Failing to deliver what the customer wants
- Process Capability: What your process can deliver
- Variation: What the customer sees and feels
- Stable Operations: Ensuring consistent, predictable processes to improve what the customer sees and feels
- Design for Six Sigma: Designing to meet customer needs and process capability

This program provides an overview of a highly disciplined methodology and practice that provides the tools you need to achieve consistent, high-performance results from your products and processes.

Objectives

The boot camp begins with an overview of the motivations and justifications for Six Sigma and statistical problem solving. The program is designed for anyone in your organization who needs to learn the Six Sigma Business Improvement Methodology. Participants range from leaders interested in how to achieve significant impact through the implementation of Six Sigma to frontline employees who will be supporting your Six Sigma implementation.

After completing this course, participants will know the:

- Differences between sigma as a metric and Six Sigma as a business improvement methodology,
- Conduct or participate in Six Sigma projects
- Apply Six Sigma tools in a real project using a statistical software package
- Four Six Sigma principles of leadership and the management tools associated with each,
- Relevance of the various Six Sigma teams and roles, and
- Application of Six Sigma analytical tools and fundamental objectives for each phase of the DMAIC model

9050: Capacity Planning Training Boot Camp

Duration: 4 Day(s)

Capacity planning training bootcamp provides the details of capacity planning as a repeatable process for IT infrastructure, cloud computing, and data centers. It's about understanding service levels and resource usage and aligning capacity requirements with business demands with trending and forecasting.

Capacity planning training boot camp covers tactics for doing performance analysis, system sizing, performance measurements, trend analysis in today's challenging business and IT environment. Performance analysis and planning are often forgotten due to the project completion on time.

Capacity planning is a strategic function used to predict IT resource requirements. It is a proactive extension of performance management, bringing order to chaos and predictability to IT management. Capacity planning and performance management together are sometimes referred to as capacity management.

One of the major goals of capacity planning is to ensure that the business service level objectives are met. Identifying the relationship between Business Metrics of Interest (BMIs) and available system performance metrics is critical to accurate models and forecasts. BMIs represent the real world transactions that drive our business workload's resource consumption.

This hands-on course will define the characteristics of a good BMI and give techniques for identifying the best BMI choice from the many possibilities. We will discuss analytical tools, formulas and techniques used, and describe both theoretical ideals and real world cases. We will also show examples on how to use increasingly fuzzy BMIs to make great capacity plans. We have updated the course material with a special section on Green Capacity Planning and some case studies on Green Data Centers.

Robust Capacity Planning entails the analysis of data to project future demand. This analysis can be as simple as a linear trend of historical demand data, and can be as complex as multivariate regression using business drivers, workload monitoring combined with analysis of changing business functionality and workloads. This course uses hands on exercises, labs and workshops to perform trend analysis of computer resources, and produce Capacity Planning forecasts.

Objectives

After completing this boot camp, attendees will be able to:

- Review of designing, implementing and managing world-class infrastructure and applications
- Review enterprise management and IT system management processes
- Explain the basics of capacity planning and performance management
- Understand the engineering tools and procedures required for capacity planning
- Explain the Capacity Planning problem
- Review of Capacity Planning applications
- Define a Capacity Planning methodology
 - Define a process
 - Define a strategy
 - Define capacity areas
 - Define the capacity variables
 - Define performance models
 - Model calibration and validation
- Understand performance and availability of new infrastructure and applications
- Identify capacity and performance management best practices
- Understand inventory and asset management processes
- Explore Service Level Management (SLM)
- Describe how to define, structure, manage and maintain inventory and manufacturing capacity
- Define metrics, models and methods
- Understand workload forecasting
- Define measuring the performance
- Identify the relationship between Business Metrics of Interest (BMIs) and available system performance metrics
- Explore project management process of capacity planning
- Review successful capacity planning deployments
- Discuss successful and unsuccessful capacity planning projects

- Step through a practical process for managing a capacity planning project
- Explore benchmarking, load testing, workload forecasting, and performance modeling of Web services
- Develop a capacity utilization and forecast plan to achieve costs, quality, and customer satisfaction objectives
- Explore the current and future market trends
- Explore Green Capacity Planning
- Perform trend analysis and forecasting
- Review examples and case studies

9101: Telecom Audit Workshop

Duration: 2 Day(s)

TONEX presents Telecom Audit workshop designed to give telecom and non-telecom professionals the nuts-and-bolts of telecom audit. This course provides an overview of today's telecom auditing, bill processing and reporting.

The telecom audit allows you to gain a better understanding of your telecommunications expenditures (CAPEX), processes (OPEX), reduce your current telecommunications expenses and provides key information to assist you with your future technology investments.

Objectives

- Audit processes
- Telecom auditing & optimization
- Telecommunications in organization's OPEX and CAPEX
- Efficiency of your telecommunications expenditures
- Analysis of SBC, Qwest, Bellsouth, and Verizon
- RBOC's rates
- AT&T, Sprint, and MCI rates
- Telecom services
- Voice, video and data services
- Local, long distance, and wireless
- Leased lines
- Frame relay and ATM
- Retroactive telecom audit
- Analyze your telecom usage
- Telecommunications invoices and verification
- Services not requested, but being billed
- Discontinued phone and data services still being billed
- Unused or underused circuits and services
- Variations between contractual terms and actual billing rates
- Improper long distance selection
- Local and long distance, 800, cellular, pager and network services
- Per-minute charges vs. contractual agreements
- Access and capacity inventory
- Charges for non-contracted services
- Miscellaneous surcharges and taxes
- Equipment rental and leasing charges
- Directory and Advertising charges
- New laws, taxes, tariffs and plans
- Federal, state, local, and franchise taxes
- Combination of rates and services
- Audit of calling area and patterns
- Analyzing your current rate plans and network infrastructure design,
- Possible savings on all of your telecom charges
- Consolidation of services
- Renegotiation of current pricing contracts with existing vendors
- Migration of services to more cost-effective vendors

- Negotiation of better contracts with vendors, inventory management and data control
- Principals of rating, billing and tariffing
- Invoice processing and workflow
- Cost center allocation
- General ledger and accounts payable
- Service and exception reporting
- Cost center, location, service type, vendor, general ledger accounts
- Inventory and contract management

90089008: RF Engineering Training Boot Camp

Duration: 4 Day(s)

TONEX Radio Frequency (RF) Engineering Boot Camp is the answer to your RF planning, modeling, design and engineering in any wireless networks.

RF Engineering is a subset of electrical engineering that deals with devices which are designed to operate in the Radio Frequency spectrum. These devices operate within the range of about 3 kHz up to 300 GHz.

RF Engineering is a highly specialized field. To produce quality results, TONEX RF Engineering Training Bootcamp covers an in-depth knowledge of Mathematics, Physics, general electronics theory as well as specialized propagation and microstrip design.

Objectives

RF Engineering Boot Camp provides participants with a solid understanding of RF surveys and planning, electromagnetic modeling and simulation, interference analysis and resolution, coverage analysis, propagation models, RF engineering, system specifications and performance, modulation, antenna theory, link design, traffic engineering, optimization, benchmarking, safety, RF testing and system integration and measurements. Design and production engineers and technicians interested in improving RF engineering skills through a practical approach will benefit from this course.

Topics Covered:

- RF Theory
- RF Engineering Principles
- Modulation
- Antenna Theory
- Interference Analysis
- Link Design
- Principles of Noise and Interference
- Principles of Jamming
- Communications Control and Jamming Theory of Operation
- RF System Specifications
- RF Surveys and Planning
- Radio Wave Propagation and Modeling
- Frequency Planning and
- Traffic Dimensioning
- Cell Planning Principles
- Coverage Analysis
- RF Optimization
- RF Benchmarking
- RF Performance
- RF Safety
- RF Simulation
- RF Testing
- RF System Integration and Measurements
- Planning of GSM, GPRS, EDGE, CDMA, W-CDMA Radio Networks
- Advanced Topics in GSM, GPRS and EDGE Cell Planning
- Advanced Topics in CDMA and CDMA2000 Cell Planning

- Advanced Topics in W-CDMA (R-99), HSDPA, HSUPA and LTE Cell Planning
- Advanced Topics in WiMAX (802.16e) Planning and Architecture
- Voice and Data Traffic Engineering
- RAN Optimization