GRAPA

Customized Training Survey

Curriculum Topic Checklist

Don't forget to include all important topics!

"Learning everything you need to know in telecoms is a neverending process there are many different ways to approach the challenges you face and the information you need. This survey has been created to provide you with an exhaustive list of all the different topics that have been of interest to other operators."

TECHNOLOGY- CUSTOMIZATION OPTIONS

Keeping up with all of the changes in the technology being deployed is a never-ending job for the Full Assurance professional. New technologies break conventions and challenge the professionals to understand and apply their disciplines in new ways. These technology focus sessions provide the student with a Business and Assurance view of what is important in these areas.

Technology Focus Areas Please indicate those lines of business you would like your course to focus on. (Choose no more than 3 "top choices")	Top Choice	Nice to Know	Not Important
LTE - 4G LTE(4G) , represents the future destination technology for over 4 Billion subscribers around the world, but the nature of LTE technology,and the delivery architecture is significantly different than anything deployed in the past. In this unit we review the principles of 4G deployment and the key risks and issues associated with 4G Deployment.			
Roaming - Voice Voice roaming continues to be a major source of revenue and profit for many carriers. Roaming voice technology is an extremely complex environment embodying significant SS7 signalling dependency and complicated partnership models in order to make them work.			
3G-GPRS While 3G data products have been with us for years, many operators have yet to master the fundamental issues of billing accuracy, packet accounting, GPRS systems assurance and profitablity management. Our 3G/GPRS workshops will help your team get aligned and tackle thiese critical financial disciplines and controls.			
Data Roaming While voice roaming and 3G/GPRS data are each complicated on their own. THe combined world of next generation data roaming is exponentially more complex. As the new generation of GRX, Wifi, EVDo , WIMax and other data roaming partners come on line, the ability to understand, and integrate data roaming into the rapidly expanding data roaming ecosystem becomes imperative.			
Satellite While one of the oldest transport mechanisms available, Satellite like so many other technologies has seen a resurgence of popularity as new bandwidths, technologies and capabilties make Satellite a key component of many operators technology footprint. .			
2G - Traditional Voice (GSM/CDMA/Wired) 2G traditional voice may be "old technology", but the issues that made it necessary to apply revenue assurance disciplines to the environment still apply. This unit provides and indepth review of moderns approaches to the classical 2G assurance challenges. .			
Fiber (to the x) The nature, and commercial applications of fiber technology including fiber to the home, to the node, to the building and to the business. Provisioning, billing, channel and margin risks and controls for Fiber is a big part of the modern operators assurance portfolio.			
Corporate Broadband (leased lines, fast ether, fiber corp) Corporate broadband sales represent a major source of revenues for many telcos, but the bespoke nature of the sales, deal making , fulfillment, billing and settlement processes make it especially subject to leakage and fraud risks. Learn about industry standard controls and procedures in this area.			
Interconnect (International, Domestic and Internet Data) Managing the set up, accounting and monitoring of interconnect and internet business partnerships represents one of the largest risk profiles and accounting controls challenges for the modern operator. This unit reviews the latest breakthroughs and apporaches to their management			

LINE OF BUSINESS - Part 1

DIfferent Lines of Business - Different Risks to Manage

Although understanding technologies and how they work is key to their assurance, it is the complex and eclectic nature of the different business models associated with these technologies that creates the real assurance challenge.

Line of Business Focus Area Please indicate those lines of business you would like your course to focus on. (Choose no more than 3 "top choices")	Top Choice	Nice to Know	Not Important
Plain Old Telephone Services (POTS) Still the main revenue producers for many operators, understanding the operational lifecycle for voice and text services is critical to the establishment of an effective assurance posture.			
OTT (Over the Top) For decades, providers like Pandora, YouTube and even Amazon have taken a "free ride" on the infrastructure provider by ICT operators leaving carriers will all of the responsiblity for quality and none of the beneift. The emerging world of OTT partnerships is changing that, but not without complex regulatory, customer perception and pricing issues, as well as a whole new category of assurance risks, issues and controls domains.			
M2M(Machine to Machine) The exciting new world of M2M provides operators with the chance to play a much more significant role in the provision of services to customers. Home security, fleet tracking and medical monitoring are only a small sampling of the new generation of M2M Vertical Services that carriers are providing, and the assurance, billing and security issues associated with these new models is extensive.			
IOT(Internet of Things) The "Internet of Things" is creating a whole new world of highly integrated applications, allowing "things" to interact with "things" without an human intervention. The IOT technologies and business models however are still in their infancy, and the risks associated with them can be great.			
VNO/MVNO/MNO There are currently over 1000 Virtual Network Operator licenses in the world today, and a dizzying assortment of MVNO, MNO and many other horizontally segmented business models are spreading across the marketplace. These xNO business models attempt to split the typically highly integrated operational / technology infrastructure of the operator into horizontal "slices" of responsiblity that interact, sharing resources and revenues while spreading risk. Protecting an organization from the "hidden" risks and liabilities inherent in these complex partnership models is a major concern for assurance professionals. .			
Triple Play (Internet/Broadcast/Voice) Triple play business models successfully leverage an existing infrastructure in order to optimize the offering of internet/broadcast and voice services to the customers. Billing and security triple play service offerings is far more complex than securing any one of them alone and this session provides professionals with the tools to assess and assure them all			
Broadcast (IP Streaming- Audio/Video) The new generation of IP Streaming technologies allow any operator with an IP infrastructure to broadcast radio, television and Pay Per services over their cable, fiber, satellite, WiFI, WIMAX or LTE Infrastructure. The interoperation of IP Streaming technologies with the distribution architecture and commercial offerings makes for a major job for the assurance team.			

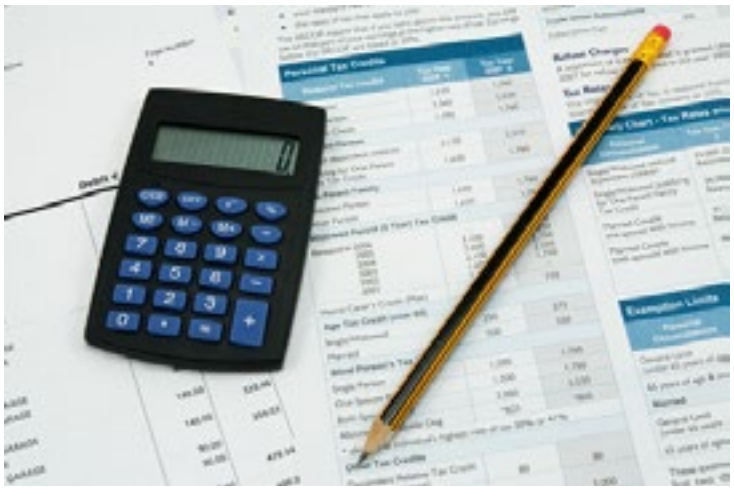
Line of Business - Focus Areas - Part 2

Our Line of Business sessions have been successfully used by CFOs, CEOs, and department managers to give everyone a newer, better understanding of their role in the capture, processing, and optimization of profits in these complex areas.

Line of Business Focus Areas- Part 2 Please indicate those lines of business you would like your course to focus on. (Choose no more than 3 "top choices")	Top Choice	Nice to Know	Not Important
Roaming (GSMA) The GSMA Roaming busiiness models includes partnerships with hundreds of roaming partners, a DCH and Hundreds of business checks and controls. Steering and data help make this a business cycle with a high risk profile and a great need for business assurance of all dimensions.			
Roaming- (WiFi) The new WBA based WiFI Data roaming ecosystem defines a new reality for many carriers. The use of the GRX and the new Digital and Financial clearing models create an environment requiring series assurance attention for anyone serious about pursuing the business model.			
ISP (Hosting website and email services) The new converged IP based infrastructure has seen many operators get into the Internet Utility business. Providing websites, hosting services and myriad other offerings to their subscribers, the assurance requirements of the typical ISP are many.			
Mobile Money Mobile money continues to grow and expand across many continents, and the regulatory requirements for assurance far surpass any controls envisions for a typical telecom system. The Mobile Money session allows assurance professionals to understand the special dimensions of risk that mobile money system create..			
Value Added Services (SMS/TXT Based) SMS value added services continue to represent substantial revenues for some providers. SMS based subscription services, SMS based advertising and TXT based triggers for third party applications are explained and the GRAPA framework for their assurance is detailed in this session.			
Internet Transit (Tier 1,2,3 - Wholesale Internet) The traditional incumbent telecom and a score of speciality providers are now competing to provide backend fast internet service to consumer facing data service providers. The business model , controls and financial controls issues for the wholesaler is far different than for a retailer, and in this session we detail the methods and framework for assurance.			
Leased Line, VPN and Virtual Circuits Keeping track of the costs and revenues for the typical dedicated connections business is complex. The different components of a typical "deal", the construction of a proposal, the components and revenue recognition issues and ultimately, the assured billing and monitoring of the services is the subject of this specialized section. .			

REVENUE MANAGEMENT : BUDGETING, REPORTING, RECOGNITION

Revenue Reporting Challenges



Reporting of revenues in a typical telecom, datacom, or broadcast operator is an incredibly complex series of challenges. From the capture of the actual revenue producing transactions, through the reporting and accounting for those numbers in the myriad different ways that management, financial controllers, departmental managers, and regulators need to see them is formidable.

Understanding all of the many different "faces" of revenue, and presenting it in a way that is consistent, verifiable, and reliable is a tall order. In this series of workshops and focus sessions, accountants, auditors, and managers get a chance to examine the many different sides to the revenue reporting job, and learn how to build better procedures, policies, and systems better enable the process.

Revenue Stream Analysis — The process of reporting revenue begins with a good understanding of the many different ways in which revenue and directly related expense data is collected, verified, compiled, and reported. This is known as the revenue stream analysis discipline.

Margin & Profit Analysis — Understanding which expenses are appropriately applied *directly* to a revenue item, and which expenses are to be accounted for as shared expenses is a big part of the revenue recognition discipline.

Pricing Disciplines and Marketing/Product Controls — No process is more critical to the accomplishment of profitablity and revenue accounting and reporting accuracy than the pricing lifecycle. It is the infusion of proper pricing rules into the billing system, sales programs, and product definitions that can make revenue reporting easy or impossible. It is this same discipline that assures management that the services being sold are generating a net profit to the business.

Profitablility and Margin Analysis — Ultimately, the job of every employee of the telecom is to work towards the generation of profit. Our training provides a framework that encourages everyone in the financial controls and reporting disciplines to learn exactly how their roles fit into the bigger profit picture and what they can do to accomplish that objective.

Revenue Reporting & Profitablity	Top Choice	Nice to Know	Not Important
Revenue Stream Analysis and Revenue Reporting These sessions focus on the systematic mapping of individual revenue streams all the way from the design of product, determination of revenue recognition mapping, transaction capture, processing, consolidation, and application to appropriate G/L accounts. The entire flow of revenues is mapped and understood in order to assure accurate revenue reporting at each stage.			
Business Intelligence Based Revenue Reporting The biggest challenge faced by anyone responsible for reporting revenues is securing accurate and reliable data. In these sessions, we explore the use of business intelligence techniques to create revenue reports that can be counted on and verified every time.			
Revenue Accounting Assurance Revenue accounting assurance is applied to help management assure revenue recognition, settlements, commissions, accounts payables, accounts receivables, and other areas where the integrity and auditability of a general ledger entry of payment amount is in question, or is under regulatory scrutiny.			
Margin and Profit Assurance Methods for assessement and assignment of appropriate costs and expenses to revenue items in order to generate reliable and *actionable* management revenue and profit reports for promotions, products, and lines of business.			
Pricing Lifecycle Management Best practices in the development of pricing models, and the building of price management lifecycles that assure profit, regulatory compliance, and operational trackability and reportabiliy.			
Revenue Recognition Assurance The new IFRS standards for revenue recognition leave many telecoms with a large gap between the way things are currently being done, and the ways they need to change in order to assure compliance. This section covers the topics of "what is revenue recognition" , "what are the current IFRS/GAAP standards and how can compliance be acheived.			

BILLING ASSURANCE FOCUS
Billing Past, Present and Future

Since 2007 GRAPA committees have worked with internal auditors, external auditors, Finance Officers and Rrevenue Assurance Managers from around the world, cataloging, organizing and systematizing the assurance of dozens of different areas within the operators billing infrastructure.

The following sessions provide students with a detailed review of the controls sets, checklists, process models, templates, registries, and other artifacts that make up the GRAPA Service Class control sets. The customization program encourages you to select those units of most interest.

Billing Assurance Topics Please indicate the Billing you would like your course to focus on. (Choose no more than 3 "top choices")	Top Choice	Nice to Know	Not Important
Prepaid Billing Assurance This unit reviews the GRAPA standard controls and methods for the containment of fraud and leakage risk in the prepaid billing area including the Traffic, Channel, Account, Rating and Balance controls domains.			
IP Billing (SNMP, Radius, Diameter, 95th%) This unit provides an overview and diagnosis of the GRAPA standard controls for the deployment and assurance of IP and data billing systems including radius, diameter, SNMP and 95th% billing models. How to bill DATA.			
Postpaid Billing Assurance This unit reviews the GRAPA standard controls for the running of the typical postpaid revenue stream including switch, mediation, daily and monthly billing cycle controls.			
Leased Line, CoLo, MPLS Billing Sales of dedicated services and facilities to major corporate entities is an eclectic mix of bespoke technology solutions and blling solutions combined with an incredibly complex set of risks and required controls. This unit provides students with an understanding of the structured approach to assuring these revenues.			
Package and Bundle Billing Packages and bundles represent some of the most successful service offerings made to customers, and also some of the most difficult to assure. This unit provides students with an overview of the issues and proven methods more management. .			
PCRF Under the new 3GPP standards, the entire billing infrastructure has been replaced, by a new generation of responsive, adaptable, agile Policy and Charging infrastructures. Deep Packet Inspection, QCI, TFT, PCRF, PCEF and a host of other approaches and standards and renovating the billing ecosystem. While designed to ease the migration from old to new technologies, these new approaches are extremely complicated , requiring Radio Access Engineers, Core Network Engineers, Marketing, Billing, Revenue Assurance, Finance and others to work together in order to get it to work right. Our PCRF workshops help you to ease the transition and clear the bottlenecks preventing your from making a rapid and smooth transition into the PCRF world.			
DPI DPI (Deep Packet Inspection) based billing systems are as controversial as they are powerful. This unit provides students with a focused review of how DPI systems work, and their strengths and weaknesses.			
Satellite / Cable - Broadcast Billing The Satellite and Cable Broadcast industries have developed a unique approach to billing all their own. The complex nature of bundles and offerings, and the different ways that subscriber provisioning is managed make this a complicated and critical area for assurance.			

ADVANCED NEXTGEN TECHNOLOGIES: SDN, NFV, 5G, HETNET

The Latest Technology Explained

The telecommunications industry is always in the process of innovating and advancing new and often revolutionary concepts and approaches. As a revenue assurance professional it is important to be aware of not only what is happening now, but the way that the industry and infrastructures will be changing in the future.

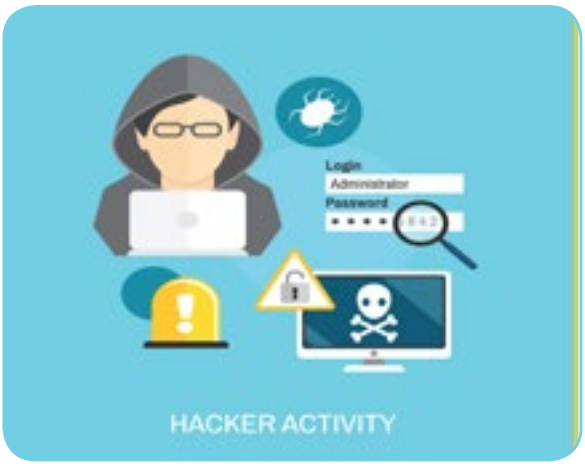
These innovative technologies are defining the future of our industry and the GRAPA briefings can help you understand where things are going, and what the implications of them are for the RA professional today.

Advanced NextGen	Top Choice	Nice to Know	Not Important
SDN An approach to computer networking that allows network administrators to manage network services through abstraction of lower-level functionality. SDN is meant to address the fact that the static architecture of traditional networks doesn't support the dynamic, scalable computing and storage needs of more modern computing environments such as data centers.			
NFV A network architecture concept that uses the technologies of IT virtualization to virtualize entire classes of network node functions into building blocks that may connect, or chain together, to create communication services.			
HetNet A heterogeneous network is a network connecting computers and other devices with different operating systems and/or protocols. From an architecture perspective, the HetNet can be viewed as encompassing conventional macro radio access network (RAN) functions, RAN transport capability, small cells and Wi-Fi functionality, that are increasingly being virtualized and delivered in an operational environment where span of control includes data center resources associated with compute, networking and storage.			
5G The proposed next telecommunications standards beyond the current 4G/IMT-Advanced standards. 5G planning aims at higher capacity than current 4G, allowing higher number of mobile broadband users per area unit, and allowing consumption of higher or unlimited data quantities in gigabyte per month and user.			
IMS An architectural framework for delivering IP multimedia services. Historically, mobile phones have provided voice call services over a switched-circuit-style network, rather than strictly over an IP packet-switched network.			
Wi-Fi Offloading (Mobile Data Offloading) The new IFRS standards for revenue recognition leave many telecoms with a large gap between the way things are currently being done, and the ways they need to change in order to assure compliance.			

Cyber Fraud Management

Managing the Fraud Risks Create by IP Services

Hacking & Phreaking attaining a new level of penetration



The NextGen telco provides fast access for customers. But not only is the service itself being delivered at faster speeds, the rate at which the telcos invent, develop and deploy them happens at a greater speed as well. There are telcos today that launch 400+ new rate plans and promotions in one month. Others schedule the launch of 20+ new product lines in a year.

Next Generation Technology with Last Generation Security

New technologies bring with them a whole new set of security vulnerabilities, but network engineers and product developers are focused on rapid launch and not on safety.

Cyber Criminals: An Open Invitation

The new technologies also bring with them a whole new generation of high tech criminals. Criminals that understand how to take advantage of the gaps that new technology developers leave in their systems and commercial agreements. IRSF, Simbox, Bypass, Premium Rate, PBX hack, and a whole new generation of hacks and frauds make the new age telecom a cyber criminal's playground.

Cyber Fraud and Cyber Risk Security Management	Top Choice	Nice to Know	Not Important
Fundamentals of Hacking & Phreaking Protection Hacking and freaking are the fundamental building blocks of an cyber fraud. This section provides students with an understanding and exposure to the different methods of physical and logical hacking of both Voice (SS7) and IP networks. .			
The Darknet Become familiar with the cyber black market world. Darknet websites house the majority of the worlds criminal and fraud activity. Considered the "AMAZON.COM" of the cyber fraudster. Learn about ONION Routers, Shared servers, botnets and the internet that no one is supposed to see.			
Social Engineering Enabled Frauds While pure I/T Hacks are possible, most truly effective frauds involve a combination of logical and physical hacks, and the employment of sophisticated social engineering techniques. This section provides a briefing on the employment of social engineering tactics to enable telecom cyber fraud scenarios.			
Denial of Service Attacks and their Detection/Prevention Telecoms is no stranger to Denial of Service (DOS) attacks. Fraudsters have employed Switch DOS, Router DOS and SS7 attacks for decades. Todays sophisticated cyber criminal knows how to employ, deploy and utilized Distributed Denial of Service attacks to disable key network control points and hack your top systems.			
Cyber Terrorism, Cyber Warfare and National Cyber Security Cyber terrorism is the latest tool to be added to the warfare arsenal of many countries, and telecoms fraud teams are expected to understand and be prepared to protect against and react to these different forms of specialized warfare/ fraud.			

New Product Development, Marketing and Pricing

Revenue Engineering :
The science of making money from products and services

The next generation of ICTs new product and service offerings are creating an exciting new world for businesses and customers on many different fronts. The profit potential that these offerings promise are tremendous. But these profits require a lot of work on the financial planning side. Mastering revenue assurance is a challenge that, as far as telecoms are concerned, requires everyone's attention.

Next generation products and services require CAPEX, OPEX and margin /subsidy issues to consider. Finance executives need to develop a new set of disciplines, approaches, reports and controls to manage these offerings for maximum profit. The maximum profit can only be acheived when an entire team is focused and aware of the best RA practices.

The GRAPA organization, in cooperation with innovative marketing, product development and business development managers around the world, has pioneered a number of innovative approaches to the establishment of financial controls and profit management disciplines for your team.

The following units offer some of the more effective areas covered and proven to be of great assistance to controllers and other finance specialists.

Revenue Engineering : Product Design, Pricing, Marketing	Top Choice	Nice to Know	Not Important
Pricing Disciplines & Econometrics This unit covers the fundamental concept of telecoms econometrics including the calculation and rationalization of CAPEX, OPEX, Subsidy and Bundling. The concepts of the invisible margin, the quantification of first market advantage, the need to avoid a 'capitalization crisis' and other concepts are reviewed and revealed as a systematic discipline			
Profit Assurance Profit assurance merges the disciplines associated with the containment of risk along the revenue dimension and converges it with an equally exhaustive set of controls for variable costs. This combination provides telecom managers with the most critical piece of information they need for effective decision making: How profitable is that decision?			
Revenue Recognition Management Current GAAP & IFRS Standards leave telecoms in a major bind when it comes to revenue recognition issues. In this course we cover current standards and review the emerging revised standards for IFRS compliance.			
Deal Assurance The Deal Assurance discipline provides the RA professional with the tools required to build proper controls over the deal making process, thereby helping management to make better, more risk-aware decisions.			
Network Asset (CAPEX) Assurance Network asset assurance applies the revenue earning capacity of an asset to the process of determining the ROI or other rationalization assessment necessary to make an investment decision. This discipline employs risk, revenue, cost and margin controls to the analysis of CAPEX decisions, to support management's decision-making process.			
New Product Development Assurance No process within the modern telecom hosts more risk to the future of the company than new product development. This unit reviews the risk inherent in this process and the industry standard controls that help manage that risk.			
New Promotions and Rate Plan Assurance The rate at which telecoms launch new rate plans and promotions is increasing exponentially. This unit explores the controls associated with the optimization of promotion and rate plan design and deployment, and addresses the critical issues of revenue recognition			

Partnership Management: NextGen & PastGen

Partnerships : Increased revenue - Increased Risk

Managing partnerships - Lessons learned - Key Issues to Consider

The next generation of telecommunictions providers are going to be more dependent than ever on partnerships in order to gain competitive advantage and to open new profitable markets. For this reason, the ability of the finanical controls organization and RA team to understand, monitor, implement appropriate controls and in other ways assist management in the attainment of newer revenues is going to be a core need for the next gen professional.

The new world of IMS, VOLTE, VOLGA, and partner revenue share based opportunities will challenge iI/T Billing and Revenue Assurance teams in ways never before imagined.

Non-traditional technologies and services require non-traditional revenue share models, and the team that can figure out how to win at this game will come out ahead in the long run.

Partnership Management & Operations Assurance	Top Choice	Nice to Know	Not Important
OTT Partnership Management Working with OTT's in symbiotic and mutually beneficial arrangements is one of the first lines of defense against OTT revenue drainage. In this section students will review the way OTT partnerships are conceived and executed. .			
M2M Partnership Management In many cases, carriers have come to recognize the revenue generating power of M2M offerings, but building cooperative models where both parties win can be exceedingly challenging.			
Voice GSM Roaming The traditional Voice GSM roaming agreement has become the cornerstone of revenue success for many carriers. Students will learn about HUR, NRT and the many different aspects of Steering and Pilotiing partnerships.			
Data GSM Roaming Data roaming under existing GSM roaming agreements has opened a lot of opportunities for carriers to expand their markets and drive customer loyalty. Data GSM agreements are far from simple or automatic and this section covers these issues.			
WiFI Data Roaming The WiFi Broadband Alliance has created an entirely new, different and competitive data roaming environment for carriers to consider In this section we examine the trend and highlight the pitfalls and benefits of such agreements.			
Interconnect Partner Management Still the mainstay of many mobile and wired carriers, the Interconnect partnership requires a specialized set of skills, controls and protections which are covered in this section.			
PBX Contractor Management One of the most prolific of the B2B corporate services offerings, PBX contractors bring the risk of many different operational, billing and fraud risks that may not be anticipated in your environment.			
Managing Video Content Providers Delivering IPTV and Streaming Video content to customers requires the carrier to establish new and untested partnerships with video content providers. In this section we review the business models, controls and risk associated with these partnerships.			
Managing Outsourcing & Cloud Services The outsourcing of network, I/T and cloud services is one of the major growth dimensions for next gen operations. This section reviews these unique and often risky relationships and their management.			

Online Credit, Debit and other Financial Services

The emerging world of NextGen Monetary Systems

Mobile banking, PCI, and other Mobile/Fixed line money management

Faster connectivity, new technologies and innovative business models are stimulating thousands of retailers, banks and even utilitty and tax agencies to overhaul traditional processes and become more open to change.

This industry-wide transformation is making the payment, credit and debit experience more personal and fulfilling for customers and enabling retailers, banks and other financial institutions to respond faster to changing market trends “The tools that provide the most value to vendors also make the experience better for the customer and add value to the relationship.”

Hundreds of carriers around the world are experimenting with dozens of new and interesting online payment, debit, loan and other types of financial management systems. In some countries these new systems have become major revenue producing exercises, in others, a major source of revenue loss and fraud risk.

In all cases carriers are understanding that financial services is still a largely untapped and critical "growth area" to be explored and exploited.

Online Payment, Debit and Financial Management	Top Choice	Nice to Know	Not Important
Mobile Money Systems M-Pesa, G-Cash and dozens of other "online banking systems" have taken the industry by storm in many countries. For the first time, people in markets with no previous finanical services infrastructure are rocketed into the 21st century through the presence of these powerful and popular applications. But Mobile Money systems are real BANKS on Networks, which means that the finanical controls and due diligence required to make them work is critical and exhaustive.			
Credit Card Processing and PCI Compliance Payment card industry (PCI) compliance is adherence to a set of specific security standards that were developed to protect card information during and after a financial transaction. PCI compliance is required by all card brands. There are six main requirements for PCI compliance and any carrier that accepts credit card payment over their network, or who support customers provide these services must understand and comply with these standards. This course provides an overview of CC processing and PCI Compliance.			
EMV Systems EMV, is the global standard for Integrated Circuit Cards (ICC), which is an open-standard set of specifications for smart card payments and acceptance devices. EMV, or Chip-and-PIN cards, feature a chip that stores a cryptogram that allows banks to determine if the card or the transaction has been modified. The chip also stores a counter that gets incremented with each transaction to make sure that there are no duplicate or skipped counter values that indicate potential fraudulent activities.			
NFC Systems Near Field Communication (NFC) technology has been integrated into more and more mobile devices in recent years, meaning instances of mobile contactless payments are continuing to grow as more retailers accept mobile payments in-store. However, with new financial technologies come new ways for criminals to potentially defraud both businesses and consumers.			
Carrier Partner Billing Programs (Prepaid & Postpaid) Dozens of online retailers have started to partner with carriers in order to integrate the carriers prepaid and postpaid billing relationships with customers to vendor sales events. In this course we review carrier payment systems and their relationships with nextgen vendors.			

Traditional Telecoms Fraud

Fraud Mitigation Skills and Approaches

Protecting revenues from the #1 source of loss - FRAUDSTERS

Since the earliest days of telecoms, fraud has been a major source of risk and revenue loss. Over the years, many best practices in how best to protect the company from fraud have been delivered.

The following sections highlight key issues, and allow the sponsor to specify those fraud coverage areas most critical to their organization and most important for this training and certification event.

Very Much	Neutral	Not At All	High-Level Fraud Issues
			Are you dissastisfied with the current level of fraud awareness and containment?
			Are you unhappy with how often you are a victim of frauds you did not previously know about or were not protecting against?
			Are financial/accounting frauds committed by key employees a significant concern?
			Are you concerned about the ability of your team to recognize, address, prevent and detect accounting frauds in Accounts Payable, Accounts Receivable, Procurement, Sales, Inventory Management and other areas?
			Are you concerned about your oranization's vunerability to frauds in the next generation technology areas of Internet, ISP, WiFi, WiMAX, LTE, UMTS, GPRS, Cloud and others?
			Are you confident that your LAN, WAN and corporate campus systems are secure and protected? Are you aware of the fraud techniques utilized in these areas?
			Are technical frauds committed by employees / consultants a significant concern?
			Do you suspect your corporate sales teams are committing fraud?
			Do you face issues prosecuting or punishing known fraudsters - either outside professionals or employees?
			Other - Please Explain:

			Fraud Prevention Skill Sets
			Fraud Management Systems skills development
			Customer Behavior and Account Management monitoring and controls (customer profiling for bad debt and fraud risk)
			Predictive modeling for fraud/credit
			Expansion of accounting controls skills for network, billing, credit, and customer management

Are you dissatisfied with the practice and implementation of:

			Risk Mitigation Controls (e.g. credit checking, new product /pricing plan controls, segregation of duties, etc.)
			Independent Verification Controls (e.g. Secret Shopper, Benford's Law analysis, surprise audits, back-door system access, etc.)
			Logical and Physical Security Controls (e.g. AAA enforcement, access controls, audit trail monitoring, etc.)
			Deterrent Controls (e.g. criminal investigation /prosecution, fraud education, Code of Ethics enforcement, etc.)
			Other (please explain):

Fraud Management Specific Issues

Very Much	Neutral	Not At All	Partner Fraud Issues
			Are interconnect bypass/SIMBox attacks a significatnt fraud concern?
			Do you suspect your interconnect, roaming, DCH, or content partners are defrauding you?
			Are you concerned about Content Frauds involving SMS, Text, Movie, Video, and other media?
			Are premium rate frauds (incluing IRSF, or international revenue share fraud) a significant concern?
			Are you sales channel partners a significant fraud concern (commission frauds, inventory theft, etc.)? Are you concerned with frauds related to top-up, SIMs, consumer premise equipment (handsets, dongles, routers) and other channel assets?
			Do you suspect your vendors or outsourcing partners are defrauding you?
			Other (please explain):

			Fraud Management System Issues
			Do you believe your Fraud Management System is not being used to detect as many frauds as you would like?
			Do you think your Fraud Management System is generating too many alarms or is not being used efficiently and effectively?
			Are you concerned that the rules loaded into your FMS are properly configured and executed? Do you wish to see a serious improvement in FMS rules utilization or reassurance that rules management is being done properly?
			Are your concerned about, do you need assistance with the preparation of RFPs, the selection of FMS or the utilization of FMS effectively?
			Other (please explain):

			Security Related Fraud Issues
			Is physical and logical security a significant fraud concern /vulnerability for your telco?
			Are there fraudsters stealing service due to network and IT security problems?

Are you dissatisfied with the level of LOGICAL security control over the following?

			I/T – BSS systems
			New products and services
			Billing systems and revenue streams integrity
			Credit card and bank transfers
			Provisioning and activation security
			Network – OSS environment
			Web interfaces, gateways and other IP vulnerabilities
			Point of Sale security, cash /credit handling, POS frauds
			Other (please explain):

Why We Are Leaders in Training
Telco Professionals Around the Globe

Join the leading provider of fraud-focused certification training events. Featuring exclusive presentations, real-world examples of procedures, solutions, and strategies that have effectively reduced fraud issues for telcos around the world.

After three years of providing best-in-class certification and training workshops to hundreds of telecoms risk professionals around the globe, we are pleased to announce our improved course offering.

- **Depth of knowledge**
  The topics and examples are “narrow and deep” rather than broad and vague, presenting you with focused, highly targeted information that adds real value.

- **Tailored content**
  Training is adjusted to align the needs of the students to the available material. Students are asked to fill out “GRAPA Benchmark Surveys” to determine the level and nature of the training required. The survey results help us determine how well you know your own systems, and provide clues about what you need help with. The principles and practices taught are also applied to cable, satellite, wireless voice, SMS, MMS, IPTV, and MMDS with equal conviction, detail, and effectiveness.

- **Relevancy**
  Class material is based on the foundations of GRAPA. GRAPA members from every geography, type of carrier, major type of technology, and carriers of all sizes review and approve these standard approaches. The material serves as the foundation for an industry standard approach that is applicable to everyone, and yet easily focused to the needs of specific sub audiences.

- **Based on real-world situations**
  The majority of the training is experience based “standard practices” in revenue assurance, harvested from the many revenue assurance professionals who participate in “practices surveys,” “strategy sessions,” and other information-sharing events. Clear, specific deliverable are provided that apply to real-world situations. The material is never based on speculation, guesses, or invalidated information.

- **Interactive**
  The workshops are more than lecture sessions. RAA classes are participative and interactive and students are expected to pro actively join in discussions, problem solve, and fill out benchmarks. Attendees have opportunity for much interaction with the instructor and other students. Lunch and breaks are devised to facilitate more intimate conversation.

- **Professional development**
  Students master vocabulary needed for creating a sense of professional identity and opportunities with other like minded people in the industry that share common goals and issues.

Rob Mattison is a world-renowned expert in telecommunications and the revenue assurance industry. He has 20+ years of hands-on industry experience. Rob is President of GRAPA and author of “The Revenue Assurance Standards - 2009 Edition,” and of “The Telco Revenue Assurance Handbook“ which has become the authoritative guide for RA Managers at telecoms firms around the world.

About GRAPA

The Global Revenue Assurance Professionals Association (GRAPA) is a professional association, dedicated to the professionalization and support of telecommunications revenue assurance, financial controls and fraud management professionals around the world.

GRAPA was created to serve the interests of telecommunications, data communications and broadcast professionals engaged in the design, delivery, and governance of financial controls, revenue recognition profit assurance, fraud containment, risk management and audit of telecommunications revenue streams and approaches throughout the world. GRAPA does this through the development, formalization and promotion of professional practices; development, creation and promotion of innovative, new and more efficient methodologies; and the standardization, training and certification of those skills, methodologies and approaches.

Telco executives rave about the courses!

"I found the course very informative and I believe it is an essential part of any person's training wanting to enter the telco industry. I believe that senior level management will find the course to be excellent in order to assist them in understanding their business on a higher level as well as their respective departments."

-William McDonald Spence, Business Analyst

"This is obviously the most comprehensive and structured Revenue Assurance training available. The instructors are deeply knowledgeable with unique presentation styles flowing from years of experience, focused research and global industry interactions. It has certainly validated a lot of our current methodologies and provided direction for others. Overall, the training has helped me put the various bits and pieces of Revenue Assurance information in context."

-Olanrewaju Yusuf, Senior Manager Revenue Assurance

"Although many of the items were familiar, it was good to know that we, as an RA Department, are working on the correct things and moving in the right direction. I will also be taking away a number of new things that we can look at and perform and change the way we look at certain things. This course has definitely added value for me. I wish I had done this course years ago. It will definitely not only benefit anyone working in RA but also people working in other areas of the business."

-Andre Viljoen, Principal Specialist: Revenue Assurance

"When I decided to attend the RA Foundations course with my RA team, I thought I would only be there to coach them and that the Foundations course was not for me. Only after starting the first sessions did I realized that this course was not just refreshing our knowledge but, in addition, started to enlighten us towards some misconceptions about RA."

-Mohamad Kahi, Sr. RA & Fraud Management Manager