Revenue Assurance Certification

CPRA - Certified Professional Revenue Assurance Analyst

Online Live • On Demand • Regional Events • Onsites

40 Hour Program - 4 Ways to Certify
Over 2000 certified since 2007

Certification Programs for Revenue Assurance Professionals in the Telecoms, DataComs, Satellite, Cable & related industries
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GRAPA Certification Offers Worldwide Recognition

The GRAPA – School of Revenue Assurance is the continuation of our original Revenue Assurance Academy. The this school provides the revenue assurance professional with the opportunity to gain access to an extensive catalog of Revenue Assurance best practices, latest methodologies and standards based approaches to the ever expanding, and ever more complicated world of the RA professional.

This School allows professionals to take specific short courses to focus on specific topics, while at the same time making our extensive catalog of intermediate and advanced Masters, Manager and Specialist programs available via the online, public regional event, or corporate onsite approach.

GRAPA has offered certification for Telecommunications professionals since the beginning of 2009. The publication of GRAPA’s ratified standards document for 2009, The Revenue Assurance Standards 2009 - included a comprehensive Body of Knowledge spelling out the charter and scope of the Revenue Assurance function as practiced by our global membership. Since then, GRAPA has offered certification in line with those Standards and that Body of Knowledge.

This standards-based approach is developed using a rigorous and ongoing review process that collects and distills the latest, most up-to-date and effective practices currently implemented by telcos of all types and sizes around the world. Because GRAPA’s certification is based on professional principles and an in-depth standards-driven methodology, GRAPA’s certified professionals are able to apply their skills not just to environments where they have personal experience, but across a variety of situations to address whatever new and unique problems they encounter. This is an absolute necessity in an industry where new business models and technologies are producing continuous upheaval and disruptive change.

GRAPA’s certifications require intense and exhaustive continuous education and a stringent set of examinations and verification of relevant work experience, so they can provide management with a credible assurance of skills and ability. Management knows that by utilizing certified professionals, not only are their team members trained and tested according to a uniform understanding of their profession, but they can apply those skills in real-world situations.

In the breadth and segmentation of GRAPA’s certifications, professionals and organizations can be assured that not only does GRAPA offer a 360° view of telecoms operations and revenues to those it certifies, but it is also able to offer that perspective at levels appropriate to the aptitude, ability and experience of those who seek certification – whether they are National Regulators, CFOs, Internal Auditors, Revenue Assurance Managers, those with intermediate experience in telecoms, as well as those who are new or just starting out in Revenue Assurance or Telecoms Fraud.
US is wrong - chicago, miami and vegas
Certified Practitioner of Revenue Assurance (CP-RA)

GRAPA’s intermediate level certification focuses on a practical, hands-on, standards based approach to Revenue Assurance. For practitioners performing the Revenue Assurance function on a day-to-day basis, this is an essential program of training and credentialization. It provides Revenue Assurance team members with the framework and techniques, as well as badly needed professional stature, required for practitioners to be successful within their organizations – enabling and motivating them to effectively pursue revenue risk wherever it can be found.

What Does Certification Offer?

Those who certify will not only have a firm and fundamental grasp of GRAPA’s standards, as well as GRAPA’s standard controls across all telco domains and lines of business, they will also be able to implement that understanding towards the effective containment of revenue risk. Achievement of this certification, therefore, allows for a clear means of gaining professional status and confidence, allowing for accelerated professional development within your organization.

Because the certification is structured to be comprehensive, it provides a detailed overview of Revenue Assurance issues and solutions from across the spectrum of telecoms businesses and addresses the appropriateness of controls for telcos of various sizes and situations. This allows professionals to return to their organizations with lessons learned by other telcos for implementation in their (often unique) operating environment.

This approach ensures that certified professionals are rationalized in their approach, putting in place the appropriate level of controls to minimize risk, without resorting to needless redundancy that wastes budget and resources.

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Four Options for Training Available at Your Convenience

Telecommunications professionals are extremely busy, and putting the time and resources necessary to attain a forty hour certification is never easy. Over the years, GRAPA has developed a number of different ways that students can certify to help meet these different requirements. Each of these options includes the same forty hours of prerequisite training based upon the GRAPA Body of Knowledge. Each requires the same training and experience verification. Employers can be assured that no matter how the student attained the certification, the same high level of standards have been met.

Regional Events
By far the most popular training option is the GRAPA Regional Event. These live, face to face, one week certification events are held in different major cities around the world several times a year. Students are able to enjoy the luxury of being away from work to focus on the material. They also have the ability to become acquainted with like-minded professionals from all over the world.

Onsite Events
For those organizations that desire to certify a large number of people at the same time, or for situations where management wants to use GRAPA Training and Certification to bring recognition to the entire organization, the customized onsite option proves highly effective. Anchored upon the same principles and best practices transfer as the other certification options, the onsite event allows management to streamline and customize in order to accomplish their own specific strategic and operational objectives. It provides the team with the benefits of best practices transfer and organizational synergy that are the hallmark of GRAPA certification wherever it is implemented.

Online Live
For people who are unable to get away from home or the office but still want individual teacher interaction, the GRAPA Online Live training is the perfect choice. Held for four hours per day, over a two week period, these live classes cover the same materials at a slightly slower pace. While receiving the same benefits of in-person training and fellow students, live training would still allow a half day of work and spending the night at home.

OnDemand
Critical project deadlines, commitments and the typical chaos of working in a telecom can make fitting scheduled classes into your routine impossible. For those professionals, GRAPA has developed the OnDemand training option. The OnDemand program provides students with the opportunity to attain certification whenever they can find the time. OnDemand uses the same forty hours of training material, pre-recorded and available for review twenty-four hours a day in the interactive Learning Management System environment.
Telecoms represent some of the most hectic, technically complex and challenging environments to work in. GRAPA’s intensive forty hour certification program has been designed to maximize the professionals’ time by providing them with an intensive five day period of best practices in a wide variety of different topics and disciplines.

GRAPA training provides more than just “tips and tricks” and more than simple “how to” guidelines. It tackles tough issues such as:
- Prioritizing efforts and organizing work for the best effect
- “Partnering” with professionals from network, I/T, Finance and Operations in order to get the results needed
- Clear and organized communication with management and co-workers

STARTED IN 2007–Over 1000 students have certified through the Regional Event Program

Benefits of Regional Events
- Travel
- Chance to Focus
- Networking with Peers

Best Fit
Regional events work well for professionals who:
- Have an available training budget
- Have time available
- New to telecoms or revenue assurance
- Interested in expanding an understanding of RA to include areas in which they have yet had a chance to work
- Managers, CFO, Auditors or others hoping to acquire a comprehensive understanding of what RA is about, how to manage it, and how to fit it into an existing organization
- Interested in meeting with and networking with other professionals from other countries
- Interested in discussing common challenges with other RA professionals
- Learn best in a live, interactive environment, away from usual work and home distractions

Customization Options
GRAPA Regional Events bring professionals from many different countries and lines of business together in order to share common approaches and experiences. For this reason, the curriculum will be built choosing ten of fourteen available Body of Knowledge units. The emphasis in the classroom will be based upon both a series of student interest surveys conducted before the training begins and the direction provided by the class during the daily sessions.

Certification Requirements
Students must attend and participate in the forty hours of training (no texting or “working on the side” during class). They must pass the final exam and provide proof of the experience and effectiveness in the practice of revenue assurance.

COST: Pricing starts at $3900 (before discounts) for training, snacks and lunch. Travel and hotel accommodations are NOT INCLUDED.

For a list of currently scheduled events visit: www.grapa-regional-events.com
Online Live

Family responsibilities, budget restrictions, work commitments and busy schedules make it difficult for many professionals to attend a GRAPA Regional Event. In response to the demand for an alternative, GRAPA began offering Live Online Training.

The Online Live program features the same curriculum offered at the regional events, but is delivered via the interactive online classroom. Based upon the GoToMeeting/GoToTraining application, the online classroom events make it possible for people to ask questions, contribute ideas and hear from other students while never leaving the comfort of the workplace.

STARTED IN 2009–Over 500 students have certified through Onlive Live Training

Benefits of Online Live Training

• No Travel
• Ability to keep home and work commitments
• Still have a chance to focus
• Teacher interaction
• Networking with peers

Best Fit

Online Events work best for professionals who:
- Can be available for four hours per day for two weeks
- Have a reliable laptop computer, a headset, a microphone and a camera
- Have a good (at least 1Mbps) internet speed
- Interested in networking with other professionals from other countries
- Comfortable in an e-learning environment
- Interested in learning the fundamentals of RA, hearing of the latest best practices from other carriers and putting work into perspective

Customization Options

GRAPA Regional Events bring professionals from many different countries and lines of business together in order to share common approaches and experiences. For this reason, the curriculum will be built choosing ten of fourteen available Body of Knowledge units. The emphasis in the classroom will be based upon both a series of student interest surveys conducted before the training begins and the direction provided by the class during the daily sessions.

Certification Requirements

Students must attend and participate in the forty hours of training (no texting or “working on the side” during class). Hourly live “check-ins” and “camera checks” will be conducted randomly during the training times. They must pass the final exam and provide proof of the experience and effectiveness in the practice of revenue assurance.

COST: Pricing starts at $2500 for one student, but volume discounts for multiple students can bring the price down to $1000 per student. Price covers the online classes, testing and work verification.

For a list of currently scheduled events visit: www.grapa-online-academy.com
If time management is your biggest challenge, training can be especially challenging. Some people find that they go through periods of too much odd free time on their hands; others find their schedules are chaotic with sporadic open hours but no regular pattern. In these cases, training must be available whenever time does not have an advance notification.

That is exactly how the GRAPA OnDemand program works. Students are given access to the GRAPA Online Learning Management System. This system organizes the curriculum into the same units, lectures and tests as the live events but with convenient availability on the internet. The handy “speed up” and “slow down” functions also let you set your own pace for watching the lectures. The regularly scheduled teacher conferences offer the chance to speak with the teacher and get the answers to any questions.

LAUNCHED IN 2015–Over 100 students have certified through OnDemand Training

Benefits of OnDemand Training
• Training available whenever YOU HAVE THE TIME
• You can watch lectures as many times as you want.
• Additional quizzes, knowledge checks and games to reinforce the knowledge learned.
• Live online teacher interactions for any problem areas faced

Best Fit
OnDemand Events work best for professionals who:
- Have interest in limited subject areas
- Want a best practices refresher course
- Cannot commit to a training schedule
- Have less than optimal internet speed
- Have self discipline and can meet their own time management and learning objectives
- Struggle with the English language and would like to listen to lectures at a slower pace
- Need more time to cover the material

Customization Options
GRAPA Regional Events bring professionals from many different countries and lines of business together in order to share common approaches and experiences. For this reason, the curriculum will be built choosing ten of fourteen available Body of Knowledge units. The emphasis in the classroom will be based upon both a series of student interest surveys conducted before the training begins and the direction provided by the class during the daily sessions.

Certification Requirements
Students must participate in the forty hours of training (10 four hour units). They are required to make a commitment to complete a certain amount a training each month. They must pass the final exam and provide proof of the experience and effectiveness in the practice of revenue assurance.

COST: Price varies depending on the program requested.
For a list of currently scheduled events visit: www.grapa-ondemand.com
Sometimes training one or two people is not enough! Some organizations decide that they need training for the entire team or they want people from different departments to come together to learn the same things at the same time. In either situation, GRAPA Onsite events can get the job done.

Training large groups for maximum effect and minimum cost!

GRAPA's unique onsite pricing model makes onsite training extremely attractive and useful.

**Low Cost Per Student:** Companies can contract for a week of certification training at their location and put as many people as desired (up to 30) into the room for no additional fee. This method will deliver the absolute best cost per student training available in the market today.

**Customized to Meet your Tactical and Strategic Requirements:** While GRAPA certification will require that certain materials be covered for any training event, your company gains the benefit of focusing the training on those areas most critical to your current business objectives. Programs have been customized to address the needs of the Revenue Assurance team itself:

1. Revenue Assurance department QUICK-START (for new RA Departments)
2. “Raising the Bar” in revenue assurance team practices
3. Revenue Assurance Team Assessment
4. C-Level Alignment of Revenue Assurance

STARTED IN 2007–Over 800 students have certified through Onsite Events

**Benefits of Onsite Training**

- Best price per student value
- Completely customized to meet management’s objectives
- Best method available to break down organizational barriers and get people from each department to work together to eliminate leakage and other risks to revenue

**Disadvantages:** Difficult to make everyone available for the same week - Not always possible to get the buy-in needed

**Best Fit**

Onsite Events work best for companies that:

- Have a large number of people to teach at one time
- Have challenges in the areas of organizational synergy and cross-functional cooperation
- Face challenges with new technologies, new procedures or difficult organizational mis-alignment

**Customization Options**

GRAPA Onsite programs are designed according to the organization’s responses to the GRAPA surveys.

**Certification Requirements**

Students must participate in the forty hours of training in alignment with the fourteen units specified. Material can be customized to meet the requirements of management. Additional training may be required in order to attain a specialized certification if the management dictated curriculum is too diverse.

**COST:** Onsite events are not charged per student. Approximately $25,000 includes the forty hour training with materials and testing.
RAF001 - An Introduction to Standards-Based Revenue Assurance
Introduction and overview of GRAPA’s proven standards-based approach to the professional practice of RA, adopted by hundreds of carriers around the world. Also introduces the RA Lifecycle, Principles, Practices, Methodologies, and Objective Controls along with a Compliance based approach to the scientific practice of Revenue Assurance.

RAF101 - RA Domains, Governance, and Scope
Assuring the networks and billing systems associated with voice services (PSTN). Students are introduced to the terminology and concepts of circuit switch network assurance from a commercial and controls perspective, as well as industry standard practice in the management and assurance of postpaid and prepaid voice billing systems.

VNA001 - Consumer Voice Network Assurance
Wireless broadband services have surpassed voice networks as the number one source of revenues for telecoms around the world. But now that they are here, it is time for billing, finance and assurance teams to verify that all of the revenues earned are in fact being collected. This course provides telecoms professionals with the principles of service and policy billing systems and their assurance.

VNB001 - Voice Network Billing Assurance
Assurance of networks and services associated with interconnect (inter-carrier, wholesale services). Students are introduced to the terminology, business protocols, and key controls associated with the understanding and protection of interconnect revenues, Identification and containment of fraud and leakage risk. (Bypass Fraud, Carrier Fraud, Settlement Leakage, Margin Protection and more).

DNA001 - Data Network Assurance
Assurance of the networks and services associated with roaming (GSM & data roaming). Students learn the terminology, business protocols, and key controls associated with the understanding and protection of interconnect revenues, Identification and containment of fraud and leakage risk.

NGM001 - Multi Gen Mobile Assurance
The future of telecoms clearly rests in a big way on how GSM advances. The ITU 2000 roadmap spells out how mobile networks can move from 2G to 3G to 4G and beyond. In this unit, students will learn about the 2G/3G/4G migration and the key network controls and billing and policy enforcement issues that doing RA in the NextGen Mobile world creates.

NGB001 - Multi Gen Consumer Broadband Assurance
In this course we proved fixed and mobile professionals with an understanding and a roadmap that shows how their networks are getting from where they were (2G – POTS- ADSL) to where they are going – IMS, MPLS, HETNETs and beyond.

ICO001 - Wholesale Consumer Voice (Interconnect) Assurance
Assurance of points of sale, sales channels, and provisioning of telecoms products and services. Challenges of securing cash revenues, logistics mgmt cycle for prepaid top up cards and ebalance systems, and standard controls for provisioning, HLR/IN synch, HLR/PPB synch, A.Number services tables, and other major CRM and service provisioning leakage risks and controls domains.

ROM001 - Consumer Voice (GSM) Roaming Assurance
Overview of assuring financial systems and controls related directly to revenue management, including revenue recognition, revenue accounting, audit of revenue management switches and systems, and the overall Controls Inventory and discipline developed and advocated by GRAPA members.

BCK001 - Backhaul Assurance
The assurance of revenues requires the RA, Fraud and Finance professional to understand the many different ways that internet access and IP transport occur. This course provides the student with the multi-dimensional world of wholesales data, data roaming, and corporate services assurance.

NGS001 - NextGen Services Assurance
This course is designed to provide billing and assurance professionals with a comprehensive guide to the design, assurance and audit of data roaming environments. Key controls and the roles of DCH, GRX and other roaming exchange models are considered. Standard controls for the environment are highlighted.

ADM001 - Administrative Assurance Domains
This course is designed to provide billing and assurance professionals with a comprehensive guide to the design, assurance and audit of data roaming environments. Key controls and the roles of DCH, GRX and other roaming exchange models are considered. Standard controls for the environment are highlighted.

REN001 - Revenue Engineering
This course is designed to provide billing and assurance professionals with a comprehensive guide to the design, assurance and audit of data roaming environments. Key controls and the roles of DCH, GRX and other roaming exchange models are considered. Standard controls for the environment are highlighted.

RAC001 - Revenue Assurance Controls
In this course, students will be provided with an extensive review of the end to end controls mapping framework for voice, data, broadcast and next gen networks. Students will learn about the revenue mapping discipline, the applications of scoring to controls and how to attain and end to end assurance framework for all of the standard network configurations.
Overview

Identified as one of the growth career paths for telecoms professionals, this course provides the student with an overview and introduction to the standards-based practice of revenue assurance in the telecom.

LTE, wireless broadband, and the exciting frontiers of M2M, cloud and other new business models are revolutionizing the telecom industry. These services are reshaping the core of the industry and the nature of commerce and socialization in the 21st Century.

One of the side effects of this evolution was the creation of a new type of professional: part network engineer, part marketing innovator, part accountant and part psychologist/socialist. The revenue assurance professional is one of the key contributors to the success of the next generation of telecoms products and services.

In this fundamental course, we introduce the student to the exciting and ever challenging world of the revenue assurance professional and to the disciplines, methods, governance models, and tools that make them successful.

Learning Objectives

Students will learn the history of the revenue assurance profession and the different methodologies, principles and approaches to problem solving that successful practitioners employ to make sense of the chaos that is the modern telecoms organization, and how to make a career for themselves in this fast paced, ever changing environment.

Key Concepts

- The Revenue Assurance Lifecycle
- Definition and application of industry standard controls
- Revenue Mapping and Controls Scoring Disciplines
- Principles of the professional practice of RA
- The Governance framework of the RA practitioner
- Role of the RA Professional as part of the Finance, Risk Management and Executive management team
- Definition of the RA team’s different roles
- Career path for an RA Practitioner

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Overview

Legacy voice, GSM, and CDMA networks are still the most significant revenue sources for most telecommunications companies.

In this course, students learn about the history, principles of operation, and key control areas of standards-based revenue assurance. This knowledge is required to do an adequate job of understanding, mapping, and establishing proper security within the standard wireline, GSM, and CDMA environment.

Learning Objectives

Students learn the principles of AAA (Authentication, Authorization and Accounting) and understand how these commercial requirements are integrated into typical voice network infrastructure. They then learn about the standard controls and methods for assuring the commercial integrity of these businesses from the customer’s handset through the radio towers, network elements, and switches, all the way into the postpaid and prepaid billing systems that make them profitable. A comprehensive review of the end-to-end revenue cycle for voice networks.

Key Concepts

- AAA (Authentication, Authorization and Accounting) for Voice Networks
- Key commercial controls issues for voice network environments
- Fundamentals of Topology, Network Element integrity, and Referential Integrity controls for voice networks
- The role of the RA professional in the assurance of voice network environments.
- The Role of the RA Professional as part of the Finance, Risk Management and Executive management team

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Overview
The wireless broadband revolution is changing the face of telecommunications. The very nature of interpersonal relations, and of commercial business models, is changing at a frantic rate. And telco billing, finance and revenue assurance professionals are rising to the challenge.

These new paradigms are creating an entirely new way to track and bill customers, not for who they call, but for what they do.

The generation of policy- and charging-based services has created a new environment for billing professionals to deal with.

In this course, students will be introduced to the fundamentals of policy- and charging-based services and billing systems.

Learning Objectives
Students learn how each of the major new policies and charging systems work, how they are appropriately configured, secured, assured, and audited.

Students will be introduced to the operating principles, (steering, duration, volume, bandwidth, destination, service level) architectural components (PCEF, PCRF, PDNGW, SGSN, GGSN, BRA, HSS, and others) and the underlying Internet (IOS) and GSM (3GPP) standards that define the proper operational parameters.

Learn how to verify that your network engineers have configured the environment correctly. Learn how to implement industry standard controls for these environments.

Key Concepts
- Principles of billing, assurance, service configuration, and the commercial integrity of:
  - PCRF Billing and Service Configuration
  - DPI Billing and Service Configuration
  - Diameter Billing and Service Configuration
  - How to verify that your network engineers have configured the billing and service environment according to standards
  - How to verify that you are not losing money from PCRF, DPI, AAA, Diameter and other policy- and charging-based architectures
  - Industry standard audits, controls, and checklists for PCRF, DPI, AAA, Diameter, and other environments.

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- How to verify that you are not losing money from PCRF, DPI, AAA, Diameter and other policy- and charging-based architectures
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Overview
Roaming has represented one of the most profitable lines of business for telecoms in many years. Unfortunately, while the costs of getting into a roaming partnership are relatively low, the risks and operational pressures it places on the telecom can be phenomenal.

In this course, students learn about the history, principles of operation, and key control areas required to map and establish proper financial security and leakage controls over the complex world of voice roaming services.

Learning Objectives
Students will learn the principles of AAA (authentication, authorization, and accounting) for roaming as well as the many different complexities and layers of control that are needed to run a profitable, secure, and fraud-proof roaming operation.

An introduction to the roaming operations lifecycle, the roles of the GSMA, IREG, TADIG, DCH, and other parties. Students learn the revenue assurance, fraud, finance, and risk controls required for each.

The primary business protocols that drive decision making and best practice in running a roaming business unit

Fundamentals of topology, network element integrity, and referential integrity, SS7, signaling, the IMAP, CAP, INAP and other controls for roaming partnerships

Key Concepts
• AAA (authentication, authorization and accounting) for the roaming line of business
• Industry standard methods for the initiation of a roaming agreement with a partner
• Billing integrity and assurance for roaming traffic
• The settlement process and the DCH for financial and data clearing
• Market controls and assurance (segmentation analysis, IN-Roamer, Out-Roamer) and RCF analysis and management
• Key network provisioning and change management controls (signaling tests - the IREG, TADIG, Signaling partner role, and management)
• Symptoms of key roaming frauds (IRSF, CAP) and their remedies
• Steering, segment management, and profit maximization

Title
| DNA001    | Intro to Data Networking for RA |
| DNA002    | Internet Data - The Reach       |
| DNA003    | Internet Data - The Tech        |
| DNA004    | Service Protocols               |
| DNA005    | Internet Ecosystem              |
| DNA006    | AAA for the Internet - an Overview |
| DNA007    | Data Authentication Principles  |
| DNA008    | Data Authorization Principles   |
| DNA009    | Radius & Diameter               |
| DNA010    | Wired Architectures             |
| DNA011    | Wireless Architectures          |
| DNA012    | Use Case Based Billing          |
Overview

Cable, Cloud, and Broadband services have returned with force in the deployment of leading edge telecommunications services around the world. These technologies have experienced an exciting explosion of interest and subscribership. The lightning fast, high capacity connections they offer have galvanized a generation to new levels of activity on the wired web.

In this course, students learn the history, principles of operation, and key control areas that prevent fraud and financial leakage of the standard cable, cloud, and broadband based businesses.

Learning Objectives

Building upon the information in OCRA003, students learn how the fundamentals of AAA for internet are applied to the ever increasing range of products and services that typify the cable, cloud, and corporate leased line broadband industry. Students are introduced to the key architecture, controls, and assurance issues of cable, ADSL, cloud, and corporate broadband services.

They will learn about the key architecture, controls and challenges of the cable and ADSL industries including DSLAMs, Conditioners, Set Top Box, Tap Boxes, Star, Ring and Piggy Back Architecture, HeadEnd, CMTS and other architectural components, their role, and the necessary controls including the application of DOCSIS 3 cable standard.

Students are presented with the principles of corporate leased line broadband service configurations including layer 1, layer 2, layer 3, and layer n services with emphasis on corporate VPN, MPLS, FastEther, and other corporate service delivery strategies.

Key Concepts

- AAA (authentication, authorization and accounting) for Cable, ADSL, Corporate, Broadband, and Cloud services
- Key commercial controls issues for Cable, ADSL, Cloud, Corporate Broadband, and data network environments
- Fundamentals of topology, network element integrity, and referential integrity controls for cable, ADSL, cloud and corporate broadband networks
- Principles and methods of risk control and the assurance of centric and non-centric network design applications.
- The role of the RA professional in the assurance of Cable, Cloud, and Broadband network environments.
- Development of strategies for revenue maximization and segmentation disciplines for broadcast, bandwidth, and cloud based services including segmentation maximization, subsidy analysis, and programming disciplines

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<td>NGM006: 4G: LTE Network Assurance</td>
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• Key commercial controls issues for Cable, ADSL, Cloud, Corporate Broadband, and data network environments
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<td>NGB006</td>
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Overview
This course provides students with the GRAPA standards based approach to the systematic diagnosis, troubleshooting, and establishment of controls over the provisioning of services and the security and integrity of channels.

Provisioning of telecoms services has challenged network operations and financial executives for decades. The utter complexity of telecoms billing, network activation and service assurance mechanisms creates a large number of exposures that the RA team must address.

Students will become familiar with the GRAPA Domain Management Methodology© and see how this discipline provides a method for systematic containment of provisioning risk.

Learning Objectives
Students will learn how to apply a systematic and comprehensive set of industry standard controls to provisioning, point of sales, and sales channels. They will be provided with a baseline understanding of what typical operational guidelines are for these areas, and learn how to spot exceptions and high risk areas.

A checklist of key control areas, weakspots and preventive measures are highlighted. Students are encouraged to bring real world examples of leakage and risks in their own sales, provisioning and channels areas for consideration and workshopping.

Key Concepts
• Security and assurance for the point of sales and customer facing internal sales teams
• Assurance and controls for the generation, movement and distribution of cash, credit and other forms of currency within the organization
• Fundamentals of customer generated frauds including customer identity frauds, subsidy frauds, and sales force collusion and leakage
• Principles and methods of assuring the provisioning process for prepaid Sims, postpaid Sims, postpaid wireline accounts, ADSL lines and other service categories.
• Security and assurance for customer service assets including smartphones, tables, PCs, routers and other distribution devices
• The role of the RA professional in cases of sales commission controls and assurance

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<td>ICO006 Intro to Interconnect Fraud</td>
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Overview

Revenue assurance is and always has been a critical part of the overall corporate financial controls infrastructure. However, too few telecoms financial executives, or even RA professionals understand the complex, inter-relationships that the different financial controls disciplines entail.

In this course, we provide the student with a comprehensive overview of the corporate governance, financial governance, and controls framework and show how the GRAPA standard controls supplement and complement them all.

The students learn the concepts of financial governance coupled with an overview of the different approaches to implementation of a controls framework. We begin with a review of the different controls disciplines with a special emphasis on the behavioral controls approach.

Learning Objectives

Students are introduced to the concepts of Revenue Assurance as a primary asset of the finance organization in accomplishing the goals of their Corporate Governance mission.

Students will learn the relationship between RA, audit, revenue accounting, and the pricing disciplines and learn how to better interface with and supplement their primary financial controls missions.

Real-world examples and case studies are provided to help students map the issues covered to the situations they face in their own organizations.

Key Concepts

- Definition, types and methods of controls implementation
- The behavioral controls approach, foundations, effectiveness and limitations
- Fundamentals of accounting and financial controls
- Fundamentals of corporate governance and the roles and relationships of audit, financial accounting, managerial accounting, SOX and RA
- Revenue Recognition - definitions, issues and controls
- Revenue accounting, revenue accounting assurance and the role of RA
- Difference between GAAP, IFRS and impacts on revenue assurance controls and effectiveness
- Standard financial and commercial controls for the network
- Standard financial and commercial controls for postpaid and prepaid billing
- Standard financial and commercial controls for interconnect operations
- Standard financial and commercial controls for roaming operations
- Margin and profit controls for telecoms management
- Market and Segmentation controls for marketing activities
- Churn management as a financial controls discipline

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Overview

Students will learn how to approach the revenue assurance job from the top management perspective, with a view of the implementation of controls for the profitability of lines of business, products, assets, and marketing campaigns, as well as training and controlling the “market risk” associated with churn and other revenue drains.

They will learn how innovative RA teams are assisting the CEO by structuring a profit driven organization with revenue assurance methodologies and disciplines.

Learning Objectives

The objective of this course is to expose students to the latest innovations in the expanding role of revenue assurance to assist management in accomplishing profitability and establishing controls in a new generation of non-traditional products, services and business models.

Students will learn a new way to organize their organization’s thinking of revenue, forecasting, marketing, product planning, CAPEX / OPEX planning, budgeting, and profit tracking.

Students also learn how to make their entire organization more immediately accountable for the profit horizon of their decisions.

Key Concepts

- Tele-econometrics - the key to understanding and measuring “profitable” activities and investments
- Profit Assurance - The organized and disciplined approach that forecasts, tracks and measures the profitability of each marketing, sales or business model activity in a way that is consistent, measurable and accountable
- Utilization of Big Data, Market Analytic and Complex Econometric /Forecast techniques to accurately predict outcomes and build measurable controls against catastrophic failure
- Utilization of operational checkpoints, gateways, controls, and continuous revenue /sales reports to allow management to have their finger on the pulse of profitability outcomes in near real time
- A straightforward approach to making the entire organization more PROFIT-CENTRIC and to build PROFIT CONTROLS that keep profit wasters in check

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Data Roaming represents one of the largest, most innovative sources of revenue for many telecoms. But data roaming is much more complicated than voice ever was. New ways of traffic exchange, new methods of billing, and implementation of new roaming agreements create a universe of assurance, audit, and security issues to be addressed.

This course provides students with a comprehensive review of the different architectures, roaming models, billing models, and audit/assurance disciplines to secure these environments.

### Learning Objectives
The primary objective of this course is to provide students with the knowledge, background, and tools to assist their organization in the audit, security, and assurance of wireless data roaming environments.

The key principles behind service design (policy definition), service calibration (volume, time, bandwidth, service level, throttling, best effort, service specific configuration, and destination specific configuration) are explained and studied.

Students will learn how to audit and verify the integrity of data roaming billing and commercial relationships and how to verify the accuracy of settlement and partner disputes.

### Key Concepts
- Learn the basic GPRS, 3G, 4G, LTE, WiFi, and WiMax data roaming architectures
- Learn the role of the DCH, GRX, and other specialty service providers
- Learn the key dimensions and issues involved with developing a robust and effective billing system
- Learn the fundamentals of data roaming settlements and partner relationship management
- Learn the main sources of leakage and revenue loss that carriers have experienced, and most likely will experience during the first years of data roaming
- Learn how to build an effective set of operational and commercial controls around the data roaming environment

### Title

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The GRAPA – School of Revenue Assurance provides the Revenue Assurance professional with a unique opportunity to gain access to the latest thinking, approaches and best practices in the protection of the revenues of the next generation Information, Communications and Technology carrier.

Benefits of Attending the School of Revenue Assurance

• The “Rites of Passage” for the Revenue Assurance Professional
• Recognition for what you know/what you have accomplished
• Headstart on the changes that are coming/or have already happened
• Reassurance that you are covering everything that needs to be covered
• New Insights/New Perspectives
• Making your work easier, faster, & more productive
• Networking with other professionals just like you

Over 2000 professionals...

have certified in one or more of the GRAPA programs, and the curriculum is continuously updated in order to reflect the absolute latest in the tasks that define the ever changing Revenue Assurance landscape.

• New Hires or new to the RA department
• Novices and people with limited experience and exposure
• Experienced RA analysts
• Managers
• Specialists
• People who want to get the edge in a specific area
1. Join GRAPA
   GRAPA membership is free. To join the association, all the candidate must do is enroll with a valid name, email address and phone number.

2. Choose the Certification Program
   Review the different certification options available. The student must choose between the three major academies (Revenue Assurance, Fraud, and Finance) and then decide on the level of certification desired.

3. Submit Certification Application Form
   Each candidate is required to submit an extensive profile/self assessment.

4. Review Certification Syllabus Provided by GRAPA
   Your GRAPA Membership Manager will provide you with a recommended program syllabus.

5. Register for Class
   Based on your Program Options Report, you will be able to choose from the many different classes available and initiate the process.

6. Complete Prerequisite Requirements
   Each training class involves four sets of prerequisite timetables
   • Commercial – work out your payment schedule and method
   • Technical – verify and prepare your technology and Internet environment for an online class
   • Logistical – make the time available, secure travel and accommodations, and check entry visa requirements
   • Practicum – complete the course preparation work

7. Attend Class
   This is the easy part. Attend the class, network with professionals like yourself, challenge your teacher, and learn, learn, learn.

8. Pass Exams/Complete Practicum Requirements
   All candidates must pass the required tests and post-class assignments.

9. Verify Your Certification
   Check with your Membership Manager; check the website.

10. Display Your Certificate
    A GRAPA certificate is something to be proud of!
Frequently Asked Questions

1. How can I get access to training?
   GRAPA certification training is offered in three different ways:
   
   • **OnDemand**
     Online classes available at any time
   
   • **Online Live**
     Real time live teacher interactive
   
   • **Live Regional Events**
     At key cities around the world
   
   • **Onsite**
     At your corporate location

2. How much does it cost to get certified?
   GRAPA certification costs depend on your experience, the certification you are trying to attain, and the partnership program your company has with GRAPA. Specific prices are associated with your certification package. Standard rates are posted on websites.

3. When are classes available?
   GRAPA offers dozens of classes each month, but class sizes and dates are constantly changing. Telecoms professionals lead hectic lives and it is often difficult for people to commit to specific dates and time. GRAPA provides a rolling timetable, which means that we never cancel a class, but we reschedule it until a time that is convenient for the majority of students.

4. Where is training held?
   Training classes are held at least once a year (often more than that) at strategic major cities around the world. Our anchor cities include:
   - Chicago
   - Miami
   - London
   - Amsterdam
   - Cape Town
   - Pune
   - Dubai
   - Kuala Lumpur

5. What times are online classes offered?
   Online classes are offered at times convenient to people in all time zones. Classes are scheduled in “time slots” so people in Australia, SEAsia, Africa, the Middle East, Europe, North America and South America all have available time. See the GRAPA websites for the latest scheduled classes.

6. What about classes in languages other than English?
   GRAPA currently offers ALL classes in English and a limited number of online classes in Spanish. The Spanish classes are taught by Rob Mattison, by making use of a simultaneous interpreter. All course materials are available in Spanish.
   *Interpreted classes in French and Arabic are available on special request (and additional cost).

7. How long does the certification process take?
   The speed of certification is limited mostly by the student and the student’s ability to organize the commercial, technical, logistical and case study work ahead of time.

8. How long is my certification valid?
   Certification is valid for five years from the date of completion of the program. After that, students are recommended to re-certify. Special re-certification programs are available.
What Certified Professionals Have Said:

RA Manager, Central America:
This is the most comprehensive training course on Telecommunications, generally, and Revenue Assurance, specifically, that I have ever attended. The GRAPA trainer has intimate knowledge of the material and presented it in a clear and simple manner.

Consultant, Europe:
I have 12 years experience in Revenue Assurance, but the Revenue Assurance training still exceeded my expectation. I enjoyed organizing this training for both Premium and KPN and experienced the intake for this training as very professional. I am sure I will apply the gained knowledge in upcoming projects. The trainers are very professional and passionate, which is exactly what I like!

Project Manager, Midde East
This class was great! I now finally know how to start Revenue Assurance in our company. My attitude towards RA & FM was changed drastically by this training.

For many more testimonials: http://ra-academy.org/RAA_info/testimonials.html