

**American Institute of CLOUD Auditors, PBC**  
**A Public Benefit Corporation (PBC)**  
**Public Benefit Plan**

**Public Benefit Objective:** To teach college and university accounting students, professional accountants, and IT auditors how to conduct financial statements audits, compliance audits, and performance audits in the CLOUD Ecosystem.

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## FOREWORD

Petabytes of binary data float around in cyberspace at any given point in time. At the same time massive amounts of data flow seamlessly between the Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS) platforms within the CLOUD Ecosystem. The data exchange that occurs at the IaaS, PaaS, and SaaS levels of the CLOUD architecture represents business transactions and key data points that depict system performance outcomes, system operation outcomes, and regulatory compliance outcomes.

The ***American Institute of CLOUD Auditors, PBC (AiCA)*** CLOUD auditing methodology defines standards, principles, rules, strategies, procedures, and techniques that auditors can use to fetch, validate, and examine data in the CLOUD when they are conducting:

- Financial statement audits
- Performance audits
- Regulatory compliance audits.

**AiCA** CLOUD Auditing Methodology includes standards for Continuous Auditing (CA) and Continuous Monitoring (CM) of business transactions as e-commerce and business data is generated in the CLOUD Ecosystem.

## Company Overview and Business Model

The American Institute of CLOUD Auditors, PBC (**AiCA**) is a consortium of IT professionals, Certified Public Accountants (CPAs), and telecommunications experts who have committed to pooling their resources in the interest of the global public community.

### ***States and the District of Columbia Public Benefit Statute***

**AiCA** is a “Public Benefit Corporation registered under the laws of the State of Delaware. A “Public Benefit Corporation” or a “benefit corporation” is a type of for-profit corporate entity that sets as a corporate goal in its charter to make a positive impact on society, a community or the environment in addition to profit as its legally defined goals. The shareholders of a PBC cannot sue management claiming ultra vires activities when management utilizes the corporation’s resources to carry out the public benefit objective(s) that is stated in the corporate charter. To date, 20 states and the District of Columbia have adopted this new type of for-profit corporate entity. The State of Delaware laws require that public benefit corporations report annually to the public the benefit they have achieved (consistent with the public benefit goal it declared to their corporate charter) that made a positive impact on society, a community or the environment. The Delaware PBC laws further states that an annual benefit assessments should be made based on a third-party assessment standards to determine whether the declared public benefit goal was achieved. **AiCA** public benefit achievements will be displayed on the company’s website: [www.aicamembers.com](http://www.aicamembers.com).

### ***American Institute of CLOUD Auditors Public Benefit Obligation***

**AiCA** public benefit objective affirmed in its corporate charter is: “to teach accounting students, professional accountants and auditors how to conduct financial statement auditing, performance auditing, and regulatory compliance auditing in the cloud.” We will fulfill this noble cause by providing our services first to government entities that administer public funds and then to accounting and MIS students in academia.

### ***Who We Are***

With e-commerce and CLOUD technology obscuring international boundaries, the business world has become more interconnected and complex. Specifically, the advent of the CLOUD has significantly changed the way financial statements auditing is conducted. When companies and government entities migrate their information assets to the CLOUD, data that is stored in their private data center is moved to remote geographical locations around the world. This characteristic of CLOUD technology poses a challenge for financial statement auditors because of the complexities, agility, and rapid evolution of CLOUD technologies. The fact that auditors are not always aware of the physical location of their clients' data is another issue.

The current financial auditing standards and methods that are taught in colleges and universities have become obsolete because business work activities that were once performed by humans are being performed by computer systems in cyberspace. Furthermore, financial auditors are taught to conduct testing by observation, inspection, and review of paper-based evidence. This approach to auditing renders information stored in the CLOUD, computer program functions and electronic system operations opaque to many auditors.

National and international statutes and regulatory requirements mandate that accountants who are engaged in

the practice of public accountancy attest to the operating effectiveness of the computer systems that companies and government agencies use to run their business operations. However, CLOUD technology continues to widen the divide between the accounting profession and the Information Technology industry.

Understanding the need to bridge the technological divide, the **AiCA** has developed a standardized framework for auditing financial statement in the CLOUD ecosystem. This financial auditing framework defines the way financial statement auditors carry out due diligence in attesting to the fair presentation of the financial position and the result of operations of a business or government that employs CLOUD technologies. We have designed this framework in accordance with the Sarbanes-Oxley (SOX) Act of the United States Congress (which most westernized countries have accepted as their de facto standard), the United States Generally Accepted Auditing Standards (GAAS), and the International Standards on Auditing (ISA).

Our proprietary auditing framework provides guidance for auditing business and government financial operations in the CLOUD ecosystem. Our members - who include academics, investors, and the public at large - have dedicated valuable resources to working in the interest of the global community, and our team of IT professionals, academicians, and CPAs work to develop the books, courseware, and technical publications that inform our members thorough training programs.

### ***Our Goals:***

Firstly, we want to ensure the accuracy of financial statements that are generated in the CLOUD because the global public community relies on financial statements to make investment decisions. To this end, we have developed a standardize framework for auditing financial statements in the CLOUD. This comprehensive framework establishes clear guidelines for auditors while maintaining SOX, HIPAA, and PCI-DSS compliance.

Secondly, the **AiCA** is dedicated to advancing the knowledge of accounting professionals, business leaders, government agencies, and academics in the area of CLOUD auditing. This includes, offering training courses for current auditors, publishing text books to help change existing auditing curricula at colleges and universities, and educating students firsthand in academic institution and classes.

Thirdly, the **AiCA** wants to act as a bridge between financial auditors and software developers. This multifaceted goal includes, on the one hand, reviewing and evaluating electronic tools so that manufacturers can determine how well these tools fit into a larger auditing framework. On the other hand, it includes keeping auditors well informed when they select tools for their IT auditing practices and fieldwork. To do so, we maintain a rigorous process of assessing the relevance of automated testing tools in evidence gathering, auditing analysis, system testing, computer forensic investigations, continuous auditing, and continuous monitoring in the CLOUD ecosystem. We also publish a list of relevant auditing tools and platforms that can provide utility in the financial statement auditing, performance auditing, and regulatory compliance auditing process.

### ***Membership***

**AiCA** members enjoy many privileges, including access to regularly updated technical materials. Members

also receive technical bulletins, tool alerts, and tool tips through our "Members Only" portal.

In addition to developing auditing frameworks books and publications, the **AiCA** also offers courses for auditors and IT professionals (access the "Training" main menu item on our website for details). Our Certified CLOUD Financial Auditor (CCFA) certification program is uniquely designed to cross-train accountants in the fields of Information Systems Management and IT auditing, specifically focusing on auditing financial statements in the CLOUD ecosystem. Lastly, our textbooks provide clear and detailed information and instructions about how to conduct financial auditing in the CLOUD and are updated regularly as technology and standards evolve.

## U.S. Government: Federal Cloud Computing Strategy

The NIST Cloud Computing Program and Initiative to develop a *U.S. Government Cloud Computing Technology Roadmap* is one of several complementary and parallel U.S. Government initiatives defined in the broader *Federal Cloud Computing Strategy*.

The *Federal Cloud Computing Strategy* characterizes cloud computing as a —*profound economic and technical shift (with) great potential to reduce the cost of federal Information Technology (IT) systems while ... improving IT capabilities and stimulating innovation in IT solutions.*

In the technology vision of *Federal Cloud Computing Strategy* success, U.S. Government agencies will be able to easily locate desired IT services in a mature and competitive marketplace, rapidly procure access to these services, and use them to deliver innovative mission solutions. Cloud services will be secure, interoperable, and reliable. Agencies will be able to switch between providers easily and with minimal cost, and receive equal or superior services.

Decision makers contemplating cloud computing adoption face a number of challenges relating to policy, technology, guidance, security, and standards. Strategically, there is a need to augment standards and to establish additional security, interoperability, and portability standards to support the long-term advancement of the cloud computing technology and its implementation. Cloud computing is still in an early deployment stage, and standards are crucial to increased adoption. The urgency is driven by rapid deployment of cloud computing in response to financial incentives. Standards are critical to ensure cost-effective and easy migration, to ensure that mission-critical requirements can be met, and to reduce the risk that sizable investments may become prematurely technologically obsolete. Standards are key to ensuring a level playing field in the global marketplace.

Recognizing the significance and breadth of the emerging cloud computing trend, NIST designed its program to support accelerated US government adoption, as well as leverage the strengths and resources of government, industry, academia, and standards organization stakeholders to support cloud computing technology innovation. **Courtesy: National Institute of Science and Technology (NIST) - Special Publication 500-293 - US Government Cloud Computing Technology Roadmap Volume I**

## Training Program and Training Schedule

The following schedule is set forth to achieve the public benefit objective that is affirmed in the American Institute of CLOUD Auditors, PBC corporate charter, which is “to teach professional accountants, auditors, college, and university students how to conduct financial statement auditing, performance auditing, and compliance auditing in the CLOUD ecosystem.”

As technology changes over time, the tool tip application database and the e-books that students will be given during the training classes will be updated automatically when the student login to **AiCA** members’ only portal on the website.

### Cost to Our Public Beneficiaries:

As the primary beneficiaries of **AiCA**’s public benefit services, government agencies and students will incur a minimal cost for our training services.

### Credit towards CPA Continuing Professional Education (CPE):

Most state boards of accountancy will accept the hours students will earn during the training program as credit towards their annual CPE requirements.

### Beneficiaries for the 2017– 2018 reporting period:

- **Beneficiary 1: U.S. Government (USG) and State Government Auditors** – to inform government auditors understanding about the strategies, methods, and procedures that are required to navigate GAAS, GAGAS, GAO/FAM, COSO 2013, CMMI, and ISO-9001 2015 auditing standards in the CLOUD ecosystem. The principles, standards and rules that are presented in our training program will inform USG auditors understanding about how to audit system security, system portability, and system interoperability controls as prescribed by the *National Institute of Standards and Technology (NIST)* and are cited in the “*NIST U.S. Government “Cloud Computing Technology Roadmap”- Volume I: “High-Priority Requirements to Further U.S. Government Agency Cloud Computing Adoption” and Volume II: Useful Information for Cloud Adopters.*
- **Beneficiary 2: Office of Inspectors General (OIG)** – to inform OIG auditors understanding about how to audit government agencies cloud migration projects and how to evaluate the operating effectiveness of USGA systems that are implemented in the Cloud Ecosystem. The NIST “*Cloud Computing Technology Roadmap*” prescribes strict standards for migrating government systems to the Cloud Ecosystem and it defines requirements for testing cross-cutting system interoperability and the implementation of SaaS, PaaS, and IaaS computing platforms.
- **Beneficiary 3: Pension Benefits Guaranty Corporation (PBGC)** – to inform PBGC auditors understanding about how to audit the migration of public and private companies pension benefits systems to PBGC cloud and how to examine and test the operating effectiveness of the pension plans that are implemented in PBGC cloud. As companies migrate their information assets and their pension benefit management systems from legacy platforms, private, and public cloud to PBGC cloud, auditors will face the challenge of reporting on the performance of pension plans from both the financial

reporting and system performance perspectives. PBGC auditors will learn how to examine and report on the operating effectiveness of controls that are prescribed by ERISA, the Yellow Book, FASB 87, and ITS LCM.

Beneficiaries for the 2018 – 2019 reporting period:

- **Beneficiary 4: Public Companies Accounting Oversight Board (PCAOB) registered CPA firms** – to inform CPAs understandings about how to examine and report on financial processing controls in the Cloud Ecosystem. Our training program will inform financial auditors understanding about how to conduct system and application testing that meets Sarbanes-Oxley 404, COSO, SSAE 16 and AT 101 standards. Today, most publicly traded companies are migrating their information assets and financial systems to the cloud. However, the traditional auditing strategies, procedures and methods that financial auditors use today to examine and report on financial processing controls are obsolete and inadequate due to the complex and agile nature of cloud computing and the rapid evolution of SaaS, PaaS, and IaaS technology. The cloud auditing standards, principles and rules that are covered in our training program will inform auditors understanding about the nuances that cloud technology embodies and how cloud technology has changed the way auditors traditionally examine and report on financial transactions and financial statements controls.
- **Beneficiary 5: College and university accounting students** – to inform business students understanding about how to navigate the challenges auditors are faced with when they conduct financial statement auditing, performance auditing, and regulatory compliance auditing in the Cloud Ecosystem. Investors and the public rely on audit reports to make investment decisions. However, cloud technology has created a chasm between the accounting profession and the technology that power the accounting and financial reporting systems that companies and government agencies rely on to run their business operations. This makes auditing financial statements in the cloud a challenge in many respects – at the system, application, and business process levels. The technology divide that currently exist between the accounting profession and business operating environment will continue to widen until the accounting curricula that are taught in colleges and universities are updated to reflect the ever changing 21<sup>st</sup> century business models. Our cloud auditing training program is designed to bridge the divide between the accounting profession and the ever changing cloud technology that companies and government agencies use today to power their business operations.
- **Beneficiary 6: College and university MIS students** – to inform MIS students understanding about how to design and develop controls in financial systems that are implemented in the cloud. The advent of the cloud has relegated accounting and financial reporting controls to wireless devices such as smartphones, tablets, PDAs, and laptops enabling companies and government entities to permit their employees to work from home. With an increasing number of employees telecommuting today and in the future, the demand for cloud based financial systems will continue to increase. Our training program provides MIS students with the insights they need to design and implement controls in distributed cloud based accounting and financial reporting environments.

Accounting professionals, IT auditors, and CPAs in public and government practice are scheduled for training during the **2017-2018** reporting period because professional accountants and auditors demand a shorter learning curve and because the impact of our services on businesses and government agencies year end audit work is immediate. College and university students are targeted for the **2018-2019** reporting period to allow time for institutions of higher learning to integrate CLOUD auditing into their academic curricula.

## Annex A: Books and Publications

### Financial Statement Auditing Framework for the CLOUD Ecosystem:

### **Standards, Principles, Rules**

--402 Pages--

Chapter 1	The ABC of Information Processing Systems
Chapter 2	Overview of the CLOUD Ecosystem
Chapter 3	CLOUD Backplane Systems
Chapter 4	Base CLOUD Computing Platforms
Chapter 5	IaaS, PaaS, and SaaS Derivative Services and their Relevance in the CLOUD Supply Chain
Chapter 6	CLOUD Brokered Services
Chapter 7	Roles and Responsibilities of Actors in the CLOUD Supply Chain
Chapter 8	Key Steps in Financial Statement Auditing in the CLOUD
Chapter 9	Key CLOUD Auditing Concepts: A Case Study
Chapter 10	Conducting Risk Assessment in the CLOUD: A Use Case Scenario
Chapter 11	Mapping Transaction Data to Transaction Controls and Transaction Cycles in the CLOUD
Chapter 12	Formulating Accounting Cycles and Integrating the Relevant Transaction Cycles
Chapter 13	Mapping CLOUD Controls to Financial Statement Assertions
Chapter 14	How to Identify Accounting & Financial Process Controls in Event Logs and Metadata Files
Chapter 15	How to Conduct Statistical Sampling in a “Big Data” Environment
Chapter 16	Continuous Auditing in the CLOUD Ecosystem
Chapter 17	Testing Segregation of Duties in the CLOUD
Chapter 18	Testing the Auditability of the Service Level Agreement (SLA)
Chapter 19	Documenting, Gathering, and Evaluating Electronic Evidence in the CLOUD Ecosystem
Chapter 20	Testing CLOUD Security and Security-as-a-Service in the CLOUD
Chapter 21	Testing Business and Financial Controls in a Virtualized Multi-Tenant Environment
Chapter 22	Testing SaaS Controls against Business Rules, Accounting Policies, and Regulatory Requirements
Chapter 23	Testing Accounting Cycles in the CLOUD
Chapter 24	Testing CLOUD Controls against Regulatory Requirements

## Financial Statement Auditing Framework for the CLOUD Ecosystem: **Testing Strategy, Testing Procedures, Test Cases**

--408 Pages--

Chapter 1	How to Conduct CLOUD Supply Chain Service Level Agreement (SLA) Testing
Chapter 2	System and Data Migration to the CLOUD: A Case Study
Chapter 3	How the Conduct Data Migration API Testing
Chapter 4	How to Test Legacy System, CLOUD Platform and Backend-as-a-Service Interfaces
Chapter 5	How to Conduct Data Migration Configuration Management and Version Control Testing
Chapter 6	How to Conduct Period Report and Point-in-Time Report Baseline Testing
Chapter 7	How to Conduct Base CLOUD (IaaS, PaaS, SaaS) Platform Testing
Chapter 8	How to Conduct Derivative CLOUD (Security-as-a-Service, etc.) Platform Testing
Chapter 9	How to Conduct Application Programming Interface (API) Testing
Chapter 10	How to Conduct SaaS Workflow Controls Testing
Chapter 11	How to Conduct PaaS Workflow Controls Testing
Chapter 12	How to Conduct IaaS Workflow Controls Testing
Chapter 13	How to Conduct Transaction Data Life Cycle Testing
Chapter 14	How to Conduct Accounting Cycle Data Integration Testing
Chapter 15	How to Leverage Continuous Auditing (CA) and Continuous Monitoring (CM) Platform for Statistical Sampling in a “Big Data” Environment
Chapter 16	How to Identify, Map, and Test Financial Controls Across SaaS, PaaS, IaaS and Derivative Platforms
Chapter 17	How to Conduct Production Configuration Management and Version Control Testing
Chapter 18	How to Conduct Production API Testing
Chapter 19	How to Conduct Forensic Investigation in a Financial Statement Audit
Chapter 20	How to Conduct Disaster Recovery and Business Continuity Testing in the CLOUD
Chapter 21	How to Test Data Points, Data Flow Controls, and Workflows Controls related to a Transaction Cycle
Chapter 22	How to Document Accounting and Financial Reporting Cycle and Related Data Flows
Chapter 23	How to Test Transaction Cycle Controls & related Data Flows and Work Flows
Chapter 24	How to Test Accounting Cycle Controls & related Data Flows and Work Flows
Chapter 25	How to Conduct Segregation of Duties (SOD) Testing in the CLOUD
Chapter 26	How to Validate and Evaluate Electronic Evidence in the CLOUD
Chapter 27	How to Identify, Document, and Test Relevant Accounting Controls in Event Logs
Chapter 28	How to Identify, Document, and Test Relevant Accounting Controls in Metadata Files
Chapter 29	How to Capture Electronic Evidence in Audit Work Papers for Litigation Support
Chapter 30	How to Test Relevant Financial Controls in a Virtualized CLOUD Environment

## COSO, ISO 9001, CMMI Process Engineering Framework for the CLOUD Ecosystem:

**Standards, Principles, Rules**

--420 Pages--

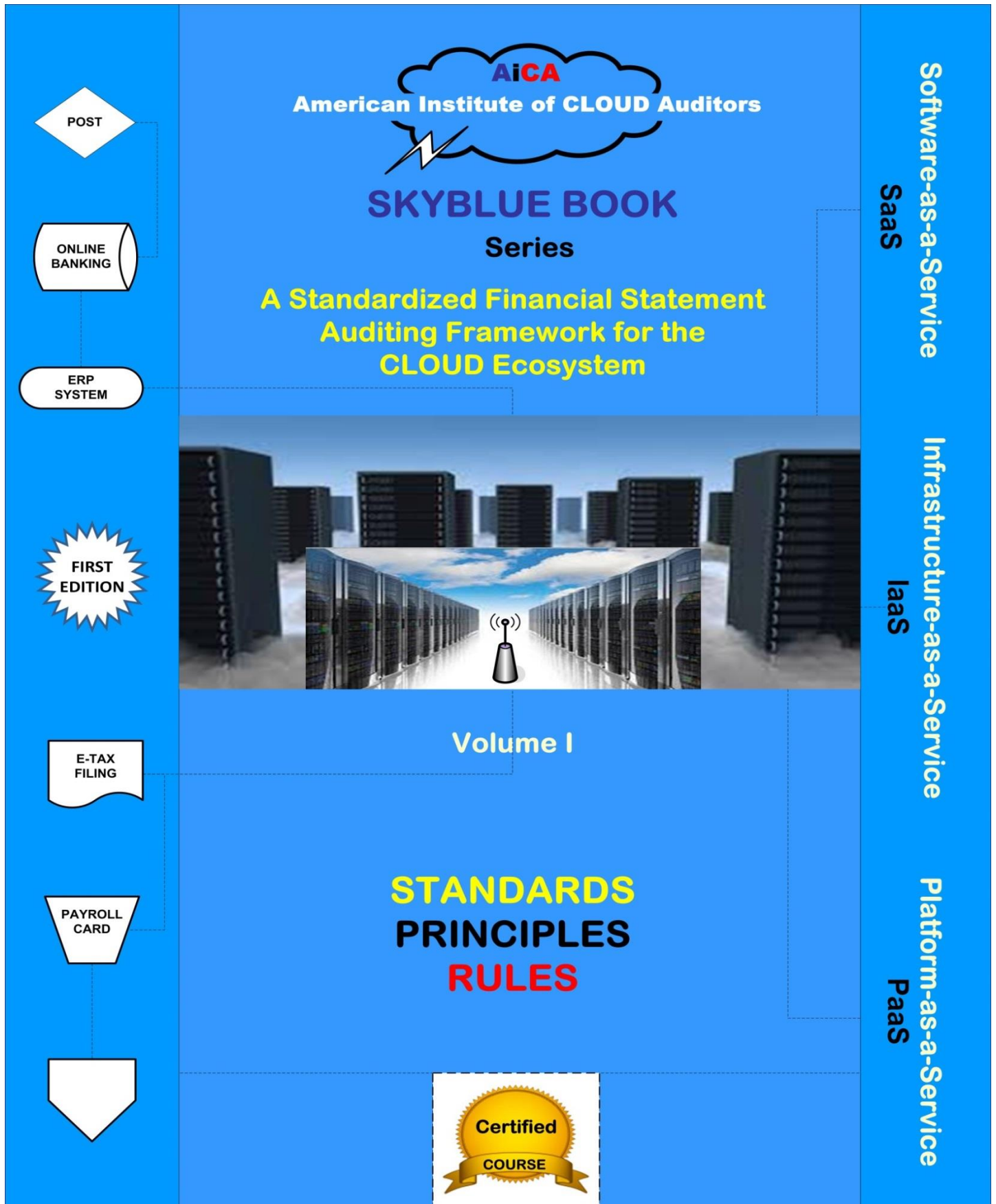
Chapter 1	History and Overview of Computer Technologies:
Chapter 2	The Evolution of Programming Technologies
Chapter 3	The Evolution of Computing Platforms
Chapter 4	Servers and Database Management System Platforms
Chapter 5	Overview of Networking Standards
Chapter 6	ISO OSI Reference Model
Chapter 7	Switching Technologies
Chapter 8	The Public Network
Chapter 9	Case Study of the Most Recent Computing Models
Chapter 10	New Generation CLOUD Computing Platforms:
Chapter 11	CLOUD Platform Overview
Chapter 12	Infrastructure-as-a-Service Platforms
Chapter 13	Platform-as-a-Service Platforms
Chapter 14	Software-as-a-Service Platforms
Chapter 15	Derivative CLOUD Platforms
Chapter 16	The Need For Information Technology Standards
Chapter 17	History of Computer Standards Development and Standards Setting Bodies
Chapter 18	Quality Management Systems and their Relevance to Computer Standards Development
Chapter 19	The Sarbanes-Oxley Act of the U.S. Congress
Chapter 20	The myth that software products are compliant with Sarbanes-Oxley Act
Chapter 21	The Committee on Sponsoring Organizations (COSO) Standards & Principles
Chapter 22	ISO 9001-2015 Standards and Principles
Chapter 23	Capability Maturity Model Integration (CMMI) Standards and Principles:
Chapter 24	Capability Maturity Model Integration - Acquisition
Chapter 25	Capability Maturity Model Integration - Development
Chapter 26	Capability Maturity Model Integration - Services
Chapter 27	The Integrated High Definition Methodology
Chapter 28	Elements of the IHD Methodology
Chapter 29	The IHD Process Definition
Chapter 30	The Practical Application of the IHD Methodology

# A Standardized Quality Management System Auditing Framework for the CLOUD Ecosystem:

## **Testing Strategy, Testing Procedures, Test Cases**

--375 Pages--

Chapter 1	Introduction to the IHD Quality Management System Auditing Methodology
Chapter 2	Overview of U.S. and International Quality Management Systems (QMS)
Chapter 3	COSO Derived Elements and Related Test Cases for SOX Compliance
Chapter 4	CMMI-Development, CMMI-Acquisition, and CMMI-Services Elements Mapped to IHD Quality Management Principles
Chapter 5	CMMI-Development, CMMI-Acquisition, and CMMI-Services: Test Cases
Chapter 6	ISO 9001-2015 Quality Management System Process Elements
Chapter 7	IHD Quality Management System – Process Elements and Related Test Cases
Chapter 8	Control Environment Documentation and Scoping
Chapter 9	Strategic Planning and Management
Chapter 10	Operational Planning and Management
Chapter 11	CLOUD Specific Test Scenarios for Operational Planning and Management
Chapter 12	Production System Development Life Cycle (SDLC)
Chapter 13	CLOUD Specific System Development Life Cycle: Test Cases
Chapter 14	Internal Systems Quality Assurance (QA) and Testing
Chapter 15	CLOUD Ecosystem Specific – Risk Assessment
Chapter 16	Risk Assessment of Base CLOUD Platforms and Services
Chapter 17	Risk Assessment of Derivative CLOUD Platforms and Services
Chapter 18	CLOUD Quality Assurance Life Cycle (QALC): Test Cases
Chapter 19	CLOUD Production System Operations: Test Cases
Chapter 20	CLOUD Supply Chain Management: Test Cases
Chapter 21	Customer Support Services: Test Cases
Chapter 22	Continuous Process Improvement: Test Cases
Chapter 23	Training and Development: Test Scenarios
Chapter 24	Performance Evaluation-Metric Management: Test Cases
Chapter 25	IHD Auditing Methodology - Overview
Chapter 26	IHD Quality Management System: Audit Planning, Management, Risk Assessment
Chapter 27	IHD Quality Management System: Testing Strategy Design, Development, Execution
Chapter 28	IHD Quality Management System: Test Program, Test Case, Test Scenario/Condition
Chapter 29	IHD Quality Management System: e-Evidence Gathering Principles and Techniques
Chapter 30	IHD Quality Management System: Reporting and Debriefing



The fact that you are reading the back of this **SKYBLUE Book** means you are well on your way to discovering how CLOUD computing has impacted business in the 21st century. The *Wall Street Journal* has reported that the sale of CLOUD technologies is increasing astronomically, revenue reaching \$175 billion in 2015 and investment expected to exceed \$1 trillion by 2020. Businesses and government agencies are increasingly moving their information assets to the CLOUD ecosystem, as CLOUD services are more robust, economical, cost effective, and agile than traditional data centers.

However, this shift to a new computing paradigm demands a change in the financial statement auditor's mindset. Because business transactions and financial controls no longer exist in traditional paper-based environments and because significant segments of business operations are outsourced to third-party service providers, it is challenging to conduct financial statement auditing in the CLOUD ecosystem. The agile, complex, and distributed nature of CLOUD technology exacerbates auditors' challenges.

*Imagine being a financial statement auditor* engaged to audit a client who has outsourced its online sales, benefits management, payroll, data warehousing direct payroll, and tax deposits to third-party CLOUD service providers.

*Imagine being an accounting professor* with textbooks that barely cover CLOUD auditing. You find yourself constrained by resources that are not designed for the 21st-century business environment.

*Imagine being an accounting student* and paying hundreds of dollars for accounting materials that cover little, if any, information about auditing financial transactions in the CLOUD. Consider also that the smartphone you use for course registration, online purchases, tax filing, and online banking are all connected to computer systems in the CLOUD. When you venture into the business world, you will be faced with the challenge of auditing these and many other automated business processes.

*Imagine being a chief financial officer* who oversees the internal audit of your company's e-commerce transactions, electronic tax filings, and online banking, all of which have been outsourced to multiple CLOUD providers and financial institutions.

This **SKYBLUE Book** will inform your understanding of the dynamic and agile nature of CLOUD technologies and will teach you how to navigate the nuances involved with auditing financial statements in the CLOUD. The book provides the knowledge and hands-on training needed to navigate the nuances involved with auditing in the CLOUD ecosystem and includes topics such as "Confirming Cash Balance in the CLOUD," "Confirming Balance Sheet Accounts in the CLOUD," "Verifying Income Statement Accounts in the CLOUD," "Continuous Auditing of Financial Statement Accounts in the CLOUD," "Verifying e-Commerce Transactions in the CLOUD," "Verifying e-Tax Filing and Related Accounts in the CLOUD," "Verifying e-Payments in the CLOUD" and much more.

Whether you are fresh out of college with a degree in accounting, an auditor in public or private practice, a tenured accounting professor, a chief financial officer, or an accounting manager of a government agency, you will find the **SKYBLUE Book** series an invaluable tool in your daily work.

[www.AiCAmembers.org](http://www.AiCAmembers.org)

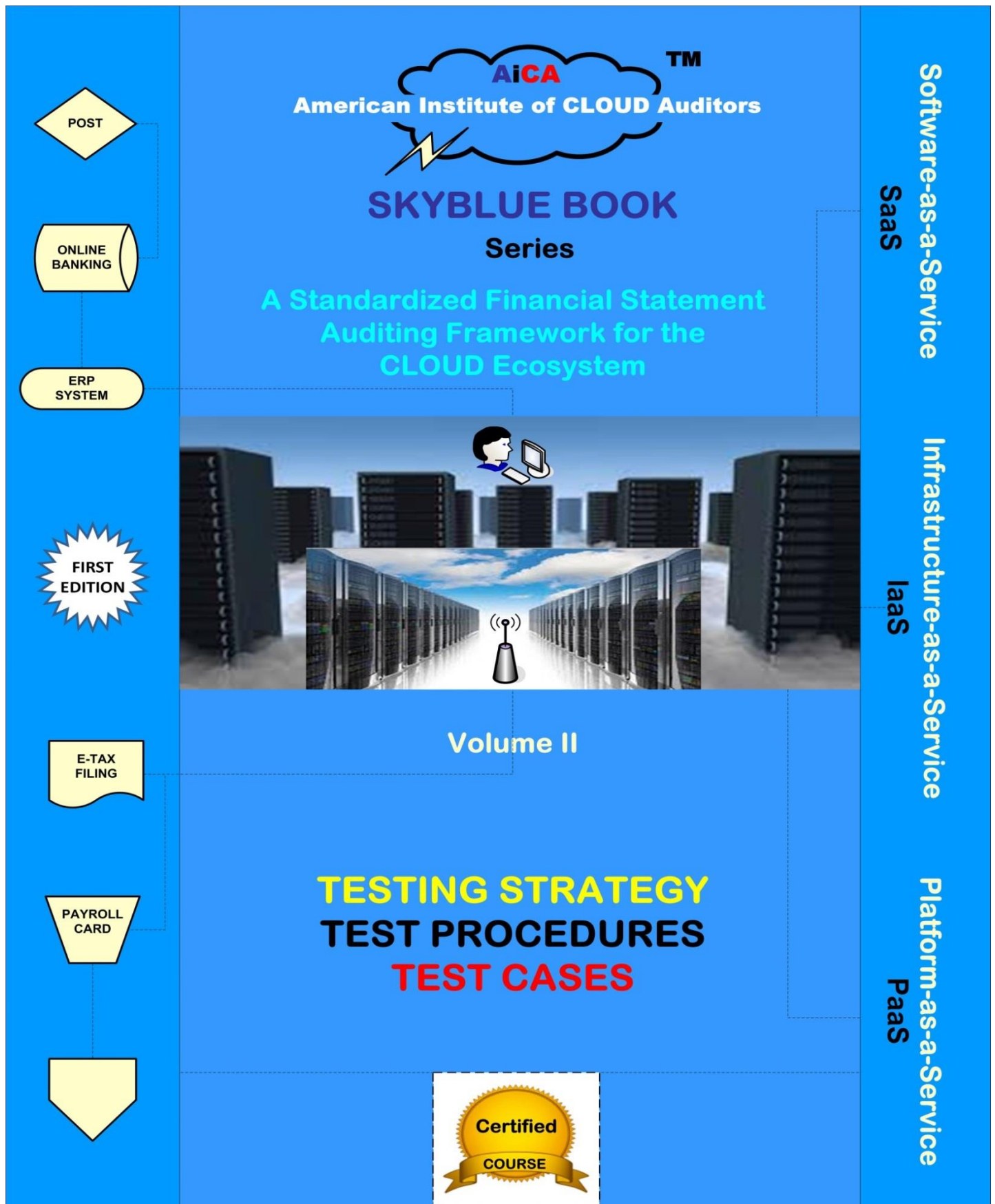
The  
**SKYBLUE**  
Book

**VOLUME I**

A Framework for Auditing Financial Statement in the CLOUD Ecosystem

The Gold Standard for IT Auditing  
**STANDARDS PRINCIPLES and RULES**

**AiCA**



E-COMMERCE


ONLINE BANKING

CORPORATE ERP SYSTEM

FIRST EDITION

E-TAX FILING


PAYROLL CARD



**AiCA** <sup>TM</sup>  
American Institute Of CLOUD Auditors


**SKYBLUE BOOK**  
Series

A Standardized Financial Statement  
Auditing Framework for the  
CLOUD Ecosystem



Volume III

**PRACTICAL  
APPLICATION OF  
CLOUD AUDITING TOOLS  
& PLATFORMS**

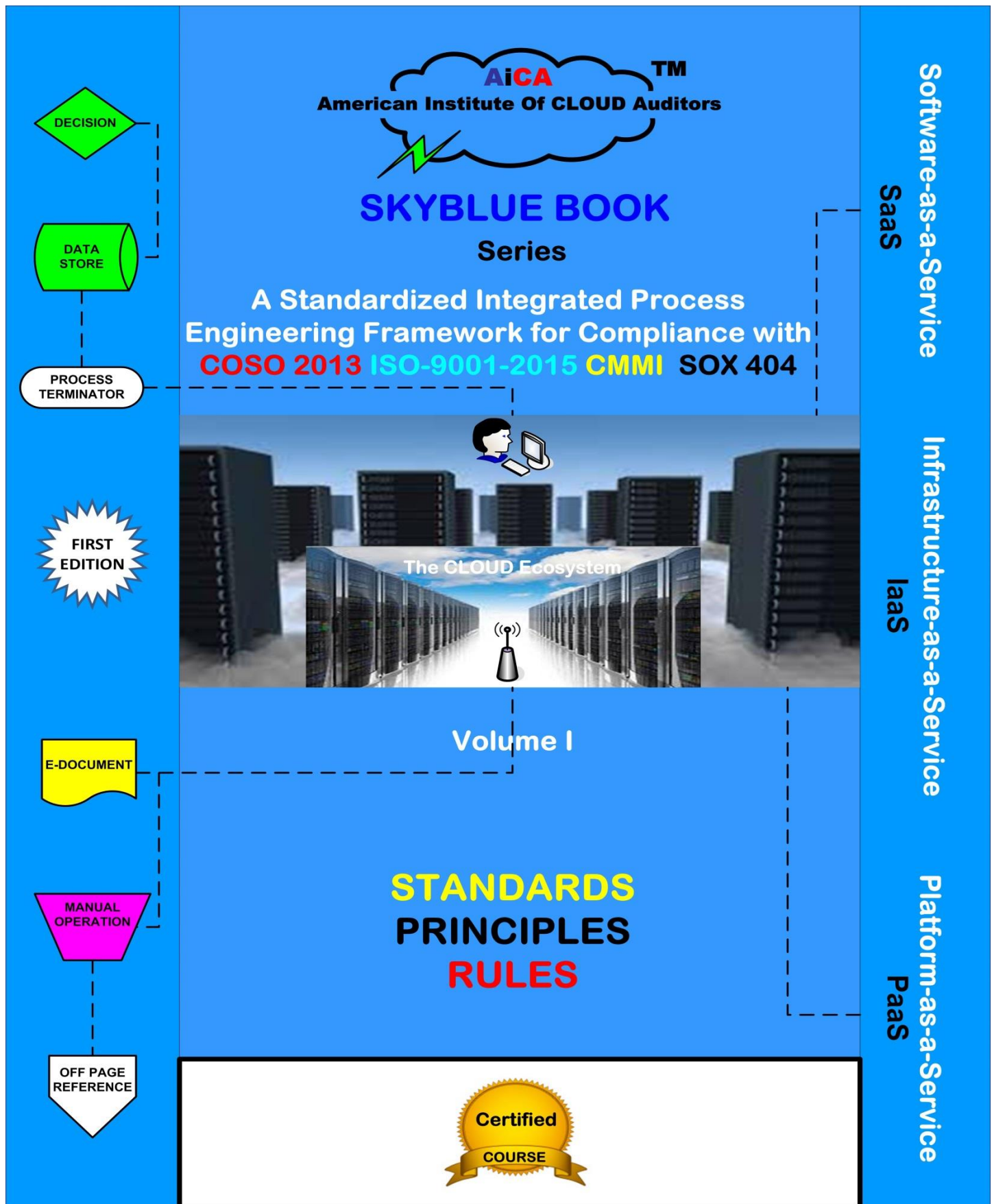


Software-as-a-Service  
SaaS

Infrastructure-as-a-Service  
IaaS

Platform-as-a-Service  
PaaS

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The  
SKYBLUE  
Book

VOLUME I

The Gold Standard for Process Engineering  
Process Engineering for Compliance with:  
SOX 404 COSO ISO 9001-2015 CMMI

**AiCA**

## Integrated Process Engineering Solution for Compliance with: Sarbanes-Oxley 404 COSO 2013 ISO 9001-2015 CMMI

Some companies and government entities are required to comply with multiple Quality Management System (QMS) standards and regulatory requirements. It is painstaking for these entities to prepare for the multiplicity of auditors that make their rounds of onsite visits annually.

The fact that you are about to read this **SKYBLUE Book** means you are well on your way to learning how to overcome the challenges of having to duplicate the effort of designing and engineering process controls that satisfy the various audits that your company must undergo annually.

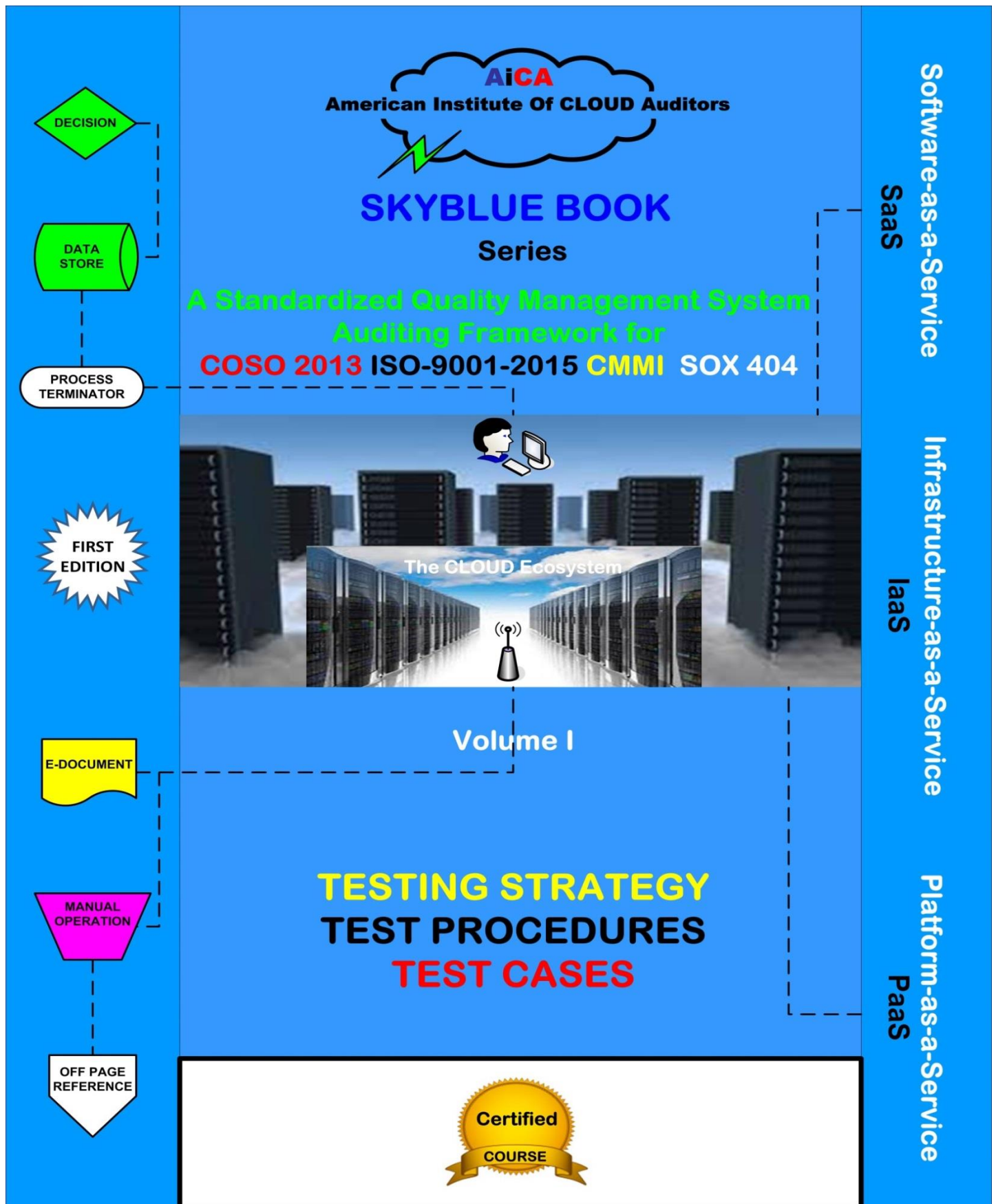
The **IHD Process Engineering Methodology** described in this book presents a comprehensive process engineering solution that satisfies Sarbanes-Oxley 404, the Software Engineering Institute (SEI) CMMI standards, and the United Nations ISO 9001-2015 standards. The **IHD Process Engineering Methodology** combines elements from COSO 2013, ISO 9001-2015, and CMMI standards into an integrated methodology that provides a single process engineering solution for compliance with the Sarbanes-Oxley Act of the U.S. Congress, the U.S. Department of Defense software development standard, and the United Nations QMS standards.

The **IHD Process Engineering Methodology** is based on the principle that effective system controls in the CLOUD Ecosystem transcend multiple cross-cutting computing platforms and business processes that are managed by third-party service providers. The process controls that the **IHD Process Engineering Methodology** implements are comprehensive in nature and they are designed to fulfill the prevailing national and international QMS process design and process engineering standards and regulatory requirements.

When the **IHD Process Engineering Methodology** is implemented in software, your company will be able to automatically discern and extrapolate audit evidence that is specific to a given QMS standard.

This **IHD Process Engineering Methodology** integrates seamlessly with the companion methodology: *Financial Statements Auditing Framework for the CLOUD Ecosystem, Volume I & Volume II.*

[www.AiCAmembers.com](http://www.AiCAmembers.com)



The  
SKYBLUE  
Book

VOLUME I

The Framework for Auditing Business and IT System in the CLOUD

The Gold Standard for System Auditing

System Auditing to Report on Compliance with:

SOX 404 COSO 2013 ISO 9001-2015 CMMI

AiCA

**Application of the  
IHD Quality Management System  
Auditing Methodology  
to Report on Compliance with:  
Sarbanes-Oxley 404 COSO 2015  
ISO 9001-2012 CMMI**

Since the turn of the century, three of the prevailing international Quality Management Systems have been upgraded to accommodate new business models that continue to evolve in today's ever changing IT driven marketplace. ISO 9001-2008 was upgraded to ISO 9001-2015. CMM was upgraded to CMMI. COSO 1992 was upgraded to COSO 2013. Even though the recent enhancements to these national and international Quality Management System standards narrowed the technology gap that existed between the 20<sup>th</sup> century and 21<sup>st</sup> century business models, the advent of the CLOUD has added a new dimension that further widen the chasm; this time around - between the new CLOUD business models and the recent updated national and international Quality Management System standards.

The *IDH System Auditing Methodology* discussed in this book provides a comprehensive auditing solution for examining and reporting on whether an entity is compliant with the CLOUD and non-CLOUD versions of the prevailing quality management standards and their controls.

The *IHD System Auditing Methodology* examines process elements that are common to COSO, ISO 9001, and CMMI standards as well as the process elements that are specific to each standards. This dynamic, streamlined and focused auditing approach to examining multiple regulatory and industry Quality Management System standards and their underlying IT processes considers the fact that the CLOUD embodies a multiplicity of heterogeneous IT computing platforms.

In both the government and the private sector domain, entities share CLOUD computing platforms in a supply chain architecture. The *IHD System Auditing Methodology* focuses on the impact of supply chain on the CLOUD business model.

The fact that you are about to read this **SKYBLUE Book** means you are well on your way to learning how to document, test and report on the operating effectiveness of CLOUD based business process controls for the 21<sup>st</sup> Century version of the prevailing national and international QMS standard.

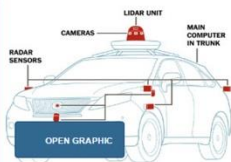
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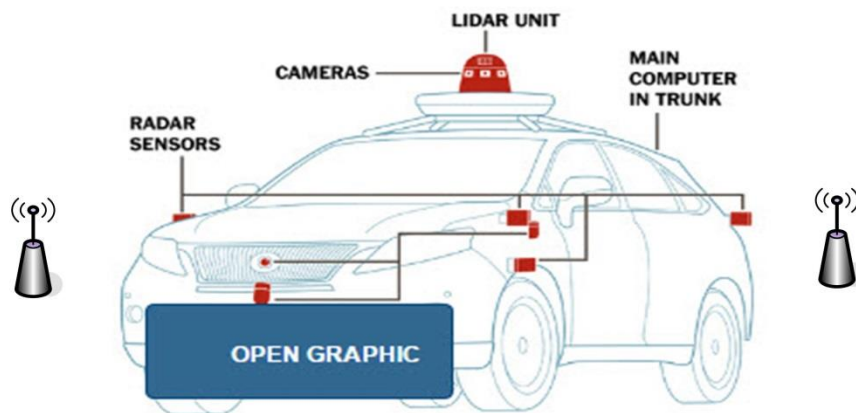


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