



ALL WORLD AIRWAYS (AWA)

IT AUDIT AND ASSURANCE BASED ON COBIT 5

Authors:

Steven De Haes, Ph.D., University of Antwerp – Antwerp Management School, Belgium

Anant Joshi, Ph.D., University of Antwerp – Maastricht School of Business and Economics, Belgium-Netherlands

DISCLAIMER

ISACA has designed and created the *All World Airways Caselet* (the 'Work') primarily as an educational resource for educational professionals. ISACA makes no claim that use of any of the Work will assure a successful outcome. The Work should not be considered inclusive of all proper information, procedures and tests or exclusive of other information, procedures and tests that are reasonably directed to obtaining the same results. In determining the propriety of any specific information, procedure or test, security governance and assurance professionals should apply their own professional judgement to the specific circumstances presented by the particular systems or information technology environment.

ISACA

3701 Algonquin Road, Suite 1010

Rolling Meadows, IL 60008 USA

Phone: +1.847.253.1545

Fax: +1.847.253.1443

Email: *info@isaca.org*

Web site: *www.isaca.org*

RESERVATION OF RIGHTS

© 2015 ISACA. All rights reserved. No part of this publication may be used, copied, reproduced, modified, distributed, displayed, stored in a retrieval system or transmitted in any form by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written authorisation of ISACA. Reproduction and use of all or portions of this publication are permitted solely for academic, internal and non-commercial use and for consulting/advisory engagements, and must include full attribution of the material's source. No other right or permission is granted with respect to this work.

Provide Feedback: www.isaca.org/cobit-5-IT-assurance

Participate in the ISACA Knowledge Center: www.isaca.org/knowledge-center

Follow ISACA on Twitter: <https://twitter.com/ISACANews>

Join ISACA on LinkedIn: ISACA (Official), <http://linkd.in/ISACAOfficial>

Like ISACA on Facebook: www.facebook.com/ISACAHQ

ACKNOWLEDGMENTS

Lead Developers

Steven De Haes, Ph.D., University of Antwerp, Belgium
Anant Joshi, Ph.D., Maastricht University, Belgium

Board of Directors

Robert E Stroud, CGEIT, CRISC, CA, USA, International President
Steven A. Babb, CGEIT, CRISC, ITIL, Vodafone, UK, Vice President
Garry J. Barnes, CISA, CISM, CGEIT, CRISC, BAE Systems Detica, Australia, Vice President
Robert A. Clyde, CISM, Adaptive Computing, USA, Vice President
Ramses Gallego, CISM, CGEIT, CCSK, CISSP, SCPM, Six Sigma Black Belt, Dell, Spain, Vice President
Theresa Grafenstine, CISA, CGEIT, CRISC, CGAP, CGMA, CIA, CPA, US House of Representatives, USA, Vice President
Vittal R. Raj, CISA, CISM, CGEIT, CRISC, CFE, CIA, CISSP, FCA, Kumar & Raj, India, Vice President
Tony Hayes, CGEIT, AFCHSE, CHE, FACS, FCPA, FIIA, Queensland Government, Australia, Past International President
Gregory T. Grocholski, CISA, SABIC, Saudi Arabia, Past International President
Debbie A. Lew, CISA, CRISC, Ernst & Young LLP, USA, Director
Frank K.M. Yam, CISA, CIA, FHKCS, FHKIoD, Focus Strategic Group Inc., Hong Kong, Director
Alexander Zapata Lenis, CISA, CGEIT, CRISC, ITIL, PMP, Grupo Cynthus S.A. de C.V., Mexico, Director

Knowledge Board

Steven A. Babb, CGEIT, CRISC, ITIL, Vodafone, UK, Chairman
Rosemary M. Amato, CISA, CMA, CPA, Deloitte Touche Tohmatsu Ltd., The Netherlands
Neil Patrick Barlow, CISA, CISM, CRISC, CISSP, IntercontinentalExchange, Inc. NYSE, UK
Charlie Blanchard, CISA, CISM, CRISC, ACA, CIPP/E, CIPP/US, CISSP, FBCS, Amgen Inc., USA
Sushil Chatterji, CGEIT, Edutech Enterprises, Singapore
Phil J. Lageschulte, CGEIT, CPA, KPMG LLP, USA
Anthony P. Noble, CISA, Viacom, USA
Jamie Pasfield, CGEIT, ITIL V3, MSP, PRINCE2, Pfizer, UK
Ivan Sanchez Lopez, CISA, CISM, CISSP, ISO 27001 LA, DHL Global Forwarding & Freight, Germany

Academic Program Subcommittee

Matthew Liotine, Ph.D., CBCP, CHS-III, CSSBB, MBCI, University of Illinois at Chicago, USA, Chairman
Daniel Canoniero, Universidad de Montevideo, Uruguay
Tracey Choulat, CISM, CGEIT, CRISC, University of Florida, USA
Umesh Rao Hodeghatta, Xavier Institute of Management, India
Nabil Messabia, CPA, CGA, Université du Québec en Outaouais, Canada
Mark Lee Salamasick, CISA, CSP, CIA, CRMA, University of Texas, USA
Ype van Wijk, Ph.D., RE, RA, Rijksuniversiteit Groningen, The Netherlands
S. Vanderloot, CISA, CISM, CRISC, Ph.D., AST, CCNA, CCNA Security, CCSA, CEH, ECSA, ISO 27001 LA, NCSA, PCIP, UK
Nancy C. Wells, CISA, CRISC, USA

STUDENT BOOK

This caselet was developed to support *IT Audit and Assurance Based on COBIT 5*, www.isaca.org/cobit-5-IT-assurance

AGENDA

1. **Company Background**
2. **Key Organisational People**
3. **AWA IT Landscape**
4. **IT Outsourcing**
5. **CIO's Notes**
6. **Your Role**
7. **Your Task**

COMPANY BACKGROUND

- **All World Airways (AWA) is an international airline with reservation centres in Detroit, Michigan, United States and Wiesbaden, Germany. AWA has posted losses for the past six quarters.**
- **Overall, the airline industry has been significantly affected by the economic downturn, petroleum prices, labour disputes and the competition. As a result, many of the large airlines have spun off their reservations and technical information systems to self-supporting companies and have entered into outsourcing agreements with their former support functions.**

COMPANY BACKGROUND

- **Selection of the outsourcing strategy has helped many players in the market to remove investments and assets from the balance sheets and allowed them to focus on their primary business of transportation. Moreover, this act has permitted the newly independent IT functions to sell their services to other airlines because competition with the software owner is no longer a conflict of interest.**

KEY ORGANISATIONAL PEOPLE

The top management people:

- **Don Geekbine, chief information officer (CIO)**
- **Chief financial officer (CFO)**
- **Chief executive officer (CEO)**

AWA'S IT LANDSCAPE

The company has built data centres in both of their locations, using IBM mainframes running the z/OS operating system and the Airline Control System (ALCS), a high-volume, high-speed transaction processor for the reservation industry. AWA also runs maintenance, scheduling, airfare sensitivity analysis and freight systems. Over the years, all IT activities have been managed and staffed internally.

IT OUTSOURCING

- **The CFO and CEO have been reviewing IT costs and return on investment (ROI). Based on their analysis, they have determined that the cost of internal development and IT operations has become too expensive to justify continued support.**
- **Management has noted that other airlines have outsourced operations to industry-leading IT providers, including Galileo, Sabre[®], Amadeus and Travelspan. AWA has decided that IT is not a core business and wants to outsource the IT function.**

YOUR TASK

Using the three-phase model of IT assurance initiative provided in the student book:

- 1. Develop the scope of the risk assurance initiative.**
- 2. State relevant enablers and suitable risk assessment criteria to perform the assessment (i.e., relevant governance and/or management processes).**
- 3. Report the results of your assessment including your findings and recommendations.**

CIO'S NOTES

The CIO, Don Geekbine, was informed of the decision and was asked to perform a risk assessment of the outsourcing process. As part of his initial analysis, he prepared the following notes, in no particular order, which were incorporated into his briefing points:

- All applications were developed internally; reservations are fairly standard and could be easily outsourced; sensitivity analysis, flight and crew scheduling have some specific requirements that are only available with internally developed solutions.**
- All systems were written in COBOL; many programmers are retiring, and those available command higher salaries.**

CIO'S NOTES (CONT.)

- **US programmers and operations are located in an economically depressed area; workers with eliminated positions will have problems finding new jobs.**
- **European work rules have long lead times for the elimination of jobs.**
- **There is a need to discuss transferring programming to low-cost locations such as India.**
- **The CFO indicated concern regarding compliance with the US Sarbanes-Oxley Act of 2002; Payment Card Industry Data Security Standard (PCI DSS) compliance is also a concern.**
- **Equipment and data centre facilities are currently leased. What will be the course of action for the leases?**

CIO'S NOTES (CONT.)

- **Operational processes will require governance to ensure satisfactory performance of key project deliverables, key processes and system availability.**
- **Don has not performed risk assessments before and is unfamiliar with the issues that should be considered.**

YOUR TASK

The CFO has requested that the CIO perform the risk assessment of outsourcing initiative addressing mainly IT risk.

In this view...

YOUR ROLE

The CIO has agreed to the assessment, but indicated that he would want to use COBIT 5 as his analysis framework. You are well aware of COBIT 5 framework. Acknowledging the CIO's note, you have identified that assessment is mainly focusing on providing IT risk assurance.

HINT

