

# ISO/IEC 27003

#### (ISMS Implementation Guidelines)

Dr. David Brewer Gamma Secure Systems Limited www.gammassl.co.uk









#### Introduction

- What is ISO/IEC 27003?
- ISO meetings Melaka, 2010
- Case Study
  - > Getting management buy-in
  - > Design the ISMS
  - > Security requirements
  - > Assessing risks
- Conclusions





# What is ISO/IEC 27003?



### Purpose and philosophy

- Guidance document
- Too recent / narrow to be best practice
- Provide practical guidance in developing an implementation plan for an ISMS
  - > Prepare plan
  - ➤ Define project structure
  - Gain management approval
  - > Recognise critical activities
- Does not cover operational activities



#### Structure of the standard

- Usual preamble
- 5 'project' phases

Obtain management approval for project

Define ISMS scope boundaries and policy

Conduct IS requirements analysis

Conduct risk assessment and planning risk

Design the ISMS

- Supporting annexes:
  - > Activities re 27001; roles & responsibilities
  - > IA planning; policy structure
  - > Planning of monitoring and measuring



#### Is it any good?

- Yes, but ...
- Remember:
  - ➤ It is the operational ISMS that is certified, not the project
  - Many different ways to run a project
  - Standard assumes a particular context which may not be true for you



## Why a project?

Operationally an ISMS is more like a carousel:





#### Why a project?

- For a start-up it really is a blank sheet of paper
- But for an established organisation it will exist
- Although it may not conform to ISO/IEC 27001

You must make it so





### Why a project?

- The project is to make your 'ISMS' conformant to ISO/IEC 27001
- Start-up: create from scratch
- **■** Established: reverse engineer
- Completes with certification
- It will be, however, be fully operational before the Initial Audit





# ISO meetings -Melaka, 2010



#### ISO meetings, Melaka 2010

- ISO SC 27 meets twice a year
- Last one (April) in Melaka, Malaysia
- This standard WG1
- Just published so revision in a few years



- BUT, a wealth of implementation is being exposed
- We need to get it written down



# Case Study



## Case study - ground rules

- Draw together a variety of experiences
- Large organisations: Mauritius and elsewhere
- Small-medium organisations
- Project and operational perspectives



Proper Integrated MS, using IMS-Smart Architecture, covering 9K & 27K, Exlayer has BS25999 as well







#### Management buy-in

- Absolutely essential
- Create ownership from the outset
- Must want a management system to manage the business more effectively, not a certificate
- Whether a business case is required depends on many factors, often *outside* your control



#### Project organisation



- All three are cars but are designed with different operational objectives in mind
- Don't worry about documentation/records, it's the people that count
- If the Jag was to be chauffeurdriven it would have a longer wheel base

- A management system is a managing capability, not just a documentation/record set
- The project must deliver that managing capability
- Therefore it is the operational people that need to be trained
- Ideally they should be involved in the build



#### Security requirements

- In 99.99% of cases you are reverse engineering conformance out of existing out of an existing context
- SOA is a good place to start just document what is being done

■ To do otherwise you will build a Vasa:



Instead build bubble cars and grow them into spaceships



Continual improvement (section 8 of 27K)





#### Risk appetite

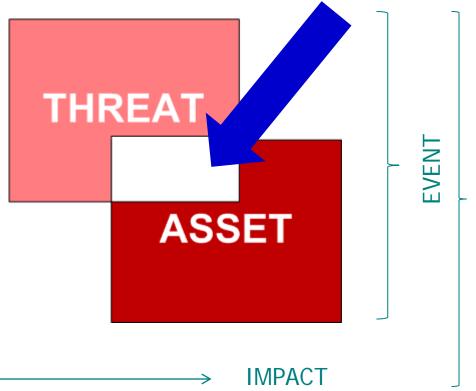
- If analysis exposes unacceptable risks, they must be treated immediately:
  - > Knowingly accept the risk (and minute it)
  - > Avoid risk by ceasing operations (in that area)
  - ➤ Introduce/modify controls to:
    - □ Reduce frequency/likelihood of occurrence
    - □ Reduce severity of consequence
- Remember you are exposed throughout the time it takes to treat the risk
- All applicable controls must be operational



#### Risk assessment

- ISO/IEC 27001 is a specification
- Order of presentation does not imply order of implementation e.g.
- DO NOT start by identifying assets, unless you are conducting an Impact Severity Analysis

Vulnerability associated with the asset that the threat has the capability of exploiting





#### Risk assessment/ treatment

Remember:

Assessment of risk

**Treatment** 

Selection of controls (and other actions)

■ If you are bogged down in numbers and/or management does not understand it, something

is seriously wrong

"I spent £25,000 on a risk assessment. The trouble is, my MD doesn't understand any of it"





#### Risk treatment

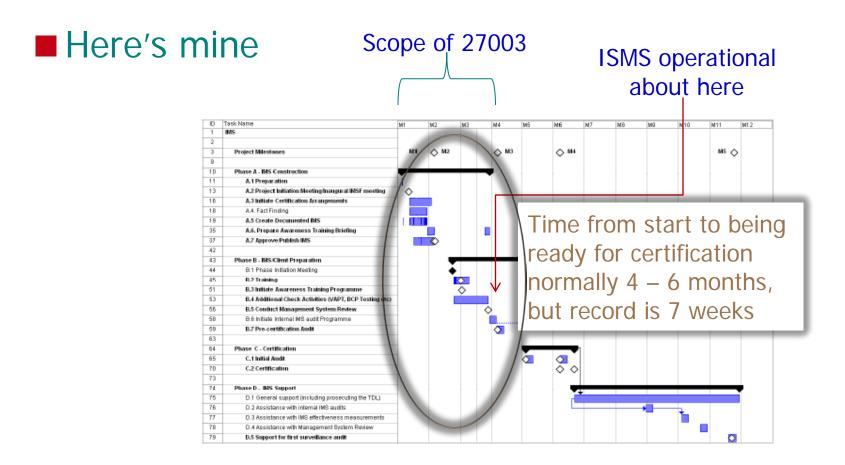
Share or manage this risk Acceptable after treatment (reactive Avoid this risk control) FREQUENCY/LIKELIHOO М Н Accept this risk Acceptable after treatment (preventive or detective control) Acceptable risk Over controlled, **IMPACT (log scale)** business suffering Relax controls and increase risk

Controls modify risk (ISO Guide 73). Most of what is in ISO/IEC 27002 are NOT controls. At best they are parts of controls. Some are actually groups





#### Project plan



■ See http://www.ims-smart.com/PIPS/index.php



# Conclusions



#### Conclusions

- ISO/IEC 27003 addresses an important component of creating an ISMS managing capability
  - > Does not address operational issues
  - > Assumes a particular paradigm
  - Perhaps does not go far enough
- Is it helpful Yes
- Is it a substitute for an expert No



# ISO/IEC 27003



The Millennium Lovers, Port Louis, Mauritius

(ISMS Implementation Guidelines)

# Any Questions?



Certificate No. IS 85916



Certificate No.FS 30710