



Corporate Governance

Cyber Security

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COBIT 5



What is Cyber Security?

Cyber security is a branch of information security that focuses on the organization's ability to secure its reputation, people, information, infrastructure and the applications against cybercrime through

- Situational awareness - taking proactive measures to understand the scope of cyberspace and the potential threats (Cyber Intelligence) and related potential impact on the organization
- Information exchange (internal and external) to better understand and deal with evolving blended threats.
- Managing reputational and other non-CIA damages from cyber attacks and use of cyber space
- Fostering a culture of understanding security in an always-on world
- Improving the organization's security posture to reduce exposure to cybercrime risks
- Ensure consistent cyber incident response and recovery

Why Cyber Security?

Cyber Crime

A criminal offence involving a computer as the object of the crime, or the tool used to commit a material component of the offence. * The computer is either the tool, the target of both in a cyber crime.

- Cyber criminals now has expanded in scope and motivation to cover cyber espionage, hacktivisim and organized crime.
- Today's cyber criminals are increasingly adept at leveraging blended threat vectors, gaining unauthorized access and maintaining a persistent, low-profile, long-term presence in IT environments.
- Threats posed to organizations by cyber crime have increased faster than most potential target organization can cope with, exposing them to significant risks including exposure to financial losses, regulatory issues, data breach liabilities, damage to brand, and loss of client and public confidence.

Why Cyber Security?

Statistics

- \$3.4M average cost of data breach (2014 Cost of data breach, Ponemon Institute)
- 614% mobile malware increase in just one year (2013-2012 Juniper Mobile Threat Report)
- November 2013 according to the Symantec Intelligence Report
 - Around 62% of all e-mail is spam / 70% in January 2012
 - Phishing - One in 1056 emails identified as phishing / One in 508 in January 2012
 - Malware - One in 383 emails contained malware / One in 295 in January 2012
 - Malicious Web sites - 2256 Web sites blocked per day / 2102 in January 2012
 - Spammers continue to take advantage of holidays and events – Black Friday emails around this time of year do not lead to great discounts, but rather fake bargains, phishing attempts, or malicious code
 - Number of identities exposed (Year-to-Date) 296.422.090

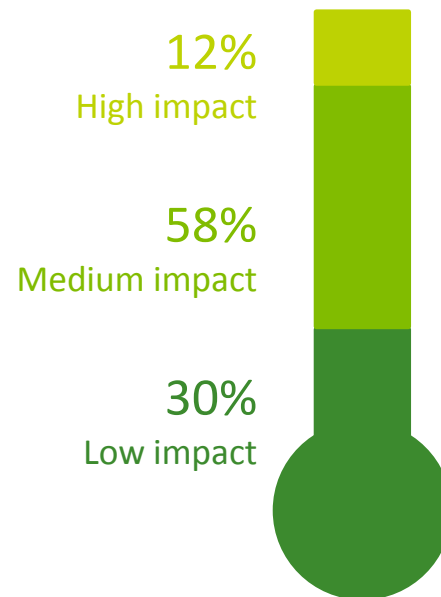
Why Cyber Security?

The annual cost to UK Business, £27 billion and growing...

Our latest global industry survey** revealed that over **half of companies had knowingly experienced an attack** in the last 12 months.



UK consumers expect companies to **keep their data secure** from criminals*.



Victims of security breaches stopped **dealing with companies they thought were responsible***.

*Deloitte's 2013 Report, A Secure Consumer

**Deloitte's 2012 Report, Blurring the Lines

Why Cyber Security?

From hype to reality ... there is now a **personal** awareness

Our 2013 security survey reveals the true impact of
cyber attacks on UK citizens*



*Deloitte's 2013 Report, A Secure Consumer

Why Cyber Security?

The reason and the attacker...

HACKED



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Why Cyber Security?

The reason and the attacker changed



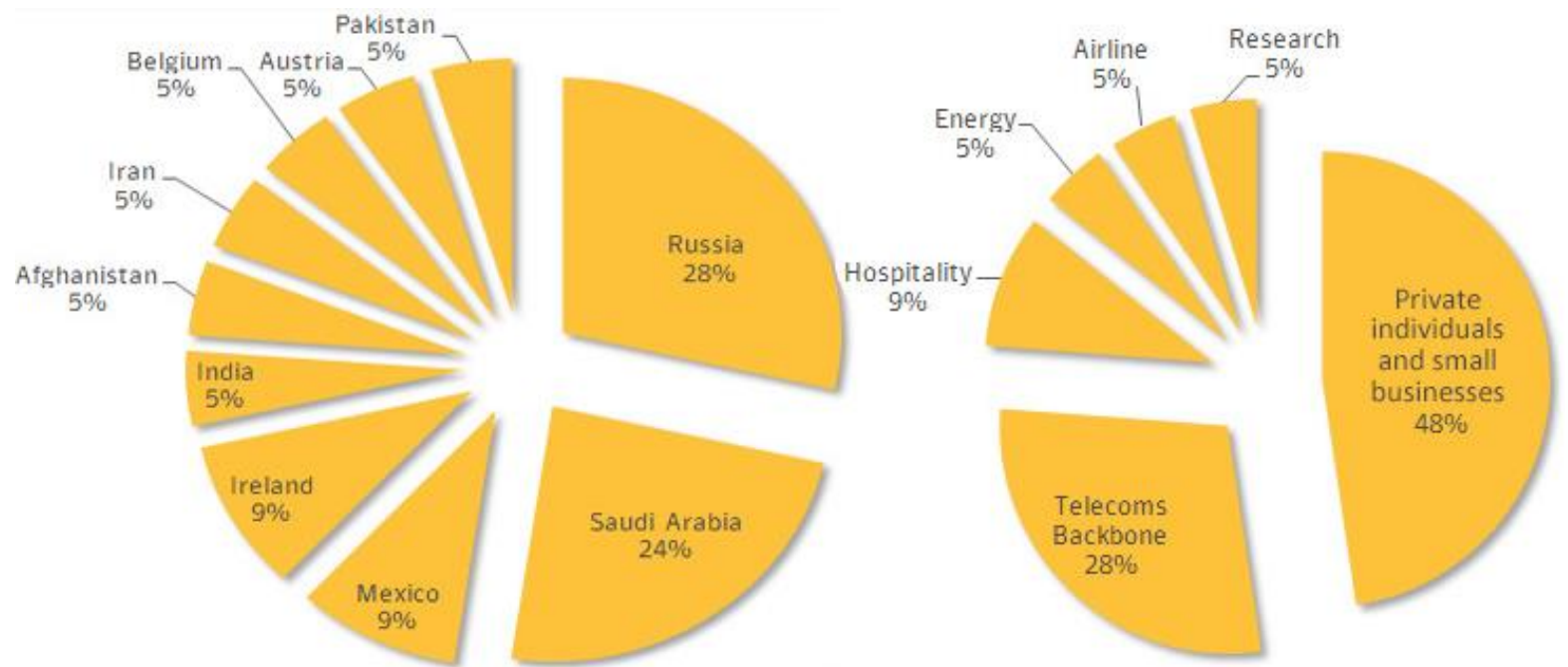
Why Cyber Security?

The underground economy

Asset	Sells for
Scanned Document (For example Passport)	\$2-5
Creditcard (as a scanned document)	\$2-10
Drivers License	\$10-15
Server (RDP connection)	\$3-12
Hacked PayPal accounts	30% of the current balance on the PayPal account

Why Cyber Security? Regine

- highly advanced malware instance said to be as sophisticated as the famous Stuxnet and Duqu
- thought to have been developed by a nation-state because of the financial clout needed to produce code of this complexity
- collect and send data



Regine's targets. Source: Symantec

Why Cyber Security?

Brazil

A life of cybercrime, a caipirinha and a tan: Fraudsters love a Brazilian (The Register)

School of Crooks in South America (The Register)

- the only market that offers training services for cybercriminal wannabes, making it possible to start a new career in cybercrime for just \$500.
- training modules, hands-on exercises, interactive guides, instructional videos, as well as post-training support are available
- Brazilian cybercriminals conduct their business out in the open using mediums such as Facebook, YouTube, Twitter, Skype, and WhatsApp to communicate, organize and advertise
- Brazil is well known in security circles for its association with banking malware, largely targeting local victims

How can we protect our assets?

People, Technology, Governance

- People
 - Awareness / Knowledge / Experience / Skills
 - Collaborate
 - Share / Use third party knowledge
- Technology
 - Tools (Antivirus, Firewalls, IDS, IPS, etc.)
 - Vulnerability Assessments (Pen-tests, configuration reviews, code reviews, etc)
 - Technical Audits
- Governance
 - Start from Top

IT Governance

Cultural and behavioral change

IT governance is the responsibility of the board of directors and executive management. It is an integral part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives.

The purpose of IT governance is to direct IT endeavors, to ensure that IT's performance meets the following objectives:

- Alignment of IT with the enterprise and realization of the promised benefits
- Use of IT to enable the enterprise by exploiting opportunities and maximizing benefits
- Responsible use of IT resources
- Appropriate management of IT-related risks

Governance

Standards

- ISO 27000 Standards Family (Information Security Management System)
- ISO 20000 Standards (Information Technology Service Management)
- ISO25999 (Business Continuity)
- ITIL 4
- COBIT 5
- CMMI
- Common Criteria
- Etc.

COBIT 5

A Business Framework for the Governance and Management of Enterprise IT

Simply stated, COBIT 5 helps enterprises create optimal value from IT by maintaining a balance between realizing benefits and optimizing risk levels and resource use.

COBIT 5 enables information and related technology to be governed and managed in a holistic manner for the entire enterprise, taking in the full end-to-end business and functional areas of responsibility, considering the IT-related interests of internal and external stakeholders.

The COBIT 5 **principles** and **enablers** are generic and useful for enterprises of all sizes, whether commercial, not-for-profit or in the public sector.

COBIT 5

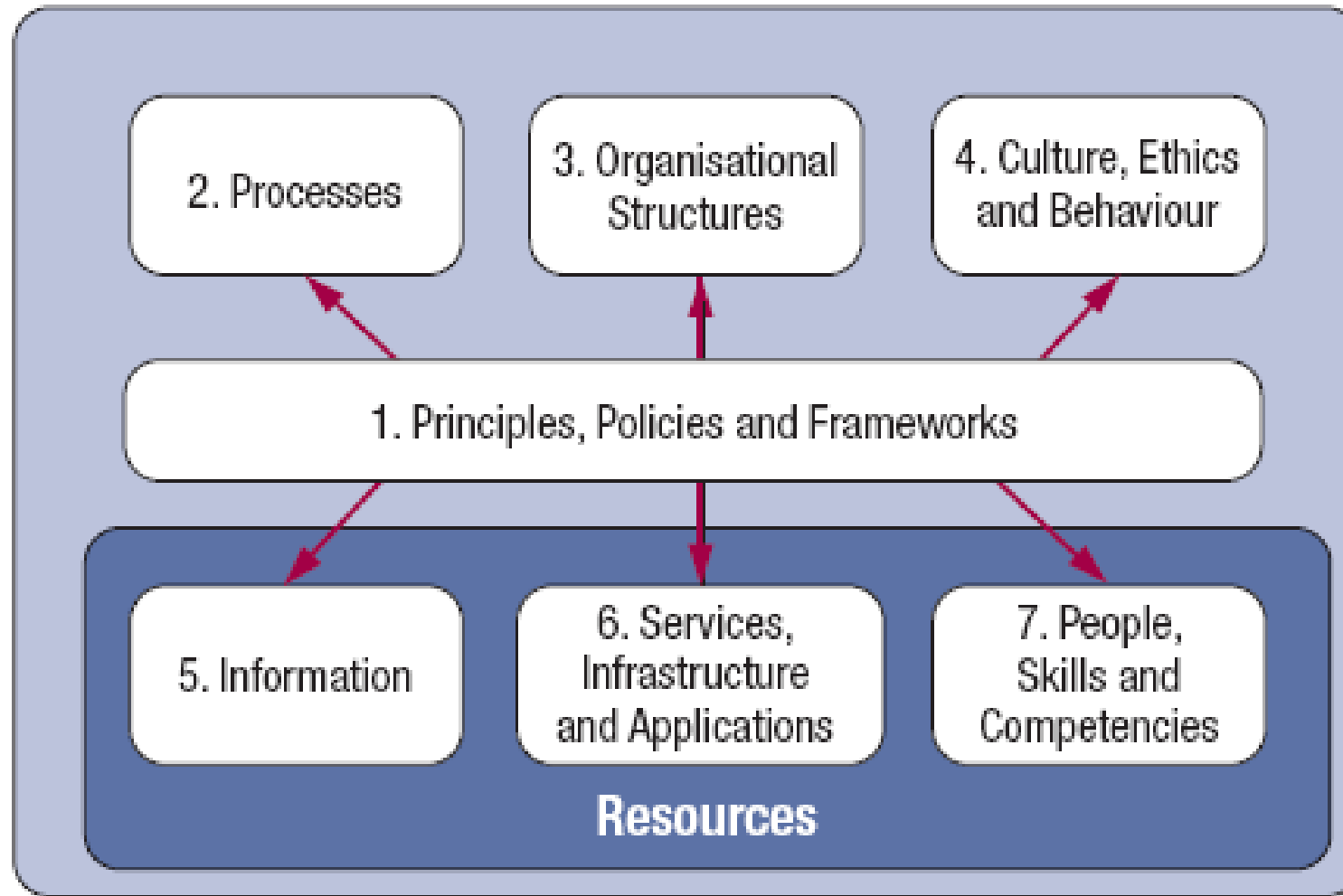
A Business Framework for the Governance and Management of Enterprise IT



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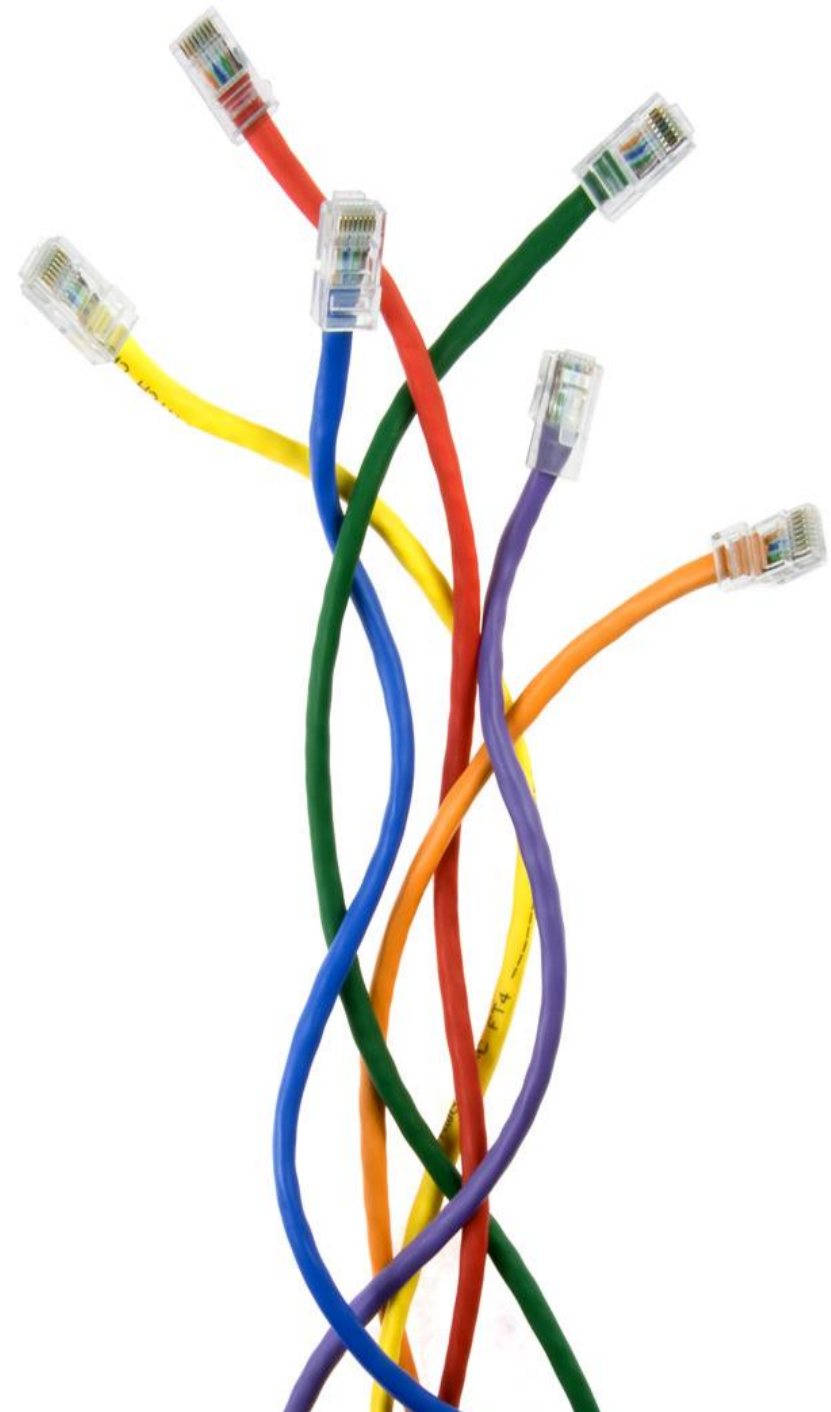
COBIT 5

A Business Framework for the Governance and Management of Enterprise IT



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Questions



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