Managing IT Security *in e-GP*

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The evolution of power...

INDUSTRIAL REVOLUTION
The evolution of information...
Information technology – Some definition (business perspective)

• Technology
  • A way of doing something or performing an activity

• Information
  • Any tool that allows us diminish the uncertainty in the decision making process

• System
  • Collection of elements or components that are organized for a common purpose
Information system vs. Computer system

- **Information System**
  - System to provide information

- **Computer System**
  - Total or partial automation of an Information System

- **Information and Communication Technology**
  - Hardware + Software + Communications + Human Resources

  - **Hardware**: Everything that can be broken with a hammer
  - **Software**: Everything you just can insult or curse
Which is the safer computer?
The pillars of information

- Confidentiality
- Availability
- Integrity
TRUST  How do we build it?

Its pillars: Confidentiality, Integrity and Availability...

Very important!!!

Objectives:

- That the person or company that says to be on the other side of the network is who it claims to be
- That the transmission through the network has not been modified
- That the transmitted data are only seen by those authorized
- That the transmitted data can not be repudiated or rejected
An information system is a GREAT Asset!!!!

How do we protect this Great Asset?... Divide and rule!!!!!!

- **Dimension**
  - Physical
  - Logical
  - People

- **Concept**
  - Availability
    - ✔️
  - Integrity
    - ✔️
  - Confidentiality
    - ✔️

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Let’s understand other important concepts

**ASSET**

**VULNERABILITY**

**THREAT**
What is a Risk??

• A risk is the uncertainty of whether or not an event occurs, affecting the achievement of institutional goals and objectives

• The level of risk may be measured according to its impact and probability of occurrence

• Quantitatively this relationship is reflected in the function:

\[ \text{Risk} = f(\text{Probability}, \text{Impact}) \]

• Risks may be the result of the effect of internal and external factors
"When someone asks me how I can describe my experience of almost forty years at sea, I simply say: placid ....... of course there have been winds, storms, fog .... but I never saw a shipwreck or I was shipwrecked, not even some Threat of a disastrous end "

E.J. Smith, Captain of RMS Titanic, April 1912
Alinear la estrategia a la TOLERANCIA al riesgo de la entidad.

Assume Risk

REDUCE RISK
• Aceptar
• Planificar
• Etc.

EVITAR
• Enajenar
• Detener
• Apuntar
• Prohibir
• Eliminar
• Etc.

TRANSFERIR
• Asegurar
• Limitar
• Tercerizar
• Reasegurar
• Indemnizar
• Dividir
• Etc.

Avoid - Transfer

Ej: Controlar

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Benefits of Risk Management

Objectives of transparency and efficiency

Associated Risks
Evaluate treatment options

Balance the cost of implementing each option vs the associated benefits.
Our focus TODAY... Public Procurement!!!

One purchase.......One transaction
One bid invitation... One transaction
One bid response... One transaction

• Elements of a transaction
• How do we ensure the security of a transaction
• Using experience of e-commerce
• TRUST, the BASE for developing e-procurement
Implementing Confidenciality

- Double effect control access
- Digital certificates and Digital signature
- Encrypting
Identifying who is offering

- The importance of identifying who is offering, concepts such as authentication and its features would be interesting. Pros and Cons of the different authentication methods
The integrity of the offer itself

- Also the integrity of the offer itself. How we validate it and provide legal certainty (access to documents and managing submission and opening dates, for example)
- How do we know that the offer received is authentic and valid. The same applies to the rest of the documents (purchase orders, invoices, etc.)
Privacy of information and confidential data

- Other area is about how we protect privacy of information and confidential data in the offers submitted
Key takeaways

- Nothing is 100% safe
- Find the balance between risk and control
- Want to significantly reduce your organizations’ IT security-related risks? Change the behavior of your users
THANK YOU!

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