

# Data security, privacy and patient safety in the 21st century

*According to a recent Gartner study the majority of CIO's in healthcare/medical and pharma are convinced that their organizations are not optimally protected to cybercrime and other digital incidents.*

- These incidents can originate from a broad spectrum of causes, some not even related to malpractice but i.e. to natural disasters like flooding. Organizations have traditionally placed the responsibility for physical and digital security in the hands of staff organizations like facility management and ICT departments.
- Especially in the EU where academic environments are commonly directly connected to hospitals the urgency for improving operational security has risen. And security is just one side of the proverbial coin, the other is privacy, where especially in the EU there has been great political interest in this subject, which is resembled in the new EU privacy directive and the guidelines for data-breaches implemented by the different member states.
- But data-security isn't a static item, it requires a continuous process of quality monitoring and improvement. And this goes for both development and the deployment and management of computerized systems.
- Luckily, there are quite a lot of battle tested methodologies and tools available.
- Open source security testing methodology manual (OSSTMM) This is a standardized approach for risk management by identifying objects (people, systems, processes) and their interactions in their environments. The focus lays on optimally securing these interactions thereby reducing the impact of the failure of one object in its functional context. Other than most other, quite abstract, methodologies OSSTMM delivers a very thorough framework of concepts and guidelines which ensures reproducibility of the risk analysis results.
- Open Web Application Security Project (OWASP) offers a standard library of common best practices in ICT security and secure development of computerized systems. Although the name of the project implies web development only, these practices are very valid all across the functional field of ICT application development.

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