

Welcome to

# Securing the transition to the Cloud

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on behalf of

**interxion**

# Transitioning to the Cloud

Short overview of your changed responsibilities when implementing cloud

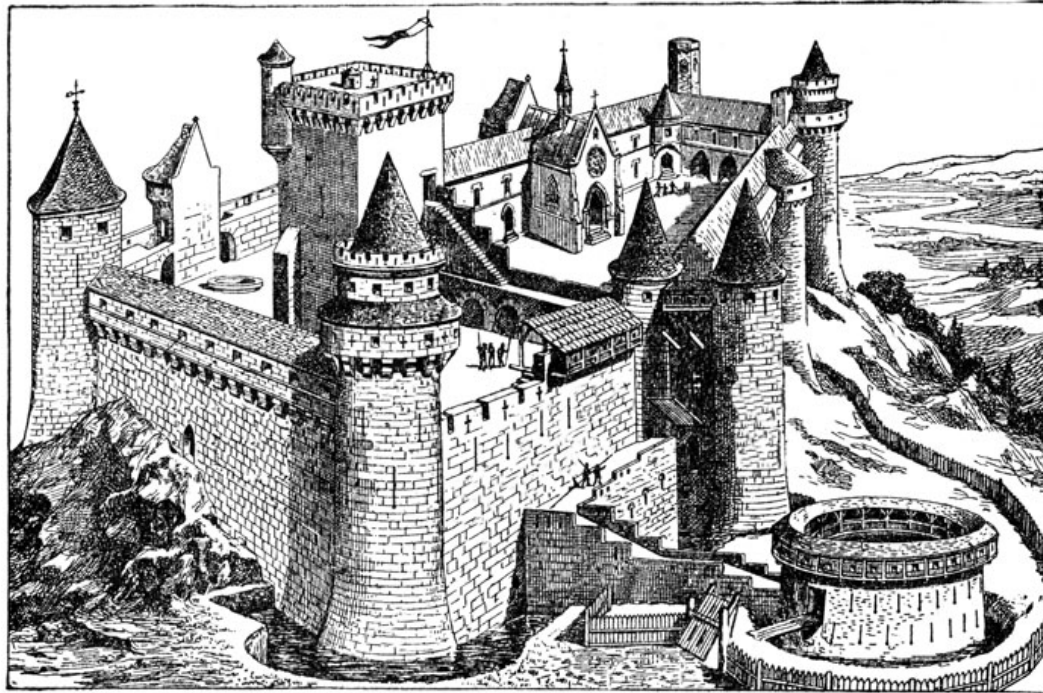
Buzzword bingo: Cloud, SOAP, REST, XML, ...

Platform as a Service (PaaS) is the delivery of a computing platform and solution stack as a service.

Software as a service (SaaS)

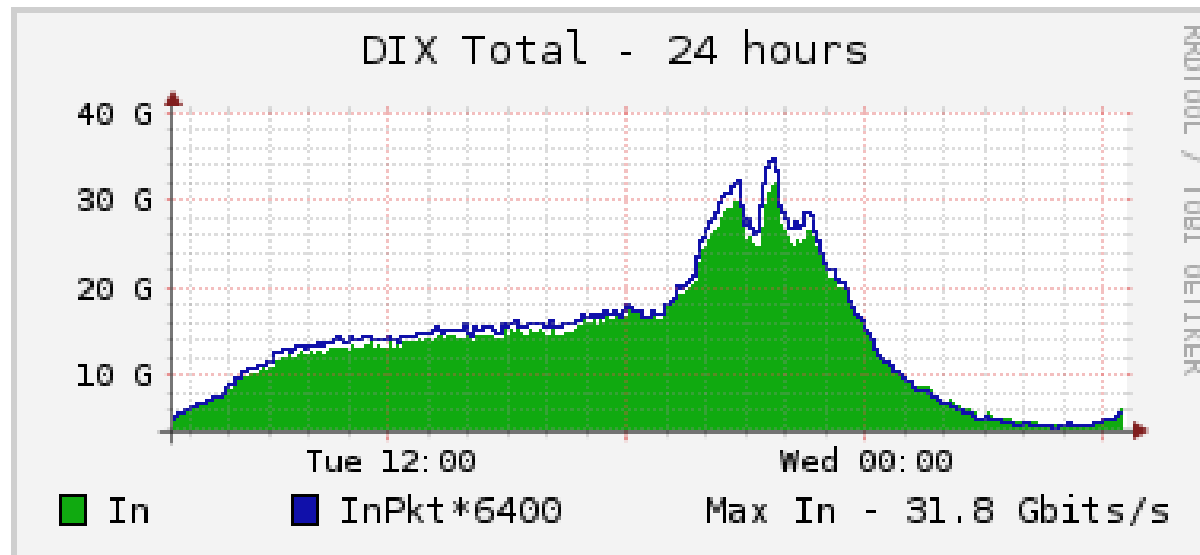
High complexity but also computing thought as a utility like water, gas, power

**Solutions are increasingly using *web protocols* & APIs**



We are used to thinking about security as a castle with walls

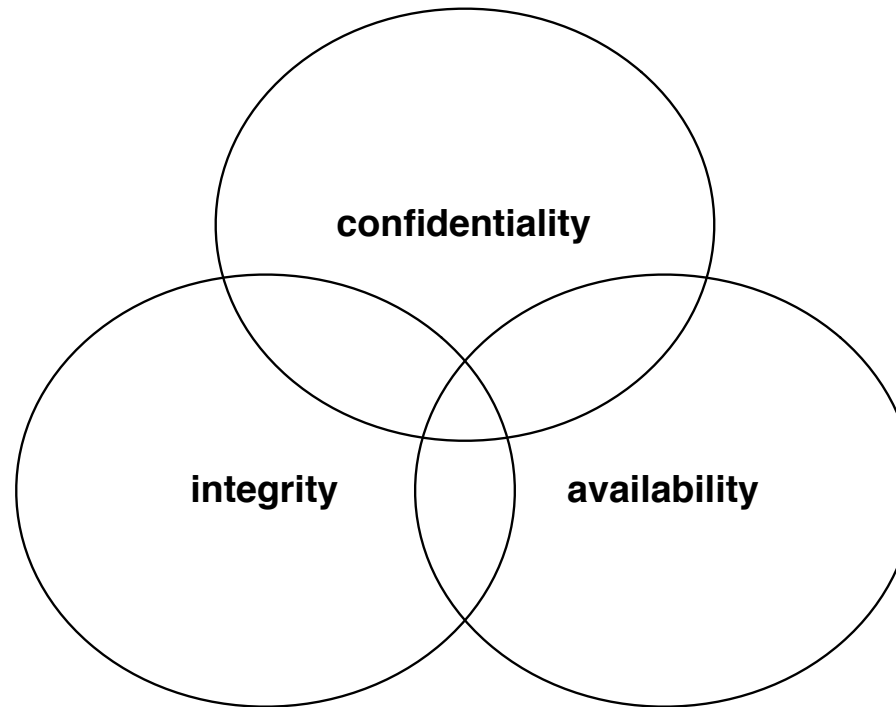
Dependencies: your power, your internet, your servers, your people



Outsourcing data centers is nothing new, Interxion was founded in 1998

Carrier neutral data centers with 400+ carriers/ISPs in 29 datacenters across 18 internet exchanges

Today servers are being migrated to and from centers, to and from providers - easily



Everything today is cloud - but did we loose security? and what is security?

Did you ask security questions? Did you even think about security when deciding to do cloud computing?

We have more customers asking about

- ISO/IEC 27001 - information security management system standards  
[http://en.wikipedia.org/wiki/ISO/IEC\\_27001](http://en.wikipedia.org/wiki/ISO/IEC_27001)
- SSAE 16 No. 16, Reporting on Controls at a Service Organization  
Statement on Standards for Attestation Engagements (SSAE) <http://ssae16.com/>
- ISAE 3402 Assurance Reports on Controls at a Service Organization  
International Standard on Assurance Engagements (ISAE) <http://isae3402.com/>
- Independent assessment from a trusted security firm - which must often also be certified
- Physical Security, power, HVAC - trusted partners reviewing security
- Implementing standards is also security

Over the years organisations have become more mature with regards to security

Implementing security controls were easier when you owned all resources

What about requirements for Cloud vendors?

Did you at least ask these?

- Service levels
- Connectivity
- Multiple locations - we know and you know that a single data center is a single point of failure
- Maybe use multiple clouds - do not put all your eggs in one basket  
Recommend selecting clouds with open APIs so you can move between clouds!

If you are a large organisation you will have (manual) procedures if business critical systems fail, but can you handle **all of them failing at the same time?**



We have realized everything is connected, even when not using cloud

- Internet connectivity is crucial - need redundant connections to work force locations
- Luckily work force is very mobile today
- Some tools like email is used around the clock
- Controlling your data outside of the enterprise requires thought
- Make sure to evaluate risks for each application, each provider - and also as a whole
- Make formalized procedures for security clearance - also when using clouds internationally  
What data can you put in the US, EU, outside of EU - and what are the external legal requirements

Congratulations - you are already using cloud. Some of your services are dependent on cloud systems. Are you aware of your risks?

- Re-evaluate your business critical systems, which ones are using cloud today, is the current controls sufficient
- Re-asses the risk to data. There are leaks and security breaches daily around the world. Is your data secure?
- Redo your disaster recovery procedures - maybe split business critical systems between multiple cloud vendors - to reduce risk of all failing at once.
- behov for sikring og kontrol, samt security metrics

Your security department is probably already doing this, since they have increasingly become a service to the organisation - only change is some systems moved into the cloud.

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You are always welcome to send questions afterwards