Virtualized research architecture

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National strategy

- ➢ Cloud services should always be considered

- ➢ And chosen where they are cheapest and most expedient

  - ➢ Information security must be catered for

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moderniseringsdepartementet   Strategi
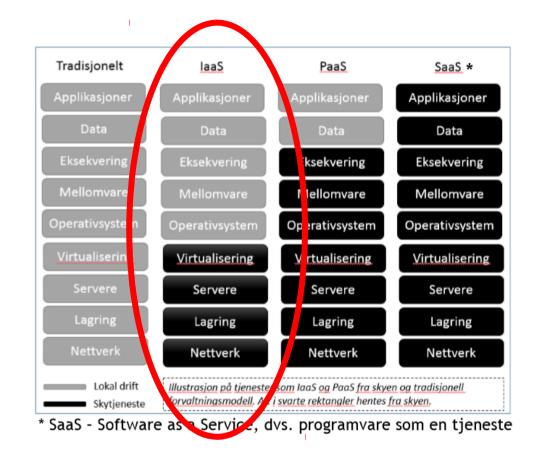
Nasjonal strategi for bruk
av skytenester

Cloud technology and services

- The Cloud Computing concept refers to physical components, software, services, business models and delivery models.
- It represents a paradigm shift for production, distribution and use of IT services

Tradisjonelt	IaaS	PaaS	SaaS *
Applikasjoner	Applikasjoner	Applikasjoner	Applikasjoner
Data	Data	Data	Data
Eksekvering	Eksekvering	Eksekvering	Eksekvering
Mellomvare	Mellomvare	Mellomvare	Mellomvare
Operativsystem	Operativsystem	Operativsystem	Operativsystem
Virtualisering	Virtualisering	Virtualisering	Virtualisering
Servere	Servere	Servere	Servere
Lagring	Lagring	Lagring	Lagring
Nettverk	Nettverk	Nettverk	Nettverk

Lokal drift
Skytjeneste

Illustrasjon på tjenester som IaaS og PaaS fra skyen og tradisjonell forvaltningsmodell. Alt i svarte rektangler hentes fra skyen.

* SaaS – Software as a Service, dvs. programvare som en tjeneste

- Example: Infrastructure as a Service (IaaS) – buy datacentre functionality over the Internet instead of investing locally.

Why choose cloud services?

- Very fast to set up
- No cost to set up a small instance
- Easy scaling
- IaaS: Flexibility
- ...

You can
do it yourself !!!

Now.

UH-sky: OpenStack IaaS

Mini workshop:

- Quick background

- Log in on web GUI

  – Make a machine via Web GUI

  – To verify: Log in on the machine via SSH.

- Install and set up CLI

  – Attach storage via CLI

  – Make a new machine via CLI

- Play around

  – E.g. install a graphical software package

  – Or install a web server

  – Or install your workflow tools

My lesson notes are at

https://arnsteio.github.io/UH-IaaS-mini-workshop/

Why not use cloud services?

- Compliance issues. Data protection
- Legacy systems
- SaaS / PaaS: inflexibility
- Uncertain costs
- Skill set