IaaS - Infrastructure as a Service

- Grids of virtualized servers, storage & networks

- Access to infrastructure stack:

- Full OS access
- Firewalls
- Routers
- Load balancing

Vantagens:

1. Pay per use
2. Instant Scalability
3. Security
4. Reliability
5. APIs

EX: Amazon Web Services, Google Cloud Platform

PaaS – Platform as a Service

- The abstraction of applications from traditional limits of hardware allowing developers to focus on application development and not worry about operating systems, infrastructure scaling, load balancing and so on.-

- Platform delivery model:

- Platforms are built upon Infrastructure, which is expensive
- Estimating demand is not a science!
- Platform management is not fun!

Vantagens:

1. Pay per use
2. Instant Scalability
3. No sysadmin tasks
4. Better Security

EX: Google App Engine (Java, Python), MS Azure (.net)

SaaS – Software as a Service

Software-as-a-Service: Applications with a Web-based interface accessed via Web Services and Web 2.0.

- Software delivery model

- Increasingly popular with SMEs
- No hardware or software to manage
- Service delivered through a browser

- Advantages:

1. No Installation Required
2. Not platform specific
3. Automatic Upgrades
4. Access your data anywhere

EX: Google Apps, SalesForce.com and social network applications such as FaceBook

Cloud Computing

- Lower cost of ownership
- Reduce infrastructure management responsibility
- Allows for unexpected resource loads
- Faster application rollout

- How does cloud economy work?

- Multi-tenent
- Virtualization lowers costs by increasing utilization
- Economies of scale afforded by technology
- Automated update policy

- Risks:

- Security
- Downtime
- Access
- Dependency
- Interoperability