Cloud

Compute Instances - Virtualized

Firewall/Load balancer

HTTP, SSH, Remote Login
Differences

**On Premise**
- Full control
- Full Responsibility
- Easy to establish trust from one server to another
- To scale extreme is expensive and takes time (wait for server to be installed)

**In cloud**
- Provider controls
- You may hand over responsibility to provider
- Trust is hard
- Cloud has built-in elasticity
Cloud Computing Price Comparison Engine

Calculate cloud server price and make custom IaaS cloud computing provider cost comparison. No search, no calculator, no effort.

Use sliders to set minimum RAM, HDD, and CPU requirements for your cloud server. The result table will update accordingly with monthly prices from multiple IaaS cloud providers. You can also adjust required transfer rates and specify the maximum length of a subscription plan you are willing to prepay. Click Advanced mode for complex configuration requirements.

### Cloud Server Summary

<table>
<thead>
<tr>
<th>Cloud Provider</th>
<th>Cloud Server Details</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>atlantic.net</td>
<td>2 GB RAM / 2.4 GHz VCPU (Medium)</td>
<td>$49 Go to Provider</td>
</tr>
<tr>
<td>M5</td>
<td>1.5 GB RAM / 1x 1% VCPU</td>
<td>$24 Go to Provider</td>
</tr>
</tbody>
</table>

10 GB outgoing and 1 GB incoming traffic per month.
Maximal allowed subscription duration is 1 month.
Types of clouds

- Public cloud
- Private cloud
- Community cloud
- Hybrid cloud
Pricing

- Freemium – free for small usage
- On-demand – pay for what you use
  - Fixed hourly prices
  - Auction-like
- Service-fee – fixed monthly fee
- Mixed – suit your needs
AWS – An example
An example – Recommendation

- Cross sales / up sales
- Million+ clicks needs to be matched each day and recommendations served in “web” real-time
An Example - Recommendation

Collect click data
Generate Model (Data Mining)
Serve recommendations from model
An example – Recommendation

- Move to the cloud for scaling and economics
An example – Recommendation

- Prepare image
- Add application
- Launch
- Retrieve model
Other interesting stuff

- Multi-tenant
- Cloud Broker
- Secure multiparty
- Inter-cloud
- Real-time clouds