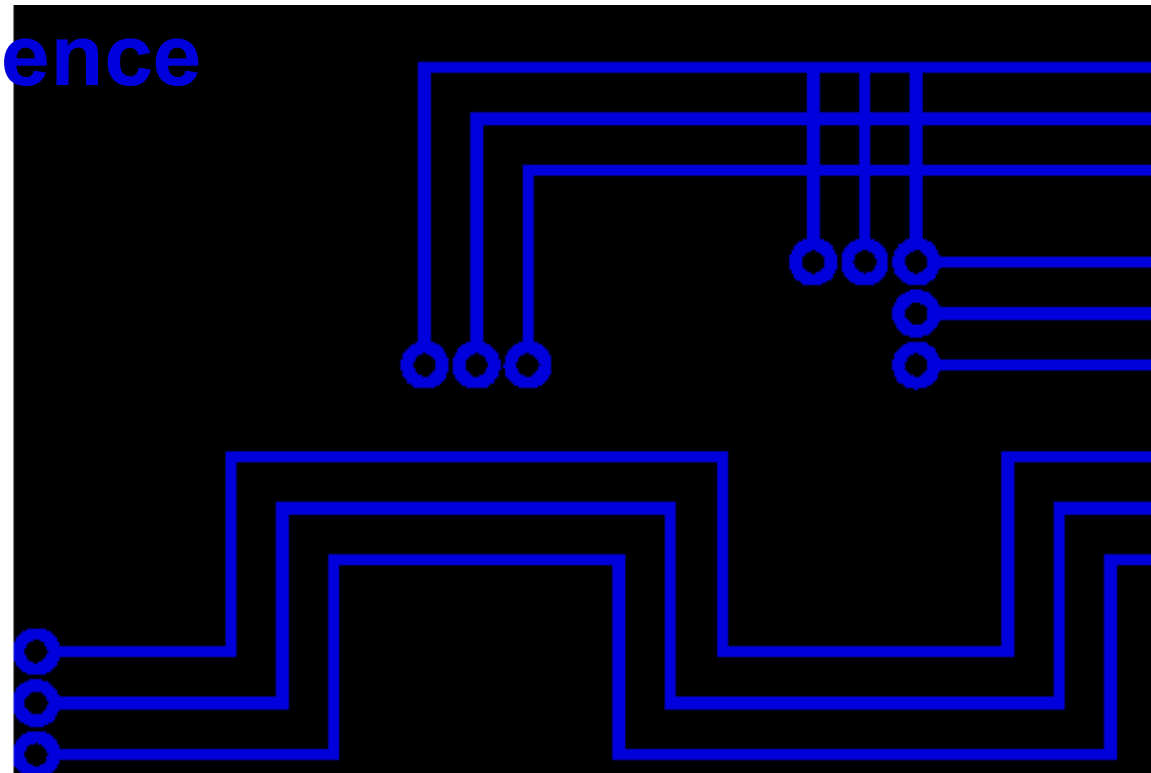
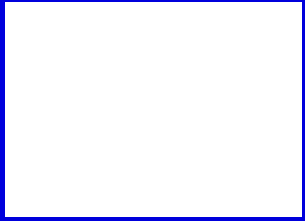


# Basic application of Service Science

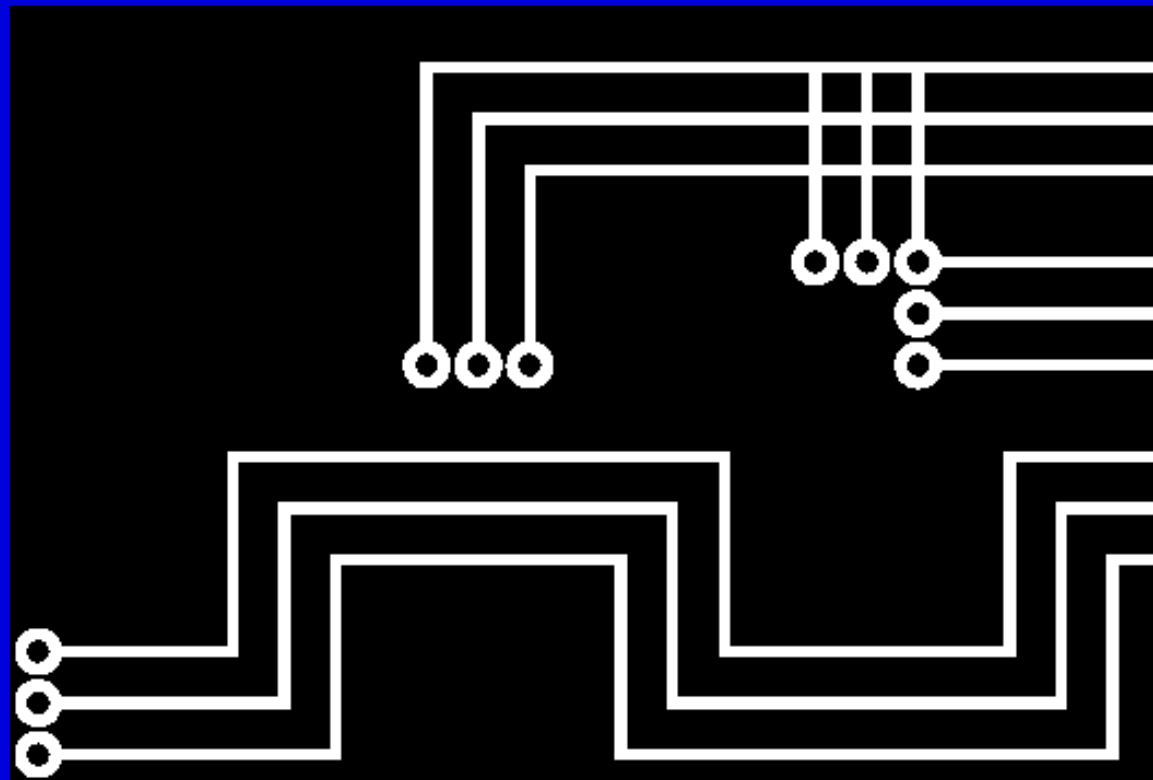
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# Value estimation

How to find proper value proposition



# Problem of moral hazard

a tendency to take undue risks because the costs are not borne by the party taking the risk

The customer can affect an event he is insured against, but the seller has no power to monitor or affect this event.

- ERP supplier has limited information about customers IT security
- Provider has limited information about the basement of the real client's problem

## Double moral hazard

- Client does not know if the provider is able to operate on the target

## Double moral hazard

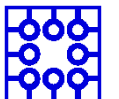
Illusion of value proposition

Provider is not able to see the basis of target

Client is not able to see the benefits of the cooperation

Both are motivated to share information and knowledge

Value proposition can not be set up



# Example

The company needs information system to support its core business

The company has serious problems with communication with customers

But also hidden problems

- processing information
- time spent on one particular business case is too long – mostly caused by bad communication inside the company

# IT company

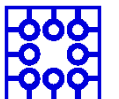
Offers a big customised ERP system together with CMS system

- CMS system has connection to Social Networks

The problem to solve is the communication

But it is not a part of the problem

IT company needs to find its paths through targets – to analyse the situation if the client



# Value

## Value proposition is hidden

- is hidden by the hill

## Hierarchy of barriers hiding the target

- have to be overcome step by step
- leads to process of value estimation

## Value can not be proposed

## It can be only estimated

- is used to find value proposition
- there is not a target, only target area
  - target area is the space of all sub-targets, corresponding with particular value estimation

# Value estimation

modified by the value co-creation process

motivated by the decreasing of the level of information asymmetry of both parties

the process is about particularize of value estimations

till the moment of founding the value proposition



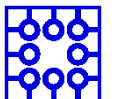
# Value proposition

**can be found in the moment client and provider can see the target**

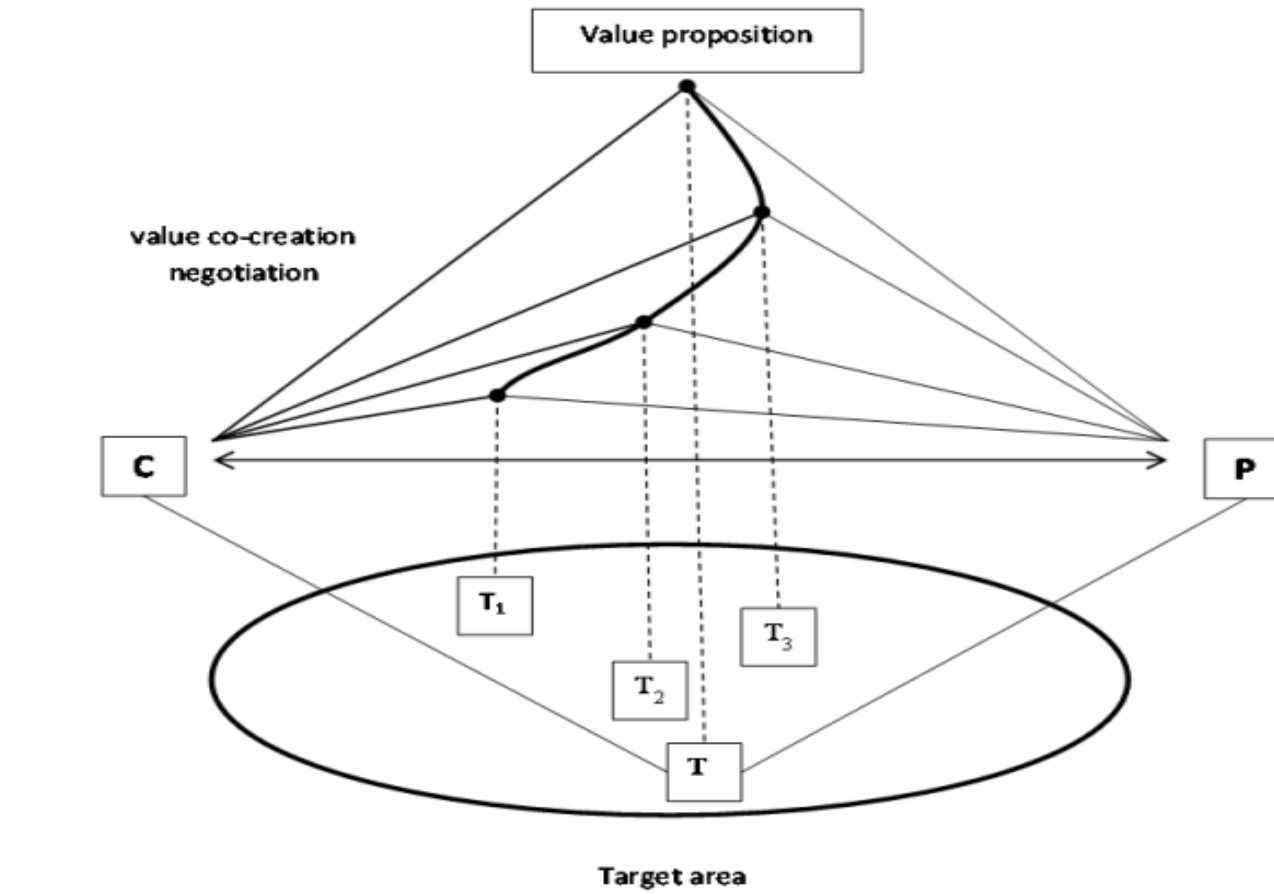
- share the same point of view
- both can see the utility level
- and share as well

**both partners agree with concrete mutual criteria of success**

- variables to test
  - no of customers
  - profitability
- target values
  - number of customers rise of 30%
  - profitability rises more than 10%



# Value proposition



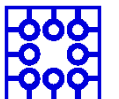
# Costs of value estimation

must be shared and paid

- problem is complex
- must be understood and explored

provider must be paid for using his sources to do it

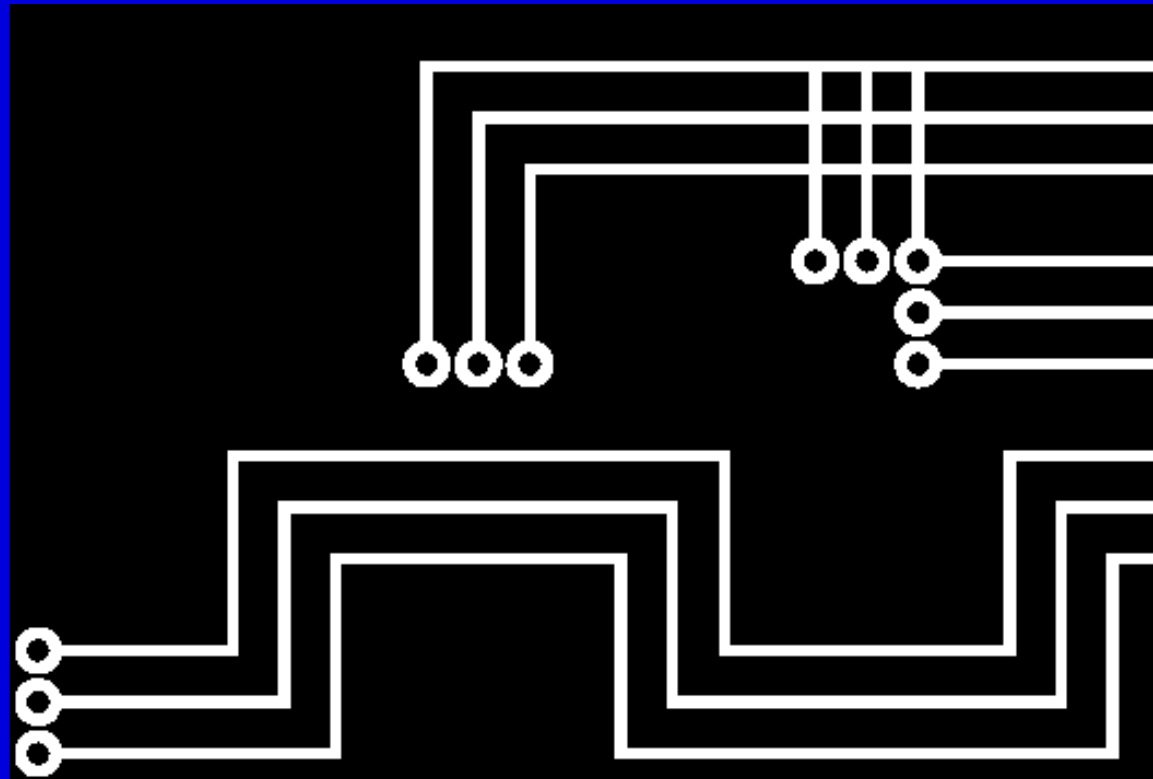
**Client is paying for the analysis of the target area**





# Software as a Service

How to communicate with normal managers



# History

## 60s

- Centralized hosting of business applications
- service bureau
  - company which provides business services for a fee
  - eg. IBM
  - time-sharing
  - sharing of a computing resource among many users by means of multiprogramming and multi-tasking
- utility computing
  - a service provisioning model in which a service provider makes computing resources and infrastructure management available to the customer as needed, and charges them for specific usage rather than a flat rate
- mainframes

# History

## 90s

- Application Service Provider (ASP)
  - thanks to expansion of the Internet
- class of centralized computing
- services of
  - hosting
  - managing specialized business applications
- reducing costs through
  - the solution provider's specialization in a particular business application
  - central administration



# History

2001

- Software as a Service
- extends the idea of the ASP model
- software vendors
  - first ASPs were focused on managing and hosting of third-party independent software vendors' software
- SaaS
  - typically develop and manage their own software



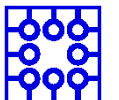
# History

## application clients

- ASP
  - Client - Server
  - initial ASP used thick clients
- SaaS
  - Thin Clients
  - Web browsers

## software architecture

- ASP
  - maintaining a separate instance of the application for each business
- SaaS
  - utilize a multi-tenant architecture
  - multiple businesses and users





# Applications



Well known SaaS

Gmail  
Google Drive  
Office 365



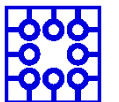
Messaging



DBMS software



management software



# Architecture - provider

Cloud

Cloud Service models

support of scalability

- horizontal scaling
- the application is installed on multiple machines

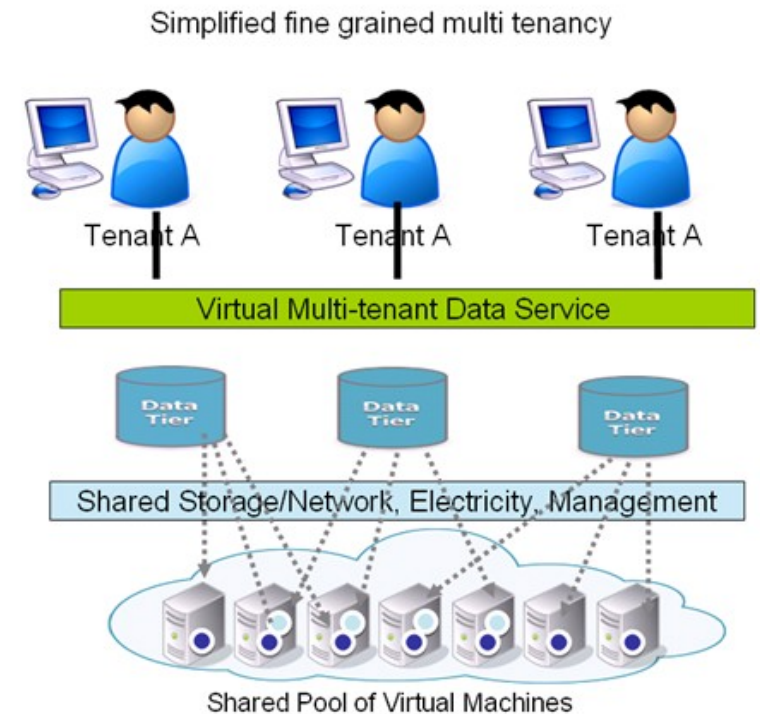
tenant



# Architecture - provider

## multi-tenant services

- Vast majority of SaaS solutions
- a single
  - version of the application
  - configuration
  - hardware, network, operating system
- advantage in comparison with traditional software
- multiple physical copies
- potentially different versions
- different configurations



# Architecture - client



## Thin Client

- Web Browser

## Hybrid

- Dropbox

## For integration with internal systems

- Application programming interfaces



# Business models

## Subscription fee

User

Time unit

- typically
  - month
  - annual

Transaction

Support

Advertising

## Freemium

basic functionality is for free

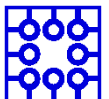
restrictions in

- capacity
- functionality
- support
- users
- time
- bandwidth

money are charged for

- proprietary functions
- functionality
- ...

multi-tenant



# How to describe to managers?

Managers are not IT experts

They are focused on core business of the companies

They understand the language of the money

They see IT as the source of problems and non stability

## Positive

- Strengths
- Opportunities

## Negative

- Weaknesses
- Treats

# Strengths

Less risky

Immediate

Reduce IT support costs

Initial setup cost for SaaS is typically lower than the equivalent enterprise software

Architecture

Economy of Scale

Enables Mashups

# Low risk level

## Customer

- Lower initial investment
  - Software and hardware
- Even the long time usage price is higher
  - Compare with better ROI (return of investments)
  - Avoiding the peaks of cash flow (the highest danger is based on unexpected costs)
- Example
  - CRM or ERP system

## Provider has regular income



# Immediate

SW deploy

Updates

- more often
- update is decided and executed by provider, not by customer

single configuration

faster testing

vendor has access to

- all customer data
  - expediting of design
  - regression testing
- analytics of user behaviour

# Weaknesses

Migration of data

Integration of clients

Tailored customization

Can't directly access a company's internal systems

Customer might be forced to use a new versions

# Opportunities

## SaaS Integration Platforms

Complex systems that integrates particular services

- CRM
- ERP

Growth of SaaS sales on global market

Enables Mashups

integrating content from more than one SaaS

to create a single new service displayed in a single graphical interface

# Threats

## Unreliable provider of the service

- Bankrupt
- The physical presence of data

## Security and privacy

- is common corporate infrastructure more secured than data centres of cloud?
- HTTPS

## Connection

- Latency
- Reliability

## Sence of SWOT

SaaS is only one from many solution

Task is to give proper service for concrete situation

Managers need to understand

- Advantages
- Risks

To have real expectations

# Conclusion

Estimation of the value

Process of target understanding

SaaS is one way to distribute service

In many points of view has positive influence to both parties business

Needs to be described and set properly