Application of Service Science

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 is able to 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 particular 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
  - publishing 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 particular 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 overcame 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

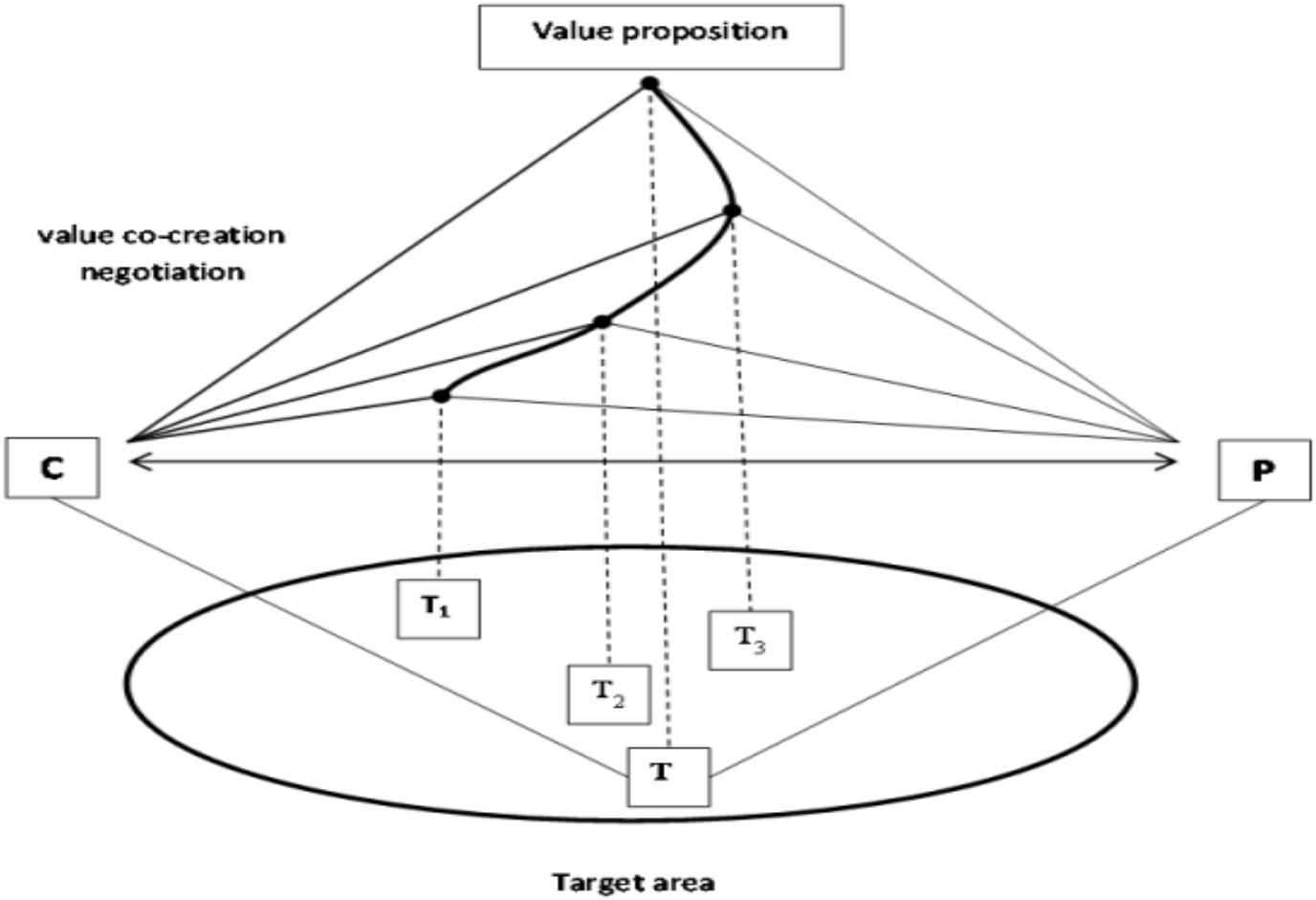
Value estimation

- 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

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

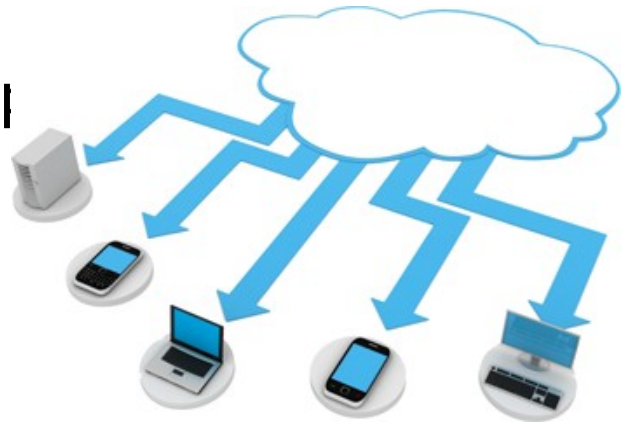
- Well known SaaS
  - Gmail
  - Google Drive
  - Office 365
- Messaging
- DBMS software
- management software

Applications

- CAD software
- development software
- accounting
- collaboration
- project management
- customer relationship management
- management information systems
- enterprise resource planning
- invoicing
- human resource management
- content management
- service desk management

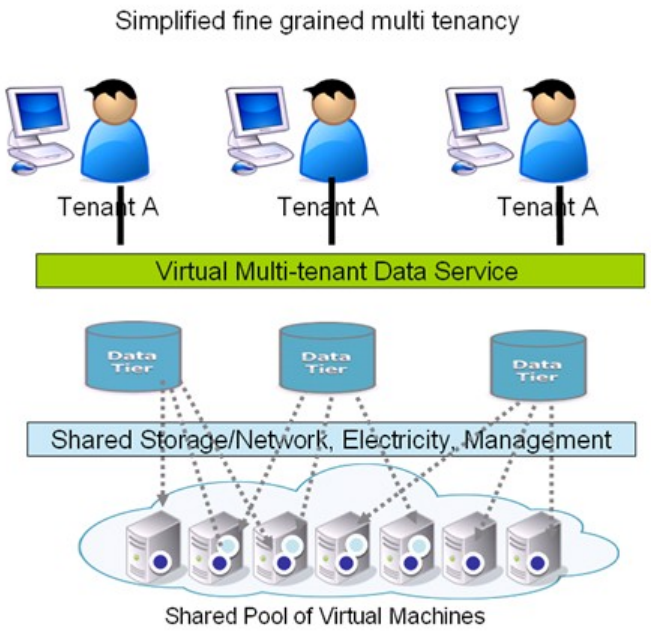
Architecture – provider

- Cloud
- Cloud Service models
- support of scalability
  - horizontal scaling
  - the application is installed on multi
- 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 si 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	Negative
Strengths	Weaknesses
Opportunities	Threats

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

- 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