

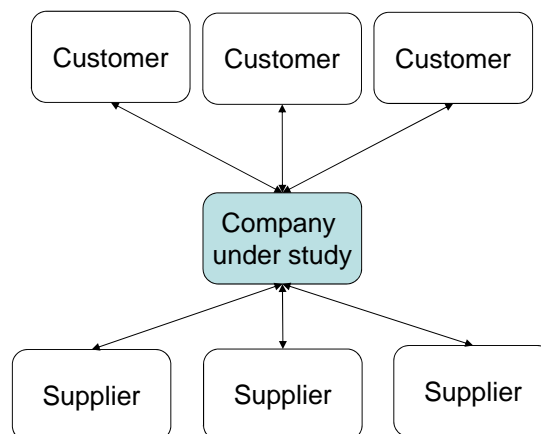
About Business models and Ecosystems



Jan Markendahl
November 07, 2012

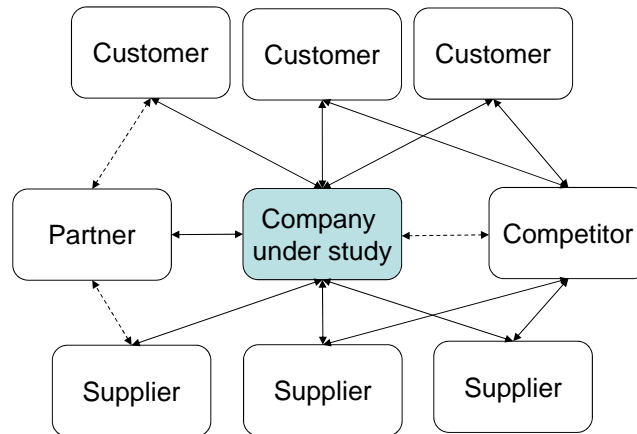
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Cooperation: Market Actors and Relations



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Cooperation: Market Actors and Relations



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Aspects to discuss



- Business models
- Ecosystems
- Industrial sectors
- Distribution of business roles
- How to organize the supply chain

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About Business Models

- Some definitions found at the web
 - The plan a company uses to generate revenue
 - A business model describes the rationale of how an organization creates, delivers, and captures value
 - The particular way in which a business organization ensures that it generates income, one that includes the choice of offerings, strategies, infrastructure, organizational structures, trading practices, and operational processes and policies



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About Business Models

- There is a multitude of definitions of how to model "business models" and large number of papers .
 - The Business Model Ontology (BMO)
 - The Business Blueprint Method (BBM)
 - The e3value ontology
 - The approach by Chesbrough & Rosenboom 2002



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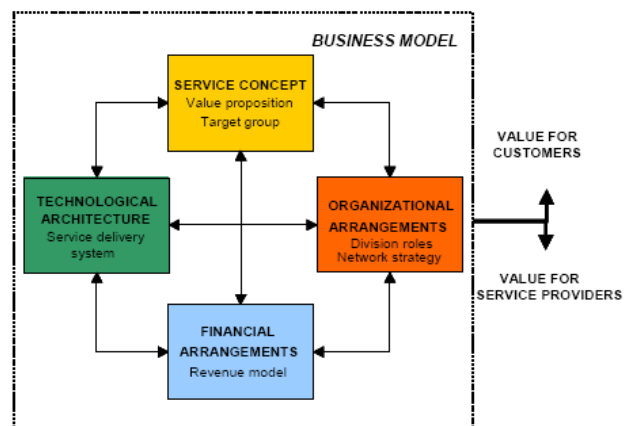
Business Model Ontology (BMO) by Osterwalder et al (2005)

- The business model is composed by four main elements or “pillars”:
 - Product
 - Customer Interface,
 - Infrastructure Management
 - Financial Aspects.



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The Business Blueprint Method (BBM)



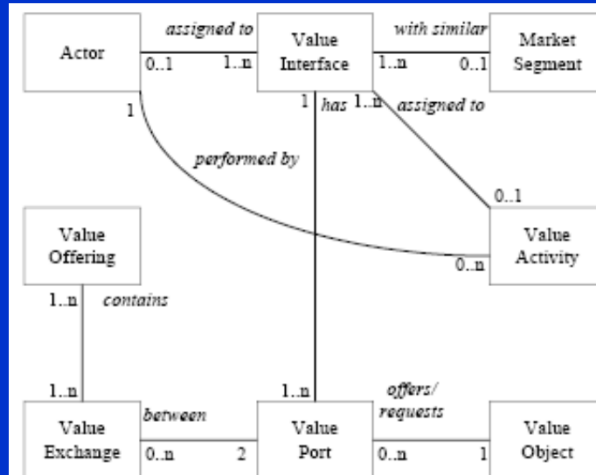
- Following the BBM approach of business modeling the value network can not be seen separated from the value proposition, the functional architecture nor the finances.



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e³value modeling constructs:

- Actor
- Value Object
- Value Interface
- Value Offering
- Value Transfer
- Market Segment
- Value Activity
- Composed actor



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E3value ontology

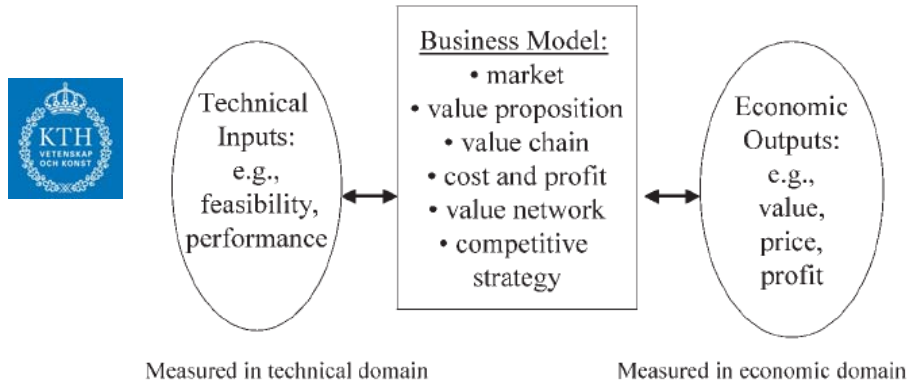
- The e3value methodology (Gordijn, Akkermans, 2001) has been developed to model a value web consisting of actors who create, exchange, and consume things of economic value.
- The e3-Value Ontology aims at identifying exchanges of value objects among actors in a business case and supports profitability analysis.
- The e3-Value Ontology includes some base constructs (Actors, Value objects, Value interfaces, Value ports, Value Interfaces and Value exchanges) and defines linkages among them.
- The constructs and their linkages in the e3-Value Ontology can be used to model a Value Network.



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One business model definition

H. Chesbrough and R. S. Rosenbloom



! The business model mediates between the technical and economic domains.

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Elements in the BM definition by C & R

- Value proposition.
- Market segment.
- Firm organisation and value chain
- Cost structure and profit potential.
- Competitive Strategy
- Firm in the value network



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Elements in the BM definition by C & R

- *Value proposition.*
 - What can our product offer that is new and unique compared to what's available on the market today?
- *Firm organisation and value chain*
 - What additional assets and functions will the firm need, in order to provide the service?
- *Firm in the value network.*
 - How is the firm positioned in the network of other players in the industry?



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Elements in the BM definition by C & R

- *Market segment.*
 - For what market segment is the service useful or of interest?
- *Cost structure and profit potential.*
 - Estimate the cost structure and profit potential of producing the service offering given the value constellations under study.
- *Competitive Strategy*
 - How is the position in relation to other competing firms?



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About "ecosystems"

- How many have heard it before?
- Related to what?



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Business Ecosystem

- In the early 1990s [James F. Moore](#) originated the strategic planning concept of a **business ecosystem**, now widely adopted in the high tech community.
- The basic definition comes from Moore's book "The Death of Competition: Leadership and Strategy in the Age of Business Ecosystems"
- The concept first appeared in [Harvard Business Review](#) in May/June 1993,



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Business Ecosystem

- Moore defined "business ecosystem" as:

"An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. The economic community produces goods and services of value to customers, who are themselves members of the ecosystem.

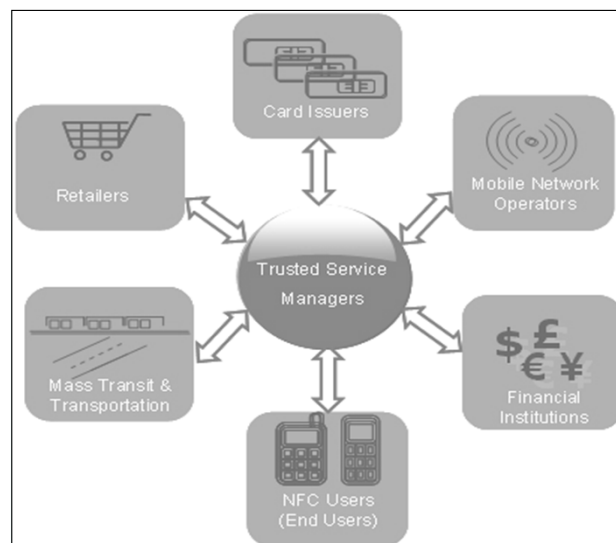


The member organisms also include suppliers, lead producers, competitors, and other stakeholders. Over time, they coevolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies.

Those companies holding leadership roles may change over time, but the function of ecosystem leader is valued by the community because it enables members to move toward shared visions to align their investments, and to find mutually supportive roles".

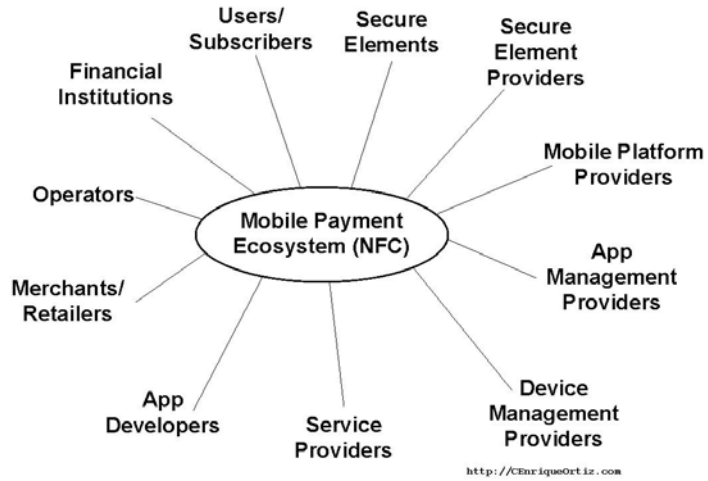
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Example: NFC mobile eco-system



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Example: NFC mobile eco-system



Example: from Mobey Forum

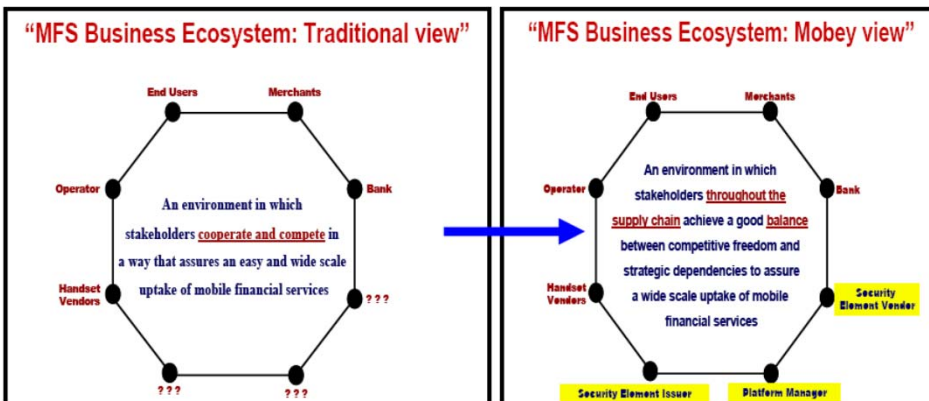


Figure 2. Defining the Mobile Financial Services Ecosystem

Example: from Mobey Forum

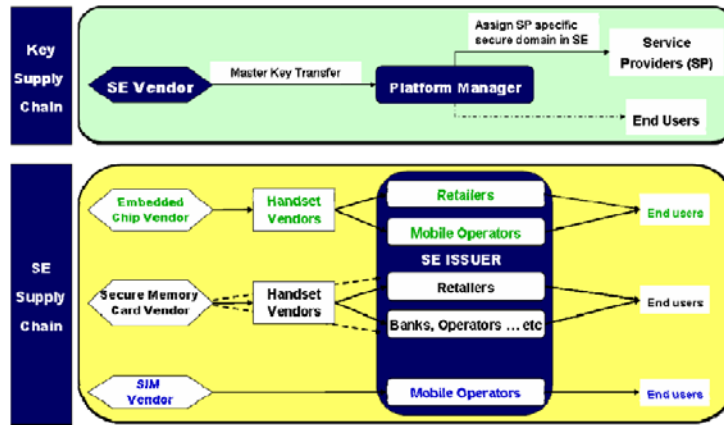
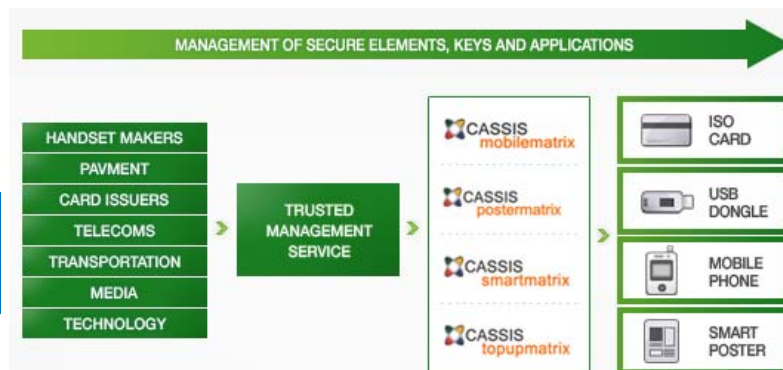


Figure 3. Generic Framework for the MFS Business Ecosystem

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Trusted Service Management & NFC ecosystem



- CASSIS has developed a comprehensive and value-added software suite which offers a superior value proposition to customers; enabling them to compete successfully in the new consumer ecosystem. The CASSIS NFC ecosystem allows customer to deploy rapidly services that cater to the mobile-centric consumer lifestyle.

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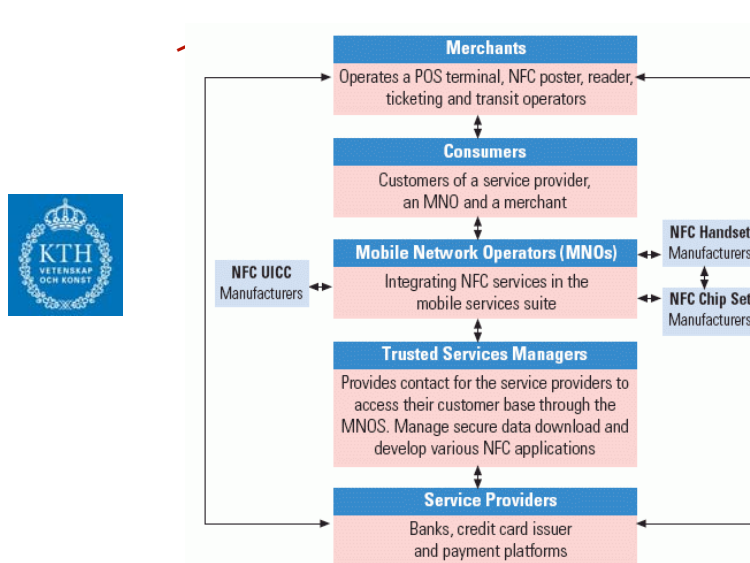
Example: NFC mobile eco-system



Figure 4.1 The NFC Mobile Ecosystem

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Example: NFC mobile eco-system



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Example: GSMA Pay-Buy-mobile ecosystem

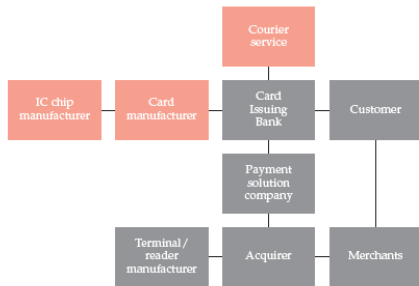


Figure 5 : Existing credit card ecosystem

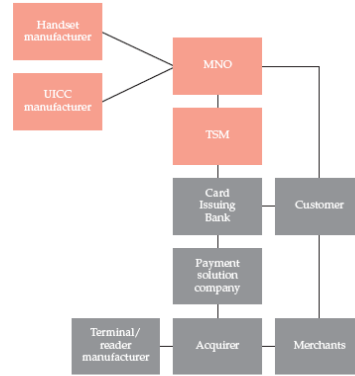


Figure 6 : Pay-Buy-Mobile ecosystem

A complex NFC ecosystem: so collaboration is **key**



and now it's time for something completely different



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A small exercise



- What do these representations of "Eco-systems" say?
- Is there something missing?
- What do you think are "good things" with a specific representation?

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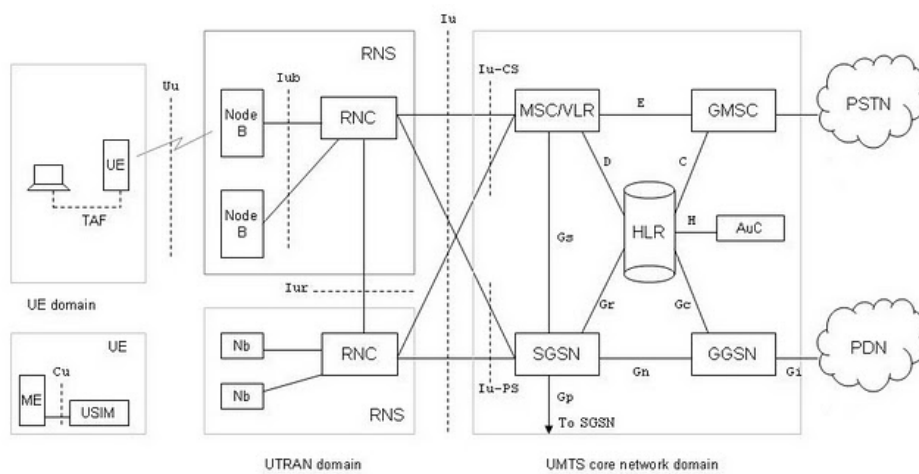
Compare with other representations

- 3GPP
- Credit card transactions



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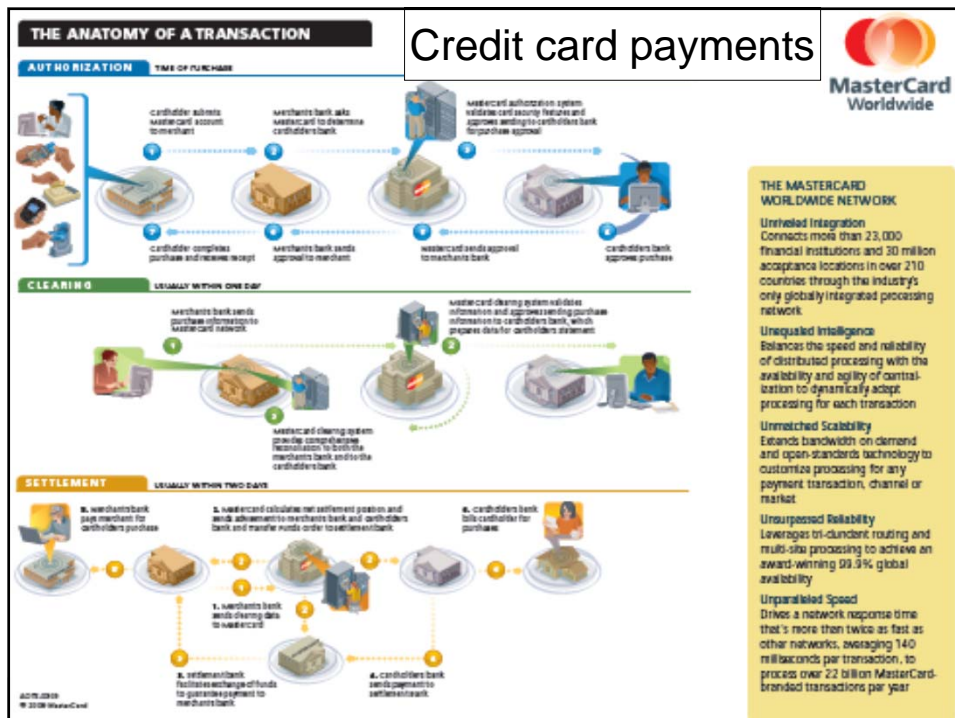
Example of an architecture standard: 3G mobile communication (UMTS) with network elements (functional blocks) and interfaces



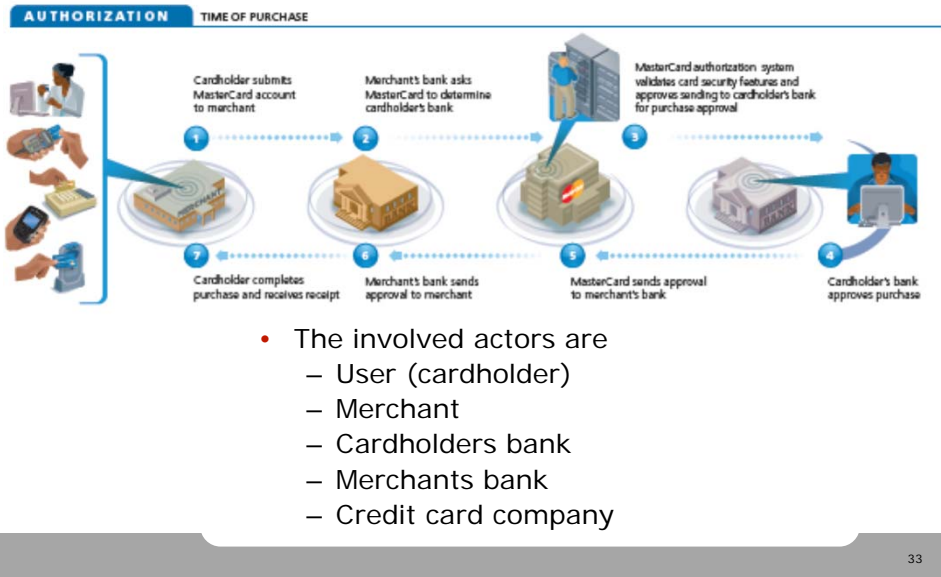
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About 3GPP

- Technical standards for GSM, "3G", "4G"
- Descriptions of single operator networks
- Also covers multi-operator aspects
 - Network selection
 - Roaming
 - Shared networks



How credit card payments are done - authorization part



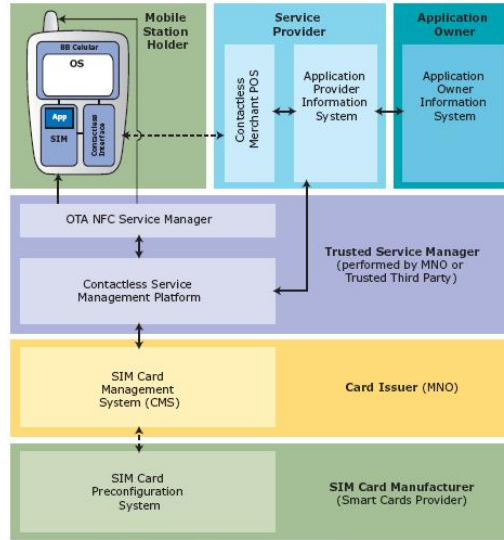
More examples

Representations of

- Actors
- Roles
- Relations
- Activities

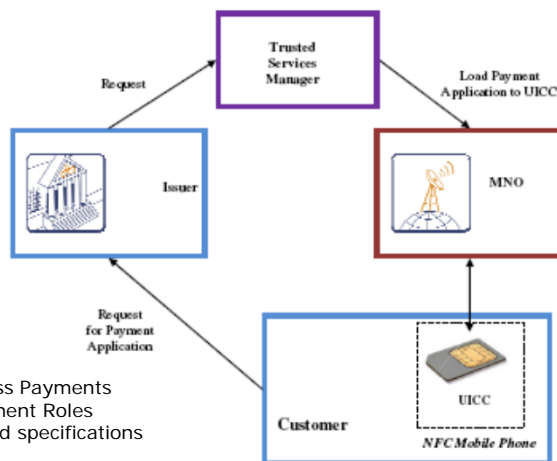


GSMA Mobile NFC reference architecture



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EPC – GSMA specification, Oct 2010

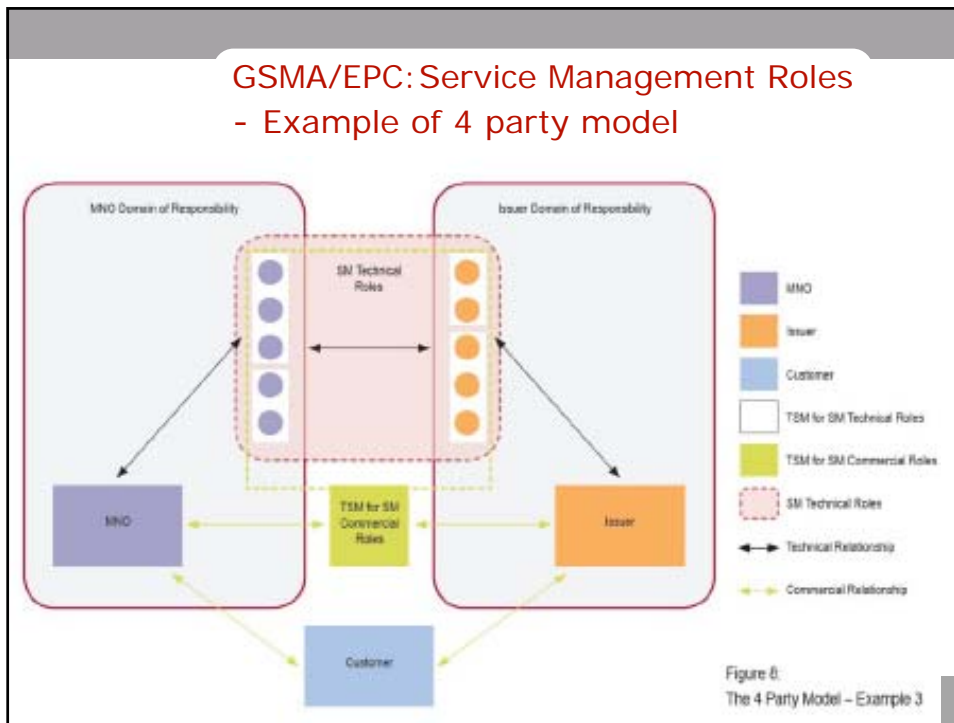


- Mobile Contactless Payments Service Management Roles Requirements and specifications

Figure 2: Provisioning of MCP Application to a UICC

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GSMA/EPC: Service Management Roles - Example of 4 party model



Example: EPC/SEPA



- European Payment Council (EPC) white paper June 2010 on mobile payments
- Example of one use case

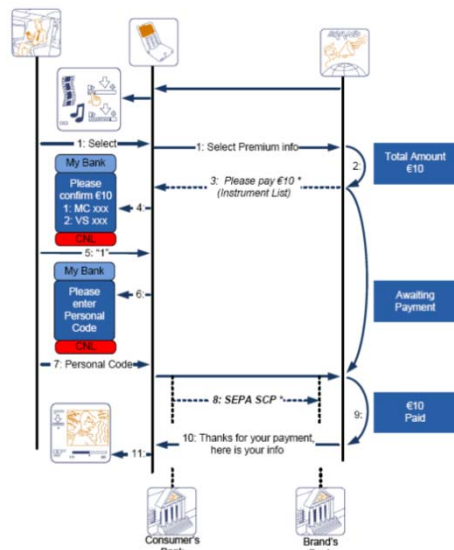
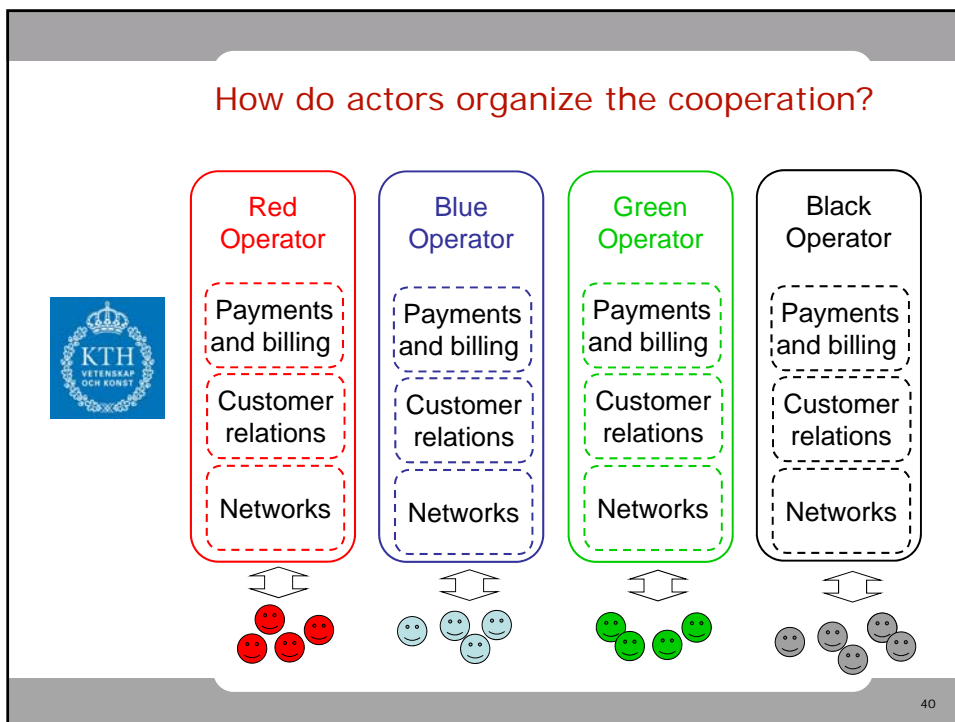
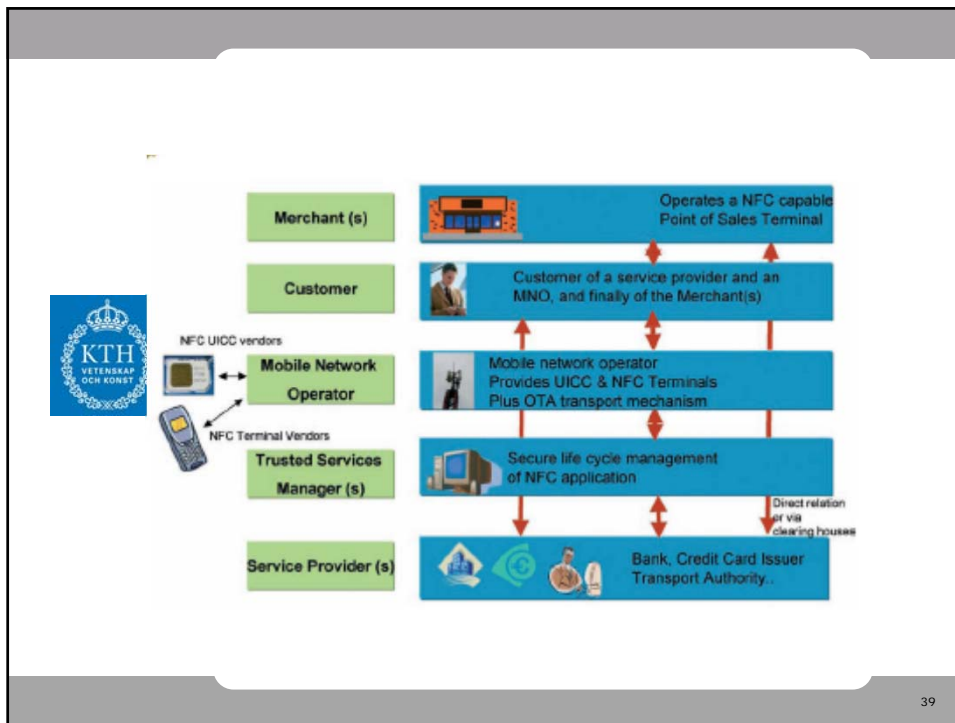
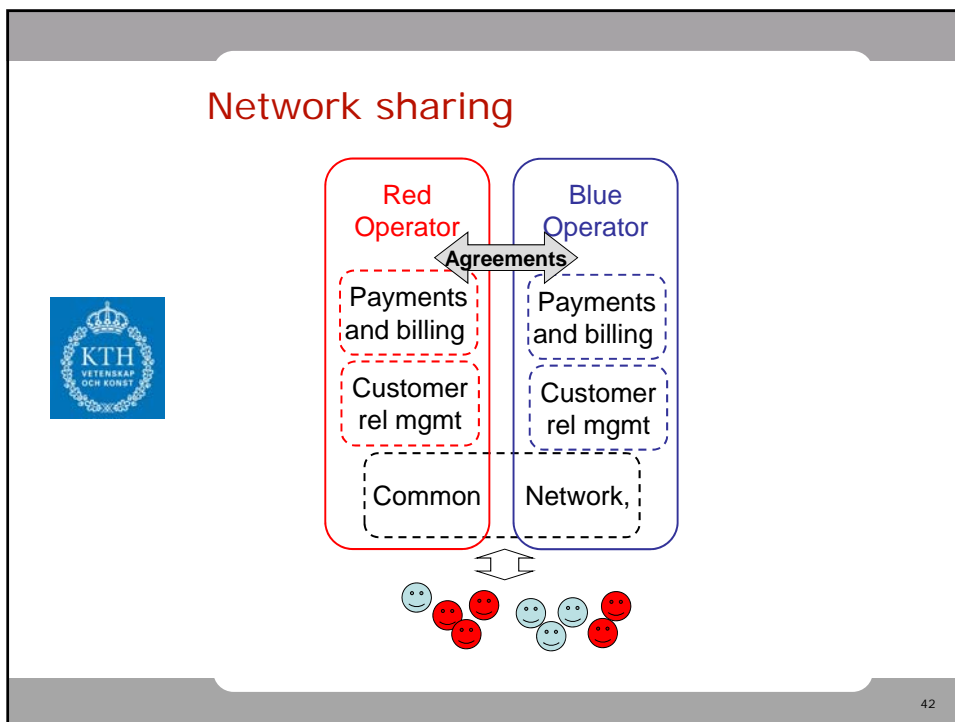
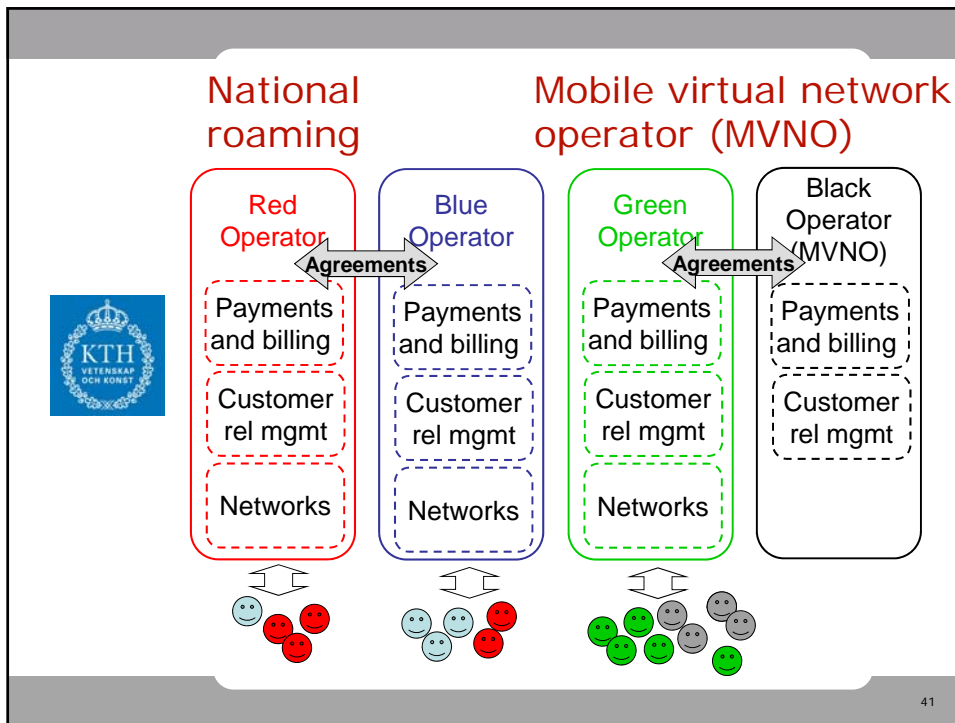
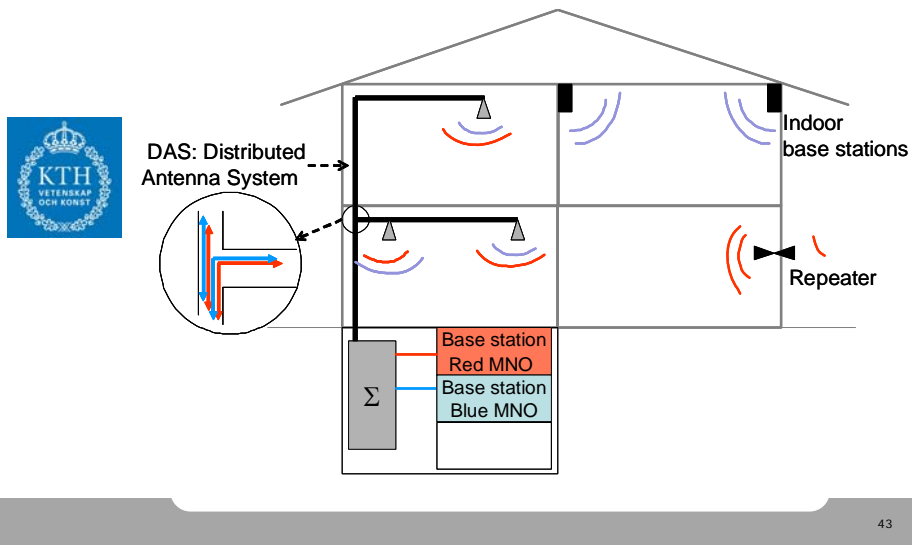


Figure 6: Example of Person to Business Mobile Remote SEPA Card Payment.

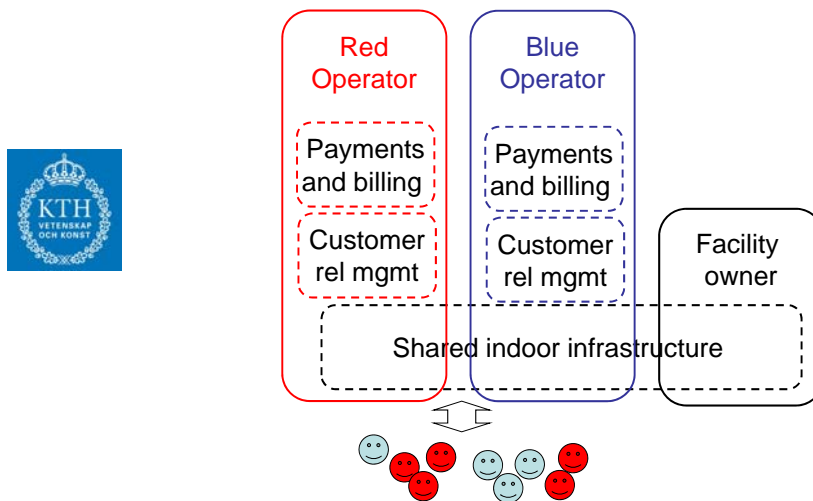




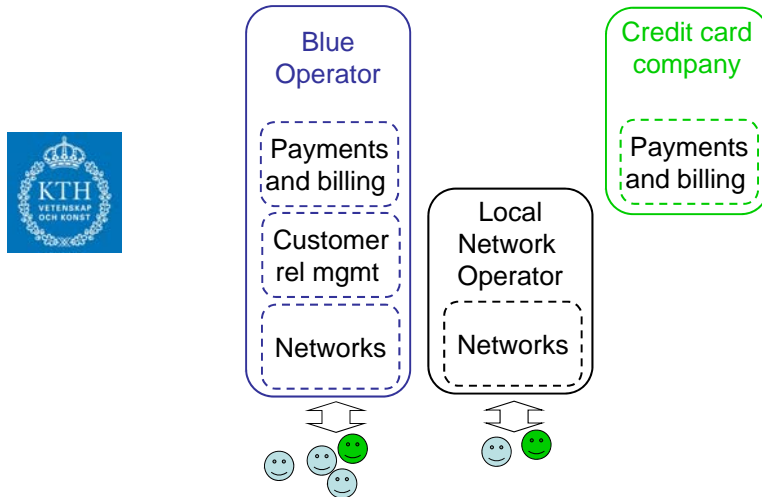
Different solutions for indoor coverage



Shared indoor infrastructure



Dynamic roaming - Ambient Networks (access for anyone to any network)



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How do actors organize the cooperation?

- Operators share network resources but control own marketing, customers and billing

What can be said about dynamic roaming?

- DR means less control of users, usage and revenues
 - May lead to lower incentives for network investments
 - Will change the market landscape
- Dynamic roaming is beneficial for
 - Market entrants (access to networks)
 - Local operators (access to customers)

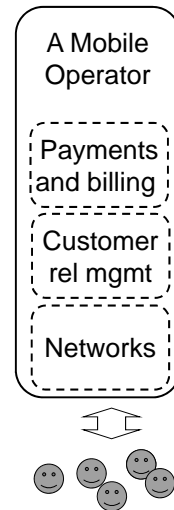
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Cooperation or not



More examples {

- Traditionally mobile operators have been responsible for all or most of the resources (a vertically integrated value chain)
 - No need to cooperate
- Many technical solutions imply cooperation with other actors
 - Roaming
 - Network sharing
 - Indoor wireless solutions
 - SMS ticket services
 - Mobile payments



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Mobile payment and contactless services “Near Field Communication”



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Vending machine and SMS payments



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Ticket machine for parking services

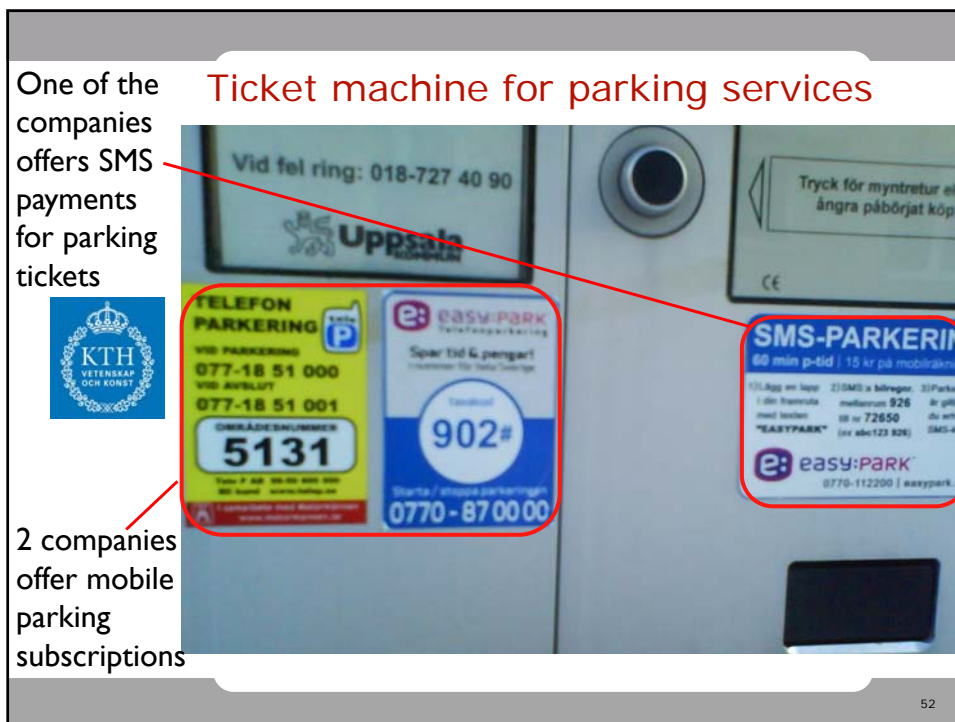


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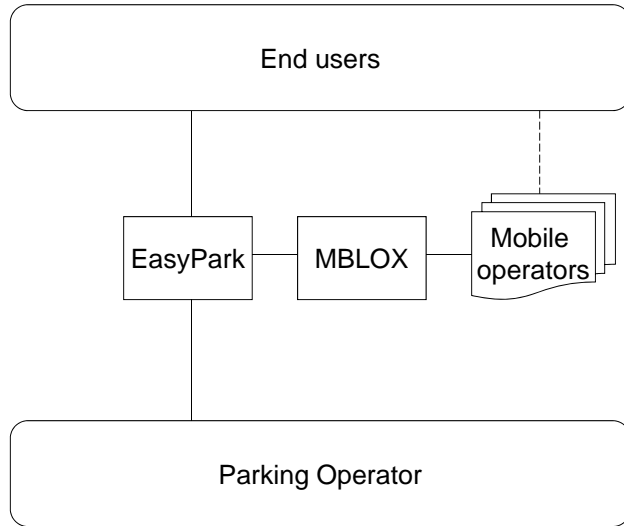
Ticket machine for parking services



Ticket machine for parking services

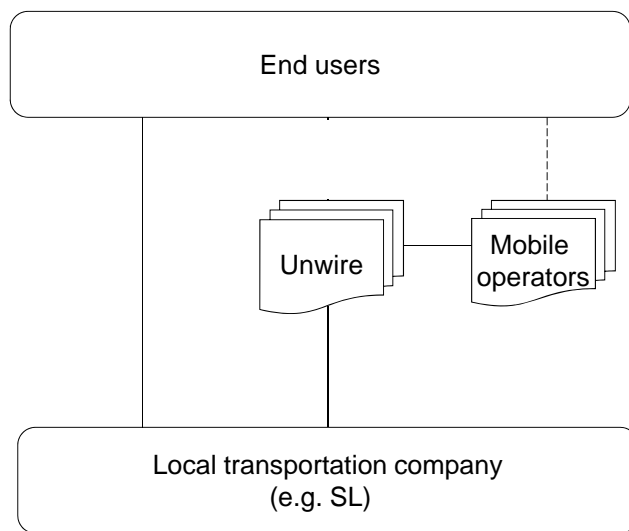


Actor map for the case of SMS tickets for parking services



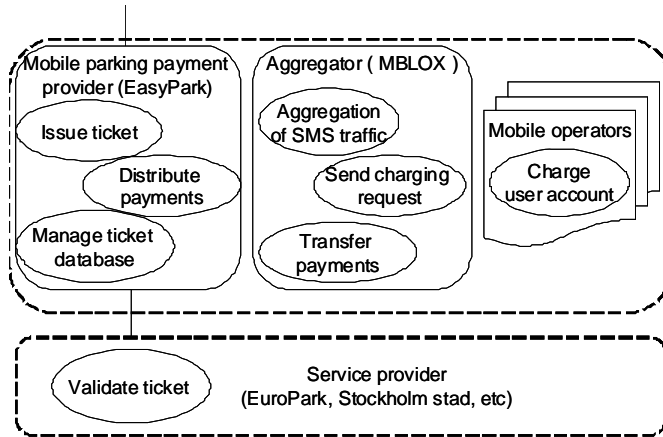
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Actor map for the case of SMS tickets for local transportation (SL)



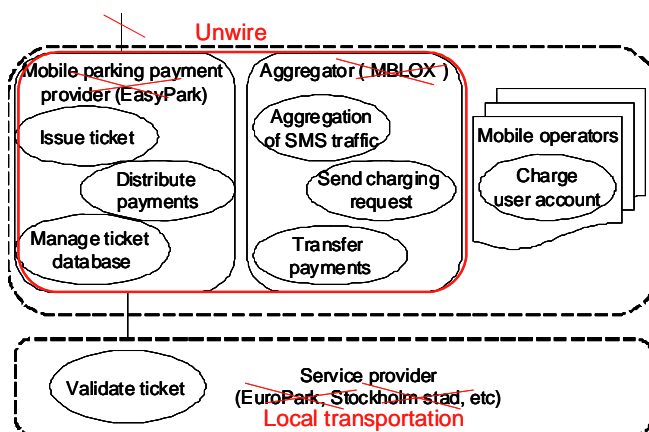
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Example of business roles and actors - SMS parking tickets



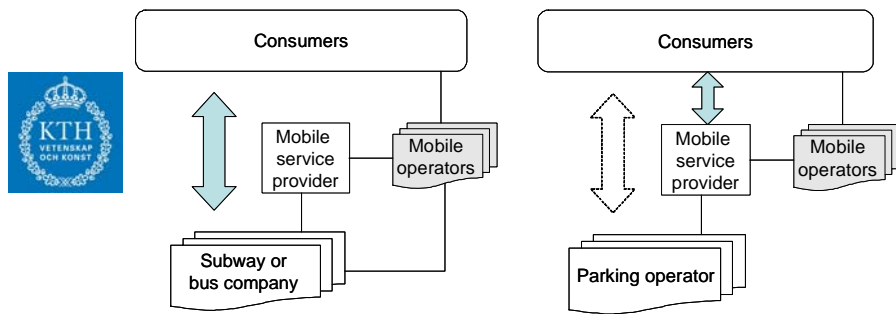
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Example of business roles and actors - SMS tickets for bus and subway



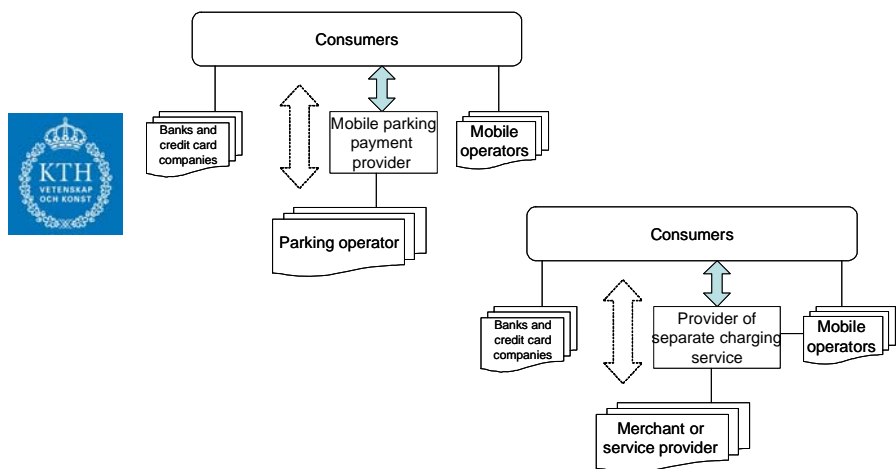
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Actor map for SMS ticket services



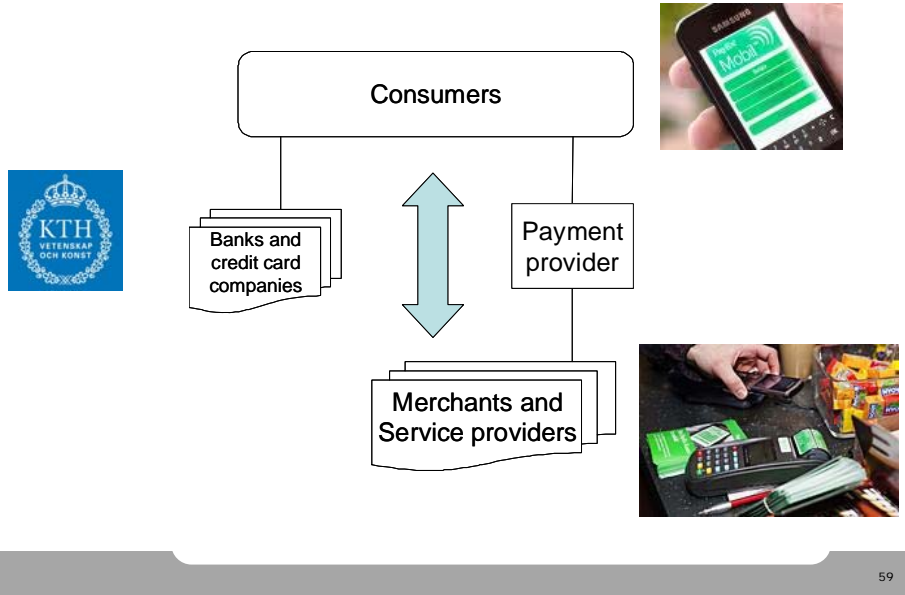
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Actor maps for Parking subscriptions and "separate charging" services



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Actor map for Payex Mobil



Some findings about mobile payment services and business models

- Intermediary actors in many cases do “a lot”
 - They establish and maintain business relations with merchants/ service providers
 - They provide the services to end-users
 - They develop services and maintain platforms



Some findings about mobile payment services and business models



- Financial institutions are involved “as usual”
 - People make use of credit card and bank accounts
- Mobile operators in many cases “do less”
 - Play a minor role in the service provisioning
 - May even not be aware of the mobile payment or ticketing service

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Compare the situation for mobile phone subscriptions



- Operators may share network resources
BUT
- Operators “own” customers and billing
- Operators invest in marketing and own brand

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