



NetCom – One ProductGuide
A Practical Customer Case, TM2008 03.04.2008
by Rune Rysstad, Avenir



About the author



- Senior Developer/Architect at Avenir, System Development department, .NET & Design
- My role at "NetCom – One ProductGuide":
 - Technical Planning and implementing (startup in March 2007)

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About NetCom



- Norway's second largest Mobile Operator, the first company to take up competition with Telenor
- Delivers a broad range of products and services both for private users and for the business world
- NetCom is a subsidiary of TeliaSonera

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Why was this project initiated?



- NetCom's Customer Support [KS] department needed a more user friendly and "all-in-one" system when working with customers by telephone, hence reducing the time to find the correct answer.
- 3-5 separate systems had to be browsed to find the same information as in "One ProductGuide".
- NetCom overall needs a web site where they could find ALL relevant information about their subscriptions, services, routines, marketing campaigns, etc.
- "One ProductGuide" goal is to be **THE MASTER**

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"One ProductGuide" gives quick answers to e.g.:



- What kind of services and products do we sell? What has previously been available? What is soon coming to the market?
- Which services are included in a subscription? What extra can be ordered?
- Related routines to follow, e.g. when upgrading a subscription
- Related FAQ's
- Sales arguments for a certain service or subscription
- Important operative messages and news, related to products/services
- What kind of marketing is done this month/week?
- Who is responsible for what?
- How to give feedback to the correct person if some information is missing or wrong?

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Platform choices and constraints



- TeliaSonera was already using **Sharepoint 2007** [MOSS2007] as a common corporate Intranet-platform.
- "One ProductGuide" should visually feel like the user was still at the Intranet, hence we had **design constraints**.
- "One ProductGuide" is sharing design elements from the corporate Intranet site.
- "One ProductGuide" runs as a separate Sharepoint Application (in one Site Collection).
- Indexing and search is done centrally (Google Search Appliance) by the GSA team in Finland.

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The process – why we ended up using Topic Map in MOSS2007!



- In the planning phase, we soon realised that there was a lot of related data that had to be presented and glued consistently together. "Topic Map" patterns evolved!
- The best way to model the needs of the customer, was to draw a Topic Map Model, and discuss this.
- Conclusion: Topic Map appeared to be **the best solution** to **model** and **implement** the described business demands found

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Implementing TM functionality in MOSS2007:



- Sharepoint is "Jack of all trades, master of none".
Hence, it didn't contain any features good enough for us to easily relate content in the manner and scale we needed.
- Sharepoint is thinking hierarchial, not **relations** between **topics**.
- Technology choice for implementing TM:
A 3rd party Topic Map engine TMCORE from **NetworkedPlanet** was selected together with the **TMCORE Sharepoint Topic Map** module (v2).

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Wireframes / implementation spec.



NetCom Intranet

Workroom Global meny

Workroom Privat Bedrift Organisasjon

Kundesenteret

Produktguiden

Nyheter og Driftsmeldinger

Produkter

Abonnementer

Tjenester

Rutiner

Kampanjer

Mine svarveier

Produktnavn tjeneste

Publisert: yyyy-mm-dd

Produktansvarlig: [Eivind](#)

Lanseringsdato: yyyy-mm-dd

Tjeneste: Diverse

Marked: Privat, Bedrift, Organisasjon

Status: Produkt i salg

Produktbeskrivelse:

Brochjuri med bilder. Set doer, et metus present, vestibulum purus, erat fermentum tempus eget. Id ante eu, sit feleo dula atqui. Id ut dolor elitam donec donec. Eget sed ligula idcum neque, penatibus quam nulla eile libero adipiscing ac ut, posuere varius adipiscing aliquam. Id utque lectus sit, maecenas.

Teknisk beskrivelse:

Brochjuri med bilder. Set doer, et metus present, vestibulum purus, erat fermentum tempus eget. Id ante eu, sit feleo dula atqui. Id ut dolor elitam donec donec. Eget sed ligula idcum neque, penatibus quam nulla eile libero adipiscing ac ut, posuere varius adipiscing aliquam. Id utque lectus sit, maecenas.

Priser (inkl mva)

| Enhetspris | 19% | 10 SMS, 10 SMS, samt et manntilrop for kr 200,- | |
|-------------|-----------|---|------|
| Medlemspris | Startpris | Sende | Node |
| 200,- | 0,- | 0,- | 1,- |

Utenlandske priser: Se priser på netcom.no

Inkludert i abonnement:

- Abonnement A
- Abonnement B
- Abonnement C

Tilatt i abonnement:

- Abonnement D
- Abonnement E
- Abonnement F

Ikke tillatt i abonnement:

- Abonnement J
- Abonnement K
- Abonnement L
- Abonnement M
- Abonnement N
- Abonnement O

Relaterte nyheter

Relaterte kampanjer

Relaterte rutiner

Salgsargumenter

FAQ

Fakturainfo

Salgspresentasjon

Produktark

Søk

Søk i type:

- Produkter
- Kampanjer
- Rutiner

Søk i marked:

- Privat
- Bedrift
- Organisasjon

Mine svarveier

- Mine 5 siste svarveier 1
- Mine 5 siste svarveier 2
- Mine 5 siste svarveier 3
- Mine 5 siste svarveier 4
- Mine 5 siste svarveier 5

Stotteverktøy

- FlexCheck
- FormCheck
- Form
- Sms til kunde
- Spørsmål/inn
- Delemappe
- Info standard avtaler
- eLeding
- PK Svarveier
- MMS Svarveier

Priser legges i første utgitt av manuelt

Utenlandske priser er lenke til riktig side på Netcom.no som legges inn av redaktør

Sara skal sjekke opp om følgende funksjonalitet er ønsket:

Når redaktør relaterer tjenester til abonnementer, er det kun nødvendige å relatere inkluderte tjenester og ikke tillatte tjenester.

Tjenester som ikke er relatert vil per default være relatert til Tillatte tjenester, felt til en annen relasjon

UTGÅTT må markeres tydelig
Dersom produktet er utgått vises ikke de to kolonnene — IKKE I SALG må markeres tydelig
Info om at det ikke er i salg men at noen har det.

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Wireframes / implementation spec. cont.



Tjeneste

| Felter og relasjoner hovedfelt | |
|--|--|
| Tittel | |
| Publisert | Kalenderfunksjon for å velge publiseringsdato |
| Produktansvarlig | Relater til Topic: Default forfatter er current user, mulighet til å velge annet person som produktansvarlig fra AD. |
| Lanseringsdato: | Kalenderfunksjon for å velge lanseringsdato |
| Tjeneste: | Tekstfelt uten formatering |
| Marked | Relater til Topic: |
| Status | Relater til Topic: Status bør være markeres visuelt på siden ikke bare som tekst |
| Bilde | Eget felt for å laste opp bilde til fast plassering |
| Produktbeskrivelse | Redigerbart tekstfelt med mulighet for formatering og bilder |
| Teknisk beskrivelse | Redigerbart tekstfelt med mulighet for formatering og bilder |
| Prisstabell | Felt for pris et felt pr celle i skissen |
| Utenlandske priser | Felt hvor redaktør legger inn lenke til utenlandsprisene på netcom.no |
| Relasjoner i 2. kolonne fra høyre | |
| Inkludert i abonnement | Relater til Topic: |
| Tillatt i abonnement | Relater til Topic: |
| Ikke tillatt i abonnement | Relater til Topic: |
| Relaterte nyheter | Relater til Topic: |
| Relaterte kampanjer | Relater til Topic: |
| Relaterte rutiner | Relater til Topic: |
| Salgsargumenter | Relater til Topic: En til en relasjon |
| FAQ | Relater til Topic: FAQ er lenke til en listside som inneholder spørsmål med lenker til svaret |
| Fakturainfo | Relater til Topic: En til en relasjon |
| Salgspresentasjon | Relater til Topic: |
| Produktark | Relater til Topic: |

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Startpage – Products & Services

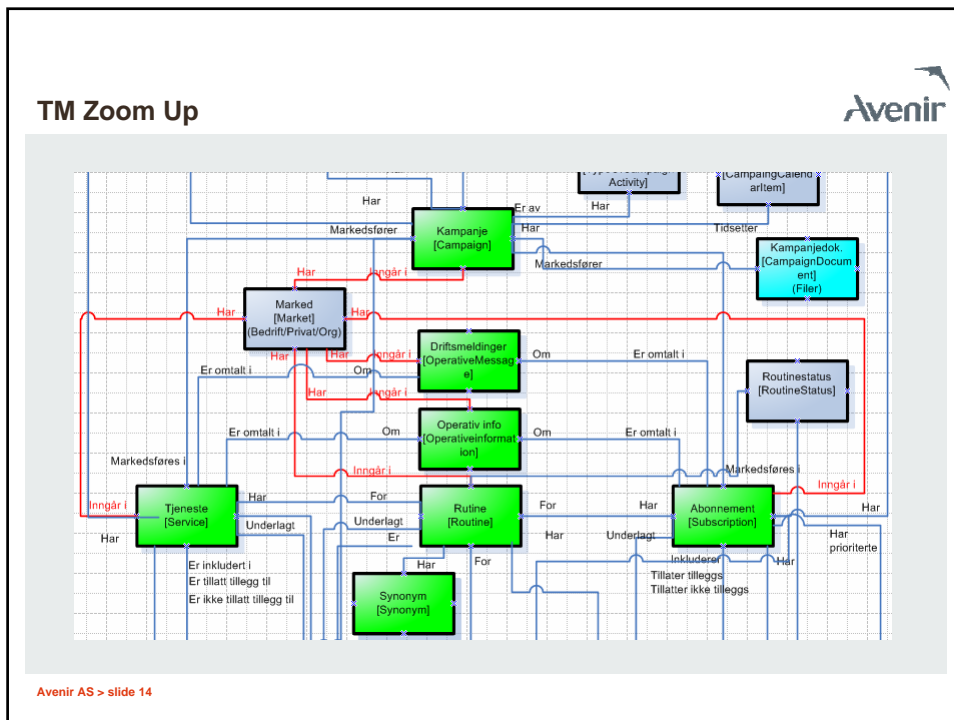
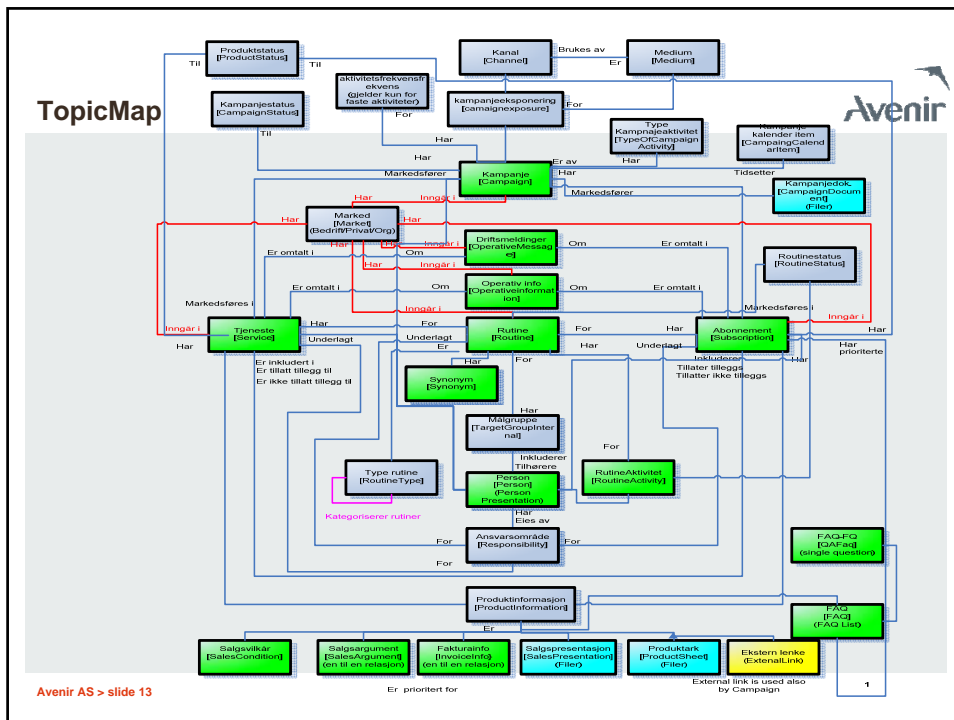


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Wireframe – Campaign calendar



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Some numbers after implementation



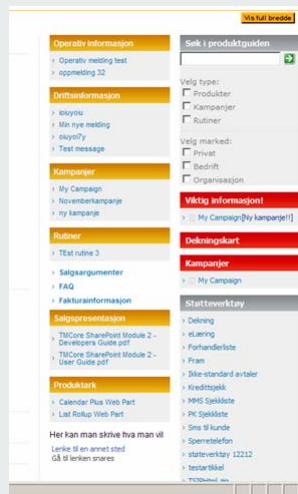
- Content Types: 49
- Relational page columns: 129
- Other page custom page columns (properties): 137

- Master pages: 5
- Page Layouts: 21

- Custom web parts: 10

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Example right column for a service:



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Editing a page

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Summary – main technical issues

- Deployment to various environment (development, test, staging, production). Solved.
- Performance (quite a lot of db requests + xslt transformation for the most advanced pages). Partially solved with page caching

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Summary - lessons learned



- End users have to be involved in all parts of the process.
 - We used an **Agile approach** that changed the product substantially from the initial spec. / wireframes.
- Most difficult is the introduction / training of persons **to understand the topic map concepts!**
- Starting with a smaller model, and then scaled out after need, could have been an alternative.

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Possible future extensions?



- Add some folksonomy features
 - Tag clouds
 - Possibility for collaborative tagging, categorizing, etc.
 - WIKI features so that everyone can contribute
- Add some Ajax features where useful
- More use of the search options that the TM model provides us.

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Q & A



- any ?