

## The Data Warehouse in Your Mobile Phone Using WAP and SASIntr/Net

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## Overview

- The future is mobile
- WAP/WML brings “web contents” to the mobile unit
- So is WAP/WML the future?

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### “From Business to e-Business”

#### Askus K-W

- Market analysis and strategy
- Customer behavior
- Strategic development
- Strategic IT
- Communication & brand
- Change management
- Employee surveys
- Corporate finance

#### ConcisConsulting

- Business development & IT
- e-business
- Efficient project management
- Usability
- Mobile applications & services
- WEB solutions & system development
- Product development
- mobile & telecom

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- SAS Institute Quality Partner
- Long experience in SAS/ITSV<sup>(TM)</sup> and the building of invoicing systems
- Also specializing in SAS/IntrNet<sup>(TM)</sup> solutions

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### Access to Data Warehouses

- In the early days you specified demands and had someone "pick out the data from the machine"
- Next, data was brought to the users via Client/Server solutions using custom clients
- After the advent of web technology, browser were used as clients
- With the (soon coming) revolution of the "Mobile Internet" the information will be available in everybody's pocket device - WAP is the first step!

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### The Data Warehouse in Your Mobile Phone



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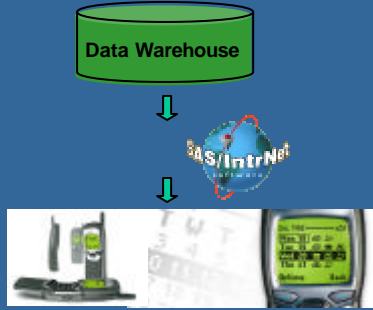
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**The Data Warehouse in Your Mobile Phone**



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**The Data Warehouse in Your Mobile Phone**



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To **WAP** is like surfing on the Internet, with a few differences (1/2):

- The mobile operator typically becomes the customers ISP (Internet Service Provider) as it can provide an all digital connection
- The mobile access replaces the traditional LAN or modem access
- The phone (or other type of PDA) has its own browser. As of today neither Netscape nor Internet Explorer is used

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To  is like surfing on the Internet, with a few differences (2/2):

- Another dialect of the Markup Language is used to define pages (WML rather than HTML)
- Another transfer protocol on parts of the transmission; from the gateway to the phone, a binary compressed stream is sent over WAP rather than text over HTTP
- The physical size and lack of colours of the screen, limits the overview and the amount of simultaneous information

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To  also has similarities with today's Internet solutions:

- CGI used to fetch and process the information
  - The SAS<sup>®</sup> System and SAS/IntrNet<sup>™</sup> can be used the same way they are today
  - Static information can be mixed with dynamically calculated - as on WWW
  - Surfing is possible (on Wap enabled sites)
- etceteras...

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**Advantages with **

- You can reach your application/information everywhere within the GSM coverage
- It's easy, simple, handy and portable

**Disadvantages with **

- Hard to design the applications to pass information with the size constraints
- Impact not yet known - few and not fully compatible gateways, SDK:s and phones/browsers

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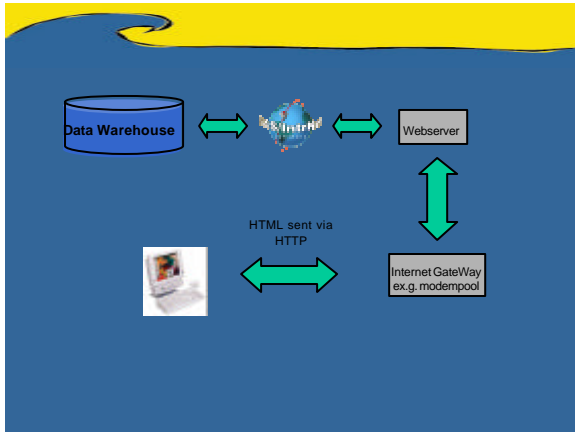
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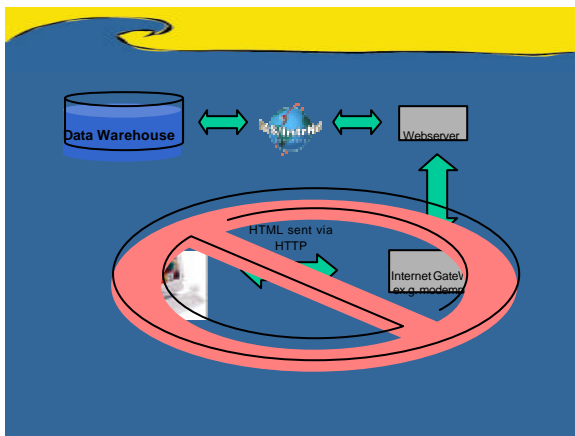
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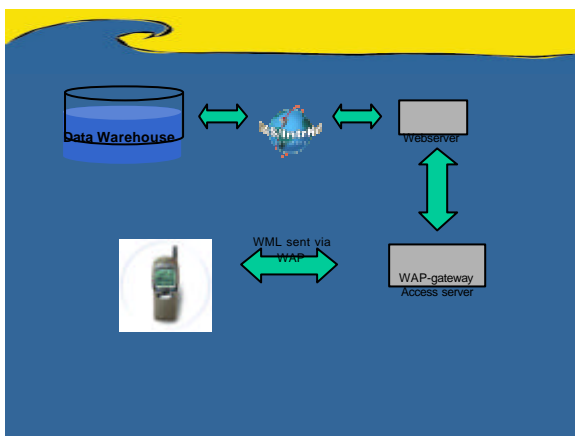
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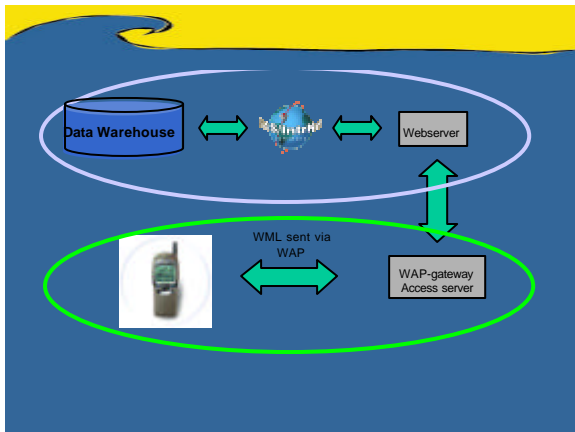
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### WAP -status

- There is a common standard for WAP (Wireless Application Protocol) - WAP 1.1 and a body for WAP issues (WAP forum). Roadmap to WAP 2.0 established
- Applications often built and tested on SDK's because of shortage of WAP compliant phones
- ~~Very few phones, both in terms of models and also quantity available~~
- The technology might not yet be fully mature, and the key use so far has been to create "stock rockets"
- Critical mass yet to be reached

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### WAP -future

- It's a common misunderstanding that WAP is only valid over circuit switched GSM – it can be carried on most systems and on any media
- GPRS will *strengthen* the use of WAP – not the other way around!
- It'll make WAPping faster
- It'll make WAPping more costefficient
- UMTS will *possibly* offer the bandwidth which opens the path for standard HTML on mobile devices, but that is yet to be seen.

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## Case study - BOSS at Telia Mobile

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- Telia Mobile – the main Swedish mobile operator - offers advanced wireless communications services to private and corporate customers. The company's operations also include other wireless services which offer reliable communications to the transport, maritime and aviation industries.
- Telia Mobile is a subsidiary to Telia AB

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## The BOSS Data Warehouse

- Award winning Data Warehouse solution, containing all information of subscribers, traffic and billing
- Key mean of distribution is via the web, and this long before the SAS product range supported it
- Around 700 users
- Contains information from more than 10 feeding systems

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### BOSS awards



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### The BOSS/WAP implementation

- The BOSS system is an intranet service and one goal was to enable WAP access to the intranet as a whole, not just the BOSS facility
- The basic WAP functionality was developed in a matter of hours, and was refined in a matter of days

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### Identified needs

- People on the field, on their way to meeting with customers. The phone is the work tool for the representative, but also the goods to sell. So by using it, usage is proven as a side effect!
- Anyone within the organization with a need for strategic information, combined with a high degree of mobility. People who can't go to the office in order to fetch the relevant data; typically the top management.

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## Demonstration

Two cases are presented:

1. Salesperson meeting a customer
2. Manager who wants some updated sales information while not connected

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## Conclusion

- Implementing WAP is not a big thing – anyone can do it
- There are obvious needs for certain groups
- Could be Internet as well as intranet applicable

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## About the Speaker

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