Some WAP History

IAB Wireless Workshop
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The Starting Point

• In 1996 mobile phone vendors rushing to sell wireless information
  • Nokia had Smart Messaging for GSM SMS
  • Unwired Planet had HDML+HDTP
  • Ericsson had ITAP (at least in the lab)

• Carriers had a split personality
  • desperate to find added value services
    • bring in more money
    • increase customer loyalty
  • ultraconservative
    • very concerned about use of bandwidth and network resources
    • concerned about investment cost
    • Internet alien and even scary thing
  • you still have to deal with carriers to create the wireless internet

• Terminal technology quite constrained
  • low cost critical especially in the US market
  • available spare processing and battery power rather marginal
Why a Common New Specification?

• The proprietary solutions had limited success in some areas, but
  • being tied to a single vendor unacceptable to carriers and users
  • user base not large enough to attract 3rd party content and services

• A common specification looked like the solution
  • the situation resembled quite a bit the BlueTooth one…

• What would be the common ground?
  • use of an existing proprietary solution unacceptable to competitors
    • none of them addressed the sum total of the use cases, anyway
  • true Internet appeared infeasible
    • some research was saying that TCP was bad for the envisioned major application
    • some carriers simply did not want to go IP at that point
    • terminal people could not do the features using the standard Internet protocols

• So it seemed necessary to create something new
Goals in Design of WAP

• Force a single new box upon carriers => WAP gateway
  • minimal initial investment
  • minimal disruption to existing network infrastructure

• Do not force all the protocol stacks on the Internet to change

• Do not force IP on carriers at that point in time (1997)
  • WDP & WTP

• Keep IP as an option
  • escape hatch to the future

• Make sure carriers are willing to run it on existing networks
  • incredible paranoia about protocol overhead

• Provide security compatible with limited devices

• Make the content to work on one-handed devices

• Integrate telephony functions
What Went Wrong - IMHO

- Of course assuming that there is something right in WAP :-)
- The content language did not map one-to-one to HTML
  - would have made life in some ways rather simpler
  - would have been compatible with the proprietary Nokia solution
  - WML has its advantages, though
- The layering proposed by Nokia was not preserved
  - WDP-WTP-WTLS-WSP instead of WDP-WTLS-WTP-WSP as it is now
  - would have been rather more aligned with Internet stacks
- Too many ports
  - something of a personal peeve