



# Topologies for Implementing End –end Solutions

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### Trends in devices and networks

### WAP phones

- Bad experience to date
- Slow connection, limited browser capability
- Limited data push capability, (SMS, WAP push)

#### GPRS>UMTS

- Overcomes some access & speed problems
- 'always' on
- Still limited to browser model, but multi-media

#### PDA/Communicator

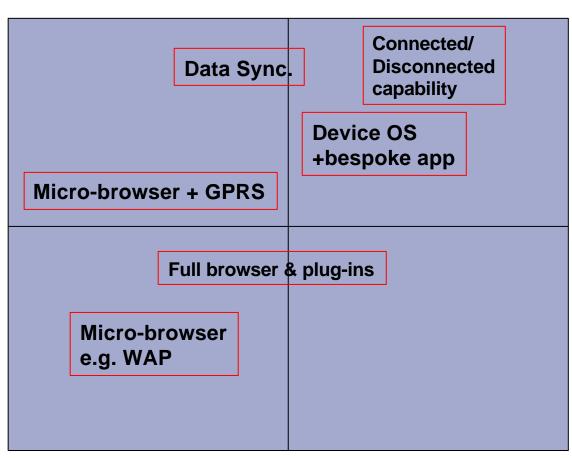
- Intelligent device
- Superior user experience
- Disconnnected/connected capability
- Business applications



# How to extend e business applications







User experience





# **Connectivity models**

#### Connected

- User is connected and uses an on-line application
  - > e.g. desktop PC on LAN
  - Data push and pull.
- Connected on-demand.
  - Dial-up (wireline)
  - Wireless connection

### Intermittently Connected

- User works both off-line and on-line
- Probably needs a device OS and application
- User occasionally "connects" to the hosts system to exchange data
- May incorporate push (alerts)





# **Application models**

#### Browser-based

- Uses the web paradigm (HTTP, HTML subsets)
- Server-based distribution of application
- Low distribution costs
- More dependent on bandwidth
- Typically connected applications
- less functionality available in browser than in C/S systems

### Client/Server

- Traditional model distributes logic between client and server
- Applications written for the specific devices
- Enables a more robust user interface with client processing and validation of data before transmission
- Typically intermittently-connected applications



# **Designing the solution**

### Not just the device – how will it connect

- What interaction does the application need?
  - Simple data sync.
  - Alerting, data push
  - Always available
  - Locally stored data
- User interface
  - Browser like
  - Database tables
  - Advanced graphic UI
- Screen, keyboard, Voice

