Application Development and Business Planning for the Motorola Timeport Wireless Device

Presented April 27, 2001

By:

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Background - 1

• The world is becoming increasingly more reliant on wireless communications.
• People are striving for ways to efficiently and effectively collaborate and communicate with each other.
Wireless Communication Trends

**GARbled MESSAGE**

While the paging market surges...

- Total revenue of U.S. paging providers (in billions)
- U.S. paging subscribers (in millions)
- Two way paging is struggling

Subscribers, U.S. two-way paging services market (in thousands)

Source: Dataquest Inc.

What are the key drivers for connectivity within your organization?

- Remote access to specific corporate data or applications
- Remote e-mail access
- Integrated organizational scheduling/calendaring
- Remote Web browsing/services
- Sales-force/mobile-work-force automation
- Other

Source: NETWORK COMPUTING E-Mail Poll
The Motorola Timeport is a two-way messaging/paging device.

Communications features include voice mail, e-mail, paging, and short 2-way messaging.

Applications include calendar and games, and other applications for various purposes can easily be downloaded to the device.
Motorola Timeport - 2
Project Goals

• To determine how to best market the Motorola Timeport two-way messaging device to universities as a tool for students, faculty, and staff.

• To develop applications that would be useful for the university environment.
Approach

• Divided into 4 teams, each of which focused on a different aspect of the project.
  – Needs and Features Analysis Team
  – Device Comparison Team
  – Software Development Team
  – Usability Testing Team
Needs and Features Analysis
Team

• Goal – To determine various features that would be necessary to market the Timeport as a tool for university students.

• General device features determined to be necessary include:
  – Make the device cheaper
  – A user manual included with the device
Device Needs - 1

• The device’s coverage area should be increased
The device needs a new navigation method.
Device Needs - 3

• Software applications determined to be useful for the device include:
  – An application to query a university’s master calendar
  – An application to query a university’s phone listing
  – Web browsing software
Device Comparison Team

Goals:
- To examine the features of various wireless devices including pagers, cellular phones, and personal digital assistants.
- To determine which devices are best suited for university students.
Device Features

Pagers
- Short text messaging; SMS
- Alpha-numeric data
- PIM functions: Calendar, Tasks-List, Memos

Cell Phones
- Voice capability
- Real time communication
- Email
- Web Query
- HTML browser

PDAs
- PIM functions: Calendar, Tasks-List, Memos

Ideal Device
The Ideal device would take on the necessary aspects of all devices
## Device comparisons

### Pagers

<table>
<thead>
<tr>
<th></th>
<th>Motorola's Accompli 009</th>
<th>Motorola V. Series V100 Personal Interactive Communicator</th>
<th>Motorola's Timeport</th>
<th>RIM (Research In Motion) Pager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice Capability</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Calendar</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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<tr>
<td>SMS</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
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<td>yes</td>
<td>yes</td>
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<tr>
<td>Email Access</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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<tr>
<td>Web Query</td>
<td>yes</td>
<td>yes</td>
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<td>yes</td>
</tr>
<tr>
<td>HTML Browser</td>
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<tr>
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<td>no</td>
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</table>

### PDA's

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<tr>
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<th>Handspring Visor Prism</th>
<th>Palm V1lx</th>
<th>Sony Clie</th>
<th>Microsoft Pocket PC</th>
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* w/ visor phone or modem  **requires phone and CompactFlash modem

### Cell Phones

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<tr>
<th></th>
<th>Ericsson R380</th>
<th>Ericsson A2628s</th>
<th>Motorola's V. Series™ V8162 Phone</th>
<th>Samsung Uproar</th>
<th>Samsung Stinger (expected release later this year)</th>
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Ericsson R380

- possesses most of our defined features
- lacks an HTML browser and color display
Motorola Timeport

- Simple interface using a QWERTY keypad for quick messaging
- Software development kit allowing for user-defined applications
Software Development Team

• Goal – Implementing software applications for the Timeport determined by the Needs and Features Analysis Team to be valuable for university students.
Calendar Query Application
-User Requests A Query
Message Being Processed

Timeport → SkyTel Server → IIT Server

Timeport ← SkyTel Server

SkyTel Server → Database
Message is Received

ipro308b@iit.edu: Date: 11/30/2000
Event 1 The Names
Project AIDS Memorial
Quilt Viewing
Department: Student Activities
Where: HUB Ballroom
Invited: Everyone
Usability Testing Team

• Goal – To conduct usability testing on the Timeport device and the software applications developed for it by the Software Development Team.
• Procedure and Methods for Testing
• Results and Recommendations
Business Plan Team

• Goal – To develop a business plan for Motorola and Skytel for marketing the Timeport device to universities as a tool for students, faculty, and staff, using the findings of the IPRO team.
Business Plan - Analysis

• Cellular Phones are typically superior wireless devices
• Universities contain untapped potential for consumers and providers
• Timeport can be adapted to tap into this potential
Business Plan - Solutions

• Start by advertising the “wired campus” to small schools, then increase in size
• Attract both faculty and students to use the Timeport
• Train students to operate a help desk
• This will open doors for further technological integration in universities