Enhancing the User Experience of Mobile Services with WAP Push

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What is WAP Push?

The WAP Push framework introduces a means of transmitting information to a device without a user request, meaning the “Push” transactions are server-initiated.

The “Pull” transactions of information are always initiated by the client.

There are two types of WAP Push messages:
- Service Indication
- Service Loading
WAP Push Services Enhance Usability and Usage

- Operators and content providers can utilize Push data transfer to deliver content that is relevant and easy to use, instead of relying on the traditional pull model.
- WAP Push advances existing messaging models (SMS, Smart Messaging) by integrating them into the WAP application environment.
- In consumer segment, users can subscribe to content they are truly interested in or receive Push messages that add value (promotions and discounts); they are also likely to follow links to more details or complete a transaction.
- In the corporate segment, important news can be sent by the company and users can access vital, time-critical information easily.
Architecture

- A Push operation in WAP is accomplished by allowing a Push Initiator (PI) to transmit Push content and delivery instructions to a Push Proxy Gateway (PPG), which then delivers the Push content to the WAP client.
- The PI is typically an application that runs on an ordinary Web server. It communicates with the PPG using the Push Access Protocol (PAP). The PPG uses the Push Over-the-Air (OTA) Protocol to deliver the push content to the client.
- The architecture of Push can be thought of similarly to that of SMS, except that with Push, the PPG, rather than the SMSC, is in the middle.
- Push can be sent over SMS or GPRS.
Service Indication and Service Loading

Service Indication allows you to have links sent to you, whereas Service Loading allows you to receive full XHTML MP pages.

Service Indication

- Link to a Web page sent to a phone

Service Loading

- Execute Low
  - Web page sent to a phone (non-intrusive)
- Execute High
  - Web page sent to a phone (may be intrusive)
- Cache
  - Web page sent to phone cache

2002 2003 and beyond
Examples of WAP Push Services

Time Triggered Push
- Weather or traffic report every day at 7:30
- Release new Dilbert comic every Sunday
- Monthly new movies or games and revues

Content Triggered Push
- Last-minute discounts on theater and flight tickets
- Notification and list of sales from retailers

Community Services
- Dating notification when match is found
- Bulletin board, new entry made
- Notifications to family members
- Fan clubs – new arrival of products
- Football teams; games, scores, players

Frequent Flyer Programs
- Airline delay notification
- Mileage promotion
- Currency conversion
- Airport pickup and taxis

Auction Services
- Outbid notification
- Successful bid
- Lowest price match
WAP Push Benefits

• Enables users to receive timely information based on preferences, giving users a feeling of control
• Makes service discovery easier; users don't have to hunt for information
• Enhances user experience because messages can be viewed by clicking
• Can include advanced Push message management (high, low, cache)
• Enhanced by GPRS – Can be done in the background
• Easy navigation with embedded links
• “Pretty” content can be pushed as opposed to text with SMS
• Encourages browsing