The Future of LEAP

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A Component of *The LEAP Manifesto*

This article is one of a series of articles describing various aspects of the Mobile Messaging industry and the Lightweight & Efficient Application Protocols (LEAP) protocols. For the complete collection of articles see *The LEAP Manifesto* [**?**], available at
`http://www.LeapForum.org/LEAP/Manifesto/roadMap/index.html`. *The LEAP Manifesto* is also available at the Free Protocols Foundation website at
`http://www.FreeProtocols.org/LEAP/Manifesto/roadMap/index.html`.

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1 Where We Are Today

At the time of writing in June 2000, the basic structure of the LEAP protocols is complete and in place. The key component protocols have been published as Internet RFCs, and public support organizations for the continued development and maintenance of the protocols have been created. All aspects of the LEAP development and maintenance processes conform fully to the basic trilogy of principles that we espouse: patent-freedom, RFC publication, and openness of maintenance.

Our next major challenge will be to promote the usage of LEAP throughout the Mobile Messaging industry. We will facilitate and encourage the adoption of LEAP by the following mechanisms:

- We will provide free, open-source software implementations of the LEAP protocols for major device platforms such as PalmPilot and Windows CE. This free software will be distributed through http://www.MailMeAnywhere.org.
- We will provide free, open-source software implementations of LEAP which are fully integerated with major Message Center platforms such as Sendmail and Qmail. This free software will also initially be distributed through http://www.MailMeAnywhere.org.
- We will provide free Subscriber Services. These free services will initially be provided through http://www.ByName.net.

The underlying purpose of this is to eliminate all economic and legal hindrances which might otherwise inhibit the adoption and usage of LEAP. We accomplish this by means of the patent-freedom of the protocols themselves, the availability of free, open-source software implementations the protocols, and the availability of free support services. The result of this is that the costs of implementing LEAP, other than the associated overhead costs, are zero.

By means of this strategy, we intend to make LEAP widespread throughout every segment of the Mobile Messaging industry. Our eventual goal is for LEAP to become the natural choice for Mobile Messaging applications.

2 Invitations to Participate

This is an ambitious goal, and cannot be accomplished without the cooperation and participation of others within the industry. We invite others to participate in the following arenas:

Invitations to Protocol Developers

- Anyone who is interested in ESRO and EMSD is invited to participate in their development through ESRO.org and EMSD.org.
- Additional protocols are needed to enable efficient web browsing. A starting point for this, called EHDP (Efficient Hypertext Delivery Protocol), is currently being created. In developing EHDP we intend to build on the work of WAP and the W3 Consortium, and re-use the ESRO technology. We invite others to join us in this development effort.
- Additional protocols are needed to enable efficient access to dictionaries and other look-up data structures. A starting point for this, called EDICT (Efficient Dictionary protocol), is currently being created. In developing EDICT, we intend to build on the existing work already done in the context of the DICT protocol. We invite others to join us in this development effort.
- We anticipate that additional protocols will be needed for a variety of future applications, not all of which can be foreseen at this time. These applications will include such things as efficient implementations of ESRO-based instant messaging, chat, white pages, and others.

Invitations to Software Developers

- Based on the existing open-soure software implementations for end-user devices, we invite others to enhance the PalmPilot and Windows CE implementations, and to port LEAP to additional general-purpose device platforms.
- We invite telephone manufacturers and wireless data modem manufacturers to include the LEAP protocols as an integral part of their next generation devices.
- We invite Message Center software developers to enhance and better integrate the Message Center LEAP software.

Invitations to Subscriber Services Providers

We invite Subscriber Services providers such as AOL, Yahoo, MCI and AT&T to participate in the general concept of providing free services based on free protocols and open-source software, and to integrate LEAP into their suite of Subscriber Services. A model of this concept is provided by our own free service at www.ByName.net.

Invitations to Systems Integrators

Each of the LEAP protocols is a component which must be integrated into larger solutions. In particular, we invite the developers of customer-premise Message Centers to incorporate LEAP into their existing products.

3 Preview of Coming Attractions

Several LEAP-based products and services are currently under development. These include MailMeAnywhere, ByName and ByNumber.

3.1 MailMeAnywhere.org

In order to make use of the LEAP protocols convenient and widespread, we are providing implementations of the protocols as free and open-source software. Binary formats of the software for a variety of platforms are available. In order to provide complete solutions, the LEAP protocol components are integrated with various other free software components, forming consistent and coherent bundles. Since the initial LEAP components are oriented towards interpersonal messaging, the initial software distribution takes place through http://www.MailMeAnywhere.org.

MailMeAnywhere is a distribution center for free and open-source software which relates to LEAP, or which facilitates use of the LEAP protocols. Device implementations are available for a large number of general-purpose device platforms. Message Center implementations have been integrated with Qmail and Sendmail.

To learn more about MailMeAnywhere, see the website at http://www.MailMeAnywhere.org.

3.2 ByName.net and ByNumber.net

In order to make use of LEAP protocols convenient and widespread, we are also providing an initial free subscriber service which integrates the LEAP protocols into a variety of other services. We are delivering these services through the ByName.net domain. ByName provides a set of free services, based on free protocols which have been implemented as free software. The ByName services are highly personalized and are based on the user's identity – ByName is based on the user's name, while ByNumber is based on a numerical user ID.

A conventional e-mail account typically provides the user with a single address, usually of the form "someName@someDomain.com." This provides the user with a single mailbox, to which all mail for that address is sent.

This becomes inconvenient when the owner uses the account for multiple types of incoming e-mail. For example, the user may use the account for both personal and work-related mail, to subscribe to various mailing lists, and to participate in usenet groups. Over time the user may get onto a large number of mailing lists, resulting in an incoming e-mail stream spanning a very wide dynamic range of importance, from urgent personal e-mail, all the way down to meaningless spam.

E-mail applications typically deal with this by providing the user with tools to manage and prioritize mail. These consist of inbox sorters and filters to eliminate spam and prioritize incoming messages based on the originator or subject.

The ByName.net service provides a better way. ByName provides you with multiple mailboxes and addresses, each of which can be dedicated to a particular type of e-mail. Furthermore, these various addresses have a simple and uniform naming scheme, based on the one symbol that is most dear and personal to you: your own name. ByName includes your name in the domain part of the address, and appends various selectors in front of the @ sign. For example, a particular subscriber might have the following addresses and mailboxes:

```
 personal@homer.simpson.1.ByName.net
   office@homer.simpson.1.ByName.net
   urgent@homer.simpson.1.ByName.net
   public@homer.simpson.1.ByName.net
   mobile@homer.simpson.1.ByName.net
    pager@homer.simpson.1.ByName.net
      fax@homer.simpson.1.ByName.net
emergency@homer.simpson.1.ByName.net
```

This provides our anti-hero with a consistent set of e-mail boxes that he can use for different purposes – one address for personal mail, a different one for work-related mail, and so on. Homer now has control over the routing of his e-mail without having to use a mail sorter or filters.

Your home page is also based on your name; Homer's is **http://homer.simpson.1.ByName.net**.

To learn more about the ByName service and to apply for an account, see the website at http://www.ByName.net.

The ByNumber.net service provides a complementary service to ByName, based on numbers rather than letters. ByNumber enables devices with digit-only origination capability (e.g. conventional telephone keypads) to send e-mail messages, and provides a unified way of sending messages to pagers, two-way pagers, faxes and e-mail accounts.

To learn more about the ByNumber service, see the website at http://www.ByNumber.net.