Libre Services:
Starting with WhiteBerry and ByName

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Mohsen Banan
public@mohsen.banan.1.byname.net

Overview

- Our Goals and Agenda
- Libre Services
  - Concept
  - Philosophy
- ByName
  - What It Is
  - How It Works
  - How It Can Become Yours
- Operation WhiteBerry
  - What We Are Doing
  - How You Can Participate
- Java Dimensions Of ByName and WhiteBerry

What Is To Come After Free Software?

- The Free Software movement is just the tip of the iceberg
- Just the first manifestation of a set of deeper and more general set of principles
  - Lots more arenas will be Freed/Liberated
- Plenty of different business opportunities in the Free/Libre paradigm

  - Lots more Business books should be written

Applying the power of Free/Libre Non-Materialism to Internet Application Services

Society in Transition

The Past: The era of **Material Capitalism**

The Present: Challenge to existing institutions and models; uncertainty and confusion

The Future: The era of **Non-Material Capitalism**

Are we equipped for this future?

Material Capitalism vs. Non-Material Capitalism

Domain of Things (The Microsoft / WAP Way)	Domain of Ideas / Art / Information (The Linux / LEAP Way)
Competition	Cooperation
Confrontation	Collaboration
Royalties & Licenses	Sharing - Services & Support
Secrecy	Public
Specification control	Specification stability
Patents	Usage freedom
Copyright	Copyleft
Trademarks	Trademarks
Capital at work	Creativity at work

Legal Underpinnings

Status Quo: Intellectual property protections based on:

- Secrecy/confidentiality
- Patents
- Copyright
- Trademarks

Problems:

- Existing IPR laws based on material assets
- Patent system in crisis
- Linux, Napster

Solutions:

- Attribution of authorship
- Copyleft; free software, free music
- Trademarks
- Secrecy: merely bad form

Libre Services are an extension of the principles of the Free Software movement to the domain of Internet Application Services.

Lessons Of Free Software Applied to ISP/ASPs

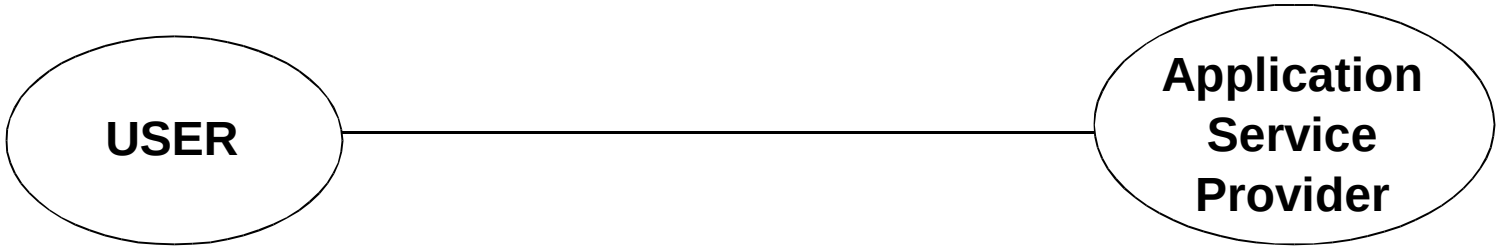
$$\frac{\text{GNU / Linux}}{\text{Microsoft Windows}} = \frac{\text{“X”}}{\text{MSN/Hotmail/AOL/Yahoo}}$$

“X” = Libre Services

Criteria For Libre Hood

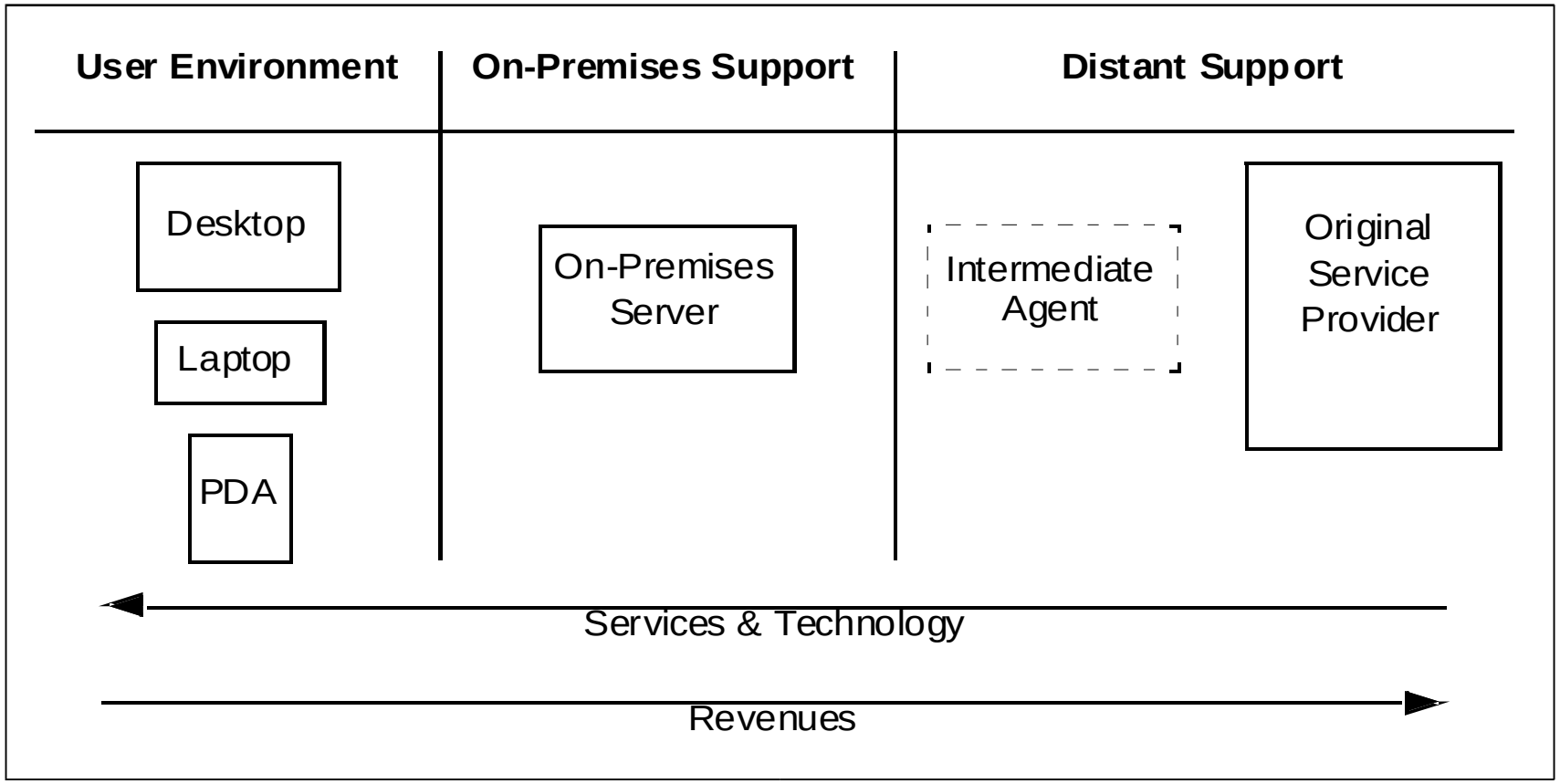
- Exclusive Use Of Free Protocols
- Pure 100% Free Software / Open-Source
- User Should Be Able To Reproduce The Service

Service Delivery
Today's ASP Model



Service Delivery
Distributed Libre Model

A New Model of Computing and Communications



World’s First Libre Services

ByName

Augmented by: ByNumber, ByWhere, …

ByName Features – Today

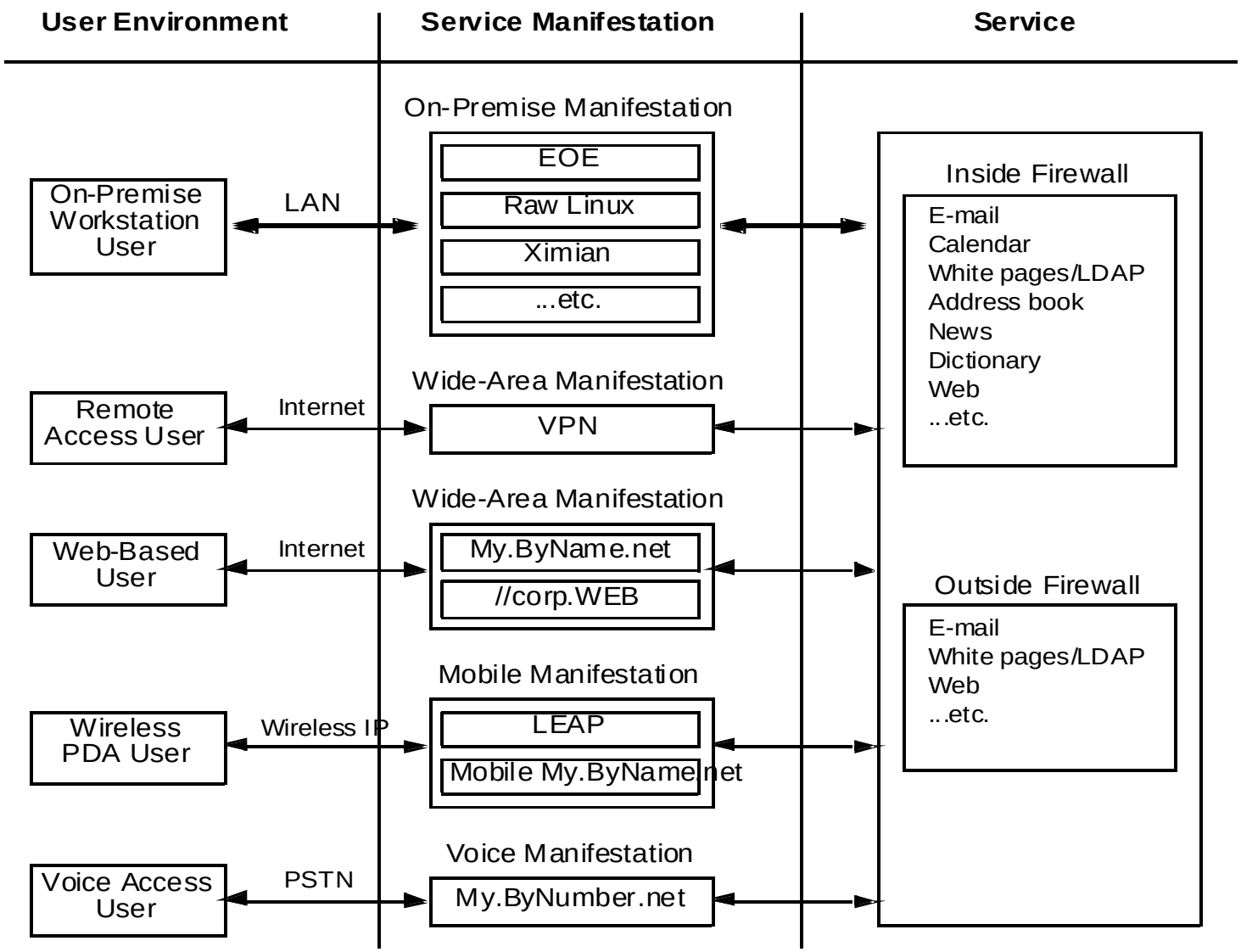
- Your Own Domain – mohsen.banan.1.byname.net
  – 20000.bynumber.net
- Public Web Page – http://mohsen.banan.1.byname.net
- Private My. Web Page – Web based email, personalized portal, …
- Purpose Based Email Addresses –
  public@mohsen.banan.1.byName vendor@20000.byNumber
- Integrated support for Mobility (WhiteBerry)
- Phone Access – Voice Integration
- InComing and Out Going Fax Service

See ByName At Work

0 cost -- uncommitted service:
http://my.byname.com

Paying Subscribers – Committed Service:
http://my.byname.net

ByName Service Access Models



ByName Software Components

Debian Linux, ucspi, daemontools, djbdns, qmail, wuftp, apache, MySQL, opCron, sudo, opInetd, ssh, rsync, opSyslog, EZMLM, MHonArc, Tomcat, Jetspeed, IMP, HylaFax

What Has Been Missing Is The Glue

We Call That Glue

OSMT

(Open Systems Management Tools)

Overview

- What is OSMT?
  - A set of tools on top of which various consistent polices can be implemented
  - A consistent framework for service integration under Unix
  - Based entirely on pure free software and open-source modules
  - Layers on top of layers of Korn Shell/Bash scripts

Key Goals of OSMT Design

- Very Unix centric
- Limit use of the tools to what is minimally and genericly available on plain Unix systems. Namely Korn Shell/Bash.
- Enforce policies based on consistent use of the tools (e.g., Heavy use of shell libraries and co-routines)
- Support consistent and simultaneous management of multiple domains. Detection of Sites, Domains and Hosts is an integral part of these tools.
- Abstract out dis-similar modules as one happy family (e.g., qmail, djbdns, uw-imap, imp, ezmlml, MHonARC)

Run Of Sample Application

The output of docProc.sh:

```
EXAMPLES:
COMMON EXAMPLES ---
docProc.sh -i showMe
docProc.sh -i seedHelp
docProc.sh -n showOnly -T 9 -i help
docProc.sh -i runFunc func args
--- FULL MANIPLATORS ---
docProc.sh  -i fullUpdate
docProc.sh  -i fullFast
docProc.sh  -i  fullClean
--- GENERIC MANIPLATORS ---
docProc.sh  -i build main.ttytex
--- EACH MANIPULATORS ---
docProc.sh -n showOnly -i fullUpdate
docProc.sh -n showOnly -i fullFast
--- SPECIFIC DOC MANIPULATORS ---
opTexNedaBuild.sh -p outputs=all -i buildDocs  main.ttytex
```

Current Status

- Available for download:

  http://www.mailmeanywhere.org
- Will always add more features from time to time. Check for the latest release frequently.
- Subscribe to mailing lists:
  - Users: tools@lists.mailmeanywhere.org
  - Developers: tools-dev@lists.mailmeanywhere.org

Operation WhiteBerry

Open BlackBerry… and very much more

Partnership & Competition
based on the LEAP Protocols and
the
Open Mobile Messaging Industry

An Open Invitation

An Open Mobile Messaging Industry Model

NOT

A Proprietary Products & Services Model

- **Let us build the open Mobile Messaging Industry together**
- **Let us profit from it:**
  - Based on truly open protocols
  - Based on competition on a level playing field

The BlackBerry Solution

- Total validation of Mobile Messaging

BUT…

- A closed, single-vendor system
- Based on proprietary protocols

The WhiteBerry Solution

- **A completely open Mobile Messaging solution**
- **Based on the LEAP protocols: open, patent-free, RFC published**
- **Equivalent Mobile Messaging functionality to BlackBerry, on *any* device**
- **Not theoretical: can be implemented *immediately***

BlackBerry vs. WhiteBerry

	BlackBerry	**WhiteBerry**
Mobile Device	Only the two RIM-manufactured devices	Any suitable mobile device
Wireless Modem	Only the integral RIM modem	Any suitable wireless modem
Wireless Network	Only the BellSouth Intelligent Wireless Network	Any suitable wireless network
Message Center Service	Only the RIM-operated or RIM-licensed service	Any independent service provider; any corporate e-mail system
Protocols	Proprietary RIM protocols	Open LEAP protocols
Desktop Integration	Only Microsoft Outlook	Any desktop mail application
Message Center Integration	Only Microsoft Exchange	Any Message Center system
System Integration	Exclusively by RIM	Any systems integrator
Security	Not true end-to-end Implementation details unknown Precludes other implementations	Open paradigm permits external security implementation

Comprehensive Development Framework

- Free, open-source software implementations for major devices and Message Centers
- Open public forum for development & distribution of integration tools
- Initial free Subscriber Services
- Initial end-to-end WhiteBerry implementation

Anyone can create a complete WhiteBerry implementation *immediately*

Implementation Case Study: Lisa Simpson

WhiteBerry Step/Component	Lisa's Choice
1. Select a PDA	Lisa chose to use an HP 660LX palmtop device, running Windows CE 2.0
2. Select a wireless network	Lisa selected the CDPD network
3. Select a wireless modem	Lisa selected the Sierra Wireless AirCard 300, a CDPD modem which is compatible with her HP 660LX
4. Select a network Service Provider	Lisa chose AT&T since she resides in Seattle, and AT&T is the CDPD Service Provider for the Seattle area
5. Activate the modem	Lisa provided AT&T with the modem's EID (Equipment ID) number, received an IP address from AT&T, then configured the modem to use that address
6. Download the LEAP device software	Lisa went to the MailMeAnywhere.org website, and downloaded the appropriate Windows CE LEAP software – in this case SH3 Gold Version 1.2
7. Select a Message Center operator	Lisa set up a free e-mail account for herself at ByName.net
8. Select and install an e-mail forwarder	Lisa used FetchMail and Emacs Lisp code to define her directory and rule-based forwarding preferences

Operation WhiteBerry

- **Do everything that BlackBerry does**
- **Do it with a variety of related products & services based on an OPEN model**
- **Do it on all appropriate platforms:**

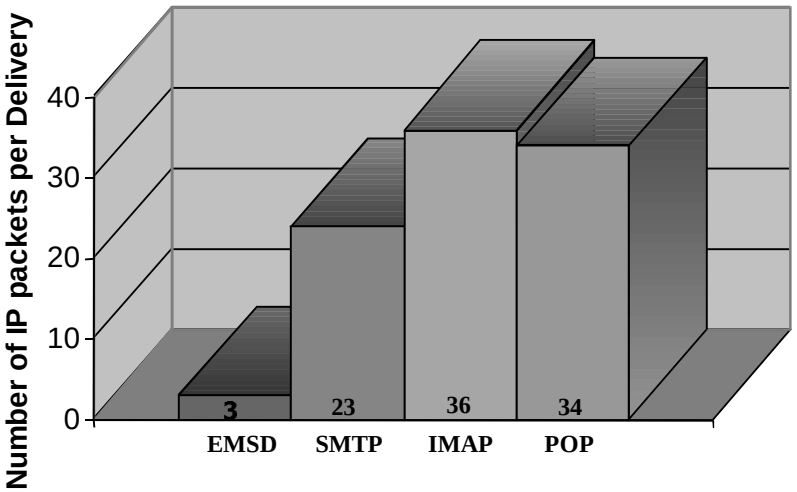
  Windows CE, Palm, Handspring, EPOC, etc.
- **Do it over all appropriate wireless networks:**

  CDPD, Metricom, Packet CDMA, GSM, etc.
- **Do it in all appropriate configurations:**

  Enterprises, ISP, Desktop Agents & Forwarders, etc.
- **Make it all be based on OPEN protocols:**

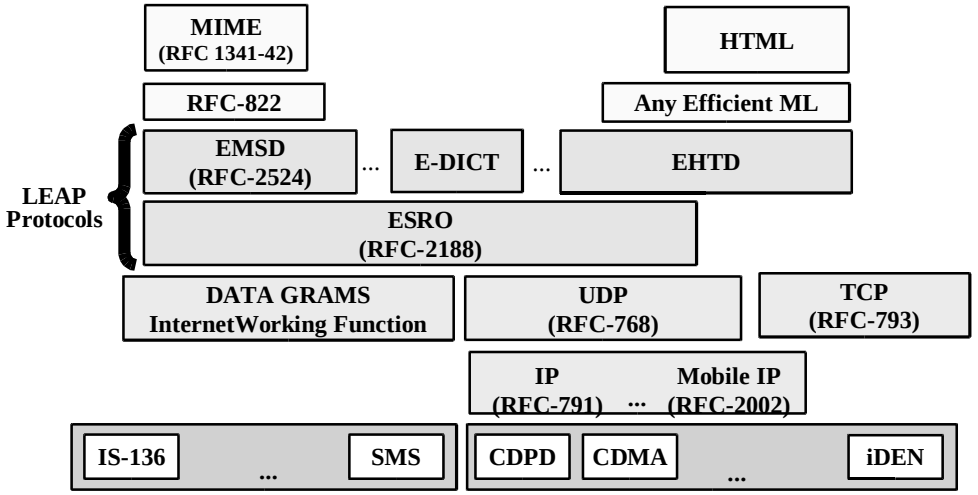
  LEAP Inside (EMSD, ESRO)

What is LEAP?



Bandwidth Efficiency

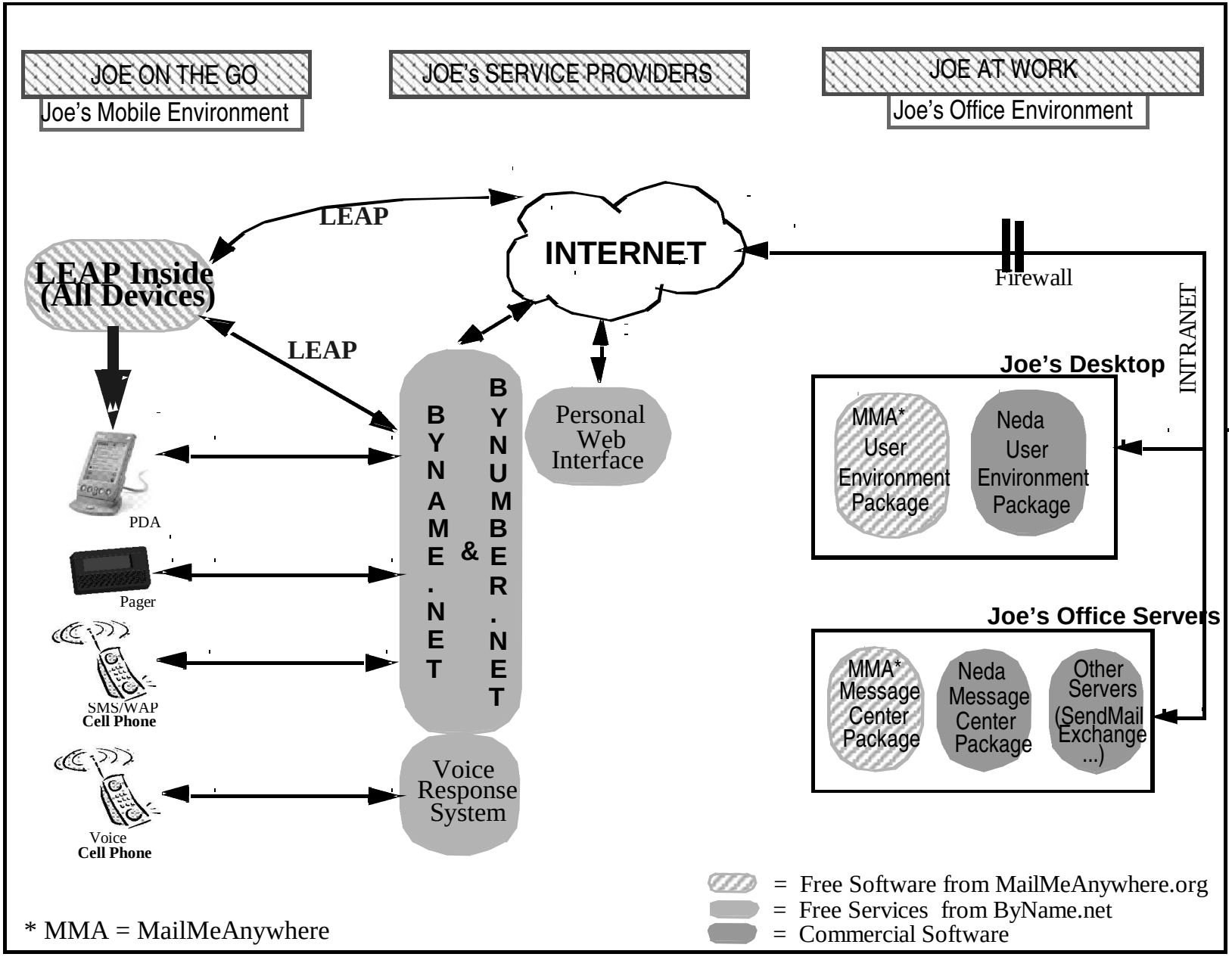
- **Efficiency Benefits:**
  - Efficient use of carrier network
  - Lower costs per minute of use
  - Longer battery life
  - Reduced latency for user access



LEAP is a family of protocols:

- **ESRO: Efficient Short Remote Operations**
- **EMSD: Efficient Mail Submission & Delivery**
- **EHTD: Efficient Hyper Text Delivery (in progress)**
- **...**

- **Technical Attributes:**
  - Technical excellence
  - Ideal for wireless & mobile applications
  - Native IP & wireless-IP
  - Truly open & patent-free
  - RFC published


JOE ON THE GO
Joe's Mobile Environment
JOE's SERVICE PROVIDERS
JOE AT WORK
Joe's Office Environment
LEAP
LEAP
LEAP Inside
(All Devices)
INTERNET
Firewall
INTRANET
Joe's Desktop
MMA*
User
Environment
Package
Neda
User
Environment
Package
Joe's Office Servers
MMA*
Message
Center
Package
Neda
Message
Center
Package
Other
Servers
(SendMail
Exchange
...)
BYNAME.NET
&
BYNUMBER.NET
Personal
Web
Interface
PDA
Pager
SMS/WAP
Cell Phone
Voice
Cell Phone
Voice
Response
System
= Free Software from MailMeAnywhere.org
= Free Services from ByName.net
= Commercial Software
* MMA = MailMeAnywhere

LEAP: The Complete Picture

Our vision is described in The LEAP Manifesto

Standards & Technology

- Free Protocols Foundation – http://www.freeprotocols.org
- Lightweight & Efficient Application Protocols (LEAP) Forum – http://www.LEAPForum.org
- Efficient Mail Submission & Delivery (EMSD) – http://www.emsd.org – Home of RFC-2524
- Efficient Short Remote Operations (ESRO) – http://www.esro.org – Home of RFC-2188

Open-Source Software

- MailMeAnywhere – http://www.MailMeAnywhere.org

Subscriber Services

- ByNumber Services – http://www.ByNumber.net
- ByName Services – http://www.ByName.net
- Others to come

Supported & Commercial Software and Solutions

- Neda Communications, Inc. – http://www.neda.com
- Others to come

Everything is Complete and Ready

- **The protocols are mature and have been published as Internet RFCs:**
  - RFC-2188: ESRO Protocol
  - RFC-2524: EMSD Protocol

- **Protocol support organizations are in place:**
  - http://www.esro.org (home of RFC-2188)
  - http://www.emsd.org (home of RFC-2524)

- **Protocol Engine Reference Implementation will be available as free software, subject to the Gnu Public License (GPL)**

- **Initial free subscriber services are available at http://www.ByName.net**

Java Components

- Device Side - Java LEAP (JEAP)
  - JAVA (J2ME) ESRO – RFC-2188 – First Cut Ready
  - Java (J2ME) EMSD -- RFC-2524 - Not Done
  - Mail4Me - Add Java EMSD and ESRO – Not Done
  - …
- Server Side
  - Jetspeed with Unix Security Service
  - Blogging Module
  - Personal and Group Picture Albums
  - …