

Merit Network Email Services

June 19, 2006

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Daniel Fryer, Oakland University
Michael Edelman, Wayne State
University
Jennifer Hensley, Merit Network

Agenda

- Welcome
- Introductions
- Mirapoint Overview
- MeritMail Services
- Mirapoint Case Studies
 - Oakland University
 - Wayne State University
- Q & A

Presenters

- Thomas Doane, Mirapoint Inc.
- Daniel Fryer, Oakland University
- Michael Edelman, Wayne State University
- Jennifer Hensley, Merit Network

On-line Feedback/Questions

Our online attendees may submit questions or comments by sending an email to:

questions@merit.edu

Mirapoint Solution

Tom Doane

Mirapoint, Inc.

tom@mirapoint.com

Who Are We?

- **Founded in 1997, Mirapoint is based in Silicon Valley, CA with global offices**
- **100+ million mailboxes & over 800 customers served and secured**
- **Only appliance-based mail server**
- **Mirapoint only sells email or email related products.**



#1 Email Vendor in Education



Learning Institutions are being forced to streamline. A modern messaging system must provide the following features.

- Reliable service
- Ease-of-use
- High performance
- Multiple modes of access (Webmail, Outlook, Blackberry, Pocket PC/Windows Mobile, Palm OS (Treo), Symbian)
- Transparent to Outlook clients
- Integrated Email, Calendar, Address Book, Tasks
- Eliminate spam while preventing false positives
- End user control (end user quarantine, safe/blocked sender)
- Increased storage per user
- Improve your brand recognition with your students.
- Class of Service (ability to pick and choose which user gets which feature)

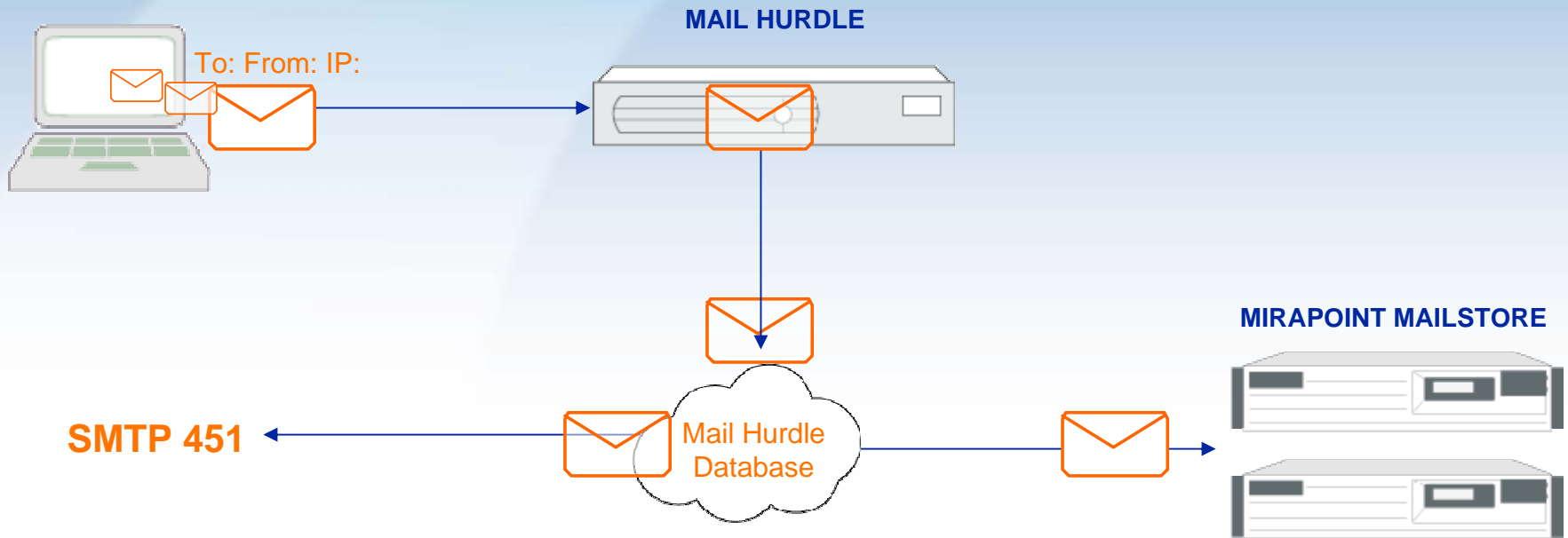
What do we do and how do we do it?

- Intelligent SMTP routing, proxy and content filters
- Sophos Anti-Virus
- Mail Hurdle (Sender verification) *
- Rapid Anti-Spam *
- Junk Mail Manager (Personal Junkmail) *
- Webmail (Outlook-like webmail interface) *
- IMAP, POP and many other features.

Mirapoint MailHurdle

Sender Verification Technology Today

- Blocks up to 80% of spam at SMTP-layer to conserve resources; also stops many virus programs and phishing schemes
- Works with existing SMTP protocol standards
- Delivers on vision of SMTP Verification today with no special code or MTA upgrades required



Rapid Anti-Spam - Example

From: PayPal [mailto:skyhook-elglweebpxhp@planet-mail.com]
Sent: Tuesday, June 15, 2004 12:16 AM
To: Ex-CTCH; media; Ex-CTCH
Subject: imagine being young again ferroelectric

175.237.138.240

You've heard about these pills on TV, in the news, and online and have probably asked yourself, "Do they really work?" The answer is YES! IGF2 is a powerful erection enhancing product that will create erections so strong and full that over time your penis will actually grow as a direct result! If you would like a more satisfying sex life then IGF2 is for you!
Check It Out Now!

eTn,D

Hash

FvvCb

t2CO!

Hash

L8k1n

JMM Integration with Desktop Client

Fully Functional From Any Mail Client (personal Junkmail quarantine).

Junk Mail Manager Summary

File Edit View Tools Message Help

Reply Reply All Forward

From: Administrator@mirapoint.com
Date: Sunday, April 17, 2005 4:00 AM
To: jveizades@mirapoint.com
Subject: Junk Mail Manager Summary

Junkmail summary for: jveizades
Last report: 04/16/05 04:00:00

Below is the list of messages that Junk Mail Manager has most recently categorized as junkmail and quarantined for this account. Click a **Subject** link to view the message, **Deliver** to deliver the message, or **Approve** to deliver the message and add the sender to this account's Junk Mail Manager White List. Adding a sender to the White List ensures that their mail to this account is never categorized as junkmail.

You can ignore the junkmail messages included in this summary and they will be automatically deleted after the expiration date set by your administrator.
Expiration date: May 01, 2005

Click [Login](#) to open Junk Mail Manager; you will need your user ID and password.

Deliver	Approve	Date	Size	From	Subject
		Apr 16, 2005 05:46	6k	Gift Card Promotion	Reward Confirmation John #32-192076393
		Apr 16, 2005 08:17	3k	Cecelia Sweet	Read
		Apr 16, 2005 08:40	3k	Williams H. Denton	try this

You are receiving this message because this email account uses Junk Mail Manager to quarantine junkmail. To stop receiving these messages, log in to Junk Mail Manager and use the **Controls** page to turn Junk Mail Manager off or the **Summaries** page to change how often these messages come to you.

- Junk Mail Manager digest feature sends summary to inbox (i.e.. Outlook)

- Users can view messages captured as spam & self-manage traffic to their inbox

- Easy-to-use web-based interface

- Secure quarantine access via login/password

InfoWorld Product Review (April 2005)



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REVIEW

SPONSOR
Secure Your Registration at InfoWorld's Service-Oriented Architecture Event
Sponsored by InfoWorld

SPONSOR
IP communications... it's coming. But when?
Sponsored by Cisco Systems

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IDG ENTERPRISE NETWORK

- More Security News... (ComputerWorld)
- NSF establishes cybersecurity center (ComputerWorld)
- LexisNexis data on 310,000 people feared stolen (ComputerWorld)

Mirapoint RazorGate returns spam to senders
MailHurdle technology rejects unwanted messages before they hit mail servers

By Logan G. Harbaugh
April 04, 2005

After reviewing a half-dozen anti-spam products, I'm starting to take for granted that they'll screen out about 95 percent of spam with few or no critical false positives. A number of vendors are now shifting their efforts from improving spam filtering to developing products capable of immediately rejecting unwanted e-mail messages before they're filtered.

Case in point is **Mirapoint** (Profile, Products, Articles): The company has incorporated a technology called MailHurdle into its line of RazorGate e-mail security appliances. MailHurdle is capable of stopping 60 percent or more of spam before it's even delivered. This technology by itself will not necessarily produce better spam-filtering results, but it reduces the number of messages the filters have to handle, lightens the load of internal traffic on the network, and increases message-delivery speeds.

MailHurdle employs a variety of SMTP protocol-level techniques to verify both

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Bottom Line:
The RazorGate appliance is a very effective anti-spam solution, boasting high spam-blocking accuracy with no false positives, easy installation, and good price per user. Mirapoint's MailHurdle technology brings the added benefit of greatly reducing the load in high e-mail volumes by stopping a significant number of unwanted messages from ever reaching the filter.

**“Overall Rating:
Excellent (9.2 out of 10)”**

“The RazorGate appliance is a very effective anti-spam solution, boasting high spam-blocking accuracy with no false positives, easy installation, and good price per user.”

Mirapoint RazorGate		
Mirapoint, mirapoint.com		
Excellent 9.2		
criteria	score	weight
Effectiveness	9	30%
Manageability	9	30%
Scalability	10	20%
Setup	9	10%
Value	9	10%

Direct Access™ Technology

Integrated Administration Tools

Database

MessageBase™

File System

LDAP

IMAP

POP

SMTP

Direct Access Technology™

HTML

WAP

i-mode

XML



Universal access from any web, wireless or wireline device
No complex gateways or protocol-translation required
Proven scalability & performance in customer environments

New Corporate Webmail Interface

Webmail - Corporate Edition - Netscape

MIRAPOINT Welcome Larry Herman Options | Help | Sign Out

Mail Quota: 4.69% of 488.28 MB

New Delete Mark Tools Move Copy Check Mail

301 to 306 of 306 <First | Prev | Next | Last>

	From	Subject	Received	Size
<input type="checkbox"/>	Jyothi Vijayan	Fwd: RE: VERITAS Case# 230-060-685	Mar 18, 2005 14:12	20k
<input type="checkbox"/>	Mike Ganley	RE: RE: VERITAS Case# 230-060-685	Mar 18, 2005 14:20	8k
<input type="checkbox"/>	Larry Herman	RE: sneakpeek.explore.mirapoint.com not accepti...	Mar 30, 2005 18:57	3k
<input type="checkbox"/>	Larry Herman	Test of sneak peek	Apr 07, 2005 17:30	2k
<input type="checkbox"/>	Larry Herman	Re: Test of sneak peek	Apr 08, 2005 11:40	4k
<input type="checkbox"/>	Larry Herman	test	Apr 15, 2005 18:01	1k

Delete Prev Next Reply Forward Open

Date: Wed, 30 Mar 2005 18:59:25 -0800 303 of 306 303 Go to

From: Larry Herman <lherman@mirapoint.com>

Subject: RE: sneakpeek.explore.mirapoint.com not accepting incoming mail?

To: Timothy Chiu <tim@mirapoint.com>, "Ambar" <ambar@mirapoint.com>

Cc: lherman@sneakpeek.explore.mirapoint.com

Trevor has been managing it on my behalf

(gee let me try my account there)

Larry

----- Original message -----

>Date: Wed, 30 Mar 2005 18:14:56 -0800

>From: "Timothy Chiu" <tim@mirapoint.com>

>Subject: RE: sneakpeek.explore.mirapoint.com not accepting incoming mail?

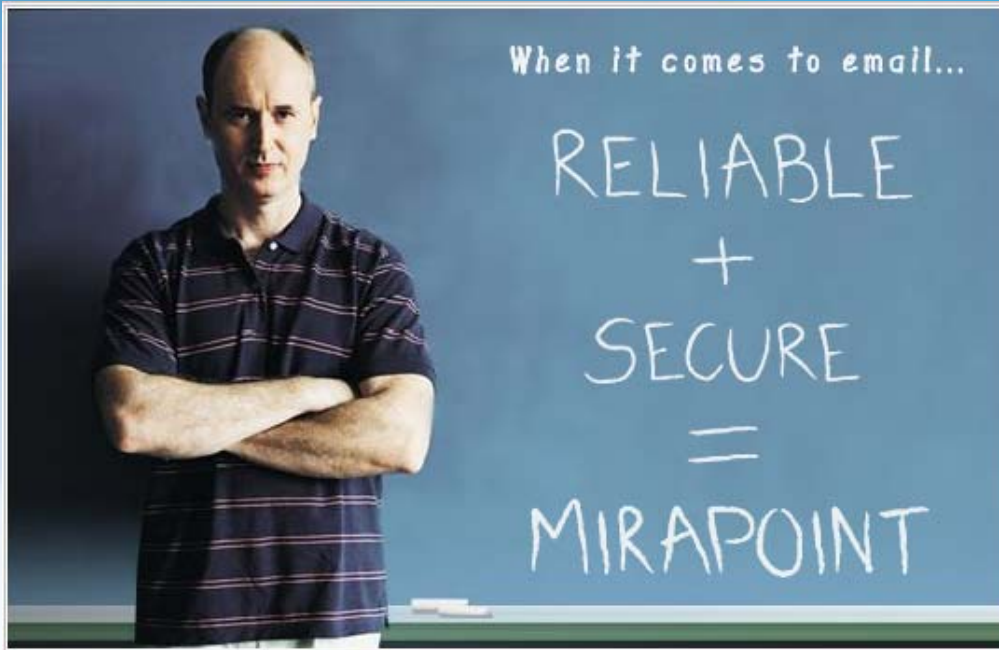
>To: "'Ambar'" <ambar@mirapoint.com>

>Cc: <lherman@mirapoint.com>

http://sneakpeek.explore.mirapoint.com/wm/eml/read.html...1&uid=504&msgid=302&mbox=user.lherman&lhsindex=lhs_mi1

- ◆ Enterprise Email
- ◆ Shared Folders
- ◆ Address Book

The Bottom Line



Purpose-built appliances
Proven in education
Feature-rich email plus
integrated security
protection
Proven lowest TCO

- Highest availability – proven 5-9's
- Deploys in minutes; easy-to-maintain
- No known exploits of Mirapoint appliances ever

MeritMail Services

Jennifer Hensley

Merit Network

jhensley@merit.edu

MeritMail Service Overview

- Two Service Offerings
 - MeritMail – Email, Anti-Virus, Anti-Spam
 - MailScreen – Anti-Virus/ Anti-Spam only
- Powered by Mirapoint
- Custom/Ported Domain Name
- Locally administered for individual account and policy management

Why MeritMail?

- Reduced staff time spent managing email, anti-virus, anti-spam. Focus on your CORE competencies
- Predictable cost structure
- Minimized capital cost
- Scalable architecture
- New features/upgrades without the headaches – Merit tests for everyone.

Really... Why MeritMail?

- Merit...40 years and going strong
- Local, Member-based, support-centric
- Redundant, high-performance network
- Utilizes your existing network connection
- Secure, hardened data-center
- Expert, dedicated staff, 24 X NOC
- Backed up and archived off-site
- Stop spam upstream – reduces congestion on YOUR LAN

MeritMail Features

- Webmail plus choice of IMAP or POP
- Local administration – user set-up, group administration, storage quotas
- Powered by Mirapoint
- Sophos Anti-virus
- Multi-layered anti-spam – 98% catch rate; spam that is NOT clogging your network!

MeritMail Features, Con't.

- Local control for content filtering and policy administration
- Personal JunkMail Manager
- Industry standards supported:
 - ✉ IMAP4
 - ✉ POP3
 - ✉ SMTP
 - ✉ LDAP
- Compatible with most email clients

MeritMail Packages

- MeritMail = Email, A/V, A/S
- MailScreen = A/V, A/S only
- 5 packages each, defined by number of accounts
- Price decreases with package size
- Purchase additional accounts in bundles of 10

MeritMail Fees

Package	Annual Fee	Monthly Fee	Fee Per Add'l 10 Accts	Fee Per Acct/Month
MeritMail 10	\$170	\$14.17	\$170	\$1.42
MeritMail 100	\$1,500	\$125.00	\$150	\$1.25
MeritMail 500	\$6,500	\$541.67	\$130	\$1.08
MeritMail 1000	\$12,000	\$1,000.00	\$120	\$1.00
MeritMail 5000	\$50,000	\$4,166.67	\$100	\$0.83

MailScreen Fees

Package	Annual Fee	Monthly Fee	Fee Per Add'l 10 Accts	Fee Per Acct/Month
MailScreen 10	\$130	\$10.83	\$130	\$1.08
MailScreen 100	\$1,200	\$100.00	\$120	\$1.00
MailScreen 500	\$5,000	\$416.67	\$100	\$0.83
MailScreen 1000	\$8,000	\$666.67	\$80	\$0.67
MailScreen 5000	\$30,000	\$2,500.00	\$60	\$0.50

MeritMail...

Available

July 1, 2006

Member Case Studies



Oakland University

Daniel Fryer

Systems Programmer II -

Communications



Old Email Environment

- Core mail server which is an HP *Tru64UNIX* server with dual 600MHZ Alpha processors and an external RAID with a Cobra disk array for mail spooling.
- Separate server dedicated to webmail



Issues with Environment in 2002

- **Poor performance**
- **Redundancy & Reliability**
 - Single point of failure
 - The RAID storage device for the mail spool repeatedly failed
- **Inbox Format**
 - UNIX/mbox mail format which is a flat file format with no indexing for speed.



Issues, Continued

- **Webmail Inferiority**
- **Lack of Virus Protection**
- **Antiquated User Customization**
 - These processes for doing server side mail filters, vacation and auto responder messages, forwarding, and password changing are accessed via the UNIX command line.



Mirapoint Deployment

- Implemented March 2003
 - ~22,000 User Accounts
- Current Implementation
 - ~38,000 LDAP Accounts
 - ~35,000 Mailboxes



The Move to LDAP

- Before Mirapoint LDAP:
 - Creating user accounts was more of a manual process.
 - The criteria for accounts was unclear as was the process for removing them.
- With LDAP & Auto provisioning this task became much simpler plus allowed us to use LDAP for multiple applications.



Benefits

- More stable & robust environment
- Superior Webmail
- Excellent Vendor Support
- Increased Security
- SOPHOS Virus Protection
- Less administration & maintenance time required – Went from 40.5 staff hrs/week to 15.8 staff hrs/week

Member Case Studies



Wayne State University
Michael Edelman
Applications Project Leader
Internet Services / C&IT

The Prehistory

- 1970s: MTS, \$Messagesystem and the Merit Network
- 1980s: VM and BITNET
- 1990s: Growth of independent mail servers and workstations on campus
- 1995: Need for a centralized system

1995: A New General Purpose System

- Unix based
- SMTP mail and not X.400
- POP and IMAP
- Central nameserver- X.500/LDAP based

Growth and the Need for Expansion

- Too much administration - patches, updates, synchronization, etc.
- Security - one or two sys-admins against a University full of hackers
- Complexity and Scalability
- Evolving standards
- Integrating new services - calendaring, webmail, etc.

Search for New Solutions

- HORDE/IMP
- Stalker Systems
- Mirapoint

Mirapoint's Promise

- Complexity: Mirapoint is highly scalable
- Administration: Closed system
- Efficiency: No O/S overhead
- Security: Essentially hack-proof.
- Evolving standards: Mirapoint brings in new functions as they become standard.

Mirapoint Delivers:

- Lower Capital and Maintenance Costs
- Greatly simplified support
- Drastically reduced staff time
- Easy scalability
- Reliability: Six Sigma Uptime and not ONE lost message in 6 years.

Mirapoint Deployment

- Implemented July 1, 2001
- Current LDAP records – 120,163
- Current Email accounts – 75,575



Mirapoint Delivers

“Mirapoint delivered on EVERY promise they made to Wayne State University!”



Questions?

Contacts:

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- Jennifer Hensley – jhensley@merit.edu