

EMAIL-SIG

SERVICE UPDATE
DECEMBER 14, 2010



ISC Networking & Telecommunications



Format

Forward-Only

SMTP-Relay

PennNet Mailing Lists

Exchange

Mobile Devices

Zimbra



Forward-Only

Leverages existing infrastructure for mail routing and MessageLabs AV/AS

Over 2500 accounts (up 25% this FY)

Zimbra-to-FO account migrations

Incident: July 10, 2010 – Grouper upgrade breaks SOAP API call used by some schools to autcreate forward accounts to Live@edu

Rates remain \$0.75/month in FY12



SMTP-Relay

Use cases: printers, faxes, control systems that need to send email w/o user auth, or to external addresses

Separate service to avoid dependencies on Exchange and Zimbra

Currently used by 51 hosts (up 6% this FY)

November 13, 2010 – Discontinued SSL certificate

\$10/IP address/month; No charge for mail within ISC service



PennNet Mailing Lists

LISTSERV 16

Upgrade TBD following testing

No UI changes

Small bug fix that would obsolete a workaround

Rate structure remains \$0.50/list/month in FY12



EXCHANGE



Agenda

Overview of Service
Availability Report
Rates
Roadmap
Q&A



Overview

In production since July 2007

10 Windows servers in 3 campus data centers

2 TB of mailbox storage

Data replicated in Levy and Nichols campus data centers

Vendor contracts: Microsoft, RIM, Dell



Overview

Over 3,700 accounts (up 7% over FY10)

25% have handhelds

About 390 BlackBerry handhelds (up 7% over FY10)

Almost 540 ActiveSync handhelds (up 8% over FY10)

Some mobile devices still using IMAP and are harder to track



Service Review

Availability for FY10 YTD

Incidents

Maintenance

Remedy Cases

Accomplishments

Rates



Availability

Target: 99.5% (43 hours, 48 minutes)

Exchange: 99.98% (1 hour, 30 minutes)

BlackBerry: 100%

Averaged across multiple servers/services



Incidents

July 15, 2010 – Failed database startup affected EAM/EAS

Jul 16, 2010 – Hardware problem on billing system

Aug 25, 2010 – EPO in one of N&T's NAPs; No service impact

Oct 20, 2010 – Hotfix to BES to resolve problem with Inbox Redirection being unintentionally disabled

Oct 25, 2010 – Windows Server OS patches break Account Management for BlackBerry

Oct 26, 2010 – Again, Windows Server OS patches break Account Management for BlackBerry



Monitoring

Nagios polls services, reports availability

Logcaster examines event logs

Spectrum pings, sends alarms

Oncall service 24x7x365



Maintenance

Monthly rolling Windows Server OS patches

Over quota notices now sent in the morning

Periodic targeted user moves between SGs

As agreed, unadvertised, disruptive maintenance of up to 15 minutes may be performed:

Mon-Fri: 1am-3am

Sat-Sun: 6am-7am



Remedy Cases

SLA: 24 hour response

Over June-Nov, ~26 cases/month;
(up 13% from FY10)



Challenges

E-discovery

Backup/restore

Mobile device landscape



Rates – FY12

- Exchange @ \$9.00/month (from \$7.75)
- BlackBerry @ \$15/month (from \$14.00)
- Additional storage: \$0.50/250MB/month (from \$1.25)
- Default quota: 1 GB; Auto-quota up to 2GB; Max quota up to 5 GB



Exchange Roadmap

Short-term (0-3 months)

Medium-term (4-12 months)

Long-term (>1 year)



Exchange 2010

More automatic failover features

Transport resiliency

Smarter about using cheap disk

Client throttling

Outlook Web App; support for Safari, Firefox

ActiveSync – free/busy lookup, push Outlook updates to Windows handhelds



Short-term

In support of Exchange 2010:

Planning

Training

Testing

Development

Design



Medium-term

In support of Exchange 2010:

Update local integrations (EAM/EAS)

Client/mobile device testing

Pilot

Migrations – goal by end of FY11



Long-term

Manage costs

Benchmark against our peers

Continue to investigate off-campus DR options

Look for consolidation opportunities



Q&A - Customers

Does a higher base quota solve problems or create more problems for you?

Does your business require custom message retention or archiving?

What trends are you seeing with users?

Interested in piloting Exchange 2010?

What's a reasonable attachment size limit?



Q&A – Your topics

?



References

<http://www.upenn.edu/computing/email/>

<http://www.upenn.edu/computing/email/exchange/sig-meetings/>

<https://zimbra.upenn.edu/home/nt-dtime/Calendar?fmt=html>



Mobile Devices



Current Platforms

BlackBerry OS 6

iOS 4.2

webOS 2

Windows Phone 7



Important Future Updates

Android 3.0 -

‘Spring’ ’11

webOS 2.x

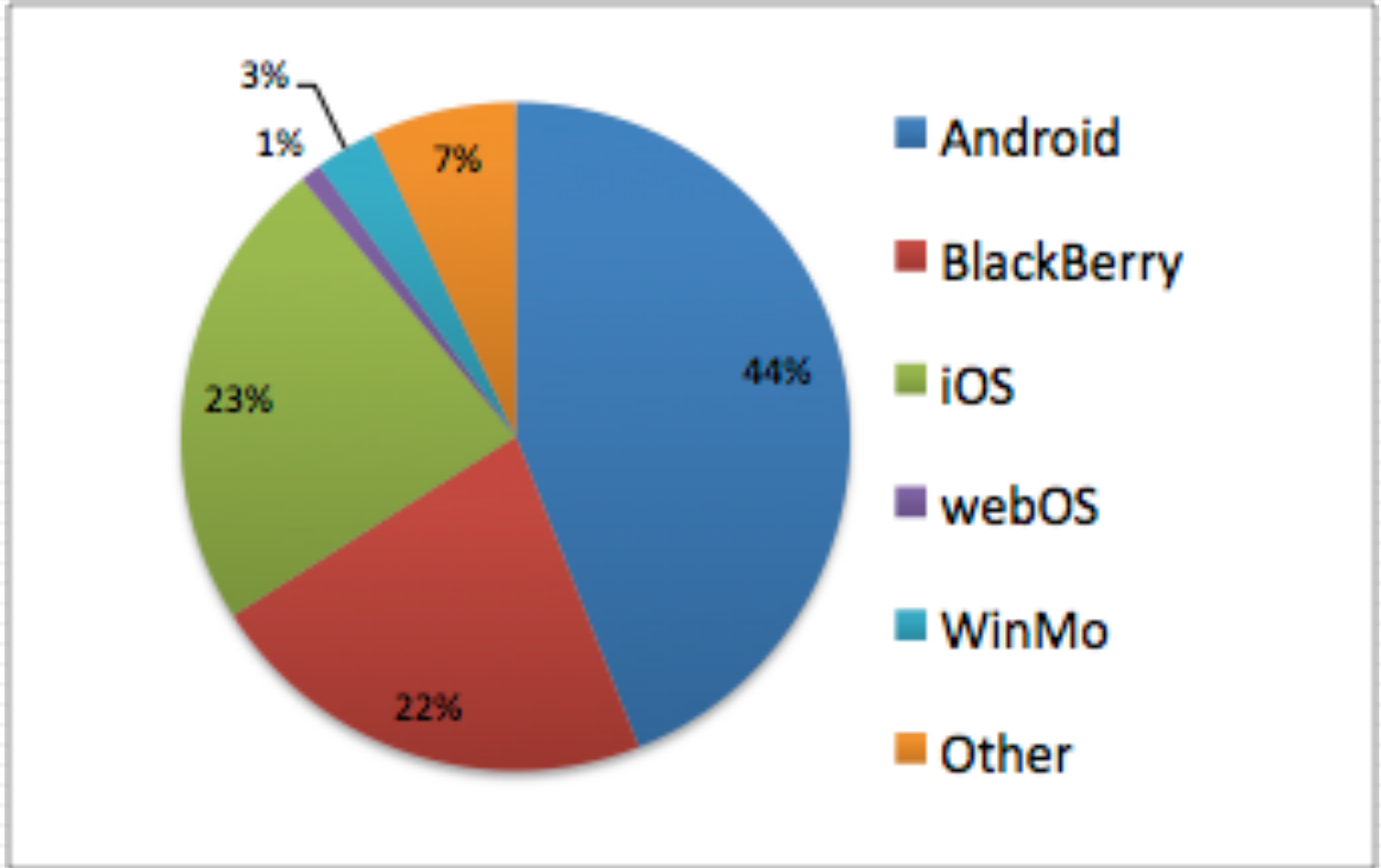
Windows Phone 7 updates -

January, February ‘11



Platform Feature Comparison

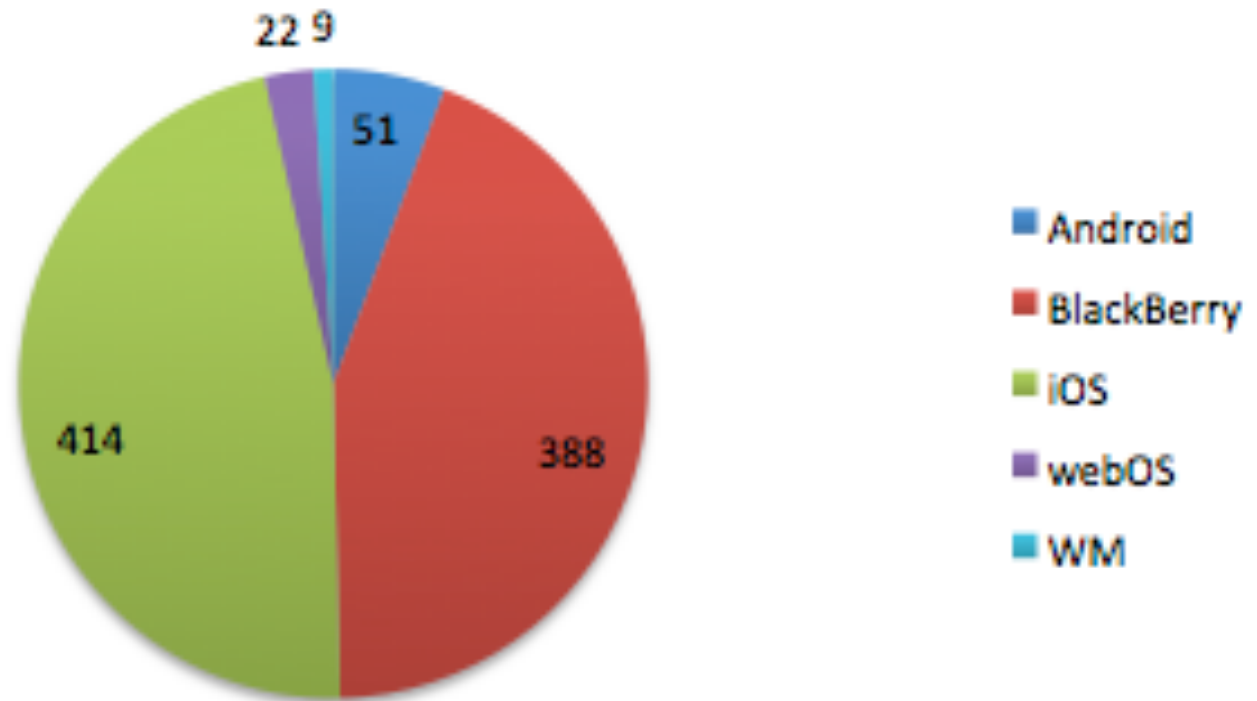
	EAS	Disk Encryption	Remote Wipe	AirPennNet	Acid3 Test	Carriers	Tether	Hotspot	Devices Available	Flash	Overall Security
Android 2.2	●	X	●	*	94%	4	●	●	36	●	D-
BlackBerry OS	BES	●	●	X	100%	4	●	X	8	X	A+
iOS	●	*	●	●	100%	1	●	X	3	X	C
webOS	●	X	●	*	92%	3	●	●	2	X	D+
Windows Phone 7	●	X	●	X	12%	2	X	X	4	X	D+



US Smartphone Sales Q3 '10

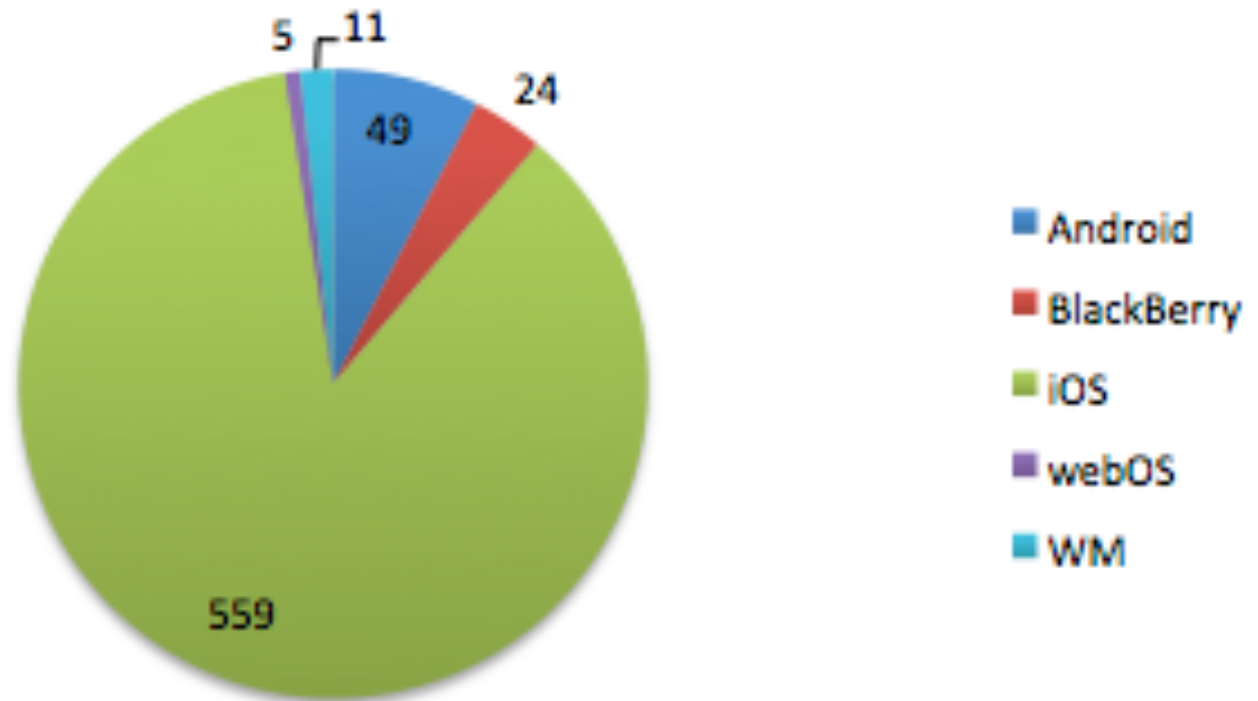
Smartphones account for 29% of US phone sales

ISC Exchange, Autumn 2010



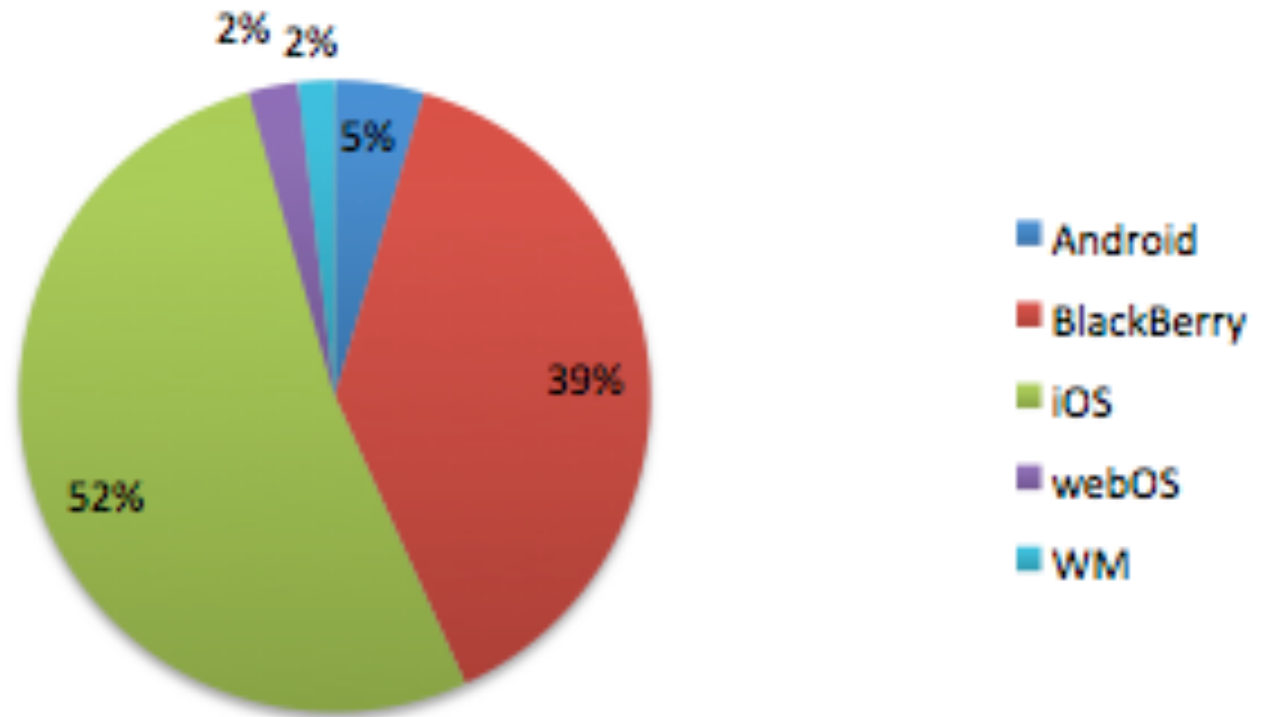
ISC Exchange

ISC Zimbra, Autumn 2010



ISC Zimbra

ISC Email Services, Autumn 2010



ISC Services Overall

Tablets





ZIMBRA





Overview

Production on July 26, 2008

10 Linux servers in 2 campus data centers

2.5 TB of mailbox storage

Data replicated in Levy and MODV campus data centers

About 12,530 accounts (down about 7% from FY10)

Almost 648 with Mobile Sync enabled (up 300% over FY10)



Service Review

Availability for FY10 YTD

Incidents

Maintenance

Remedy Cases

Accomplishments

Rates



Availability

Target: 99.9% (<9 hours)

Zimbra: 99.76 % (9 hours, 30 minutes)

Averaged across multiple servers/
services



Incidents

Jul 17, 2010 – Hardware problem on billing system;
disabled account creation/deletion

Oct 9-16 – Problems with Kerberos logins on DES clients

Nov 12, 2010 – ZWC, ZAM, ZAS offline for 30 minutes
to update Cosign certificate

Currently weathering phishing attacks and blacklisting



Maintenance

Aug 24, 2010 – 1-hour downtime for OS patches

October 8-9 – Zimbra 6.0.8 upgrade

Oct 16, 2010 – 2-hour downtime to rerun problematic upgrades from October 8 upgrade

Nov 2, 2010 – Increase IMAP threads, fix Zimbra short-circuiting, restore sync and audit logs

Nov 17, 2010 – Again, increase IMAP threads



Lessons

Even generous estimates can be insufficient in the event of problems

Some “defaults” aren’t implemented upon upgrade (i.e. read receipts)

Formats of backup data may change and need to be tested

A more detailed matrix of clients and configurations would have caught Kerberos problem in testing

... and many more



Maintenance

As agreed, unadvertised, disruptive maintenance of up to 15 minutes may be performed:

Mon-Fri: 1am-3am

Sat-Sun: 6am-7am



Remedy Cases

SLA: 24 hour response

Over June-November, ~29 cases/
month; (up 70% from FY10)



Challenges

Zimbra 6.0.8 upgrade

Tuning to perform better under very heavy load and more clients

Phishing/compromised accounts



Rates – FY12

One price for Enhanced or Basic accounts

\$3.50/month (from Enhanced @ \$3.10 and Basic @ \$3.60)

Driven by client access reality: mobile devices, calendaring

Enhanced still recommended for security, supportability, convenience

BlackBerry service to be discontinued by March 2011

Additional storage: \$0.50/250MB/month (down from \$1.25)

Quota: 1GB; Auto-quota up to 4GB; Max quota up to 10GB



Zimbra Roadmap

Short-term (0-3 months)

Medium-term (4-12 months)

Long-term (>1 year)



Short-term

Turn down BES

Determine immediate upgrade
path: 6.09, 6.0.10, wait for 7?

Add disk to improve backup and
recovery



Medium-term

Unified Communications - Integration opportunities between Zimbra, IM, and/or PennNet Phone

Beta Zimbra 7.0

More traction for an XMPP proxy in Zimbra 7.0



Long-term

What's going on at VMware/Zimbra: decoupling VMware corporate from Exchange; adding Zimbra to their application and cloud infrastructure stack; handling replication with vSphere; focus on appliances; focus on unified messaging

Rich iPad application

Self-service data recovery

Option to auto-save email

Revision control in the Briefcase

User-controlled Zimlets



Q&A - Customers

What's a reasonable attachment size limit?

What improvements did you see from the 6.08 upgrade? And what new issues?

What are your plans for BlackBerry (i.e., alternative software or devices)?

Does anyone support only ZWC, or are desktop clients still the rule?



Q&A – Your topics

?



References

<http://www.upenn.edu/computing/email/>

<http://www.upenn.edu/computing/email/zimbra/sig-meetings/>

<http://www.upenn.edu/computing/security/phish/>

http://prowiki.isc.upenn.edu/wiki/ISC_Zimbra_documentation

<https://zimbra.upenn.edu/home/nt-dtime/Calendar?fmt=html>

Day Work Week Week Month Today December 2010

December 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
11/28 • 8:00 PM ININ Managed Services Automated Updates/IC Backup	29	30	12/1 • 6:00 AM Upgrading wireless in Chemistry from Cisco to Aruba	2	3	4
5 • 8:00 PM ININ Managed Services Automated Updates/IC Backup	6	7 • 6:00 AM Upgrading wireless in DRL from Cisco to Aruba • 8:00 AM Shibboleth NIH Maintenance	8	9 • 7:00 PM ACD Microsoft Security Patches	10 • 6:30 AM Scheduled Power down at LAW to move the router and 5 switches to UPS	11
12 • 8:00 PM ININ Managed Services Automated Updates/IC Backup	13	14 • 5:00 AM Scheduled Power Outage LDY and GDD	15	16	17	18
19 • 8:00 PM ININ Managed Services Automated Updates/IC Backup	20 • 8:00 PM ININ Monthly Maintenance	21	22	23	24	25
26 • 8:00 PM ININ Managed Services Automated Updates/IC Backup	27	28	29	30	31	1/1
2 • 8:00 PM ININ Managed Services Automated Updates/IC Backup	3	4 • 9:00 AM Remove SNMP filter for HP Printers on 1/4	5	6	7	8

Calendar.ics GMT -05:00 US/Canada Eastern

<https://zimbra.upenn.edu/home/nt-dtime/Calendar?fmt=html>

<https://zimbra.upenn.edu/home/nt-dtime/Calendar?fmt=rss>



THANK YOU
