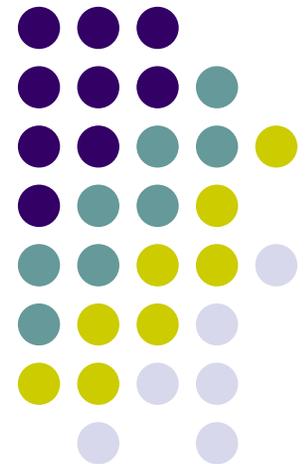


Software as Service

Messaging and Calendaring





Work Group Charter

- Evaluate and compare hosted email service offerings
 - DTS MS Exchange 2003
 - Google Apps Premier Edition
 - Microsoft
 - Office Live Premium (for individuals)
 - Exchange Online (new corporate offering)
- Determine potential value to state government agencies

Work Group Members



- John Ellison, Resources Agency (Chair)
- David Harris, Resources Agency
- Ron Naby, Department of Fish and Game
- Terri Bollinger, California Department of Social Services
- Arna Perry, California Department of Social Services
- Shell Culp, Department of Toxic Substance Control
- Melody Hayes, Office of Systems Integration
- Gary Criswell, Coastal Commission

What's included in basic service...



	DTS	Google	Microsoft
Account Size	\$18.35/GB/Month	10 GB	50 @ 2 GB each
Shared Calendar	Yes	Yes	Yes
Spam/Antivirus	Yes	Yes	Yes
Mobile Device	No (option)	Yes	Yes
24x7x365 Support	Yes	Yes	Yes
Reliability	99.8%	99.9%	99.9%
Web Site	No	Yes	Yes
Integration	No	Yes via API	No
Hosted Docs	No	Yes	Yes
eDiscovery	No	No (option)	No
Work Offline	Yes	Google Gears	Yes

New Hosted Corporate Services from Microsoft



MS Exchange Online	MS Office SharePoint Online	MS Office Communications Online
E-mail, shared calendar	MS Office Excel services	Instant messaging & presence
Shared contacts & tasks	Business data catalog	1:1 PC video & voice
MS Office connectivity & web access	Enterprise search	Application sharing
Message archiving	Site search	MS Office Communicator Web Access
Anti-virus	Enterprise portal	Federation/compliance
Anti-spam	My Sites	
Mobility	Enterprise content management	
	People & personalization	
	Logos, wikis & document collaboration	
	Templates & web parts	

Postini Services

Annual cost per account



- **Message Recovery – \$9.95**
Search and retrieve copies of lost messages
- **Content Management – \$19.95**
Set policies and rules for how email is used by employees
- **Threat Management – \$24.95**
Flexible management controls for individual users and increased security features
- **eDiscovery – Quote (\$49 to \$85 based on 50 users)**
Save messages for extended periods of time (3 to 8 years) in a secure and private format



Postini Services -- Details

	Message Recovery (\$9.95)	Content Management (\$19.95)	Threat Management (\$24.95)	E-Discovery (Quote)
View all messages	X	X	X	X
Restore messages	X	X	X	X
Manage outbound content policies		X	X	X
Block messages using keywords		X	X	X
Add message footer			X	X
Policies for groups & individuals			X	X
Additional protection from external threats			X	X
Recover messages from individual users	X	X	X	X
User search & archive				X
Auto archive & delete; Retention policy				X
E-Discovery searches & audits				X

Google service offerings are rapidly expanding...



Presentation

Google Apps to Get Presentation Application

Google will add a presentation application to Google Apps lineup by year-end.

John Fontana, Network World

Thursday, June 14, 2007 4:00 PM PDT

Identity Management

Google also includes security options via partner [Sxip](#) that let companies tie it into their existing corporate directories and extend [single sign-on](#) to Google's hosted application services.

Security

Google Turns to Security

Analysis: With the acquisition of Postini, Google strengthens its business solutions offerings.

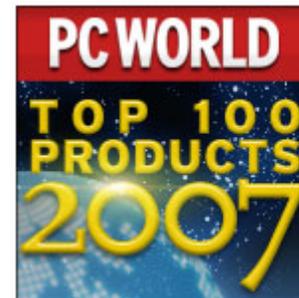
Robert McMillan, IDG News Service

Tuesday, July 10, 2007 5:00 AM PDT

Work Offline

Google last week introduced a set of APIs as part of a browser extension called [Google Gears](#) that will let Web-based applications work in disconnected mode.

Accolades



The Number 1 Product of the Year



A few that are using or considering Google Apps...



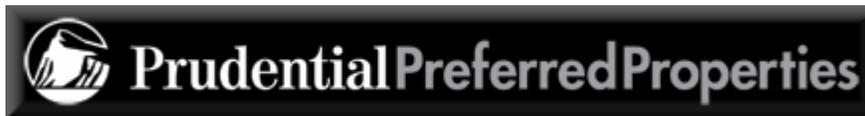
65,000 students



Proctor and Gamble -- 135,000 employees



10,000+ employees



11 offices, ~450 agents in Chicago area



Evaluating



Evaluating



Evaluating

Support for Mobile Devices



- DTS

Blackberry Enterprise Server support offered at an additional cost of **\$7.50/user/mth** (\$90/user/yr)

- Google

Free client for Blackberries; other devices with data services can access their mailbox and related services on the **Internet**; Google has major focus on mobility; major advances in next 6 months

- Microsoft

Access to e-mail and calendar with **Windows Mobile-powered** phones

Support



- DTS

No Messaging staff on site 24x7 but the service is available 24x7, *excluding scheduled maintenance windows*. DTS Service Desk is staffed 24x7. If a critical problem occurs after hours, the Service Desk will contact Messaging staff.

- Google & Microsoft

24x7x365 Help Desk and a self service knowledge base

Email Investigations



- **DTS**

Data from user mailboxes provided upon request. Shadowing will not be available.

- **Google**

Google Apps allows the routing of all incoming and outgoing mail through an email gateway at client site or hosted through Postini. This capability can be used to make an archive copy of all mail meeting requirements for records retention.

- **Microsoft (not a good solution, but MS says...)**

By importing mail into Outlook, clients can access and manage information even when not connected to the internet. With the Microsoft Outlook Connector clients can access and manage e-mail, contacts, calendar, and tasks using their own copy of Microsoft Office Outlook 2002 (XP).

Cost Factors -- DTS & Google



	DTS	Google
Client	\$66 - \$55 one-time \$19 - \$16/yr ongoing	\$0 <i>(web based)</i>
Basic Rate	\$6.00/User/Month	\$4.17/User/Month
Storage	\$18.35/GB/Month	\$0.00
Mobile	\$7.50/User/Month	\$0.00
eDiscovery	?	~\$4.17/User/Month

Microsoft Exchange Online Costs



Service Element	Per User Pricing (15,000 to 34,999 seats)
1GB Standard Mailbox Core Service	\$17.65 setup + \$8.59/mth
200MB Task Worker Mailbox (web only)	\$17.65 setup + \$2.75/mth
Messaging Options: <ul style="list-style-type: none"> - Blackberry - Archiving - Exchange Data Migration 	\$49.95 setup + \$9.95/mth \$3.13/mth \$17.65 one-time
Managed Collaboration w/Messaging	\$5.63/mth
Collaboration Options <ul style="list-style-type: none"> - Additional Storage 	\$78,125/TB/Year (\$6.51/GB/mth)
Managed Instant Messaging & Presence Core Service w/Messaging	\$2.19/mth
IM&P Options <ul style="list-style-type: none"> - Public IM - Archiving 	\$3,750 setup \$0.10/mth



Additional DTS Costs

Client Costs (Outlook if purchased separately from MS Office; actual costs if purchased through DTS expected to be less due to volume discount; e.g., DTS costs for 500 clients \$23,258 rather than \$29,000; does not include cost to administer and support client)

# of Users	Initial Purchase	Annual Maintenance
50	\$ 3,300	\$ 950
250	\$ 15,000	\$ 4,500
500	\$ 29,000	\$ 8,500
1,000	\$ 56,000	\$16,300
5,000	\$276,000	\$80,000

Migration Costs (Not included in basic rate; depends on client situation and ability to contribute to effort; DTS will amortize over 24 months)

How DTS Costs Calculated



Basic Costs + Storage Costs + Mobile Costs

Basic Costs

of Users X \$6.00/User/Month X 12 Months

Storage Costs

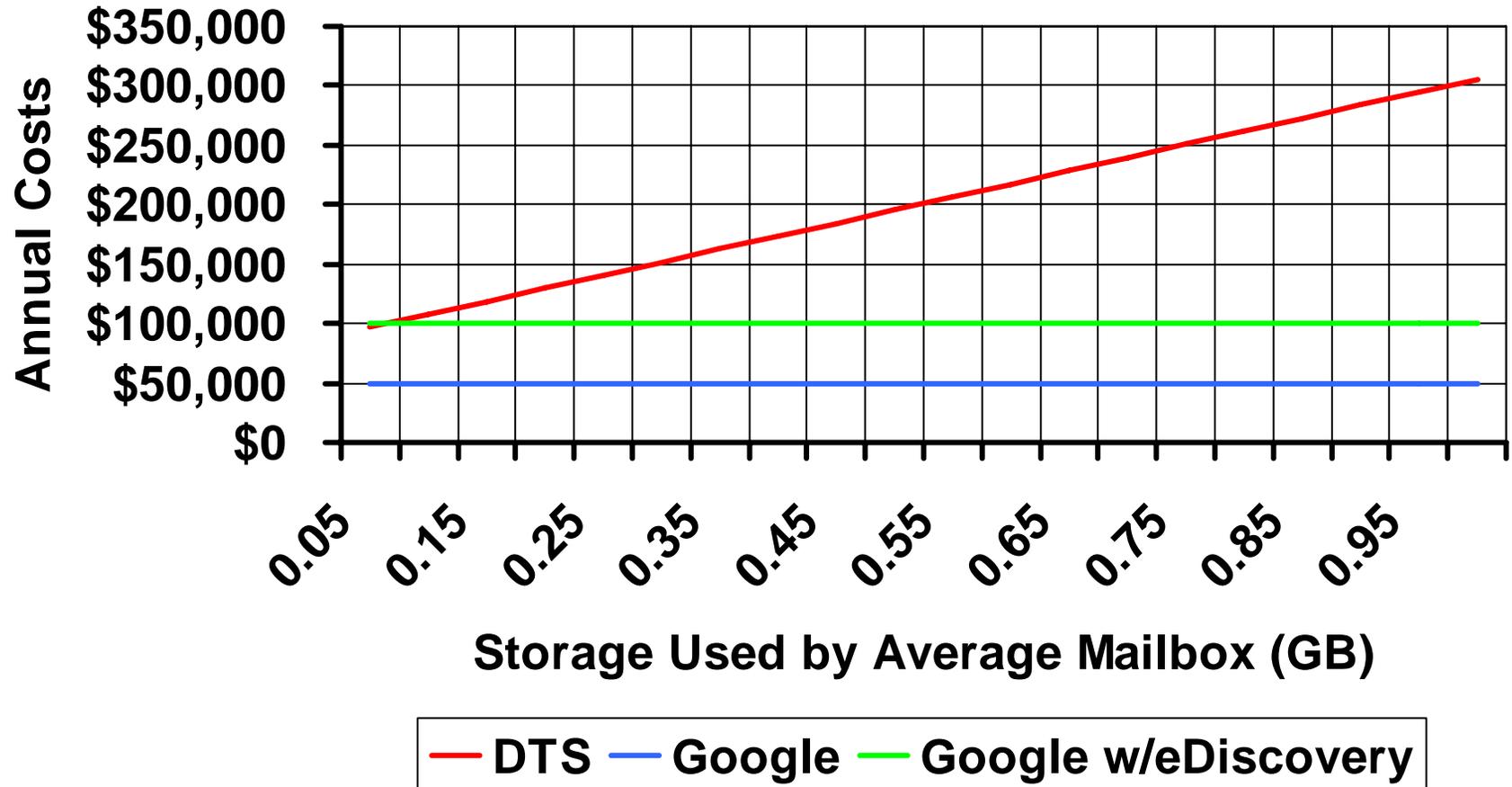
of Users X Average Mailbox (GB) X \$18.35/GB/Month X 12 Months

Mobile Costs

of Users X Percent Mobile Users X \$7.50/User/Month X 12 Months

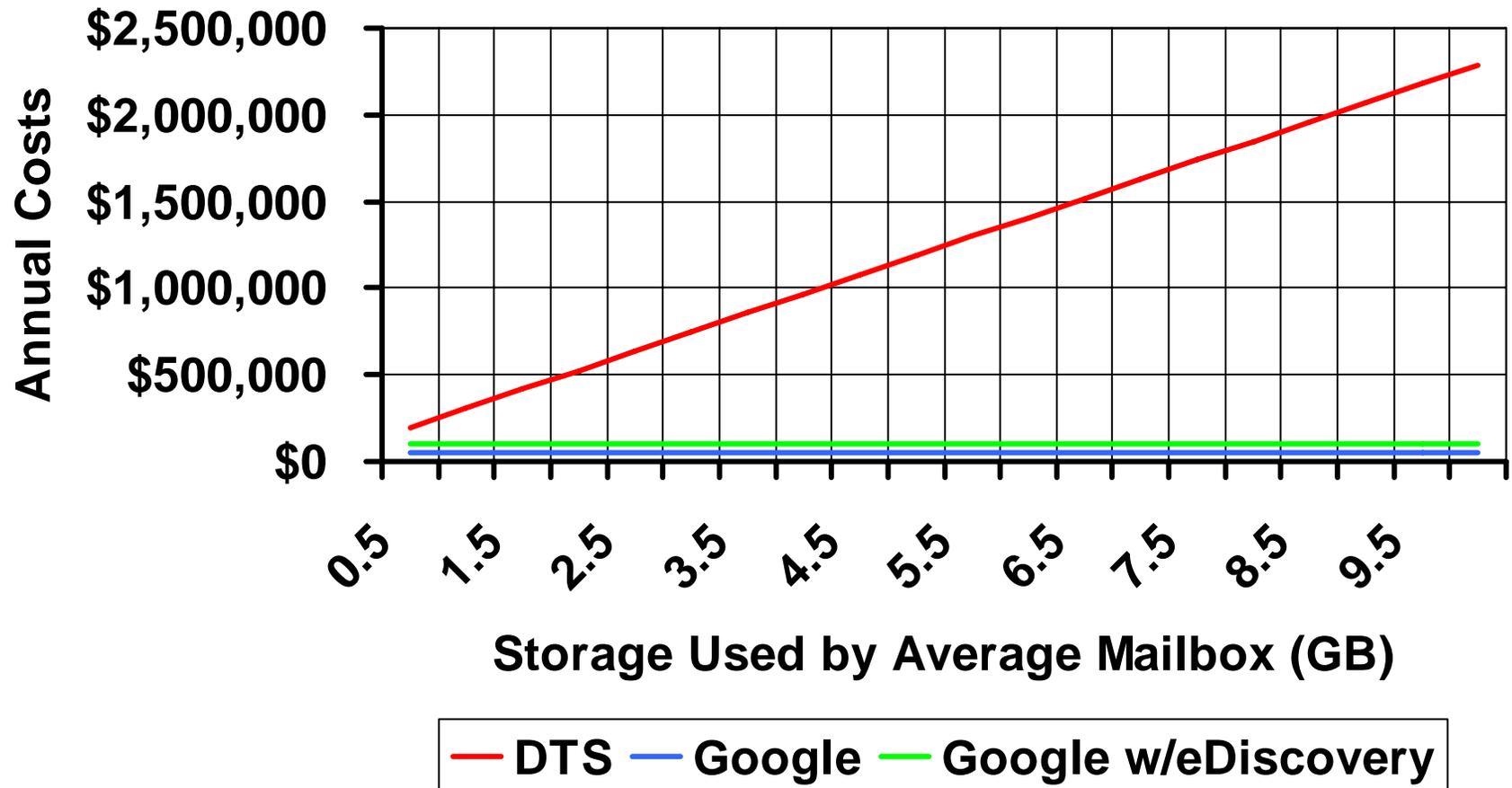
Note that client and migration costs are not included

Cost Based on Storage (0.05 to 1.0 GB)



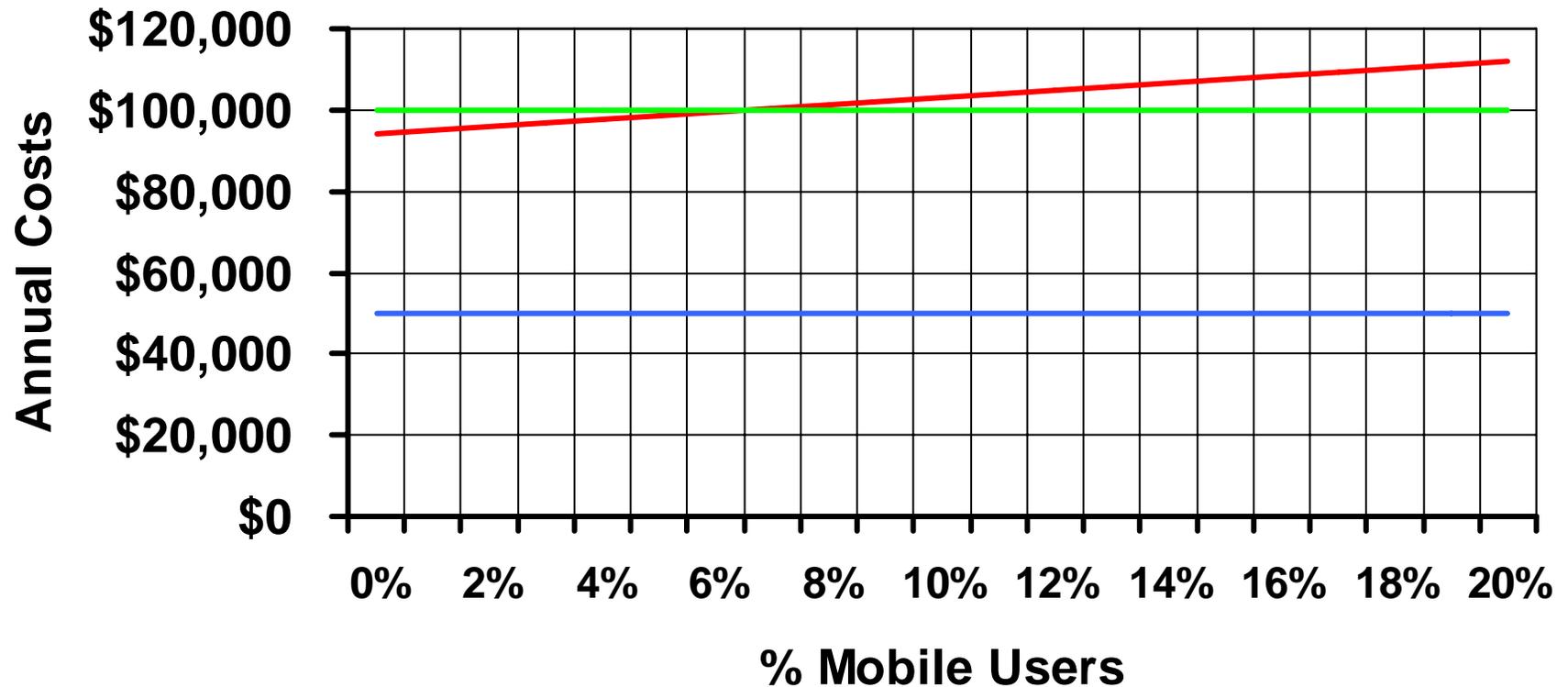
1,000 users, 15% mobile users

Cost Based on Storage (0.5 to 10.0 GB)



1,000 users, 15% mobile users

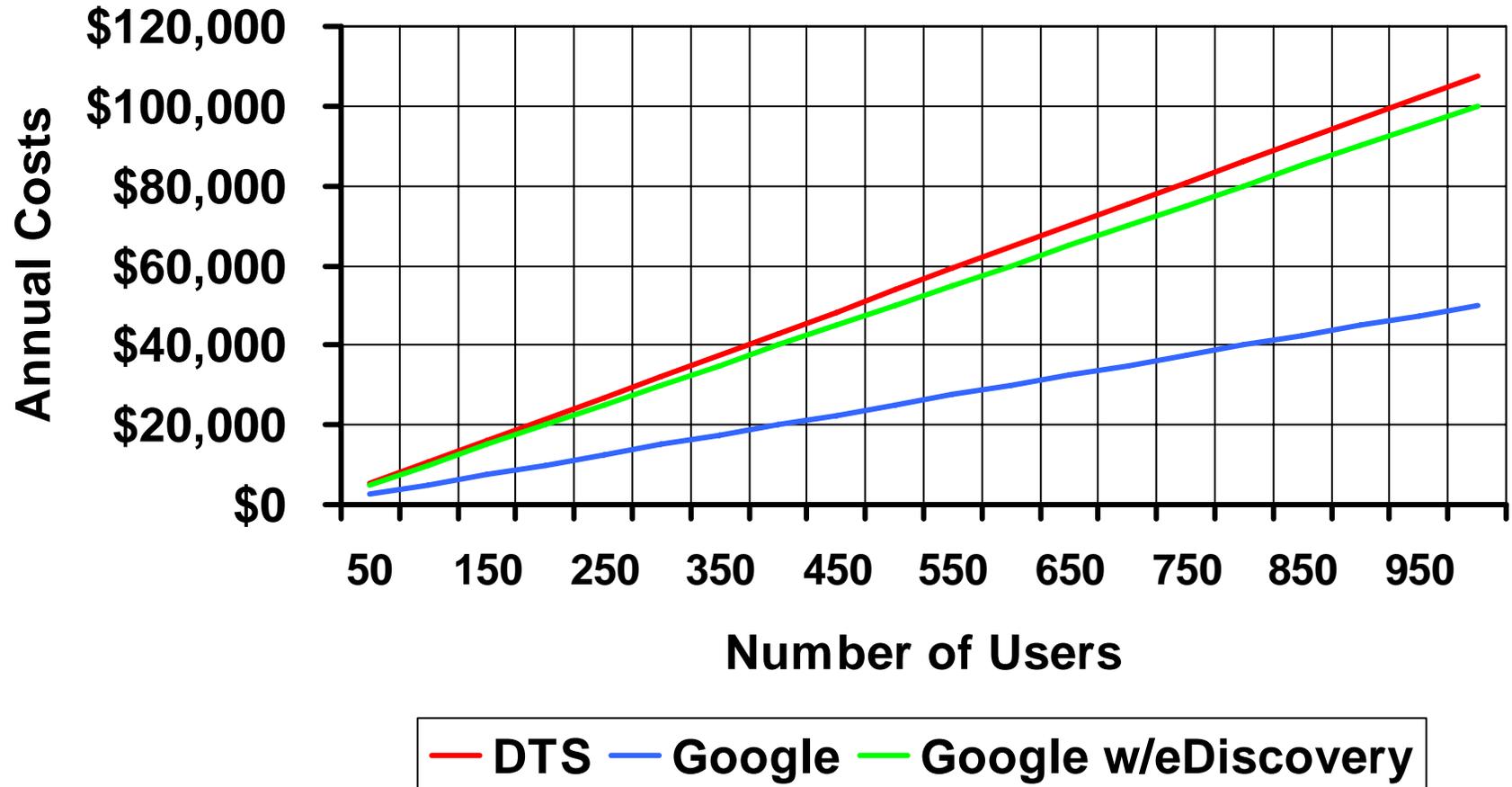
Cost Based on Mobile Users (0% to 20%)



— DTS — Google — Google w/eDiscovery

1,000 users, 0.100 GB average mailbox

Cost Based on Users (50 to 1,000)



15% mobile users, 0.100 GB average mailbox

How big should the mailbox be?



- **IT shop perspective** – Mailbox should be small (email is about messaging not document management)
- **Legal perspective** – Mailbox and archive should be limited (messages represent a liability)
- **Program perspective** – Mailbox should be as big as I need/want (email is collaboration tool and document management is part and parcel of same)
- Demand for mailbox storage can be mitigated through appropriate use of archiving to local or shared disk

Average Size of Email Accounts & % Mobile Users...



Agency	Average Mailbox (GB)	% Mobile Users	Notes
Resources	0.135	20%	None
State Lands Commission	0.200	20%	No set limits; GroupWise
Coastal Commission	0.075	0%	12 users with laptops using OWA
Lottery	0.030	5%	794 accounts; 198GB total; largest account=3.264 GB
Energy Commission	0.250	10%	Mobile users expected to grow but not more than 20%
Conservation	0.115	8%	Mobile users expected to soon grow to 10%
Social Services	0.056	3%	3,250 accounts; tiered accounts (.05, .1, .2, 1, 2 GB)
Food & Agriculture	0.415	13%	Limited to local disk; 1,300 accounts using 540 GB
CAL FIRE	0.024	5%	3,800 accounts
Average	0.145	9%	

Barriers to Adoption of Gmail (Gartner Group) – 1 of 2



- **Usability** – Cumbersome web interface
- **Application Integration** – Needs to do more to be responsive
- **Directory & Identity Integration** – In spite of API, needs more functionality
- **Offline Use** – Limited (GoogleGears on the way)
- **Compliance & Control** – Postini services step in right direction but more needed for messages retained within organizations

Note many of these comments apply to all hosted email services including DTS

Barriers to Adoption of Gmail (Gartner Group) – 2 of 2



- **Unified Communications** – Need services that allow integration of phone services
- **Security** – Fears from co-location of multiple customers on same infrastructure
- **Migration** – Needs custom migration utilities for each major email system in addition to IMAP
- **Operational Support** – Cost good but companies also need staffing for administration, monitoring, support & single sign-on & directory integration
- **Training** – Need training regime

Note many of these comments apply to all hosted email services including DTS

As with most (all?) large applications, Google products have their vulnerabilities...



Unholy trinity of flaws put Google users at risk

Doomwatchers count the ways

By [Dan Goodin in San Francisco](#) → [More by this author](#)

Published Monday 24th September 2007 20:51 GMT

New cracks in Google mail

Penetrated via a persistent backdoor

By [Dan Goodin in San Francisco](#) → [More by this author](#)

Published Wednesday 26th September 2007 01:23 GMT

GOOGLE GMAIL E-MAIL HIJACK TECHNIQUE

published: September 25th, 2007

September 25th, 2007

Bullseye on Google: Hackers expose holes in Gmail, Blogspot, Search Appliance

Posted by Ryan Naraine @ 1:06 pm

While Google's security team usually score high marks for policing the site and safeguarding users from scams, the mass of vulnerabilities are a reminder that as code becomes increasingly sophisticated, even the most elite developers make mistakes that can lead to security breaches.

Web based applications are easier to "patch" than traditional software

Google Response...

- Constant monitoring by Google security team
- Problems quickly fixed
- No customers affected (by these problems)
- Problems overblown in "Blogosphere"

So who's "best?" In addition to features and costs...



- Who is most reliable?
- Who is most dependable?
- Who can be trusted?
- Who is most responsive?
- **Who knows?**

Absent comparative data on performance, there is no good way to objectively choose the "best" solution with confidence.

We must try before we buy.

Conclusions: it appears that commercial services...



1. Offer functionality that is comparable and in some cases superior to state hosted services.
2. Can be combined to achieve a robust solution that addresses most state agency needs from simple messaging to electronic discovery at a price that is considerably less than that of state hosted offerings.
3. Enable State agencies to fully implement records retention policies secure in the knowledge that “deleted” records are deleted.
4. Offer important advantages for disaster recovery superior to those of state hosted services (e.g., web accessible, extremely robust and distributed infrastructure).
5. Have the added advantage of including web site hosting and collaboration on shared, web hosted word processing and spreadsheet (& soon presentation) documents.

More Conclusions



1. Absent a clear explanation of the enterprise value of a state hosted messaging service and good performance metrics, and in light of relative costs, state agencies should seriously consider commercially hosted messaging and calendaring services.
2. At the very least, commercial web based services seem ideally suited to small agencies that have limited IT budgets and/or staffing.
3. State agencies should begin implementation of pilot projects to fully evaluate commercial offerings of “commodity” services like messaging and calendaring.
4. Obtain DGS assistance on terms and conditions for government agency content in proprietary systems.

If decision is made for a single, common state email solution...



- Form IT Council working group to:
 - Formulate technical requirements
 - Use “Internet Tax” to pay for consultant to do FSR
 - DTS offering considered as one alternative
 - And/or do RFP and let DTS “bid”
 - Require performance history from all bidders
 - Develop meaningful SLAs with consequences
 - Credit or reimbursement for service outages
- If migration/conversion not cost neutral, perhaps State CIO can take the lead on an enterprise BCP to fund

Questions?



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