

### Address Books

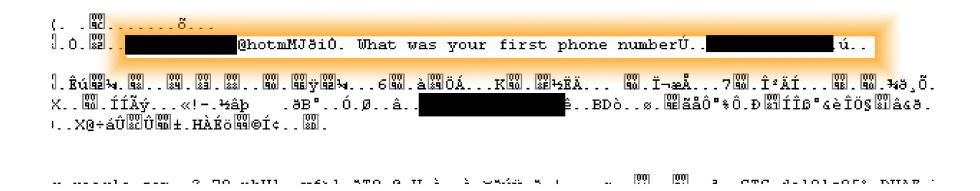
- Email address books for most major webmail are collected as stand-alone sessions (no content present\*)
- Address books are repetitive, large, and metadata-rich
- Data is stored multiple times (MARINA/MAINWAY, PINWALE, CLOUDs)
- Fewer and fewer address books attributable to users, targets
- Address books account for ~ 22% of SSO's major accesses (up from ~ 12% in August)

Access (10 Jan 12)	<b>Total Sessions</b>	Address Books	- Provider	Collected	Attributed	Attributed%
US-3171	1488453	237067 (16% of traffic)	Yahoo	444743	11009	2.48%
DS-200B	938378	311113 (33% of traffic)	Hotmail	105068	1115	1.06%
US-3261	94132	2477 (3% of traffic)	Gmail	33697	2350	6.97%
US-3145	177663	29336 (16% of traffic)	Facebook	82857	79437	95.87%
US-3180	269794	40409 (15% of traffic)	Other	22881	1175	5.14%
US-3180 (16 Dec 11)	289318	91964 (32% of traffic)	TOTAL	689246	95086	13.80%
TOTAL	3257738	712366 (22% of traffic)	IOIAL	003240	33080	13.007

#### TOP SECRET//SI//NOFORN



## Serendipity – New Protocols



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# Serendipity – HTTP Demux

POST in middle of session

\*\*eoc2c

GUOX1HdS/4k8YUAc1iiPGd/NvriOvYa1bo1uzcaFdZcyfpHeg9rFTIytsjXoUyZnngI417JMAJHZ9M9ZXYwZU9qxvBwOLKZGBY1svC43iUBvCrf4e1cP2Pxs35+LCache-Control: no-cache

POST /gateway/gateway.dll?Action=poll&Lifespan=60&SessionID=868216649.1709645966 HTTP/1.1

Host: baymsq1030124.qateway.messenger.live.com

User-Agent: Mozilla/5.0 (Windows NT 5.1; rv:14.0) Gecko/20100101 Firefox/14.0.1

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,\*/\*;q=0.8

Accept-Language: en-us,en;q=0.5 Accept-Encoding: gzip, deflate

Connection: keep-alive

 ${\tt X-Requested-Session-Content-Type: text/html}$ 

Content-Type: text/html; charset=utf-8

Pragma: No-Cache, no-cache X-MSN-Auth: Use-Cookie

Referer: http://baymsg1030124.gateway.messenger.live.com/xmlProxy.htm?vn=9.090515.0&domain=live.com

Content-Length: 0

Cookie: wlidperf=latency=14338&throughput=0; mkt0=en-AF; wla42=cHJveHktYmF5LnB2dC1jb250YWN0cy5tc24uY29tfGJ5MSoxLDgzMTYzNjI1N

Cache-Control: no-cache

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\*\*eotxt