



30 August 2006

MEMORANDUM
UNCLASSIFIED

TO: **eDiplomacy**

FROM: **IRM/BPC/eDIP - C. Christian**

SUBJECT: **OpenNet Everywhere User Survey Results**

CC: **IRM**

Summary

This document presents results of a survey of OpenNet Everywhere (ONE) Users conducted by the Office of eDiplomacy of the Bureau of Information Resource Management (IRM) in collaboration with the Messaging Systems Office (MSO) and Human Resources. This survey follows by one year surveys of technical usability testers (March 2005) and a limited number of pilot testers (April 2005) and was offered to the 2900 ONE Key FOB¹ users registered in early June 2006. Approximately 50% of those individuals responded. The survey probed the usability of the system, frequency of use, and the characteristics of use by teleworkers and occasional users from all across the Department including those at posts. This sample is considered significant and representative of the cadre of ONE users even as the system grows.

Overwhelmingly, ONE users value the access to email both for short duration remote access and for more extended telework periods. ONE has greatly improved the workflow of users allowed to procure ONE FOBS for remote access. Users exercise a wide variety of applications in addition to email. Night and weekend use is routine and greatly valued. The majority of users (85%) find that printing is essential. Users felt that other file functions such as save, cut, paste, upload and download would appreciably enhance productivity and, as a result, use work-arounds to circumvent restrictions on the ONE system for handling unclassified information. Most users access ONE through a variety of broadband connection options and computer configurations. Users still report considerable latency independent of computer or broadband connection even though their other desktop applications (such as internet browsers) exhibit adequate response at the same time. A smattering of configuration problems appear to persist, as described in user comments, and these regard access to files (probably stored on local disks at the office), some shared file problems and inconsistency in user profiles being retained from session to session.

Introduction

OpenNet Everywhere (ONE) provides remote access to Department of State (DoS) resources, specifically, email, calendar, and contacts through Outlook, the Microsoft Suite of applications,

¹ A Key Fob is a small hardware security device with a built-in authentication mechanism allowing controlled access to a network.

file and folder access through Windows Explorer, Internet Explorer, and to some other applications as required by users. Core services are through a Citrix server implementation. Users access ONE by using a hardware FOB with a personalized pin number. As an advocate of remote access, eDiplomacy has participated in the deployment of OpenNet Everywhere (ONE) since its inception, and particular, eDiplomacy provides user needs assessments and technology evaluations for the Department in considering the adoption of new technology solutions for the workplace. eDiplomacy participated in and provided survey results for IRM's technical test of ONE from February 28th through March 11th 2005, and presented survey results in memo dated 18 March 2005. ONE usability testing scheduled for March 28th through April 15th was reported on 19 April 2005.

Considering that ONE has enjoyed a growth phase in the last year, and nearly 3000 users had been issued FOBs by June 2006, it was clear that a new survey of experienced users was in order. eDiplomacy constructed the survey in consultation with MSO and HR, and MSO affected the distribution of the survey invitation to all registered FOB users in June 2006. The purpose was to capture user experiences and obtain feedback on the functionality, reliability, and usefulness of the system.

Data Collection Method

The primary tool used to obtain user feedback was through an online survey constructed by the Office of eDiplomacy using the Office of Logistics Management's web tool, the same tool used in the previous surveys. The survey period was approximately 6 weeks duration. The tool posed questions regarding the ONE system and provided for ample commentary on every item including two free-form questions probing the best attributes of the system and areas of improvement desired.

RESULTS

Detailed results from the survey tool are attached in Appendix A of this document. The raw data, including thousands of written comments, is available on request.

Demographics of Respondents: Approximately 1060 users responded to the survey (the number is not exact because some users restarted the survey). 230 respondents were at posts including those with several users: Ancora, Brussels, Hong Kong, London, Rome, Seoul, Vienna, and Zagreb. Domestic users were distributed across many bureaus with 10% coming from DS, 14% from IRM, the bureaus A, CA, EUR, and IIP had over 50 users responding.

Self-identification of User Types: Users identified whether they were teleworkers or not. Of the respondents, 21% were Core teleworkers, 38% were Situational Teleworkers, and the remainder were Occasional Users (41%), although some of the distinction between the categories is blurred. Many FOB users work at night and on weekends and during travel to "catch up". Core teleworkers who regularly telework report an improvement in productivity. Most users expressed appreciation for remote access although many commented on the problem of latency in the ONE system.

As reported at nearly all organizations that have telework and other remote access programs, individuals with remote access have improved productivity and the organization often recoups work that would normally be lost due to sick days, or other circumstances keeping individuals

away from the office. Some better clarification of core and situational telework criteria is needed in many bureaus and offices to dispel apparent confusion throughout the Department.

Frequency of Use: The majority of users are accessing DoS through ONE once a week or more. The detailed breakdown is: Daily Usage - 18%, More than once a week 41%, Once a week 17% and Less frequently 24%. Users who have BlackBerries prefer to use them for email and calendar functions because the response is quicker, except for using complex attachments or browser use (which is now disabled on Blackberries).

When is ONE used? 43% of the users reported teleworking as one time they access ONE, however note that this number does not strictly match the 59% figure reported in the self-identification section. Night and weekend use is reported by 80% of the users. Half the FOB users access ONE while on travel, even when on leave such as vacations.

Duration: The duration of ONE access is highly variable, from a few minutes for a quick check of email to 30-90 minutes as evidenced in the comments. 22% of the users reported using ONE for several hours, and some teleworkers log in several times a day, rather than staying connected as others do.

Do users use ONE for email access only? It is significant that 78% of the users say they use ONE for more than email, although many comment that they limit access to other applications due to latency and other problems. 21% of the users use ONE only for email. A few others do not use ONE for email, but comments suggest there may exist some problems with their individual setup.

Applications used, excluding email: The other applications used are by and large use of the Microsoft Suite (78%). More than half of the users access the intranet (59%) with ONE. Other uses include the Consular Consolidated Database, CMS and a variety of other applications. Two significant results emerged in the comments – many users still use local desktop disk space for work and need to be educated to discourage this practice especially for productive remote access and also many users still do not understand what OSIS is, nor its utility or purpose.

Use of alternative email to send unclassified messages and files back and forth for work purposes: Although users are keenly aware of SBU restrictions and are very conscientious about handling unclassified information, 51% of the respondents send files to a non-State account for file manipulation, printing and other work. Other users who have not done this already are considering using this method and a few are arduously planning their remote work to avoid using this technique. Users felt an improvement in ONE responsiveness would be very helpful to their work and allow them to do file manipulation more efficiently. Users strongly value the ability to print files locally, and capability for file editing and manipulation. The third priority was cut and paste capability.

Additional capabilities and applications needed: Significantly, *85% of the respondents felt printing is needed*, while 38% cited file upload and download capability as important. Users mentioned a wide variety of additional software applications they need to work more effectively with remote access. These applications vary widely within particular offices and bureaus.

System performance: Users were asked about their impression of system performance in addition to commenting on specific times that various operations take place because system response is highly subjective. Some users feel minutes of latency is acceptable, others emphatically do not. 65% of the users responded that the system response met or exceeded their expectations. The hundreds of comments supplied did not strictly correlate with the statistics. Many individuals commented that they did not expect the system to perform well, without specific reasons why this was so. Satisfied users are grateful to have any remote access. Other users commented that the system was slow and had experienced frozen applications or lock-outs.

Most users who reported specific times quoted less than a minute or two for login but much longer for applications to start. Many users have adjusted their remote access work to avoid slow applications which requires careful planning. Some users reported that at night the system can be sluggish.

Connectivity and Computing Facilities Used with ONE: Most (about 90%) ONE users access the Department through broadband including DSL, cable modems and other means. Dial-up access was not recommended by any user who had also tried broad band. Many service providers are used including USAID net, hotels, airports, DoD net and the War College. A wide variety of computer systems, both PC and MAC desktops and laptops are used.

Telework Centers: Only 5 respondents currently use telework centers and many users had never heard of such facilities. Most teleworkers feel they have suitable equipment at home for productive work, find working at home more convenient and/or suspect their bureaus will not pay for telework center use.

Appendix A: Detailed Survey Results and Feedback

Demographics

The survey was provide to registered FOB users in June 2006. At that time, there were approximately 2900 users who had received FOBS according to the bureau system managers, although it was clear that a smattering of users had not actually obtained the FOB, or their setup was not actually working. Of the individuals receiving the survey, approximately 1060 users filled out the survey. The numbers are not exact because the survey tool does not have the capability to allow a user to quit midstream. Posts were well represented by 230 users, that is a quarter of the survey recipients. Posts represented by several users included Ancora, Brussels, Hong Kong, London, Rome, Seoul, Vienna, and Zagreb and other posts were represented by one or two users. In the domestic bureaus the distribution of respondents was 10% in DS, 14% in IRM, and A, CA, EUR, IIP bureaus had over 50 users (5%) each.

Types of ONE Users – Self Identification

Of the respondents, 21% reported they are Core Teleworkers, and 38% reported they are Situational Teleworkers. The remaining 41% are Occasional Users, however the distinction between these classifications are blurred, based on user comments. Some core teleworkers actually telework less than 1 time per pay period, and situational teleworkers, once they have been issued the FOB access DoS resources at many different times, not necessarily periods that would qualify as telework. Many users did not understand what the categories meant, in spite of a reference to the HR webpage with definitions and the necessity to sign telework agreements for core and situational work.

Those who regularly telework reported an increase in productivity, and many individuals work at night, and periodically on weekends and certainly while on travel to stay in touch and keep up with work. A few if the users are detailed in non-government buildings and need OpenNet access on a regular basis. Users on call, users that have occasionally needed to stay away from the office due to illness or other circumstances and individuals who must spend time in the field all find ONE access invaluable.

Frequency of Use:

The majority of users are accessing DoS through ONE once a week or more. The detailed breakdown is: Daily Usage - 18%, More than once a week 41%, Once a week 17% and Less frequently 24%. Users who have BlackBerries prefer to use them for email and calendar functions because the response is quicker, except for using complex attachments or browser use (which is now disabled on Blackberries).

When is ONE used?

Respondents were asked to select all times that they used ONE. 43% of the time that ONE is being used, it is for telework, although this number is discrepant from the statistic that 59% of the individuals apparently believe they have some telework designation (core or situational). 78% of users access ONE at night with a similar number on weekends. Over half of the users access ONE on travel (53%). Only 12% reported that their usage (whatever the circumstance) is infrequent. Several user remarked that they use ONE access when on Leave status.

Duration:

The duration of ONE access is highly variable. Many individuals use ONE for a few minutes to check email, but not do any in depth work. Some (22%) use the system for several hours and from the comments and these appear to be teleworkers from the comments. Some users who telework log in for a while several times a day, but log off again, but 30-90 minutes is the typical duration for ONE use quoted in the comments. 62% of the users reported the time duration was highly variable and the comments clarify that the duration depends upon situation – sometimes a quick check of email, other times engaging in more detailed work.

Do users use ONE for email access only?

Surprisingly, 78% of the users say they use ONE for more than email, and 21% reported they only use ONE for email. Many users stated that although they do accomplish other tasks the majority of the time they are accessing email. Some users have attempted to use email for other functions but have had problems (such as with local or shared drives) or the programs they require are not available. Some users complained that the latency interfered with their use of ONE for more than email and they became frustrated. A few users (1.5% or 16 individuals) reported they did not use ONE for email and the comments indicate this is due to some problem with their setup.

Applications used, excluding email:

The statistics for applications in use with ONE are 78% of users edit files (Microsoft Suite is quoted), 59% browse OpenNet, 43% perform administrative functions, only 2% use OSIS, and 4% do web development. Specific comments reveal that ONE users still store files on a local desktop disk and are confused as to why these files are not accessible. Clearly users, especially remote access users, need to be better educated by system managers on the necessity to refrain from local desktop file use. An ancillary result is that users need to be educated regarding OSIS – its utility and purpose.

Other applications that are used are specifically:

- Consular Consolidated Database
- Payline
- Content Management System
- DS 3081 form review
- FOCIS
- Webgram
- FSBid
- Pay slips
- E-phone
- Travel Manager
- INET browsing including Department Notices

Do users send unclassified files to personal account for file editing and other work?

51% of the respondents do send files to a non-State account for file manipulation, printing and other work because ONE did not offer this capability at the time of the survey. Users wished that file editing was easier with rapid response to make work effort more productive. Many users stated that emailing files back and forth and editing files locally on their personal machines was in total elapsed time, more efficient than using ONE due to latency. All comments indicated that

users are conscientious and aware of SBU restrictions and responsibilities and no user desires to use their alternative email accounts in this way and do so judiciously. As one respondent articulated: “As an IT manager, I’m cognizant of threats and privacy concerns of SBU data, but in my view, this practice exercised by non-IT staff is more dangerous than enabling this in ONE.”

Most of those who currently do not email materials to a personal account wish they could print, and many said they would use personal email in the future if printing and editing is not available soon. Some try to organize their work so they can do other functions on ONE without emailing files or messages and without printing.

Other comments on emailing back and forth were: “absolutely necessary but a real inconvenience”, “a real waste of time”, “major /drawbackhinderance”, “significant flaw in the ONE application” and other comments in a similar vein.

The highest priority for new capability appears to be the ability print files, and the second most frequent comment regarded file editing and manipulation. The third priority was cut and paste capability.

Additional capabilities and applications needed:

Reflecting written comments submitted to prior questions, 85% of the respondents felt printing is needed, while 38% cited file upload and download capability. About 23% felt improved network performance is required and 13% of the respondents desire additional software. The selection of additional applications mentioned include:

- Access to personal folders (local desktop system)
- SQL Enterprise Manager and Query Analyzer
- Macromedia Dreamweaver and Fireworks
- Remedy
- ODBC connections to SQL databases
- Ask Admin Knowledge Base control panel
- e-Forms, e-Room or any other application that requires a username and password.
- Selected DS non-web applications: RAMS, TECS, NCIC, NLETS
- MS Publisher, Visio and Project
- ICASS Global Database
- WS FTP and Telnet
- Adobe Photoshop
- WinZIP
- BRMS - ability to view matrix, CFMS
- ILMS
- Earnings and leave statements
- AD Admin Tools
- Lotus Notes for cables
- GEMS, FSBID
- CableExpress
- ISSO functions and software
- Oracle Tools – OEM
- Form Flow Filler

- Time and Attendance
- AutoCAD

System performance “Meets or Exceeds Expectations”:

Perceived system response, like many things, is highly subjective. One user may think minutes of latency is acceptable, while others are hampered significantly by what they perceive is a lack of response with a few seconds delay. Also, many users have already heard that the system has latency and actually have “expected” ONE to be slow. Therefore, while users report that the users responds “as expected”, many users specifically commented that their expectations were not high. This may be true especially at posts with slow OpenNet connectivity in the office or poor internet connectivity in country. The specific statistics on responses to the statement: “System performance meets or exceeds my expectation of service” are: Strongly agree 16%, Agree 49%, Neutral 20%, Disagree 11%, Strongly disagree 3%.

Those happy with the system think it is acceptable and are grateful to have *any* system, and some individuals enjoy what they perceive to be very good network response.

Nearly all the comments belie the percentages quoted above. Nearly every respondent who provided a comment (over 400) noted that the system was either slow, or that they had adjusted their work to use the most responsive applications such as email and structured their work to avoid the slower applications such as file access and editing. Some users experience intermittent periods of sluggish or halted response. Login response appears to be quick while user comments specifically pointed to invoking applications including Outlook from the Metaframe as being subject to minutes of lag time. Those who provided specific times for response reported less than a minute for login and much longer times once applications are accessed. A few users at posts noted that Outlook could actually take a long time and preferred to use Outlook Web Access as the mail tool.

Some users remarked unfavorably about the IE message that persistently pops up - "Security Warning! Do you want to install and run "IE"? – and prefer that it be disabled as it is a time synch.

Connectivity and Computing Facilities Used with ONE

Most (about 90%) ONE users access the Department through broadband, 49% through DSL, 43% through cable modem and about 9% through unspecified broadband. 7% of the users access through telephone dialup systems. Quite a few different service providers are used for connectivity including fiber optic systems. Several users have access to satellite dishes, and a few report usage through USAID net, the DoD network, the War College for detailees, or other connections. Many individuals have wireless networks or use wireless at other locations such as hotels, airports and civic networks. Users with both broad band and dialup experience report that dialup is “painful”, they would “not recommend it” or “refuse to use it”.

The most common computer system reported is a Dell computer either desktop or more commonly a laptop. A few users have HP or Compaq computers. Quite a number of users have Mac laptops and some have not been very successful at making the connection through the Mac. Most have at least Pentium II processors, and most users appear to be reasonably outfitted with

their home computers. A common operating system used is Windows XP, although other Windows versions are reported including Windows ME. A variety of Macs are used also.

Telework Centers

Only 5 respondents currently use telework centers. These teleworkers find the centers the centers well equipped with all the facilities needed for office work, including kitchen facilities. Most teleworkers prefer to work at home, however. Some users felt that they have all the necessary equipment at home to be productive such as printers, faxes, and telephone facilities. Respondents suspect that their bureaus will not pay for the telework center, event if they wished to use it, and some users discovered that telework centers were not conveniently located to their residence. A smattering of users did not know that such an option exists.

Best attributes of ONE:

Convenient for email

Keeping on top of the job and ahead of the Inbox

Access to shared files

Browsing intranet and OSIS

Continuity (clients don't know or care where you are as long as the work gets done) and COOP

Communication between time zones

Keeping up on TDY or leave

Ability to work without distractions

Better prepared for sudden meetings

Deal with urgent issues even while away (managers)

My morale has improved greatly and I no longer think about leaving the State Dept. to find a job closer to home.

Gives me back time (commute time)

Dramatic productivity improvement

Fewer distractions

ONE has changed the way I do business

One gives me the opportunity to keep in touch with issues that continue to develop overnight or over a weekend. Due to different time zones and different weekend-days overseas, issues that need attention will continue to develop in off-hours, and ONE is a great way to manage that development.

A few comments appreciated that the respondent and other ONE users could keep in touch even though neither was in the office (It's not all about me).

Being able to use the same interface only carrying the fob not a whole secure laptop.