

IT Deployment Survey Summary Report

**Securities and Futures Commission
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Executive Summary

The Securities and Futures Commission (SFC) conducted the IT Deployment Survey for registered dealers in Hong Kong in July-August 2001. This is the first e-survey ever conducted by the SFC over the Internet. The results indicate the ample readiness of our dealer community in conducting electronic transactions. The key findings of the survey are shown in Figure 1:

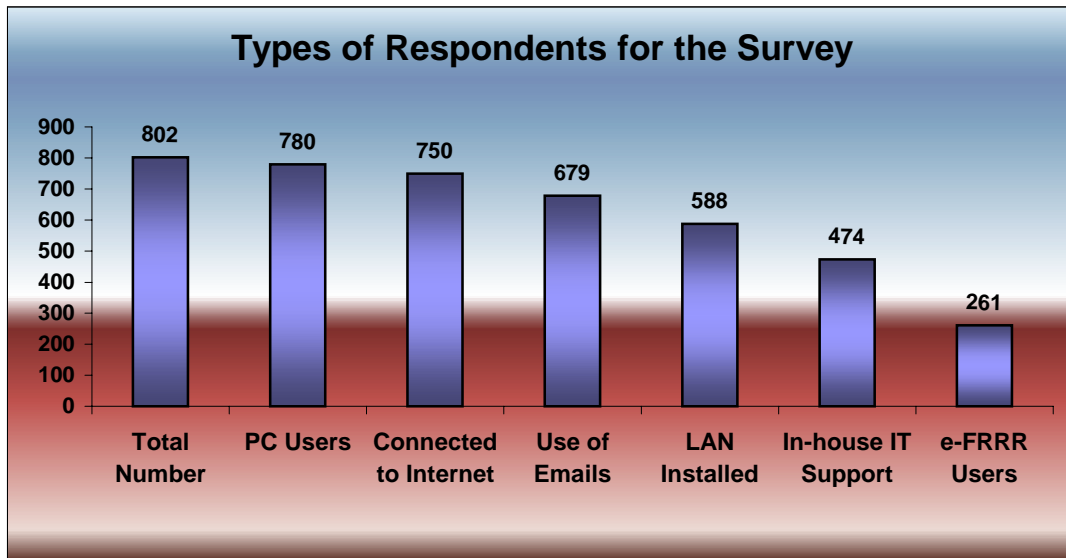


Figure 1

- **Key Finding #1:** A great majority of 750 survey respondents (93.5%) are connected to the Internet. Amongst them, 703 dealers (93.8%) use Microsoft Internet Explorer (IE) browser, while 46 dealers (6.02%) use Netscape browser. Take this survey as an example, 93.5% replied electronically over the Internet while the rest responded in paper form. It clearly indicates the familiarity of our dealer community with the browser-based Internet technology and the acceptability amongst them to the use of electronic forms to conduct survey.

Our dealer community is well versed in the use of the Internet and its browser-based technology. Since FinNet is developed as an Internet-technology based private network, our dealer community shall find it easy to connect to for services so long as applications on FinNet are developed with open Internet standards.

- **Key Finding #2:** The survey also found that a high percentage of 84.7% (679) of the respondents use electronic mail. Most of the respondents use it for external communications while about 50% of them also use it for internal communications.

Our dealer community is familiarized with electronic communications through e-mails. The peer-to-peer communication capability provided by FinNet, therefore, shall be appealing to our dealer community because e-mails can be exchanged over FinNet among participants in a more secure environment than the public Internet.

- **Key Finding #3:** Nearly all respondents (97.3%) have personal computers (PC) in their offices. Basically all of them use MS-Word and MS-Excel for word-processing and spreadsheet purposes. In addition, 89% indicate that they use Acrobat Reader for document viewing.
- **Key Finding #4:** 60% of the registered dealer firms reported that they have in-house IT support. For the remaining firms, 10% of them plan to hire IT staff in the coming 12 months.

It signifies the need to develop systems/applications over FinNet that are user-friendly and adhere to open Internet standards, and the importance of good training and technical support from the system/application providers.

- **Key Finding #5:** More than 70% of the respondents have installed a local area network (LAN) in their offices.

A local area network (LAN) can supplement the distribution of FinNet services within a dealer or a registrant's office. Technical assistance is required for optimizing the access and use of FinNet services over office LANs or enterprise Intranets.

- **Key Finding #6:** There are 625 firms that reportedly subscribe to at least one information service provider (such as AFE Solutions, Reuters, Bloomberg, etc.) 335 firms subscribe to two or more of the services, and 134 firms subscribe to three or more.

Introduction

1. In August 2000, the SFC implemented the electronic submission of the Financial Resource Rules Return (e-FRRR) system for use by its registrants. By July 2001, some 250 registrants are users of the e-FRRR system. In a recent survey of the e-FRRR users, there were clear indications that conducting business electronically could make our business processes more efficient and less time-consuming. The SFC intends to introduce more facilities for the registrants to conduct business electronically with the SFC, including the application and renewal of licenses, responses to annual and ad hoc surveys, and other communications with the SFC. Conducting business electronically, however, requires both the service providers and the users to have certain information technology infrastructure.

Purpose

2. The purpose of this IT Deployment Survey is to gain an understanding of the information technology deployed in our registered dealers community. The results will be used to assist the SFC in its future deployment of electronic services to its registrants. In order to better serve the above purpose and ascertain the real-life information technology deployed by our dealer community, the SFC decides to conduct the survey over the Internet. It is the first e-survey ever conducted over the Internet by the SFC.

Invitation and Responses

3. In July 2001, the SFC invited all 874 registered dealers to complete the IT Deployment Survey over the Internet. A sample copy of the survey is reflected in Appendix A. Three reminders were sent to not-yet-responded registrants in the process. In the last reminder, a hardcopy of the survey was attached for those who were not yet equipped to access the Internet for a response.
4. The survey received a very high response rate. In total, 802 (93.3%) responses were received, amongst them 750 were online responses and 52 were on hardcopies. A summary of the responses is reflected in Appendix B.

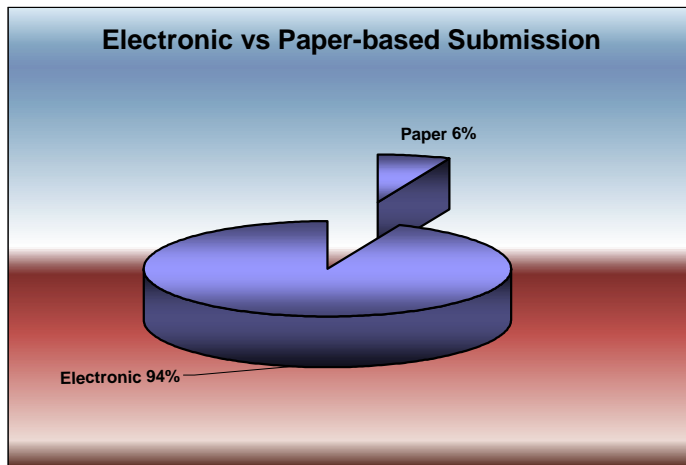


Figure 2

Survey Results

5. We observed a very high percentage (97.3%) of PC users in our securities industry. Out of the 802 responding dealers, 780 of them use PCs in their business. Among these PC users, basically all firms are using software of word-processing and spreadsheets (97%). In fact, 45% of the respondents are using MS-Word 2000 and MS-Excel 2000 and less than 10% of the users are using MS-Window 95 versions. Looking forward, 67% of the respondents are foreseeing an increasing use of PCs in their business. Thus, introducing applications for electronic submission of returns requiring the use of PC, MS-Word and MS-Excel should not be an issue with the dealers. Although it is already a common practice for the SFC to make circulars or consultation papers available in PDF format on top of the paper copies, more effort should be carried out to reduce the reliance on the paper-based process.

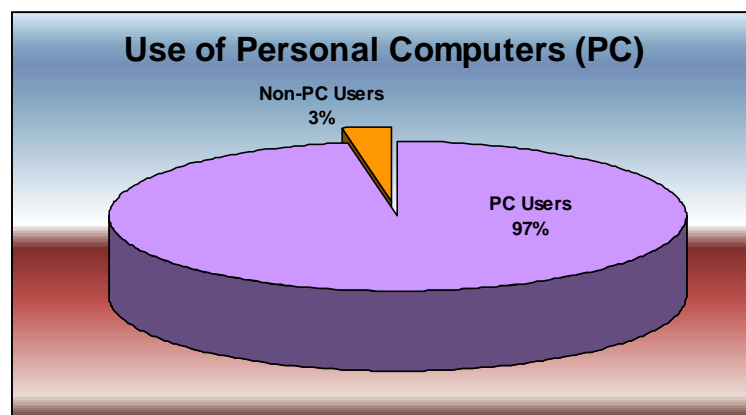


Figure 3

6. Email has become a very popular electronic communications tool in the industry. 631 respondents (78.7%) state that they use email for external communication. 41.5% of the respondents use it for in-house purpose. Among the different email tools available, MS-Outlook Express and Lotus Notes are the two applications widely used by the industry. For those who are not using email communication currently, however, only 4.1% of them are planning to start using it.

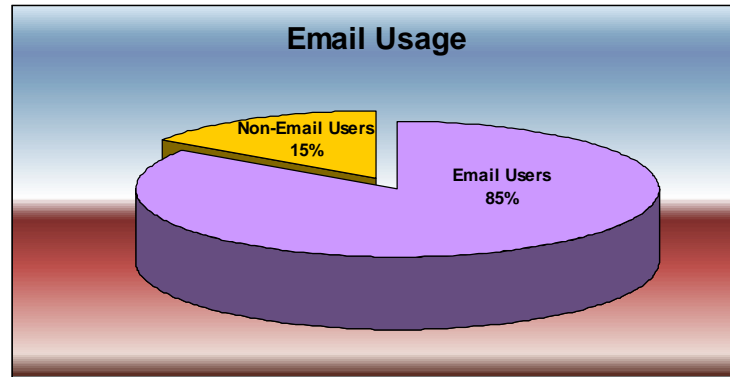


Figure 4

7. The number of respondents connected to the Internet is large. 93.4% of the respondents have access to the Internet, for the purpose of email communication (37.8%), market news (23.5%) and information searching (32.8%). Among the popular Internet browsers available in the market, majority of the dealers uses MS Internet Explorer (92.8%) (compared to 6.5% with Netscape Communicator). Regarding the types of Internet connection used by the firms, 63.3% of the respondents indicate that they use high speed Internet connections (1.544M broadband or leased line), while 34.8% use modem dial-up to access the internet. For those who don't have Internet access at the moment, 18.9% are planning to gain access to the Internet. Figure 5 shows the use of the Internet and Email by PC users and e-FRRR users. Although the difference is not significant, e-FRRR users demonstrate a slightly higher level of sophistication than the general PC users in making use of the Internet and emails in their businesses.

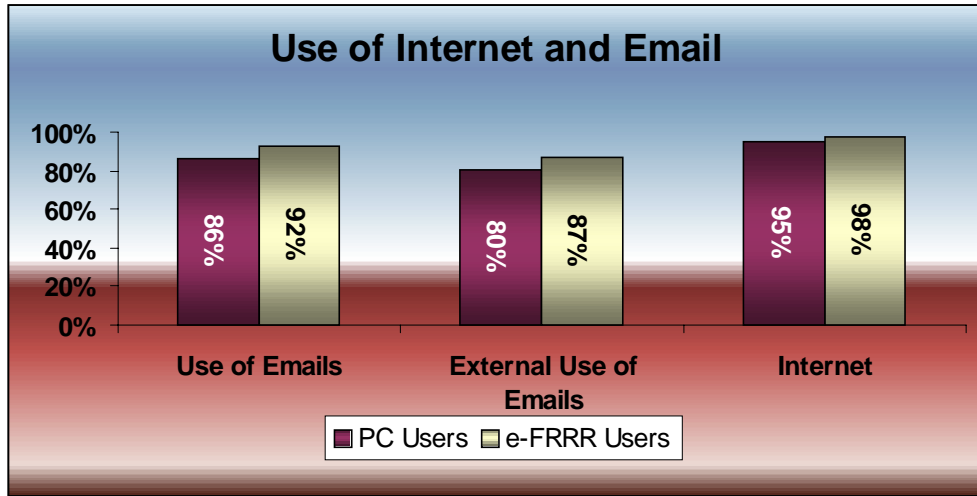


Figure 5

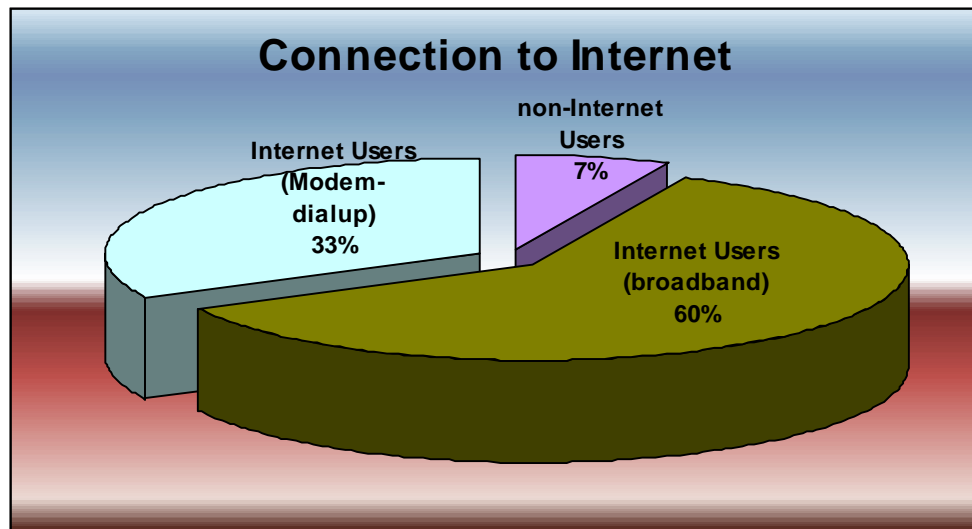


Figure 6

8. Only 31.4% of the dealers indicate that security measures are adopted in electronic transmissions. In terms of the types of encryption technology deployed, half of them use 128-bit SSL and the other half of the population use Hongkong Post e-Cert.

9. 73.3% of the respondents are found installing LAN/WAN in their offices, with NT (66.7%) and Netware (19.2%) being the major types of LAN being chosen. For those who don't have a LAN/WAN, 17.3% of them plan to install in the coming year.

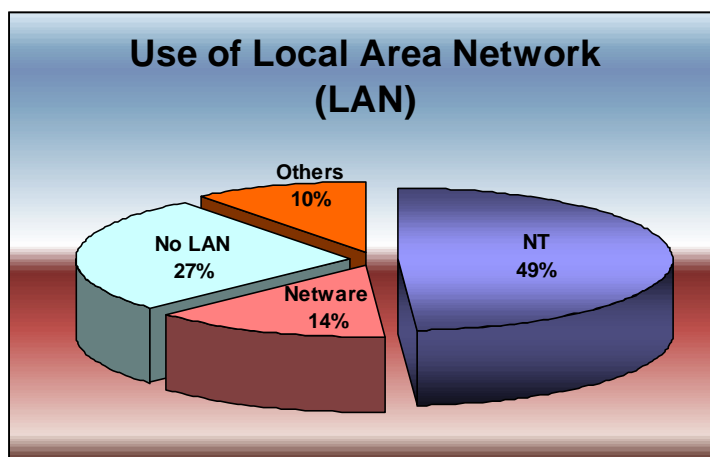


Figure 7

10. On connection to transaction systems related to securities trading and clearing, majority of the respondents has AMS/3 (59.5%) and CCASS (70.3%) terminals in the office. Less than 30% of the respondents have Broker Supplied Systems (BSS) and Multiple Work Stations (MWS) –part of the new features of AMS/3. On the derivatives side, 103 respondents (12.8%) use TOPS for options trading and clearing purposes. Meanwhile, the number of HKATS terminals doubles the number of TOPS connection. On the payment side, 42.8% of the respondents have connections to the Hexagon service offered by HSBC, while 10% connect to SWIFT.
11. On connection to Information Service Providers, the most common ones used are AFE Solutions (52.0%), Bloomberg (41.8%) and Reuters (42.6%).
12. The types of vendor-supplied backoffice systems being used by the respondents are explored in question 9. It is found that no particular vendor-supplied backoffice system dominates the market. In addition, although the whole industry is moving towards Straight Through Processing (STP), it is interesting to note that only 34.8% of the respondents have integrated their backoffice systems with the transaction-related systems, while only 19.6% of the respondents integrate their backoffice systems with those of the various information service providers.
13. The survey also found that 59.5% (477) of the respondents has in-house or contracted IT staffs/support. Among these firms, 348 firms (73%) have less than 10 IT staff, and close to 20% have IT staff of more than 20 people. For those who don't have any IT staff/support at the time of the survey, 10% of these firms plan to hire IT staff in the coming year.

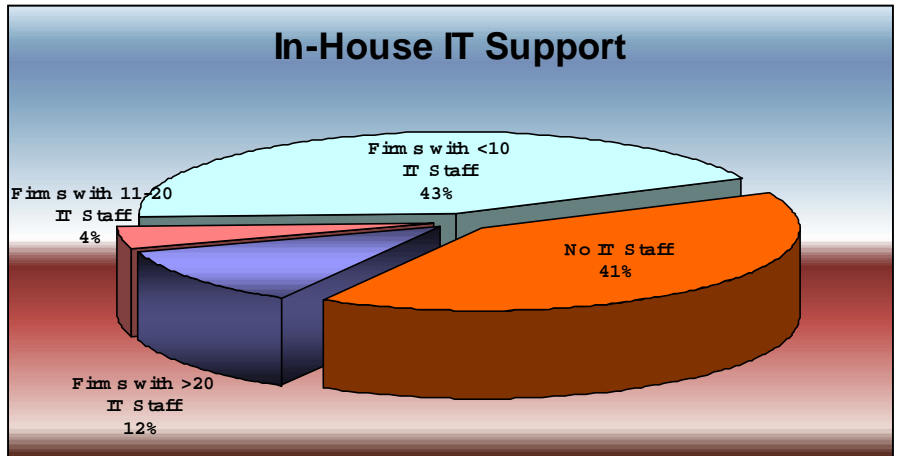


Figure 8

Appendix A

IT Deployment Survey for Intermediaries

1. Does your company use Personal Computers? Yes _____ No _____

If yes, do you consider that your staff are conversant with PC tools, such as:

1.1.

MS-Word 95	MS-Word 97	MS-Word 2000	Others

1.2.

MS-Excel 95	MS-Excel 97	MS- Excel 2000	Others

1.3.

Winzip 6.0	Winzip 7.0	Others

1.4.

Acrobat Reader 4.0	Acrobat Reader 4.05	Acrobat Reader 5.0	Others

And

1.5. *Do you currently submit your monthly financial returns electronically to SFC through the e-FRRR service?* Yes _____ No _____

1.6. *Do you see your company to use more PCs and develop more skills in the coming 12 months?* Yes _____ No _____

2. Does your company use email? Yes _____ No _____

If yes,

2.1. *Do you use it mainly for in-house purpose?* Yes _____ No _____

2.2. *Do you also use it for external communication via Internet?* Yes _____ No _____

2.3. What kind of email tools are you using?

MS Outlook	Lotus Notes	Webmail	Others

If no,

2.4. Do you have plans to start using email in the coming 12 months?

Yes _____ No _____

3. Do you have access to Internet?

Yes _____ No _____

If yes,

3.1. What are you using it for?

email	market news	info search	net meeting	Others

3.2. Please indicate the browser version

Internet Explorer 4.0	Internet Explorer 5.0	Internet Explorer 5.5

Netscape Communicator 4.08	Netscape Communicator 4.75	Netscape Navigator 6.0	Others

3.3. How do you connect to Internet?

Modem dial-up	1.544M broadband	leased line	Others

If no,

3.4. Do you have plans to connect to the internet in the coming 12 months?

Yes _____ No _____

4. Has your company adopted security measures in transmitting electronic documents?

Yes _____ No _____

If yes,

4.1. What kind of encryption technology are you using?

128-bit SSL	Hong Kong Post e-Cert (PKI/Crypto-Tool)	Others

5. Does your office have a local area network (LAN)/ wide area network (WAN)? Yes _____ No _____

If yes,

5.1. What kind of LAN/WAN?

Netware	NT	Unix	Others

If no,

5.2. Do you have plans to install one in the coming 12 months? Yes _____ No _____

6. Does your company have an enterprise intranet? Yes _____ No _____

If yes,

6.1. What are you using it for?

Email	Net Meeting	Company Circular	Training	Administration	Information Sharing

Others: _____

7. What transaction related systems are you using? Please specify the type of connection (dial-up, leased line, ...):

Securities Trading & Clearing -

7.1. AMS/3 Yes _____ No _____

7.2. Brokers Supplied System (BSS) Yes _____ No _____

7.3. CCASS Yes _____ No _____

7.4. Multiple Workstations (MWS) Yes _____ No _____

7.5. Others Yes _____ No _____

If yes,

dial-up	leased line	Others

Derivatives Trading & Clearing -

7.6. HKATS Yes _____ No _____

7.7. HKFE Bulletin Yes _____ No _____

7.8.TOPS Yes _____ No _____

7.9.Others Yes _____ No _____

If yes,

dial-up	leased line	Others

Payment -

7.10. CHATS Yes _____ No _____

7.11. Hexagon Yes _____ No _____

7.12. SWIFT Yes _____ No _____

If yes,

X.25	frame relay	Others

7.13. Others Yes _____ No _____

If yes,

dial-up	leased line	Others

Do you have plans to use others? Yes _____ No _____

If yes, please indicate the system _____

8. What information service providers are you using? Please specify the type of connection (dial-up, leased line, ...):

8.1.AFE Solutions Yes _____ No _____

If yes,

Leased line	dial-up	Others

8.2.Bloomberg Yes _____ No _____

If yes,

leased line	dial-up	Others

8.3. Bridge

Yes _____ No _____

If yes,

leased line	dial-up	Others

8.4. Datastream

Yes _____ No _____

If yes,

leased line	dial-up	Others

8.5. Reuters

Yes _____ No _____

If yes,

leased line	dial-up	Others

8.6. Others

Yes _____ No _____

If yes,

leased line	dial-up	Others

Do you have plans to add more?

Yes _____ No _____

If yes, please indicate the service _____

9. What kind of backoffice systems are your company using? Please specify the type of connection (dial-up, leased line, ...):

9.1. ABC System

Yes _____ No _____

If yes,

leased line	dial-up	Others

9.2. OASYS Alert

Yes _____ No _____

If yes,

leased line	dial-up	Others

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9.3. *OASYS Global*

Yes _____ No _____

If yes,

leased line	dial-up	Others

9.4. *Pop System*

Yes _____ No _____

If yes,

leased line	dial-up	Others

9.5. *Others*

Yes _____ No _____

If yes,

leased line	dial-up	Others

Are your backoffice systems electronically connected/integrated with:

9.6. *the transaction related systems?*

Yes _____ No _____

9.7. *systems of information service providers?*

Yes _____ No _____

10. Do you have in-house or contracted IT staff?

Yes _____ No _____

10.1. *If yes, please state the number of staff:*

1-10	10-20	20 or more

10.2. *If no, do you have plans to hire in the coming 12 months:*

Yes _____ No _____

11. Can you provide us with a contact point on technical matters?

Logon ID (e.g. xa000)	
Company Name	
Name	
Position	
Email address	
Phone number	

Appendix B**Summary of Responses**

Total number of respondents	802	
	Affirmative Responses	%
1. Use of PCs	780	97.3%
For PC users only:		
1.1 Use of MS-Word	758	97.2%
MS-Word 95	47	6.0%
MS-Word 97	350	44.9%
MS-Word 2000	361	46.3%
Others	22	2.8%
1.2 Use of MS-Excel	753	96.5%
MS-Excel 95	39	5.0%
MS-Excel 97	365	46.8%
MS-Excel 2000	349	44.7%
Others	27	3.5%
1.3 Use of WinZip	680	87.2%
WinZip 6.0	210	26.9%
WinZip 7.0	327	41.9%
WinZip 8.0	43	5.5%
Others	200	25.6%
1.4 Use of Acrobat Reader	693	88.9%
Acrobat Reader 4.0	405	51.9%
Acrobat Reader 4.05	114	14.6%
Acrobat Reader 5.0	174	22.3%
Others	87	11.2%
1.5 Are you using e-FRRR service offered by SFC?	261	32.5%
1.6 Do you see more PC usage in the coming year?	552	68.8%
2. Does your company use email?	679	84.7%
2.1 In-house purpose	333	49.0%
2.2 External purpose	631	92.9%

2.3 Types of Email Tools		
MS-Outlook Express	448	66.0%
Lotus Notes	104	15.3%
Webmails	44	6.5%
Others	83	12.2%
2.4 If not, do you plan to use emails in the coming year?	33	4.1%
3. Access to Internet	750	93.5%
3.1 Use of Internet		
Email	283	37.8%
Market News	176	23.5%
Information searching	246	32.8%
Net Meeting	1	0.1%
Others	44	5.8%
3.2 Browser Type		
Internet Explorer 4.0	75	10.0%
Internet Explorer 5.0	418	55.8%
Internet Explorer 5.5	202	27.0%
Netscape Communicator 4.08	5	0.7%
Netscape Communicator 4.75	35	4.7%
Netscape Navigator 6.0	4	0.5%
Others	11	1.3%
3.3 Types of internet connection		
Modem dial-up	261	34.8%
1.544 Broadband	153	20.4%
Leased Line	321	42.9%
Others	15	1.9%
3.4 Plan to connect to internet in coming year?	10	18.9%
4. Adoption of security measures in transmitting electronic documents	252	31.4%
4.1 Types of encryption technology used		
128-bit SSL	110	43.7%
HK Post e-Cert	110	43.7%
Others	32	12.7%

5. Use of LAN/WAN in office	588	73.3%
5.1 Type of LAN/WAN		
Netware	113	19.2%
NT	392	66.7%
Unix	30	5.1%
Others	53	9.0%
5.2 Plan to install LAN/WAN in coming year	37	17.3%
6. Use of enterprise intranet	253	31.5%
6.1 Purpose of intranet		
Email	76	30.0%
Net Meeting	0	0.0%
Company Circulars	21	8.3%
Training	3	1.2%
Administration	13	5.1%
Information Sharing	128	50.6%
Others	12	4.7%
7. Use of transaction-related systems		
Securities Trading and Clearing		
7.1 AMS/3	477	59.5%
7.2 BSS	213	26.6%
7.3 CCASS	564	70.3%
7.4 MWS	236	29.4%
7.5 Others	73	9.1%
Derivatives Trading and Clearing		
7.6 HKATS	213	26.6%
7.7 HKFE Bulletin	70	8.7%
7.8 TOPS	103	12.8%
7.9 Others	29	3.6%
Payment		
7.10 CHATS	145	18.1%
7.11 Hexagon	343	42.8%
7.12 SWIFT	80	10.0%
7.13 Others	88	11.0%
8. Use of Information Service Providers		
8.1 AFE Solutions	417	52.0%
8.2 Bloomberg	335	41.8%

8.3 Bridge	103	12.8%
8.4 Datastream	93	11.6%
8.5 Reuters	342	42.6%
8.6 Others	325	40.5%
9. Backoffice systems		
9.1 ABC System	123	
Leased Line Connection	38	30.9%
Dial-up Connection	22	17.9%
No Connection	63	51.2%
9.2 OASYS Alert	81	
Leased Line Connection	23	28.4%
Dial-up Connection	58	71.6%
9.3 OASYS Global	87	
Leased Line Connection	24	27.6%
Dial-up Connection	63	72.4%
9.4 Pop System	163	
Leased Line Connection	57	35.0%
Dial-up Connection	34	20.9%
LAN	16	9.8%
9.5 Use of other backoffice systems	311	38.8%
9.6 Backoffice systems are connected to transaction-related systems	279	34.8%
9.7 Backoffice systems are connected to systems of information service providers	157	19.6%
10. In-house IT staff	477	59.5%
10.1 Number of IT Staff		
IT staff size of 1- 10	348	73.0%
IT staff size of 11 - 20	36	7.5%
IT staff size of more than 20	93	19.5%
10.2 If none, plan to hire more IT staff in coming year	34	10.5%