

HSC Secure Email Service

User Guide



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Introduction

This document provides guidance on how HSC staff can encrypt email when it is being sent to a Recipient outside the HSC and GP networks.

Encryption must be applied to any content that is deemed sensitive or contains patient information.

Examples of sensitive and personal information include but are not limited to:-

- copies or extracts of data from clinical systems;
- commercially sensitive information;
- contracts under consideration;
- budgets;
- staff reports;
- appointments actual or potential not yet announced;
- disciplinary or criminal investigations.

Personal information is further defined by the Data Protection Act (1998).

Pre-requisites

- 1. The Recipient's organisation **MUST** allow encrypted attachments through their quarantine procedures. The Recipient would need to check with their IT team. If the Recipient does not receive an email it may be trapped by their Email Quarantine service.
- The Recipient requires Adobe Reader V9 or later to open the pdf files that are encrypted. To view the attachments, the Recipient may need to toggle the Navigation menu on by pressing F4. Other pdf readers may work but are not supported.
- 3. Procedures **should be agreed** between the Sender and Recipient on how the service should be used i.e.
 - Test the process is working as expected before sending the first sensitive/personal data.
 - All sensitive/personal data to be in an attachment rather than the body of the email and the attachment extracted from the email on delivery. This removes the need to retain passwords for old emails
 - Acknowledgement of receipt.

Caveats

- 1. An encrypted email exchange must be initiated from within the HSC.
- 2. It will not encrypt email between HSC organisations including the GPs and RQIA (hscni.net and n-i.nhs.uk).
- 3. It will encrypt email between an HSC organisation and the following exceptions to the general rules listed below in Caveat 4

Mail domain	Description
@nissa.gsi.gov.uk	Social Security Agency GSI accounts
@ir-efiles.gov.uk	HM Revenue and Customs
@lisburncastlereagh.gov.uk	Lisburn & Castlereagh City Council
@phe.gov.uk	Public Health England
*hcn.n-i.nhs.uk	H&C Number server monitoring
@walthamforest.gov.uk	Waltham Forest Council
@nfi.gov.uk	National Fraud Initiative

4. The following email domains are not routed through this service and therefore not encrypted by it:

Mail domain	Description
*.hscni.net	HSC email domains
*.n-i.nhs.uk	HSC legacy mail domains and GPs
*.nhs.uk	Mainland NHS organisations
@nhs.net	NHS mail
*.cjsm.net	Criminal Justice Secure Mail
*ni.gov.uk	Northern Ireland Government Departments
*nigov.net	Northern Ireland Government Departments
*.gov.uk	Mainland Government Departments
*.gsi.gov.uk	Government Secure Intranet
*.hmrc.gov.uk	HM revenue and Customs
*.nihe.gov.uk	NI Housing Executive
@ccea.org.uk	Council for the Curriculum, Examinations
	and Assessment
@hiainquiry.org	Historical Institutional Abuse Inquiry
@sportscouncil-ni.org.uk	Sports Council NI
@ihrdni.org	Inquiry into Hyponatraemia-related Deaths
@nipso.org.uk	Office of the NI Public Services
	Ombudsman
*.police.uk	All UK Police forces

5. The password applied to an encrypted email will always remain the one the Recipient had set at the time the email was sent. Therefore if a Recipient resets their HSC Encrypted Email Service password they must use their old password to open old encrypted emails. If the Recipient forgets their password they will not be able to access old encrypted emails.

- Certain file types cannot be opened by Adobe Reader when attached to encrypted SPX email messages. These file types include but are not limited to:
 - *.exe executable files
 - *.zip compressed files
 - *.bat batch files
 - *.dll dynamic libraries
 - *.class java class
- 7. The size of attachments is restricted to 10Mb for all HSC organisations.

Notes on Current Configuration

1. The service has the ability to automatically encrypt emails if certain criteria are met. Examples of these are:

Specific Sender, Specific Recipient, Email or attachment contains Health & Care numbers, Email or attachment contains postcodes, Email contains a certain phrase or word.

Please contact HSC ICT Security Manager (ictsecuritymanager@hscni.net) at BSO ITS ICT Security if you want to discuss adding automatic encryption rules.

A Worked Example

In this example the

Sender email address is Michael.harnett@hscni.net and the

Recipient email address is secteam304@gmail.com

Sections 1, 2, 3, 16 and 17 below apply to the Sender.

Sections **4-6** below are only completed the first time a Recipient receives an encrypted email from an hscni.net email address.

Sections 7-11 below show how a Recipient opens an encrypted email.

Sections **12-15** below show how a Recipient replies with an encrypted email.

Sections **18-19** below shows how a Recipient can reset or recover their password.

1. Sending an Encrypted Email using the manual process

The encryption of all external email is not automatic as the vast majority do not need to have encryption applied and could potentially increase the management overhead for the Email teams of the Recipient organisations.

To manually encrypt an email, the Sender creates a new email and includes **[ENCRYPT]** in the Subject line (see Figure 1). The square brackets **[]** are required.

	1
Subject:	[ENCRYPT] New list of patient information
Attached:	Demo Data.xls (12 KB)
he <mark>la</mark> test l	ist and it will be encrypted.
/ Team	
	Subject: Attached: he latest l

2. Sending an Encrypted Email using the Outlook Add-In

This requires your organisation to have deployed the Outlook Add-in for the Secure Email Service. This will appear as a menu option or icon when you create a new email.

By default all new emails will have the encryption turned off and the icon will appear as Figure 2.

When you click on it to apply encryption is changes to highlight its selection as in Figure 3.



If encryption is selected in error, clicking on the Encrypt icon again will turn it off.

Note: This does not encrypt email sent to other hscni.net email accounts.

3. Confirmation to the Sender of Encryption

Within a few minutes the Sender will receive confirmation that the email will be encrypted – see Figure 4 as an example.



Figure 4

4. Recipient Registering with the HSC Secure Email Service

The first time the Recipient is sent an encrypted email from an HSC email address using this service, the Recipient must register their email address with the HSC Email Encryption Server.

To do this, the Recipient will receive an email with contents similar to Figure 5.

To register with the service, click on the here link, circled in red in Figure 5.

If the email program does not support active links, then copy and paste the link circled in orange into your internet browser.

Secure Email Registration Request from Health Social Care (Northern Ireland)		
🚖 Michael Harnett to me	show details 3:19 PM (1 minute ago) 🛛 🦘 R	eply
Secure Email Registration Request from Health Social Care (North	ern Ireland)	
Michael Harnett (<u>Michael.Harnett@hscni.net</u>) has sent you an encryp need to register with a password by clicking(<u>here</u>)	ed message. Before you can receive and view this email you	ı will
After you have completed the registration, you will be able to view any or other senders from Health Social Care (Northern Ireland) might se	future encrypted emails using the same password that this s nd you in the future.	sende
Note: if your mail program does not support active links, you can register by cop	ing and pasting the text below into your internet browser:	
(https://seouremail.hsoni.net/register/001U2FsdGVkX182oLOMF3KbYjBvmk6Ygtl	Iv1r1U54A-UtA-ghbYD2XtA/	
The information contained in this email and any attachments is confidential and intended solely for the attention and use of the named addressee(s). No confidentiality or privilege is waived or lost by any mistransmission. If you are not the intended recipient of this email, please inform the sender by return email and destroy all copies. Any views or opinions presented are solely those of the author and do not necessarily represent the views of this Health Socia Care (HSC) body. The content of emails sent and received via the HSC network may be monitored for the purposes of ensuring compliance with HSC policies and procedures. While the HSC takes pre-autions in scanning outgoing emails for computer viruses, no responsibility will be accepted by this HSC body in the event that the email is infected by a computer virus. All emails held by this HSC body may be subject to public disclosure under the Freedom of Information Act 2000.		
	sophos SPX encryption SOPH	05 secure

Figure 5

NOTE: A Registration Reminder email will be issued after 5 days if registration has not taken place.

NOTE: After 10 days the Recipient will not be able to register to receive the email, the email will be deleted and the Sender notified.

NOTE: The Sender is notified when the Recipient has successfully registered.

5. Recipient setting their password

This will open the default internet browser, i.e. Internet Explorer, on the Recipient's PC and Figure 6 is displayed.

The Recipient then completes the **Password** and **Confirm Password** fields.

The complexity of the password required is displayed in the **Password Requirements** box.

NOTE: The ^O changes to a ^O when the password meets the password requirement. All three need to change to ^O before the Recipient can proceed.

The Recipient must then select 3 questions from the drop down list in the **Password Reset/Recovery** section and enter 3 answers. This will allow the Recipient to reset or recover their password if required at a later date without having to contact the BSO Service Desk.

When all fields are completed the Recipient can then click on the **Register** button to complete the process.

Hsc Health and Social Care in Northern Ireland		
Set your password be	elow to access secure emails y	ou have been sent.
Email Address: Password: Confirm password:	secteam304@gmail.com	Password Requirements: Passwords must be 8-32 characters in length Passwords must be alphanumeric Passwords must match
Password Reset/Re Password question	e covery: ns and answers must be unique.	Answers must contain at least 2 characters.
Question 1:	Please choose a question	✓
Answer:		
Answer:	Please choose a question	
Question 3:	Please choose a question	×
Answer:		
	Register	
		J.
		sophos SPX encryption Sophos Simply secure

Figure 6

6. Registration confirmation

When the registration has been successfully completed, the Recipient will receive a notification as in Figure 7.

This internet browser window can be closed.

You have successfully registered your password.		
	Success!	
	You will receive your encrypted message shortly. Now that you are registered, use your password to open all encrypted messages from this sender. You can now close this window.	

Figure 7

7. Recipient receiving the encrypted email

The Recipient will now receive another email which contains the original content from the Sender - see Figure 8.

To access that content, the Recipient should click on the **PDF logo** at the bottom of the message, circled in red in Figure 8.



Figure 8

8. Recipient receiving the encrypted

The Recipient will then see a **File Download** window on their screen – see Figure 9.

Click the **Open** or **Save** button to progress.

File Download 🛛 🔀	
Do you want to open or save this file?	
Name: Michael.Harnett_2011-11-21-152828.pdf Type: Adobe Acrobat Document, 376KB From: mail.google.com Dpen Save Cancel	
While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. <u>What's the risk?</u>	
Figure 9	

9. Recipient enters their password

The Recipient enters the password they registered in Section 3 above, in the **Password** window – see Figure 10.

Then click the **OK** button.

Password		
1	'Michael.Harnett_2011-11' is protected. Please enter a Document Open Password. Enter Password: OK Cancel	
Figure 1	0	

10. Recipient accesses the decrypted email

Attachments may be found at the bottom of the PDF or in a column to the left of the content, depending on the version of Adobe Reader used – see Figure 11.

TIP: F4 toggles the Navigation pane on the left hand side off and on. If you cannot see the paperclip icon press F4.

NOTE: To remove the need to constantly re-enter the password for the PDF, the attachments can be saved to the Recipient's file store.

🗜 Michael.Harnett_2011-11-21-152828.pdf (SECURED) - Adobe Reader				
<u>File</u>	dit <u>V</u> iew <u>W</u> indow <u>H</u> elp		×	
	🖹 🖨 🖂 论 🚺 2	∫ 2	Comment	
	Attachments I		^	
	Ber Copen Con Constant	From Michael Harnett <michael harnett@hscni.net=""> To "secteam304@gmail.com" <secteam304@gmail.com> Subject [ENCRYPT] - New list of patient information</secteam304@gmail.com></michael>	- 1	
Ŷ	Demo Data.xis	Attachments 1		
		"This email is covered by the disclaimer found at the end of the message." Hi This is the latest list and it will be encrypted. Security Team "The information contained in this email and any attachments is confidential and intended solely for the attention and use of the named addressee(s). No confidentiality or privilege is waived or lost by any mistransmission. If you are not the intended recipient of this email, please inform the sender by return email and destroy all coores. Any views or continons presented are solely those of the author and do not		
		necessarily represent the views of HSCNI. The content of emails sent and received via the HSC network may be monitored for the purposes of ensuring compliance with HSC policies and procedures. While HSCNI takes precautions in scanning outgoing emails for computer viruses, no responsibility will be accepted by HSCNI in the event that the email is infected by a computer virus. Recipients are therefore encouraged to take their own precautions in relation to virus scanning. All emails held by HSCNI may be subject to public disclosure under the Freedom of Information Act 2000.*	1	

Figure 11

11. Recipient replies with an encrypted email

The Recipient clicks on the **Reply** button and Figure 12 may be displayed depending on the security settings within the Recipient's organisation.

Click on the **Allow** button to progress.

NOTE: By ticking the **Remember my action for this site** box, this action will not be required for further emails from this service.

Security Warning				
♪	The document is trying to connect to: https://securemail.hscni.net			
	Do you trust hscni.net? If you trust the site, choose Allow. If you do not trust the site, choose Block.			
Remember this action for this site for all PDF documents				
<u>Help</u>	Allow Block Cancel			
Figure 12				

NOTE: The **Reply** functionality to a particular email is 30 days from the date of issue. Please request another secure email from the Sender if it is beyond the 30 days and your response contains sensitive information.

12. Recipient composing reply

Enter the content of the reply as normal - see Figure 13

HSC Health and Social Ca in Northern Ireland	ire
From: secteam304@gmail.com To: Michael Harnett Subject: Re: [SECURE REPLY] [ENCRYPT] - New list of patient information	
This is my reply M	
Send Attachments Send me a secure copy	Change password
	sophos SPX encryption SOPHOS simply secure

Figure 13

13. Recipient adding attachments

To add an attachment, click on the **Browse** button and navigate to the file to be attached as per the normal operating system browsing method.

Once selected, click the **Upload** button. This will display the uploaded file in the **Attachments** column – see Figure 14.

Repeat this process for all files that need to be attached.

Click the **Done** button to return to email.

Select attachment		Attachments
	Browse Upload	1.
		Delete Done

Figure 14

14. Recipient sending the encrypted reply

The attachment added from Section 13 is displayed.

Click on the **Send** button.

Unselect the **Send me a secure copy** if a copy is not required.

NOTE: This service does not save a copy to the **Sent Items** folder, therefore if confirmation that the email was sent is required, this box should be left ticked.

From:	secteam102@gmail.com		
To:	Michael Harnett <michael.harnett@hscni.net></michael.harnett@hscni.net>		
Subject:	Re: [SECURE REPLY] [ENCRYPT] New list		
Attachments	: 🖻 Demo data xis		
This is my rep	ply.		4
м			
IVI			
			~
Send Att	tachments 🔽 Send me a secure copy	Change passwor	d

Figure 15

15. Recipient receives sent confirmation

The Recipient will receive a confirmation window if the message is sent successfully – see Figure 16.



Figure 16

16. Sender receives confirmation the email is encrypted

When the Sender's email is encrypted, i.e. includes **[ENCRYPT**] in the subject line, a confirmation is received to say it was successfully encrypted – see Figure 17.

NOTE: This email will not be received until the Recipient has registered with the HSC service. Therefore there will be a delay in receiving this confirmation when sending to a Recipient for the first time.

From: To:	no-reply@hsoni.net Sent: Mon 21/2 Michael Harnett	1/2011 15:2
Co		
Subject:	Re: [ENCRIPT] - New list of patient information	Ţ
	Your message to 'secteam304@gmail.com' (secteam304@gmail.com) was successfully encrypted.	ſ
	sophos SPX encryption SIPX simply secure	

Figure 17

17. Sender receives reply from Recipient

Replies received from the Recipient will be decrypted automatically by the HSC Encrypted Email Service and then forwarded into the Sender's mailbox – see Figure 18.



Figure 18

18. Recipient resetting the password

If a Recipient believes their password to be compromised they can reset it using the appropriate link from a previously received encrypted email from the HSC Secure Email Service.

The links are found in the body of email – see Figure 19

NOTE: The Recipient can only use an email sent to them as the links contain references to their email address.

NOTE: All previous encrypted emails will still require the old password to open.

Click <u>here</u> to change your password.
Note: if your mail program does not support active links, change your password by copying and pasting the text below into your internet browser:
https://securemail.hsoni.net/portal/U2Fsd&VkX18Yvz9M0-sca17zjE0vC1l6uNk4OgpKoOZjt65352303IzBto7IAqTSxlbq0p_hxljgWZhUrBqkfA/

Figure 19

To change the password, click the appropriate link, enter the **Current password**, and then the new password in the **Password** and **Confirm Password** fields – see Figure 20.

Choose the password you want to use for future secure emails.			
Email Address:	secteam304@gmail.com	Password Requirements:	
Current password:	•••••	Passwords must be 8-32 characters in length Passwords must be alphanumeric	
Password:	•••••	Passwords must match	
Confirm password:	•••••		



Once the password criteria are meet i.e. all have a ²⁰ against then, click the **Change Password** button to complete the process.

The Recipient can also update the **password change/recovery questions** by ticking the box – see Figure 21.

🖵 🗹 Update passv	vord change/reset question(s)	
Password Reset/Recovery: Password questions and answers must be unique. Answers must contain at least 2 characters.		
Question 1:	In what city did you meet your spouse/significant other? 💌	
Answer:	<use answer="" existing=""></use>	
Question 2:	What street did you live on as a child?	
Answer:	<use answer="" existing=""></use>	
Question 3:	What is the name of the company of your first job?	
Answer:	<use answer="" existing=""></use>	
	Change password	



The Change Password button will remain greyed out until all 3 answers are entered.

NOTE: The previous answers can be re-entered.

Notification will be displayed when the password has been successfully changed – see Figure 22.



19. Recipient recovering the password

If a Recipient forgets their password they can recover it by using the appropriate link from a previously received encrypted email from the HSC Secure Email Service.

The links are found in the body of email - see Figure 23

NOTE: The Recipient can only use an email sent to them as the links contain references to their email address.



Figure 23

The following window will open in the default internet browser – see Figure 24.

Forgot your password?		
To reset or recover your password		
Verify that the email address below is yours, click 'Send password question', and follow the instructions.		
Email Address: secteam304@gmail.com		
Send password question(s)		

Figure 24

Click on the **Send password Question(s)** button to send them to your email address. On successful completion a notification will be displayed in the internet browser – see Figure 25.



The Recipient will receive an email with a link to preset questions – see Figure 26.

SPX Password Recovery Request Information from Health	Social Care (Northern Ireland)	
Encryption Service no-reply@hscni.net to me	show details 10:47 AM (3 minutes ago)	👆 Reply
Images are not displayed. Display images below - Always display images from no-reply@hscni.net		
Encrypted email notification from Health Social Care (Northern Ireland)		
A request was received for the password question(s) for opening secure mes Ireland) and your email account.	sages sent between Health Social Care (North	nern
Click <u>here</u> to answer the question(s) and reset or	recover your password.	
Note: if your mail program does not support active links, you can reset or recover your pass	word by copying and pasting the text below into your	rweb browser:
https://securemail.hscni.net/portal/U2FsdGVkX183k4trtrTuqGjponw_onl5Vgek7UBKMvrg	zruDqvjSup5UC8BNKbuY3HnpjZrl9uVFJRwETSLQ/	
sophos SPX simply source by SOPHOS		

Figure 26

A new internet browser window will open to allow entry of the answers to the preselected questions and the option to recover or reset the password – see Figure 27.

Answer the password question(s) to reset or recover your password.		
Email Addres	ss: secteam304@gmail.com	
Question:	In what city did you meet your spouse/significant other?	
Answer:		
Question: Answer:	What street did you live on as a child?	
Question: Answer:	What is the name of the company of your first job?	
Create a n Create a n received s	/ password ew password to replace a forgotten password. This will not allow you to access previously ecure mail that was encrypted with old passwords.	
Recover my password		
Retrieve your forgotten password. This will give you access to all previously received secured mail that was encrypted with this password.		
Submit		

Figure 27

Enter the 3 answers, select **Recover my password** and click the **Submit** button.

NOTE: When an answer is entered incorrectly, the screen will be reset and **Invalid answer** will be displayed in place of **Answer the password question(s) to reset or recover your password**.

The screen will display a temporary one time password (circled in red) that the Recipient will need to use to open a new encrypted email that will contain their password – see Figure 28.



The Recipient must now open the email with a subject title - SPX Password Recovery Request Information from Health Social Care (Northern Ireland)

Open the attached PDF attachment – see Section 7 for further details if required.

The PDF will contain their password.

NOTE: It is recommended that this message is deleted immediately after the password has been confirmed.

When the Recipient cannot recall the password and the password questions, the password enrolment process can be re-initiated by the BSO-ITS Security Team. The Recipient should log a request with the BSO ICT Service Desk (see Section 20 for details). The Recipient will then receive a new SPX email that will allow them to register again.

20. Expiration Dates for Emails and Accounts

After 90 days unused Recipient accounts/passwords will be deleted. The Recipient will need to register again for any new email they receive.

After 90 days the Recipient will not be able to make a secure response. A new encrypted email will need to be sent from the Sender.

After 15 days the email will be deleted if the Recipient has not registered. A notification is forwarded to the Sender informing them of this. A new encrypted email will need to be sent from the Sender if needed.

21. Who to contact if there are problems

If you are experiencing issues or have any queries about the HSC Secure Email Service you should contact the **BSO ICT Service Desk** (Tel: 028 9536 2400 Email: supportteam@hsci.net).