

# Registered E-Mail (REM) Information Gathering Questionnaire

V1.02: 14 Jan 07

## Introduction

The European Telecommunications Standards Institute (ETSI) technical committee of Electronic Signatures and Infrastructures has set up specialist task force - STF 318, to study the requirements for registered e-mail leading to standardisation in this area. ETSI is an independent, non-profit organization, whose mission is to produce electronic communications standards for today and for the future.

Business and administrative relationships among companies, public administrations and private citizens, are now more and more implemented electronically. Trust is becoming essential for their success and continued development of electronic services. It is therefore important that any entity using electronic services have suitable security controls and mechanisms in place to protect their transactions and to ensure trust and confidence with their partners. In this respect the electronic signature is an important security component that can be used to protect information and provide trust in electronic business.

Electronic mail is one of the major tools for electronic business and administration. It has been recognised that additional security services are necessary for e-mail to be trusted. In some European Union Member States (Italy, Belgium, Germany, etc.) regulation(s) and application(s) are in place on e-mails (including Internet mail & web mail) providing origin authentication and proof of delivery. Such security services may be used to provide trusted delivery of e-mail equivalent to the existing physical registered postal service. Several approaches are possible in order to realize the goal of trusted "Registered E-Mail" services. This may be enhanced, for example, by other facilities such as the "Digital Postmark" (as specified by the Universal Postal Union) to provide further electronic evidence about the handling of messages. In order to ensure the interoperability of the trusted email services, it is necessary to specify technical formats, as well as procedures and practices for handling registered e-mail and the ways the electronic signatures are applied to it.

ETSI will first verify among the European Union Member States competent bodies (state authorities, standardisation bodies, e-mail providers, local experts, etc.), as well as with other independent organisations and non EUMS bodies, which current and prospective implementations exist of registered e-mail mechanisms. A Technical Report will be produced to summarize the results of this survey.

Based on this survey outcome, a number of Technical Specifications (TSs) will be produced. These are currently envisaged as follows:

- A TS defining format of the signatures to be applied on registered emails;
- A TS defining the policies of Trusted Service Providers (TSP) applying signatures on registered emails.

# Questionnaire

We would welcome your responses to the following questions in the context of Registered E-Mail. The responses will be used as the basis for the development of the ETSI specifications and so will be very valuable in ensuring that our work matches existing and likely future market requirements, encompassing existing solutions and future trends.

You may skip over any sections which you feel are not relevant or for which you do not have a specific answer. Also, instead of answering the questions in section 5 respondents may provide their own system description providing information on the system architecture and how the registered e-mail services identified are provided.

If you can answer these questions from two or more perspectives (for example: the requirements of the regulations, the provisions of one or more specific current or future implementation of those regulations) feel free to answer more copies of the questionnaire, again skipping over irrelevant sections.

Unless specified otherwise please tick all check boxes that apply. Please use continuation tables at the end of this form should the space provided be insufficient for giving a full response to any of the questions

## 1. Information about your organisation

1.1. <i>What is the name of the organisation that you represent?</i>	
<input type="text"/>	
1.2. <i>What is the country or regional area your organisation covers in relation to Registered E-Mail?</i>	
<input type="text"/>	
1.3. <i>What is the type of the organisation? (select all that apply)</i>	
a) <i>Service provider</i> Please specify what type of service provider i) <i>Registered Email (Registered EMail) service Provider</i> ii) <i>Provider of services that may be used in REM</i> I. <i>PKI services provider</i> II. <i>Time Stamping Authority</i> III. <i>Delegate Path Validation Service (Note 1)</i> IV. <i>Long term storage services</i> V. <i>Notarisation services (Note 2)</i> VI. <i>Other(s), please specify</i> <input type="text"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b) <i>System / SW provider</i>	<input type="checkbox"/>

c)	<i>User; please specify your type / business area:</i> I. <i>Single user</i> II. <i>Bank / Financial institution</i> III. <i>Insurance</i> IV. <i>Public administration</i> V. <i>Other(s), please specify</i> <input type="text"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d)	<i>Regulatory body</i>	<input type="checkbox"/>
e)	<i>Standardisation body</i>	<input type="checkbox"/>
f)	<i>Other(s), please specify:</i> <input type="text"/>	<input type="checkbox"/>
<i>Notes:</i> 1) <i>Delegated path validation: A service checking the validity of set of public key certificates providing a certification path from a trusted CA (e.g. see RFC 3379).</i> 2) <i>Notarisation service: service providing a trusted attestation of a certain event (e.g.: verification of a signature as valid, deposit of a binary object, delivery or withdrawal of a binary object, etc.)</i>		
1.4. <i>Any other relevant details about your organisation:</i> <input type="text"/>  <i>Organisations URL:</i> <input type="text"/>		

## 2. Status of Implementation

2.1. <i>Does information given in this questionnaire relate to a specific Registered E-Mail service implementation?</i>	Yes: <input type="checkbox"/>
2.2. <i>If you ticked "yes" in section to 2.1 what is the status of this service</i> a) <i>Already deployed and in operation</i> b) <i>Is currently being implemented</i> c) <i>Planned or envisaged</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

<p>2.3. <i>If you ticked “yes” in section 2.1 give information on the service deployment</i></p> <p>a) <i>If not deployed when to be deployed</i></p> <p>b) <i>Current size of user community</i></p> <p>c) <i>Planned size of user community</i></p>	<p>Mth: <input type="text"/> Yr: <input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p>
<p>2.4. <i>Does information given in this questionnaire relate to a specific product for Registered Email?</i></p>	<p>Yes: <input type="checkbox"/></p>
<p>2.5. <i>If you ticked “yes” in section 2.4 what is the status of this product</i></p> <p>a) <i>Already in the market</i></p> <p>b) <i>Is currently being implemented</i></p> <p>c) <i>Planned or envisaged</i></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>2.6. <i>If you ticked “yes” in section 2.4:</i></p> <p>a) <i>What is market sector being addressed</i> <input type="text"/></p> <p>b) <i>What is the expected size of installations</i> <input type="text"/></p>	
<p>2.7. <i>Does information given in this questionnaire relate to a regulation or standard?</i></p>	<p>Regulation: <input type="checkbox"/></p> <p>Standard: <input type="checkbox"/></p>
<p>2.8. <i>If you ticked in section 2.7 give information about the status of the regulation / standard:</i></p> <p>a) <i>Is this already implemented and deployed</i></p> <p>b) <i>Implementations being developed</i></p> <p>c) <i>Implementations being developed or trialled</i></p> <p>d) <i>Yet to be implemented</i></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>2.9. <i>If you ticked in section to 2.7:</i></p> <p>a) <i>What is the market sector being addressed?</i> <input type="text"/></p> <p>b) <i>What is the expected maximum size of installations?</i> <input type="text"/></p>	
<p>2.10. <i>Please provide any other information relevant to implementation.</i></p> <p><input type="text"/></p>	

### 3. Services

This section aims to identify the services provided / considered necessary for Registered E-Mail.

3.1. What evidence related services are:

- supported or considered necessary.
- not supported and not considered necessary

Note: Evidence services marked with \* include evidence of the time of the given event

<u>Evidence service</u>	<u>Supported necessary</u>	<u>Not supported / not necessary</u>
a) Evidence of message origin authentication Note: Includes integrity of message and authentication of the identity of the message originator.	<input type="checkbox"/>	<input type="checkbox"/>
b) Evidence of submission* Note: Evidence of submission passed back to sender.	<input type="checkbox"/>	<input type="checkbox"/>
c) Evidence that message has been transmitted through a REM service provider* Note: Evidence passed to recipient after passing through REM provider.	<input type="checkbox"/>	<input type="checkbox"/>
d) Evidence that message has been successfully exchanged between two REM service providers *	<input type="checkbox"/>	<input type="checkbox"/>
e) Evidence of notification to the recipient of the availability of a stored message ready to be delivered /downloaded*	<input type="checkbox"/>	<input type="checkbox"/>
f) Evidence of delivery/download*	<input type="checkbox"/>	<input type="checkbox"/>
g) Evidence of acceptance or rejection of message by the recipient*	<input type="checkbox"/>	<input type="checkbox"/>
h) Evidence of non-delivery (e.g. for unknown recipient or recipient server, technical errors, etc.)*	<input type="checkbox"/>	<input type="checkbox"/>
i) Evidence of non delivery/download within a predefined time limit* If applicable please specify if this time limit is:	<input type="checkbox"/>	<input type="checkbox"/>
I. Pre-defined	<input type="checkbox"/>	<input type="checkbox"/>
II. Defined by the sender	<input type="checkbox"/>	<input type="checkbox"/>
j) Evidence that an email has been “opened” or “viewed” by recipient*	<input type="checkbox"/>	<input type="checkbox"/>
k) Other(s), please specify          	<input type="checkbox"/>	<input type="checkbox"/>

- 3.2. *What other security related services are:*
- *supported or considered necessary.*
  - *not supported and not considered necessary*

<u>Security service</u>	<u>Supported necessary</u>	<u>Not supported / not necessary</u>
a) <i>Malware absence verification</i>	<input type="checkbox"/>	<input type="checkbox"/>
b) <i>E-Mail content protected when passing through REM provider(s) (e.g. by encryption) to ensure that message is not revealed to parties other than the recipient(s)</i>	<input type="checkbox"/>	<input type="checkbox"/>
c) <i>Not revealed to recipient until e-mail accepted</i>	<input type="checkbox"/>	<input type="checkbox"/>
d) <i>Other(s), please specify</i>  	<input type="checkbox"/>	<input type="checkbox"/>

- 3.3. *Please identify any restrictions on the Registered E-Mail services*

<u>Restriction on (if any)</u>	<u>Value</u>
a) <i>Overall Size of message: body + attachments</i>	<input type="text"/>
b) <i>Size of message body</i>	<input type="text"/>
c) <i>Size of individual attachments</i>	<input type="text"/>
d) <i>Number of attachments</i>	<input type="text"/>
e) <i>Type of attachments</i>	<input type="text"/>
f) <i>Other(s), please specify</i>  	<input type="text"/>

3.4. What, if any, services relating to surface mail or external (non registered) e-mail services are:

- supported or considered necessary.
- not supported and not considered necessary?

If no surface mail and no interface to external e-mail is supported skip this question.

<u>Service</u>	<u>Supported necessary</u>	<u>Not supported / not necessary</u>
a) Always forward to physical post in case of failure of registered email	<input type="checkbox"/>	<input type="checkbox"/>
b) Forward to physical post in case of failure of registered e-mail if requested by the sender	<input type="checkbox"/>	<input type="checkbox"/>
c) Forward to physical post instead of electronic post where addressed as such by the sender	<input type="checkbox"/>	<input type="checkbox"/>
d) Forward e-mail to other non Registered E-Mail network where addressed as such by the sender	<input type="checkbox"/>	<input type="checkbox"/>
e) Forward e-mail received from external e-mail network (e.g. Internet) to Registered E-Mail recipient.	<input type="checkbox"/>	<input type="checkbox"/>
f) Other(s), please specify _____  _____	<input type="checkbox"/>	<input type="checkbox"/>

3.5. What other services are:

- supported or considered necessary.
- not supported and not considered necessary

<u>Service</u>	<u>Supported necessary</u>	<u>Not supported / not necessary</u>
a) Sender Message Archival – i.e. Long term storage of all messages after being submitted by the sender and notifications, regardless of whether it has been delivered to / retrieved by the recipient (State retention period) _____ (If not all messages or notifications are archived, or there is a variation in the retention period for different classes of messages please provide details _____  _____	<input type="checkbox"/>	<input type="checkbox"/>

<p>b) <i>Recipient Message Archival – i.e. Long term storage of all messages and notifications made available for download / retrieval even after being retrieved by the recipient or removed from an online message store</i></p> <p>(State retention period) _____</p> <p>(If not all messages or notifications are archived, or there is a variation in the retention period for different classes of messages please provide details)</p> <p>_____</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>c) <i>Storage of messages containing malicious code in quarantine area for future reference</i></p> <p>(State retention period) _____</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) <i>Storage of logs containing information about messages</i></p> <p>(State retention period) _____</p> <p>(Describe in general terms information collected)</p> <p>_____</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>e) <i>Maintenance of signatures on archived data to ensure sufficient data is available to verify signature over long term.</i></p> <p><i>Note: See section 6 of CWA 15579 for example of measures that may be taken.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>



<p>f) <i>Directory services to</i></p> <p>i) <i>assist senders in obtaining recipients email addresses</i></p> <p>ii) <i>assist senders / recipients in obtaining certificates required to secure messages</i></p> <p>iii) <i>Other(s), please specify</i></p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<input type="checkbox"/>   <input type="checkbox"/>   <input type="checkbox"/>	<input type="checkbox"/>   <input type="checkbox"/>   <input type="checkbox"/>
<p>g) <i>Other(s), please specify</i></p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<input type="checkbox"/>	<input type="checkbox"/>
<p>3.6. <i>What type of users are supported</i></p>		
<p>a) <i>Individuals</i></p>	<input type="checkbox"/>	
<p>b) <i>Organisations</i></p>	<input type="checkbox"/>	
<p>c) <i>Other(s), please specify</i></p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<input type="checkbox"/>	
<p>3.7. <i>What business areas are directly supported / envisaged as possible, or, specifically not supported?</i></p>		
<p><u><i>Business area</i></u></p>	<p><u><i>Supported</i></u> <u><i>Envisaged</i></u></p>	<p><u><i>Not supported</i></u></p>
<p>a) <i>E-purchasing</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>b) <i>E-tendering</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>c) <i>E-accounting</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) <i>Official communication between and with public administrations</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>e) <i>General purpose transmission of messages and/or files</i></p>	<input type="checkbox"/>	<input type="checkbox"/>

<i>f)</i>	<i>Other(s), please specify</i>	<input type="checkbox"/>	<input type="checkbox"/>
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3.8. *Please provide any further relevant information regarding the services provided.*

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#### 4. Regulations & Legal Validity

4.1. *Please specify known regulations which identify requirements or assign special legal validity to Registered Email and describe the scope of the regulation.*

a) *Reference:*

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*URL (e.g. HTTP//...) or other address for on-line version*

---

*Description:*

---

*Scope (Europe, name country or other region, user community)*

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b) *Reference:*

---

*URL or other address for on-line version:*

---

*Description:*

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*Scope (Europe, name country or other region, user community)*

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c) Reference::

\_\_\_\_\_

*URL or other address for on-line version*

\_\_\_\_\_

*Description:*

\_\_\_\_\_

*Scope (Europe, name country or other region, user community)*

\_\_\_\_\_

*(Please use continuation tables to provide further references)*

4.2. *Please specify legally recognised evidential value that applies to the evidence provided by the security services described in 3.1.*

*Where applicable to specific evidential service please identify reference (a, b, ...) from 3.1 above. (or specify all).*

*Where known, identify reference number (a, b, c, ...) of relevant regulation from 4.1 above.*

<u>Evidential value</u>	<u>Applicable</u>	<u>Services</u>	<u>Regulation</u>
a) <i>has full and general legal validity through specific statute Note: For example, an e-mail implemented in abidance of specific legislative rules has legal validity towards any use governed by those rules, without the need neither of any additional supportive agreement by the originally involved parties, nor of any subsequent endorsement by other parties.</i>	<input type="checkbox"/>		
b) <i>has legal validity based on explicit preliminary acceptance or explicit agreement by the parties (i.e. the rules set is already defined, users can just accept them)</i>	<input type="checkbox"/>		
c) <i>has legal admissibility as a trial evidence, but no "per se" legal validity, Note: c.f. evidential value of electronic signatures other than Qualified Electronic Signature as defined in article 5.2 of the Electronic Signatures Directive 1999/93/EC</i>	<input type="checkbox"/>		
d) <i>Other(s), please specify</i>	<input type="checkbox"/>		

4.3. *Is the evidence verifiable by:*

<i>a)</i>	<i>Only registered REM users</i>	<input type="checkbox"/>
<i>b)</i>	<i>Any party trusting the Certification Authority(ies) used for signing Registered E-Mail</i>	<input type="checkbox"/>
<i>c)</i>	<i>Other(s), please specify</i> _____	<input type="checkbox"/>

## 5. Service Provision Model

Note: If you prefer, you can provide us (ETSI STF 318) with your own documentation giving detailed information on how the services are provided, and then we can work with you on how to relate this to the questions in this section.

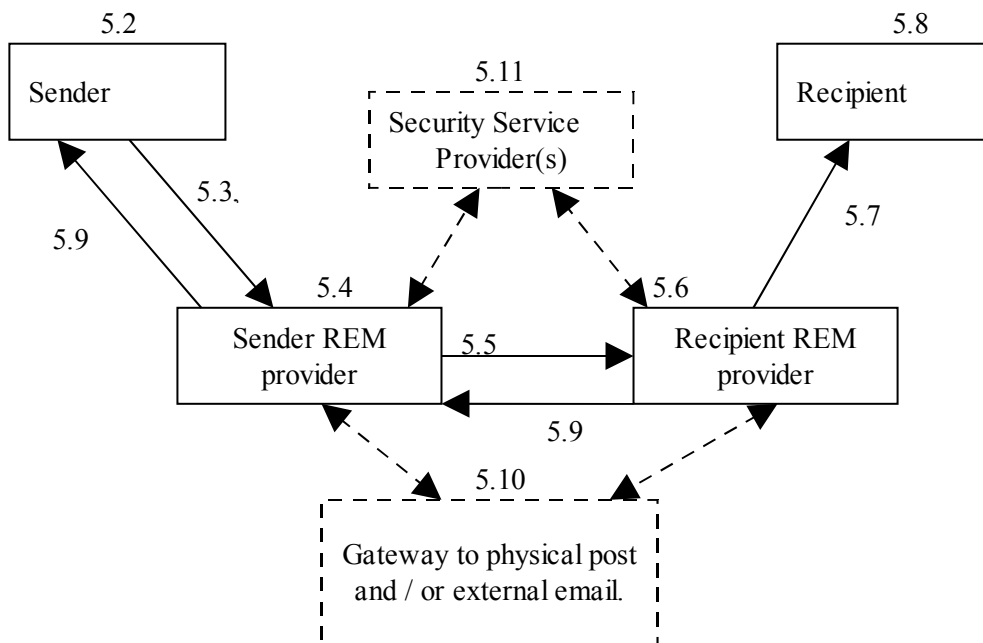
The aim of the following questions is to solicit information about the high level model of the Registered E-Mail system and how the evidential services identified above are provided.

If a system description already exists, or if it would be easier to use your own terms, please provide a description of the high level architecture and how the services listed above are provided in a separate document or in the continuation tables at the end of this questionnaire.

If you have provided your own description of the service provision model please check this box  and, where not included in the continuation tables, give the reference & title of the documentation provided:

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The questions in this section are based upon the following model:



### Notes

- 1 External e-mail means e-mail services which do not provide Registered E-Mail services directly to the sender or the recipient. This may be either conventional e-mail, or conventional physical postal services (registered or otherwise).
2. Sender and recipient includes associated software and hardware on sender's / recipients system.

Continuous (i.e. not dashed) lines identify elements of what is henceforth referred to as "basic model".

The numbers appearing in the figure above identify subsections of the present section. Each subsection contains questions on specific elements of the model. Subsection 5.1 contains questions regarding the model as a whole.

## 5.1. Model Used

5.1.1.	<i>Indicate below the applicability of this model to the REM service.</i>	
a)	<i>Basic model described is applicable (excluding model elements gateway and security service providers )</i>	<input type="checkbox"/>
b)	<i>REM provider is a single entity supporting Registered E-Mail services for both senders and recipients in its domain (if so skip 5.5 below)</i>	<input type="checkbox"/>
c)	<i>Security service provider(s) are separate entity (ies) in your model.</i>	<input type="checkbox"/>
d)	<i>Is gateway to external email or physical delivery supported</i>	<input type="checkbox"/>
e)	<i>Additional service provision entities identified (if so list entities below and describe services &amp; mechanisms and dialogue for additional entities in continuation tables at the end of this questionnaire)</i>	<input type="checkbox"/>
<i>Please list entities below and describe the services and mechanisms supported by those entities in the continuation table (section 10)</i>		
f)	<i>Model not applicable</i>	<input type="checkbox"/>
5.1.2.	<i>Is Registered E-Mail service outsourced to an independent hosting service.</i>	<input type="checkbox"/>

## 5.2. Sender Services and Mechanisms

5.2.1.	<i>Check all the services and mechanisms employed by the sender</i>	
a)	<i>Evidence of message origin authentication Note: May also be provided by sender Registered E-Mail provider based on peer entity authentication.</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>		
i)	<i>Advanced electronic signature</i>	<input type="checkbox"/>
ii)	<i>Qualified electronic signature</i>	<input type="checkbox"/>
iii)	<i>Time-stamp</i>	<input type="checkbox"/>
iv)	<i>Time-mark</i>	<input type="checkbox"/>
v)	<i>Other mechanism(s) and / or trusted services, please specify</i>	<input type="checkbox"/>

b)	<i>Other service(s), please specify</i>	<input type="checkbox"/>
<i>Mechanism(s) supporting the service</i> <i>Please describe mechanisms used to support the service(s)</i>		

### 5.3. Sender – Sender REM Provider Dialogue

5.3.1.	<i>Peer Entity Authentication</i> <i>Is client authenticated to REM Provider</i>	<input type="checkbox"/>		
<i>If so what mechanism(s) is (are) employed</i>				
a)	<i>Simple Password</i>	<input type="checkbox"/>		
b)	<i>One time password</i>	<input type="checkbox"/>		
c)	<i>Cryptographic device (e.g smart card, USB token)</i>	<input type="checkbox"/>		
d)	<i>Password over SSL / TLS</i>	<input type="checkbox"/>		
e)	<i>Software key</i>	<input type="checkbox"/>		
f)	<i>SAML Assertion</i>	<input type="checkbox"/>		
g)	<i>Other(s), please specify</i>	<input type="checkbox"/>		
<i>Please specify any restrictions on authentication passwords, keys etc (e.g. size of password)</i>				
5.3.2.	<i>Service controls: Are the following services always provided by Sender REM provider, provided only upon sender request or never provided by Sender REM provider?</i>			
	<i>Always</i>	<i>Upon request</i>	<i>Never</i>	
a)	<i>Evidence of message origin authentication</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	<i>Evidence of submission</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	<i>Evidence that message has been transmitted through a REM service provider</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d)	<i>Evidence of notification to the recipient of the availability of a stored message ready to be delivered /downloaded</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	<i>Evidence of delivery/download</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	<i>Evidence of acceptance or rejection of message by the recipient</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	<i>Evidence of non-delivery (e.g. for unknown recipient or recipient server, technical errors, etc.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	<i>Evidence of non delivery/download within a predefined time limit</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	<i>Evidence that an email has been “opened” or “viewed” by recipient</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	<i>Notifications of errors )</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k)	<i>Other(s), please specify</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.3.3. *Message identifier*

a)	<i>Is there a unique identifier allocated by Sender? Please describe</i> _____	<input type="checkbox"/>
b)	<i>Is there a unique identifier allocated by Sender REM provider Please describe</i> _____	<input type="checkbox"/>
c)	<i>Other information about message identifier</i> _____	



5.3.4. *Please provide other information relevant to this dialogue*

#### 5.4. **Sender REM Provider Services and Mechanisms**

Note: the REM provider may call upon third party Security Service Provider(s) to support the provision of certain mechanisms.

5.4.1. <i>Check all the services and mechanisms employed by the sender REM provider</i>	
a) <i>Evidence of message origin authentication</i> <i>Note: It is expected that this is provided using peer authentication provided by the sender provider dialogue.</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>	
i) <i>Advanced electronic signature applied by REM provider on behalf of sender</i>	<input type="checkbox"/>
ii) <i>Qualified electronic signature applied by REM provider on behalf of sender</i>	<input type="checkbox"/>
iii) <i>Time-stamp</i>	<input type="checkbox"/>
iv) <i>Time-mark</i>	<input type="checkbox"/>
v) <i>Other mechanism(s) and / or trusted services, please specify</i> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<input type="checkbox"/>
b) <i>Evidence of submission (returned to sender)</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>	
i) <i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii) <i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii) <i>Time-stamp</i>	<input type="checkbox"/>
iv) <i>Time-mark</i>	<input type="checkbox"/>
v) <i>Other mechanism(s), please specify</i> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<input type="checkbox"/>
c) <i>Evidence of transmission (forwarded with message to recipient)</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>	
i) <i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>

ii) <i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii) <i>Time-stamp</i>	<input type="checkbox"/>
iv) <i>Time-mark</i>	<input type="checkbox"/>
v) <i>Is the From address updated to:</i> I. <i>Hide sender address</i> II. <i>Identify service provider on behalf of sender</i> III. <i>Other please specify:</i> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d) <i>Checks on sender signature validity</i> i) <i>Is message rejected if fails</i> ii) <i>Is message rejected if signature not present</i> iii) <i>Is message rejected if signature not of form (e.g. qualified) expected</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
e) <i>Other service(s) and / or trusted services please specify</i> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>	<input type="checkbox"/>
<i>Mechanisms supporting this service: Please describe mechanisms used to support this service</i> <div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>	

### 5.5. **Sender REM provider – Recipient REM provider dialogue**

Note: Skip this sub-section if sender and recipient REM provider is a single entity (i.e. are not separated)

5.5.1. <i>Peer Entity Authentication</i> <i>Are Sender and recipient REM Provider authenticated to each other?</i>	<input type="checkbox"/>
<i>If so what mechanism(s) is (are) employed</i>	
a) <i>Cryptographic device(e.g smart card, USB token)</i>	<input type="checkbox"/>
b) <i>Password over SSL / TLS</i>	<input type="checkbox"/>
c) <i>Software key</i>	<input type="checkbox"/>
d) <i>SAML Assertion</i>	<input type="checkbox"/>

e)	Other(s), please specify  	<input type="checkbox"/>		
Please specify any restrictions on authentication passwords, keys etc (e.g. size of password) <hr/>				
5.5.2. Are the following services always provided by the recipient REM provider, provided only upon sender / sender REM provider request, never provided?				
	<u>Always</u>	<u>Upon request</u>	<u>Never</u>	
a)	Evidence that message has been successfully exchanged between two REM service providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Evidence of notification to the recipient of the availability of a stored message ready to be delivered /downloaded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Evidence of delivery/download	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Evidence of acceptance or rejection of message by the recipient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Evidence of non-delivery (e.g. for unknown recipient or recipient server, technical errors, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	Evidence of non delivery/download within a predefined time limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	Evidence that an email has been "opened" or "viewed" by recipient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	Check for malicious code	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	Notifications of errors (please provide details of errors that may be indicated) <hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	Other(s), please specify  	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.5.3. <i>Message identifier</i>	
a) <i>Is there a unique identifier allocated by Sender REM Provider (or forwarded from Sender)? Please describe</i>	<input type="checkbox"/>
<hr/>	
b) <i>Is there a unique identifier allocated by Recipient REM provider Please describe</i>	<input type="checkbox"/>
<hr/>	
c) <i>Other information about message identifier</i>	
<hr/>	
5.5.4. <i>Please provider other information relevant to this dialogue</i>	
<hr/>	

## 5.6. **Recipient REM Provider Services and Mechanisms**

Note: the REM provider may call upon third party Security Service Provider(s) to support the provision of certain mechanisms.

5.6.1. <i>Please check all the services and mechanisms employed by the recipient REM provider</i>	
a) <i>Evidence that message has been successfully exchanged between two REM service providers</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>	
i) <i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii) <i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii) <i>Time-stamp</i>	<input type="checkbox"/>
iv) <i>Time-mark</i>	<input type="checkbox"/>
v) <i>Other mechanism(s) and / or trusted services, please specify</i>	<input type="checkbox"/>
<hr/>	

b)	<i>Evidence of notification to recipient</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>		
i)	<i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii)	<i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii)	<i>Time-mark</i>	<input type="checkbox"/>
iv)	<i>Time-stamp</i>	<input type="checkbox"/>
v)	<i>Other mechanism(s) and / or trusted services, please specify</i>  	<input type="checkbox"/>
c)	<i>Evidence of delivery/download</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>		
i)	<i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii)	<i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii)	<i>Time-mark</i>	<input type="checkbox"/>
iv)	<i>Time-stamp</i>	<input type="checkbox"/>
v)	<i>Other mechanism(s) and / or trusted services, please specify</i>  	<input type="checkbox"/>
d)	<i>Evidence of acceptance or rejection of message by the recipient</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>		
i)	<i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii)	<i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii)	<i>Time-mark</i>	<input type="checkbox"/>
iv)	<i>Time-stamp</i>	<input type="checkbox"/>
v)	<i>Other mechanism(s) and / or trusted services, please specify</i>  	<input type="checkbox"/>
e)	<i>Evidence of non-delivery (e.g. for unknown recipient or recipient server, technical errors, etc.)</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>		
i)	<i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii)	<i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii)	<i>Time-mark</i>	<input type="checkbox"/>
iv)	<i>Time-stamp</i>	<input type="checkbox"/>
v)	<i>Other mechanism(s) and / or trusted services, please specify</i>  	<input type="checkbox"/>

f)	<i>Evidence of non delivery/download within a predefined time limit</i>	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>		
i)	<i>Advanced electronic signature of REM provider</i>	<input type="checkbox"/>
ii)	<i>Qualified electronic signature of REM provider</i>	<input type="checkbox"/>
iii)	<i>Time-mark</i>	<input type="checkbox"/>
iv)	<i>Time-stamp</i>	<input type="checkbox"/>
v)	<i>Other mechanism(s) and / or trusted services, please specify</i> _____	<input type="checkbox"/>
g)	<i>Checks on sender signature validity</i>	<input type="checkbox"/>
	<i>i) Is message rejected if fails</i>	<input type="checkbox"/>
	<i>ii) Is message rejected if signature not present</i>	<input type="checkbox"/>
	<i>iii) Is message rejected if signature not of form (e.g. qualified) expected</i>	<input type="checkbox"/>
h)	<i>Other service(s), please specify</i> _____	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i> <i>Please describe mechanisms used to support this service</i> _____		

## 5.7. Recipient REM Service Provider - Recipient Dialogue

5.7.1.	<i>Peer Entity Authentication</i> <i>Is client authenticated to REM Provider</i>	<input type="checkbox"/>
<i>If so what mechanism(s) is (are) employed</i>		
a)	<i>Simple Password</i>	<input type="checkbox"/>
b)	<i>One time password</i>	<input type="checkbox"/>
c)	<i>Cryptographic device(e.g smart card, USB token)</i>	<input type="checkbox"/>
d)	<i>Password over SSL / TLS</i>	<input type="checkbox"/>
e)	<i>Software key</i>	<input type="checkbox"/>
f)	<i>SAML Assertion</i>	<input type="checkbox"/>
g)	<i>Client Public key certificate</i>	<input type="checkbox"/>

h)	Other(s), please specify  	<input type="checkbox"/>		
Please specify any restrictions on authentication passwords keys etc (e.g. size of password)  				
5.7.2. Service controls: Are the following services always provided by the recipient service provider, provided only upon sender's request, never provided?				
	<u>Always</u>	<u>Upon request</u>	<u>Never</u>	
a)	Evidence that an e-mail has been "opened" or "viewed" by recipient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Other(s), please specify  	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.7.3. Please provider other information relevant to this dialogue  				

## 5.8. Recipient Services and Mechanisms

5.8.1. Check all the services and mechanisms employed by the recipient	
a) Evidence that an e-mail has been "opened" or "viewed" by recipient	<input type="checkbox"/>
<i>Mechanisms supporting this service:</i>	
i) Advanced electronic signature	<input type="checkbox"/>
ii) Qualified electronic signature	<input type="checkbox"/>
iii) Time-stamp	<input type="checkbox"/>
iv) Time-mark	<input type="checkbox"/>
v) Other mechanism(s) and / or trusted services, please specify  	<input type="checkbox"/>

b)	Other service(s), please specify	<input type="checkbox"/>
<i>Mechanisms supporting this service: Please describe mechanisms used to support this service</i>		

## 5.9. Final Notifications

5.9.1. Please identify notifications passed back to sender's REM provider, and to sender.			
		<u>Returned to Sender</u> <u>REM provider</u>	<u>Returned to Sender</u>
a)	Evidence of notification to the recipient of the availability of a stored message ready to be delivered /downloaded	<input type="checkbox"/>	<input type="checkbox"/>
b)	Evidence of delivery/download	<input type="checkbox"/>	<input type="checkbox"/>
c)	Evidence of acceptance or rejection of message by the recipient	<input type="checkbox"/>	<input type="checkbox"/>
d)	Evidence of non-delivery (e.g. for unknown recipient or recipient server, technical errors, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
e)	Evidence of non delivery/download within a predefined time limit If applicable please specify if this time limit is:		
	I. Pre-defined	<input type="checkbox"/>	<input type="checkbox"/>
	II. Defined by the sender	<input type="checkbox"/>	<input type="checkbox"/>
f)	Evidence that an email has been "opened" or "viewed" by recipient	<input type="checkbox"/>	<input type="checkbox"/>
g)	Notification of malicious code	<input type="checkbox"/>	<input type="checkbox"/>
h)	Notifications of errors (please provide details of errors that may be indicated)	<input type="checkbox"/>	<input type="checkbox"/>
i)	Other(s), please specify	<input type="checkbox"/>	<input type="checkbox"/>



## 5.10. Gateway

Note: This section may be skipped if the REM system does not support physical postal services or external e-mail services.

5.10.1 Does the REM support interfacing to non REM users?	<input type="checkbox"/>
<i>If so who can communicate with REM services providers:</i>	
i) Can a non REM message be accepted by a REM service provider to be delivered to a recipient registered with that REM provider?	<input type="checkbox"/>
ii) Can a REM message be sent to recipients that are not known to the sender REM service provider as registered with any Recipient REM provider?	<input type="checkbox"/>
5.10.2 Does the REM support interfacing to physical postal services?	<input type="checkbox"/>
5.10.3 If physical postal service is supported does this also provide registered mail services?. If yes, please provide further details of service provided:	Yes <input type="checkbox"/> No <input type="checkbox"/>
5.10.4 Please provide details of any evidence services and mechanisms (as above) provided by gateway	
5.10.5 Please provide other details regarding interfacing to external postal and e-mail services	

## 5.11. Security Service Provider

5.11.1. What independent security service provider elements are used?	
Security service provider	
a) Signature provider	<input type="checkbox"/>
b) Signature verifier (entire certif. Path)	<input type="checkbox"/>
c) Encryption service provider	<input type="checkbox"/>
d) Decryption service provider	<input type="checkbox"/>
e) Time stamping provider	<input type="checkbox"/>
f) Long term archival service provider	<input type="checkbox"/>

g)	<i>Other(s), please specify</i> <hr/>	<input type="checkbox"/>
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## 6. Technical Details

6.1. <i>What clients are supported for sender / recipient?</i>			
	<u>Client type</u>	<u>Sender</u>	<u>Recipient</u>
a)	Outlook	<input type="checkbox"/>	<input type="checkbox"/>
b)	Outlook express	<input type="checkbox"/>	<input type="checkbox"/>
c)	Eudora	<input type="checkbox"/>	<input type="checkbox"/>
d)	Thunderbird	<input type="checkbox"/>	<input type="checkbox"/>
e)	<i>Other e-mail clients</i> <i>Please specify:</i> <hr/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	<i>Webmail using active scripts / components</i>	<input type="checkbox"/>	<input type="checkbox"/>
g)	<i>Other webmail</i> <i>Please specify:</i> <hr/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	<i>Other(s),</i> <i>Please specify</i> <hr/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2. <i>How are messages referenced in notifications?</i>			
a)	<i>Message identifier</i>		<input type="checkbox"/>
b)	<i>Message hash</i>		<input type="checkbox"/>
c)	<i>Message copy including attachments</i>		<input type="checkbox"/>
d)	<i>Message body + hash of attachments</i>		<input type="checkbox"/>
e)	<i>Other(s), please specify</i> <hr/>		<input type="checkbox"/>
f)	<i>Different forms of reference are used for different notification.</i> <i>Please specify:</i> <hr/>		<input type="checkbox"/>

6.3. <i>How is the evidence information carried with original message?</i>		
a)	<i>Carried as text attachment</i>	<input type="checkbox"/>
b)	<i>Carried as XML attachment</i>	<input type="checkbox"/>
c)	<i>S/MIME p7s detached signature</i>	<input type="checkbox"/>
d)	<i>S/MIME p7m object</i>	<input type="checkbox"/>
e)	<i>Other(s), please specify</i> _____	<input type="checkbox"/>
f)	<i>Different forms of reference are used for forms of evidence. Please specify:</i> _____	<input type="checkbox"/>
6.4. <i>What signature format is used?</i>		
a)	<i>S/MIME (RFC 3851 or previous versions)</i>	<input type="checkbox"/>
b)	<i>CMS (other than within S/MIME – RFC3851 or previous versions)</i>	<input type="checkbox"/>
c)	<i>XML Sig (RFC 3275 / W3C Recommendation)</i>	<input type="checkbox"/>
d)	<i>CAdES (ETSI TS 101 733)</i>	<input type="checkbox"/>
e)	<i>XAdES (ETSI TS 101 903)</i>	<input type="checkbox"/>
f)	<i>Other(s), Please specify</i> _____	<input type="checkbox"/>
6.5. <i>If time-stamping is used, what form of time-stamp is used?</i>		
a)	<i>RFC 3161 Time-stamp</i>	<input type="checkbox"/>
b)	<i>Other(s), Please specify</i> _____	<input type="checkbox"/>
6.6. <i>If time-marking is used please provide further information on how implemented.</i> _____		
6.7. <i>What time source is used for time-stamps / time-marks applied to messages?</i>		
a)	<i>Synchronisation with a source calibrated with UTC in line with ITU-R Recommendation TF.460-4.</i>	<input type="checkbox"/>
b)	<i>TP synchronisation</i>	<input type="checkbox"/>

c)	GPS time source	<input type="checkbox"/>
d)	Other(s), Please specify _____	<input type="checkbox"/>
e)	No synchronisation	<input type="checkbox"/>
6.8. What other security protocols are used?		
a)	Secure Sockets Layer / Transport Layer Security	<input type="checkbox"/>
b)	Other(s), Please specify _____	<input type="checkbox"/>
6.9. What PKI / signature support services are used ?		
a)	LDAP Directory	<input type="checkbox"/>
b)	X.509 Certification authority	<input type="checkbox"/>
c)	X.509 Certificate revocation lists	<input type="checkbox"/>
d)	OCSP (RFC 2560)	<input type="checkbox"/>
e)	Digital Signing servers for signature creation	<input type="checkbox"/>
f)	Digital Signing servers for signature verification	<input type="checkbox"/>
g)	Is a hierarchical or a peer type CA structure implemented?  i) Hierarchical: ii) Peer to peer based on Trust status lists (ETSI TS 102 231) iii) Peer to peer based on TSL like iv) Other(s), please specify: _____	<input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
h)	Other(s), Please specify _____	<input type="checkbox"/>
6.10. UPU DPM supported (UPU specification S43-3)? <input type="checkbox"/>		
6.11. Please provide other relevant technical details: _____		

## 7. Security Policies and Practices

<p>7.1. <i>Registration: Are senders / recipients securely identified at registration time?</i>  <i>If Yes, please specify:</i></p>	<p>No <input type="checkbox"/>          Yes <input type="checkbox"/></p>
<p>a) <i>Registration by face to face presence with documentation supporting identity</i></p>	<p><input type="checkbox"/></p>
<p>b) <i>remote authentication through previous identity check</i></p>	<p><input type="checkbox"/></p>
<p>c) <i>other(s), please specify</i>  <input type="text"/></p>	<p><input type="checkbox"/></p>
<p>7.2. <i>User's are always registered both as a sender and as a recipient</i>   <i>If no please provide details</i>  <input type="text"/></p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>7.3. <i>Can an existing e-mail box, previously assigned to a person, be assigned to a new assignee, to be securely identified at registration time: (e.g. where a mailbox is identified as belonging to a department it can be assigned to several individuals in sequence)</i>           No <input type="checkbox"/> Yes <input type="checkbox"/>  <i>Under certain conditions</i> <input type="checkbox"/> <i>please specify</i>  <input type="text"/></p>	
<p>7.4. <i>When registering, are senders / recipients required to sign a contract or agree to some other form of undertaking as individuals.</i>           a) <i>If yes please provide details</i>  <input type="text"/>           b) <i>If provided as separate documentation check here:</i> <input type="checkbox"/>          c) <i>If provided in continuation table (section 10) check here:</i> <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>

<p>7.5. <i>Prior to or when registering are senders / recipients organisations required to sign a contract or agree to some other form of undertaking.</i></p> <p>a) <i>If yes please provide details</i>  <input type="text"/></p> <p>b) <i>If provided as separate documentation check here:</i> <input type="checkbox"/></p> <p>c) <i>If provided in continuation table (section 10) check here:</i> <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>7.6. <i>Does the system operate under a defined Security Policy?</i></p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>7.7. <i>Does the system operate under an ISO/IEC 27001 based Information Security Management System?</i>  <i>If yes is this certified to be conformant?</i></p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/>  Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>7.8. <i>What type of signing device is employed in service provider</i></p> <p>a) <i>HSM</i></p> <p>b) <i>Smart card / USB type devices</i></p> <p>c) <i>Software key</i></p> <p>d) <i>Other, please specify</i>  <input type="text"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>
<p>7.9. <i>Are hardware security modules / smart card signing devices used for signing certified conformant to:</i></p>	
<p>a) <i>CWA 14167-2</i></p>	<p><input type="checkbox"/></p>
<p>b) <i>CWA 14167-4</i></p>	<p><input type="checkbox"/></p>
<p>c) <i>CWA 14169</i></p>	<p><input type="checkbox"/></p>
<p>d) <i>Common Criteria (ISO/IEC 15408 or equivalent)</i>  <i>Please specify evaluation level:</i>  <input type="text"/></p>	<p><input type="checkbox"/></p>
<p>e) <i>ITSEC</i>  <i>Please specify evaluation level:</i>  <input type="text"/></p>	<p><input type="checkbox"/></p>
<p>f) <i>FIPS 140-1 or 140-2</i>  <i>Please specify level</i>  <input type="text"/></p>	<p><input type="checkbox"/></p>

g)	<i>Other(s)</i> <i>Please specify</i> <hr/>	<input type="checkbox"/>

7.10. *Please provide other relevant policy / practices details:*

<hr/>
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## 8. Other Relevant Information

8.1. *Please provide any other information that you think may be of relevance to our study:*

<hr/>
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## 9. Sources of Information

9.1. Please identify any reference information (excluding regulations identified above)

--

9.2. Please provide contact information

Organisation:

Name:

Telephone:

E-Mail address

Tick box if this contact information can be shared among members of the STF for the purposes of this study:  , otherwise the information will be held by the STF member first receiving this questionnaire, and information other than organisation removed.

9.3. Please identify any other useful contacts and sources of information which may be of relevance to this study.

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Thank you very much for completing the form! To send us your input please press the 'Submit by Email' button at the [start of this form](#).



## 10. Continuation Tables

If there is insufficient space to answer any of the questions identified above please use the following area to provide the relevant information:

*Please provide question reference(s) and relevant information*