

To: ETSI MEMBERS, OBSERVERS AND COUNSELLORS

Subject: Call for Experts for Specialist Task Force TA (ETSI/ESI) on Advanced Electronic Signatures for PDF

Please note that the structure of Annex B for the presentation of the candidatures has been updated, in relation with the changes in the STF Working Procedures, agreed by Board#65.

Dear Madam,
Dear Sir,

We are recruiting experts to establish the Specialist Task Force (STF) TA on Advanced Electronic Signatures for PDF, according to the Terms of Reference in [Annex C](#).

The project time scale, the qualification required for the candidates and some references for additional information are summarized in Annex A.

The sessions plan will be agreed during the Preparatory Meeting, to achieve the best compromise between the STF organization and the requirements of the experts and their Companies.

Candidatures must be proposed by ETSI Members (including Observers and Associate). If experts with the required qualification are not directly employed by the ETSI Member, candidates from a non ETSI Member Company may be nominated, as indicated in Annex B.

The questionnaire in Annex B duly completed and the Curriculum Vitae of the candidate, in English, must be sent in electronic form to the STF Support Unit Director alberto.berrini@etsi.org, before **7 September 2008**.

A short list of candidates will be set up in coordination with the reference TC, as soon as possible after the deadline. These candidates will be invited to attend the Preparatory Meeting to set up the STF, which is provisionally scheduled on **22 September 2008**, before ESI#21 (date and location to be confirmed). Selected candidates should be prepared to participate to the ESI plenary session, the following days.

Yours faithfully,

Encl.

Dr. Walter Weigel
ETSI Director General

ANNEX A1 PROJECT TIME SCALE AND QUALIFICATION REQUIRED

Target date for the start of work:	September 2008
Expected duration:	12 months
Total manpower required:	260 working days in total
Expected number of experts required:	4 to 6

Note: The actual number of experts will be decided during the Preparatory Meeting, depending on the mix of skills in the actual applications received.

Qualification required:

- knowledge of ETSI TS 101 733 and/or TS 101 903,
- knowledge of PDF document formats and ISO 32000
- one expert familiar with standards drafting
- one expert familiar with handling relationship with ETSI ESI.

ANNEX A2 CONTACTS FOR ADDITIONAL INFORMATION

Mr. Riccardo Genghini	ESI Chairman	Tel: +39 02 637 88 99 00 E-mail: riccardo.genghini@sng.it
Mr. Carmine Rizzo	ETSI Technical Officer	Tel: +33 4 9294 4228 E-mail: carmine.rizzo@etsi.org
Mr. Alberto Berrini	ETSI STF Support Unit Director	Tel: +33 4 9294 4264 E-mail: alberto.berrini@etsi.org
Mrs. Pascale Georges	STF Support Coordinator	Tel: +33 4 9294 4348 E-mail: pascale.georges@etsi.org

For further information see also:

[STF home page](#)

[Terms and conditions for the participation of experts in ETSI
STFs](#)

[Letter of engagement \(LoE\)](#)

[Other Open Call for Experts](#)

[STF working methods and practice](#)

[Travelling to ETSI](#)

ANNEX B

Candidature for Specialist Task Force TA (ETSI/ESI) on Advanced Electronic Signatures for PDF (C.L.2635)

Please return to alberto.berrini@etsi.org, together with the CV of the candidate, before **07 September 2008**

Candidatures must be proposed by ETSI Members (including Observers and Associate Members). ETSI Members may propose candidates not directly employed by their Company or Organization. In this case, the contract will be made with the Company employing the candidate; the ETSI Member must provide the rationale for their support to the candidate and the candidature must be proposed by the Official Contact of the ETSI Member. ETSI can make contracts with registered Organizations and Companies but not with individuals.

ETSI Member proposing the candidature: exact name, as registered in the [ETSI membership list](#)

Person proposing the candidature: Title, First name, Last name

Role *: e-mail: (mandatory)

Note: the candidature must be proposed by the Official Contact of if the candidate is not directly employed by the ETSI Member.

Candidate: Title, First name, Last name e-mail: (mandatory)

Nationality: (required for work permit procedure) **Mobile phone:**

If the candidate is not directly employed by the ETSI Member, please indicate the Company with which the contract should be made, if the candidate is selected:

Candidate Company name (contractor to ETSI):

Availability of the candidate for the duration of this project (see ToR): indicate the availability of the candidate with respect to the requirements in the ToR, e.g. number of days per month, percentage of time, availability to work in sessions, over continuous periods or both, unavailability periods.

Availability to work in ETSI premises: STF work is normally done in the ETSI premises of Sophia Antipolis. Please indicate whether you have limitations in the number of days (or percentage of time) you can spend working in the ETSI premises.

Specific qualification of the candidate in relation with this project: Provide information to assess the qualification of the candidate with regard to the specific requirements of the project. In addition to the CV, this element plays an essential role in the pre-selection of candidates to invite to the Preparatory Meeting.

Experience in standardization areas related to this project: Indicate the candidate's standardization experience in ETSI and/or other organizations and, in particular, if he/she is actively involved in the work of the reference TB for this STF, its WGs or other related bodies.

Motivation of the ETSI Member to propose this candidature:

Indicate the motivation of the Member to contribute to this standardization area.

If the candidate is not employed directly by the ETSI Member, indicate the reason for nominating this candidate and outline the previous activities performed by the candidate and/or his/her Company in co-operation with or on behalf of the Member, the period of time and the nature of the relationship (employee, sub-contractor, partner, etc.).

Remarks: Provide here any additional information to assess the qualification of the Candidate for this project or any special requirement of the Organization with respect to STF normal working methods.

ANNEX C

	ToR STF TA (TC ESI)
	Version: 0.7 - Date: 14 May 2008
	Author: Nick Pope
	Last updated by: Alberto Berrini
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Terms of Reference for Specialist Task Force STF TA (TB ESI) on “Advanced Electronic Signatures for PDF”

Document status

Current status of these ToR	Approved by ESI by correspondence, 28 May 2008.
Work Items to be approved	DTS/ESI-000063 for Phase 1. Work Items for the following phases will be created when requirement is confirmed.

1 Reasons for proposing the Specialist Task Force (STF)

1.1 Overview of the proposal

PDF (ISO 32 000) is the globally recognised standard format for fixed layout portable document. Requirements for signing PDF documents with Advanced Electronic Signatures have been increasingly reported in several countries of Europe. Whilst PDF includes features for electronic signatures, additional features are required to meet legal requirements (for example to meet requirements of European tax legislation) in particular support for long term storage of signed documents.

The necessary features have been included in the generic ETSI specifications for Advanced Electronic Signatures ETSI TS 101 733 (CADES) which builds on standard binary signature formats and ETSI TS 101 903 (XAdES) which builds on standard XML signature formats. However, these signature standards need to be profiled and ISO 32000 extended to apply these advanced features to PDF.

It is proposed to carry out this work in three phases:

1) Specify a profile for a basic variant of advanced electronic signatures in PDF using the existing features of PDF signatures (ISO 32 000-1). This phase will also detail requirements for full features to be specified in the next phase. This phase requires 60 days of funded specialist support at a cost (including travel expenses) 39 000 Euro plus equivalent effort being provided through voluntary effort from ESI members.

2) Specify profiles for advanced electronic signatures in PDF incorporating the features of CADES and XAdES and specify enhancements required to ISO 32000 to incorporate these features. These profiles will include features to support storage / archival of signed documents as required for EU tax legislation. This phase will also detail requirements for the next phase. This phase requires 100 days of funded specialist support at a cost (including travel expenses) 63 000 Euro plus equivalent effort being provided through voluntary effort from ESI members.

3) Specify enhancement to ISO 32000 for PDF reader support of advanced electronic signatures including visible signatures and interfaces to signature support functions. This phase will also continue liaison on ISO 32000 support for advanced electronic signatures. This phase requires 100 days of specialist support at a cost (including travel expenses) 63 000 Euro plus equivalent effort being provided through voluntary effort from ESI members.

This work is to be carried out in liaison with ISO TC 171 SC2.

This proposal covers the full work plan to give a full understanding of the proposed activity. Funding is currently requested for the first phase. Requirements for specialist support in subsequent phases will be reviewed towards the end of the first phase.

1.1.1 Purpose of the work

The purpose of this STF is to produce Technical Specifications profiling both CAdES and XAdES with the objective of using them for long term signatures within PDF documents framework.

Also, more urgently, this STF is required to produce Technical Specifications profiling the signature technology of the current ISO 32 000 PDF so that Advanced Electronic Signatures and what is already supported in PDF can be quickly reconciled.

This STF will also generate a proposal for incorporation into the ISO 32000 standard of the required material dealing with the incorporation of the aforementioned signatures in PDF documents, as well as with their visual representation.

Additionally, this STF will produce, if feedback is received that requires it, changes requests for XAdES and CAdES.

1.1.2 Relation with the ETSI Strategic Objectives

ETSI ESI developed in the past TS 101 733 (CAdES) and TS 101 903 (XAdES) that define advanced formats for electronic signatures in CMS and XML syntaxes. ETSI ESI also developed in the past two standards further profiling these formats applicable to a number of market needs.

For this reason ETSI ESI on the one hand is the best suited European standardisation body to develop the technical specifications aforementioned, while, on the other hand, by developing this STF (where experts in electronic signatures and experts in PDF documents will work together), it has a great opportunity to highly promote its advanced electronic signature formats by standardizing their usage in one of the most popular and widely used document formats everywhere.

1.1.3 Market impact, benefits to be gained

Support for advanced electronic signatures in electronic documents is legally required in European Nations for a number of applications; in particular there is a requirements for VAT in electronic invoices to be protected by advanced electronic signatures in Council Directive 2006/112/EC on the common system of value added tax. PDF (ISO 32000) is the globally format for fixed layout electronic documents. Whilst ISO 32 000 includes support for electronic signatures this does not meet all the legal requirements for authenticity and integrity of stored signed documents required, for example, in electronic invoicing. Technical solutions exist in the ETSI specification for advanced electronic signatures (TS 101 733 and TS 101 903). However, these TSs need to be profiled, and ISO 32 000 adapted, so that advanced electronic signatures are applied consistently to PDFs.

Without agreement on a common standard recognised across Europe this could be a significant impediment to cross border trade. By having a common solution, technology providers can provide systems that meet legal requirements across Europe.

1.1.4 Stakeholders interest

In addition to being of interest to ETSI members (see below), this standard will be of interest to suppliers and users of document handling systems including systems handling electronic invoices. In addition, the use of this standard will be of interest to European tax authorities.

1.1.5 Relation with other activities within ETSI and/or related organizations

This work is to be carried out in cooperation with ISO TS 171 SC2

As it has been mentioned before, ISO is about to publish ISO 32000 on PDF 1.7 format. This STF has the opportunity to highly impact subsequent releases of ISO 32000 (e.g., ISO 32000-2) in whatever is related with the signing of PDF documents.

1.1.6 Priority within the TB

This STF has been assigned High Priority by the ETSI TC ESI.

PDF is becoming the recognised standard for storage of electronic documents. European Legislation (e.g. Council Directive 2006/112/EC on the common system of value added tax), as well as business practice in a number of areas, require that the authenticity and integrity of stored documents be maintained throughout the storage period. The ETSI specifications for Advanced Electronic Signatures TS 101 733 (CAAdES) and TS 101 903 (XAdES) include the necessary features and a number of implementations are emerging adapting the ETSI XAdES and CAAdES to PDF. However, as the current PDF standard (ISO 32000) is only currently designed for use with more basic signature formats this is being done in an ad hoc manner.

ISO are currently considering further updates to ISO 32000 (e.g., ISO 32000-2) and are likely to be open to the addition of advanced features for electronic signatures. However, technical expertise in XAdES and CAAdES is required to specify the application of these specifications to PDF.

1.1.7 Motivation why the work cannot be performed within the TB

This activity requires specialist knowledge of the ETSI standards for advanced electronic signatures (TS 101 733 and TS 101 903) as well as detailed knowledge of PDF format standard. Such specialist knowledge is a scarce resource and such resources cannot be brought together for period of time required to carry out the work plan without funding.

1.1.8 Stakeholders' interest and active support from the ETSI Members

This activity is of significant interest to ETSI ESI members as it facilitates the the application of electronic signatures to fixed layout electronic documents, one of the most widespread applications of advanced electronic signatures.

The STF has the support of at the following ETSI Members:

- UNINFO
- Studio Notarile Genghini
- Thales
- Adobe
- DAC-UPC

STF tasks are discussed and progressed during meetings in plenary. Discussions are conducted between meetings electronically on two mail distribution lists, one internal and one public, with high participation from members and outsiders as well. Number of delegates at ESI meetings is commonly 20-25.

Voluntary resource from members performing review of the deliverable is estimated to about 260 working days, which is equivalent to funded effort requested for the STF.

1.2 Organization of the work

1.2.1 Identification of tasks, phases, priorities, technical risk

This STF activity will be articulated into the following phases:

Phase 1

- Specify an ETSI profile for a basic variant of advanced electronic signatures in PDF using the existing features of PDF signatures.
- Detail requirements for full features to be specified in the next phase.

Phase 2

- Specify profiles for advanced electronic signatures in PDF incorporating the features of CAAdES and XAdES
- Identify any changes necessary to TS 101 733 and / or TS 101 903 and produce “change request” documents for detailing the specific changes recommended.
- Specify enhancements required to ISO 32000 to incorporate these features in ISO 32000-2.
- Detail requirements of PDF signature support for the next phase.

Phase 3

- Specify enhancement to ISO 32000 for PDF conforming reader support of advanced electronic signatures including visible signatures and interfaces to signature support functions.
- Continue liaison on ISO 32000 support for advanced electronic signatures.

1.2.2 Outcome of the STF

The STF will produce ETSI standards:

Phase 1:

- DTS/ESI-000063: Profile for a basic variant of advanced electronic signatures in PDF compatible with the existing features of PDF signatures

Phase 2:

- Profile for a long term advanced electronic signatures in PDF using CAAdES
- Profile for a long term advanced electronic signatures in PDF using XAdES
- Proposed extensions to ISO 32000 to support long term advanced electronic signatures

Phase 3:

- Technical specification / report on PDF conforming reader support for long term advanced electronic signatures including visual representation of signatures and interfaces to signature functions.

2 Consequences if not agreed:

If there is no common solution to advanced electronic signatures in PDF documents then it is likely that there will be fragmentation in the solutions adopted by the market. This will have significant impact on the capability the requirements of EU Directive on VAT to be addressed in a common manner across Europe and result in a significant hindrance to cross border trade in Europe.

3 Detailed description:

3.1 Subject title:

Advanced Electronic Signatures in PDF

3.2 Reference Technical Body:

TC ESI

3.3 Other interested TBs (if any):

3.4 Steering Committee

The STF will report to the ESI plenary.

3.5 Target date for the start of work:

September 2008

3.6 Duration and target date for the conclusion of the work (TB approval):**Phase 1:**

Duration: 4 months
Target date (TB approval): December 2008

Phase 2:

Duration: 7 months
Target date (TB approval): July 2009

Phase 3:

Duration: 12 months
Target date (TB approval): July 2010

3.7 Resources required

Total resources required **165 000 EUR** split as follows:

- Phase 1 (ETSI budget 2008) 39 000 EUR
- Phase 2 (ETSI budget 2009) 63 000 EUR
- Phase 3 (ETSI budget 2009) 31 500 EUR
- Phase 3 (ETSI budget 2010) 31 500 EUR

3.7.1 Experts manpower

- Phase 1 60 working days
- Phase 2 100 working days
- Phase 3 100 working days
- Total 260 working days**

3.7.2 Travel cost estimate:

- Phase 1 3 000 EUR
- Phase 2 3 000 EUR
- Phase 3 3 000 EUR
- Total 9 000 EUR**

3.8 Experts qualification required, mix of skills

4 to 6 experts are required to perform the work over the duration of the STF, with one or more of the following qualification:

1. knowledge of ETSI TS 101 733 and/or TS 101 903,
2. knowledge of PDF document formats and ISO 32000
3. one expert familiar with standards drafting
4. one expert familiar with handling relationship with ETSI ESI.

The actual number of experts and mix of skills may depend on the actual applications received and will be decided when setting up the STF.

3.9 Scope of Terms of Reference:

The aims of this task are:

Phase 1

- Produce TS on a profile for a basic variant of advanced electronic signatures in PDF using the existing features of PDF signatures.
- Detail requirements for full features to be specified in the next phase.

Phase 2

- Produce TS's on advanced electronic signatures in PDF incorporating the features of CAAdES and XAdES
- Identify any changes necessary to TS 101 733 and / or TS 101 903 and produce "change request" documents for detailing the specific changes recommended.
- Produce TR on enhancements required to ISO 32000 to incorporate these features.
- Detail requirements PDF signature support for the next phase.

Phase 3

- Produce TR on PDF conforming reader support of advanced electronic signatures including visible signatures and interfaces to signature support functions.
- Continue liaison on ISO 32000 support for advanced electronic signatures.

3.10 Organization of the work in tasks and/or phases:

Conference calls will be regularly conducted, as well as face to face meetings (at least two of them may be anticipated: one around November 2008 and another around January/February 2009).

3.11 Validation

Not applicable. The TS's will be reviewed by the ESI delegates, without any formal tool for QA.

3.12 Related activity in other bodies and co-ordination of schedules:**3.13 Base documents and their availability**

The STF work will be based upon the following documents:

TS / Work Item	Current Status
ETSI TS 101 733	Published
ETSI TS 101 903	Published
ETSI TS 102 734	Published
ETSI TS 102 904	Published
ISO 32000	Final stages of publication

3.14 Work Items from the ETSI Work Programme (EWP) for which the STF is required:

The STF will produce three Technical Specifications (TS) and two Technical Reports (TR), for TB approval:

1. DTS/ESI-000063 Profile for a basic variant of advanced electronic signatures in PDF using the existing features of PDF signatures for Phase 1.

The additional Work Items for the following phases will be created when the requirement is confirmed:

2. TS on advanced electronic signatures in PDF incorporating the features of CAAdES
3. TS on advanced electronic signatures in PDF incorporating the features of XAdES
4. TR on enhancements required to ISO 32000 to incorporate these features.
5. TR on PDF reader support of advanced electronic signatures including visible signatures and interfaces to signature support functions.

3.15 Planned output schedule:

The STF will produce the deliverables according to the following time scale:

Phase 1 – TS # 1 DTS/ESI-000063

- Start of the work and agree scope of TS #1 September 2008
- First stable draft of TS #1 November
- Drafts for TB approval December 2008
- TB approval January 2009
- Publication February 2009

In addition, the STF will produce the following reports for ETSI:

- Progress Report, Phase 1 December 2008

Phase 2 - TS # 2 & 3, TR #4

- Start of the work and agree scope of TSs & TR December 2008
- First stable draft of TSs & TR March
- Drafts for TB approval June 2008
- TB approval July 2009
- Publication August 2009

In addition, the STF will produce the following reports for ETSI:

- Progress Report, Phase 2 July 2009

Phase 3 - TR #5

- Start of the work and agree scope of TSs & TR Sept 2009
- First stable draft of TSs & TR January 2010
- Drafts for TB approval June 2010
- TB approval July 2010
- Publication August 2010

In addition, the STF will produce the following reports for ETSI:

- Progress Report, Phase 3 first stable draft January 2010
- Final Report, after TB approval July 2010

4 Performance indicators

The active participation of delegates in the ESI meetings, the number of comments and contributions, the interviews with stakeholders will be taken as performance indicators to assess the impact of the STF work, in particular, for the following aspects.

Effectiveness: (e.g. number of participants in the project, number of meetings/participants held in relation to this work, number of presentations made on the activity, feedback received)

Stakeholder engagement: stakeholder representation in the project and the number of liaison activities performed (especially at the international level).

Dissemination of results: assessment of the effectiveness of activities related to the dissemination of project deliverables and efforts made to raise industry awareness of the activity (including e.g. hits made on the project web pages and downloads of drafts for comment).

Impact: satisfaction of the stakeholders with the progress and outputs of the project, in the occasion of Steering Group meetings, plenary meetings, workshop.

Timeliness: project progress in relation to the work plan schedule, acceptance of the deliverables by the TB (approval of Progress Reports, interim and final deliverables at the planned dates)

5 Document history

Version	Date	Author	Status	Comments
0.5	2008.4.21	N Pope / A Berrini	Draft	
0.6	7 May 08	A Berrini	Draft	Editorials
0.7	14 May 08	A Berrini	For ESI AbC	Work Item code included