

## Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); eSecurity; User Guide to eTVRA web-database

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# Contents

Intellectual Property Rights .....	4
Foreword.....	4
1 Scope .....	5
2 References .....	5
2.1 Normative references .....	5
2.2 Informative references.....	5
3 Definitions and abbreviations.....	6
3.1 Definitions.....	6
3.2 Abbreviations .....	6
4 Overview of eTVRA web application structure.....	6
5 User guide .....	8
5.1 Access to the eTVRA home page.....	8
5.1.1 Access restrictions .....	8
5.2 eTVRA step 1.....	9
5.2.1 Creation and editing systems .....	9
5.2.2 Creation and editing of objectives .....	10
5.2.3 Creation and editing of unwanted incidents.....	12
5.3 eTVRA step 2.....	14
5.4 eTVRA step 3.....	15
5.5 eTVRA steps 4, 5, 6 and 7.....	16
5.6 Risk reporting.....	21
History .....	22

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## Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

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# 1 Scope

The present document is a guide to the use of the ETSI eTVRA web-application.

NOTE: The eTVRA web-application acts as a tool for entering analysis results following completion of an analysis using the ETSI TVRA method defined in TS 102 165-1 [i.1].

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# 2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
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  - for informative references.

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## 2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

Not applicable.

## 2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area. For non-specific references, the latest version of the referenced document (including any amendments) applies.

- [i.1] ETSI TS 102 165-1: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Methods and protocols; Part 1: Method and proforma for Threat, Risk, Vulnerability Analysis".
- [i.2] ETSI TR 187 011: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); NGN Security; Application of ISO-15408-2 requirements to ETSI standards - guide, method and application with examples".
- [i.3] ISO/IEC 15408-2: "Information technology - Security techniques - Evaluation criteria for IT security - Part 2: Security functional components".
- [i.4] ISO/IEC 15408-1: "Information technology - Security techniques - Evaluation criteria for IT security - Part 1: Introduction and general model".
- [i.5] ISO/IEC 15408-3: "Information technology - Security techniques - Evaluation criteria for IT security - Part 3: Security assurance components".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 102 165-1 [i.1] and TR 187 011 [i.2] apply.

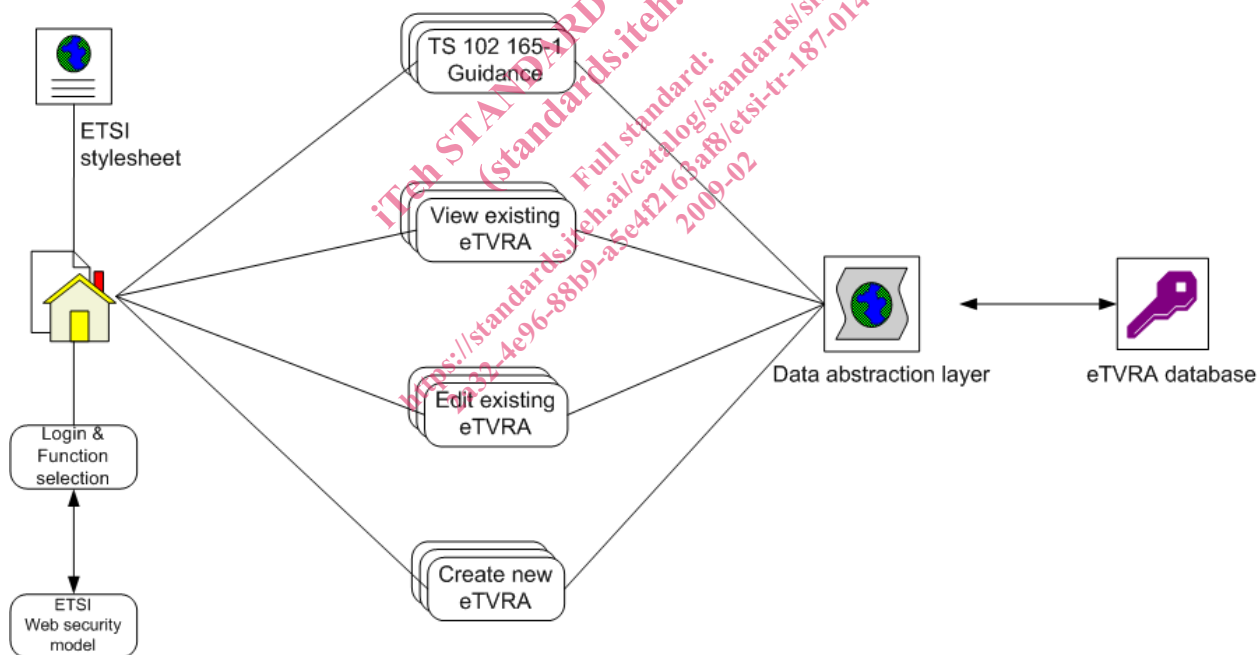
### 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

EAL	Evaluation Assurance Level
EOL	ETSI On Line account
TVRA	Threat Vulnerability and Risk Analysis
UML	Unified Modelling Language
URL	Uniform Resource Locator

## 4 Overview of eTVRA web application structure

The eTVRA web application is structured as shown in figure 1.



**Figure 1: eTVRA web application structure**

The web page design is aligned to the "look and feel" of the ETSI Web-application suite and any change to the overall ETSI look will be reflected in the eTVRA site.

The eTVRA tool and website populates a database, as defined in annex E of TS 102 165-1 [i.1] but modified for practical implementation on the ETSI server platform. The eTVRA site and database allow cataloguing of the results of the analysis but does not present any shortcut in the analysis (although it may be possible to modify entries and their associated risk to view the impact of adding countermeasures to the system).

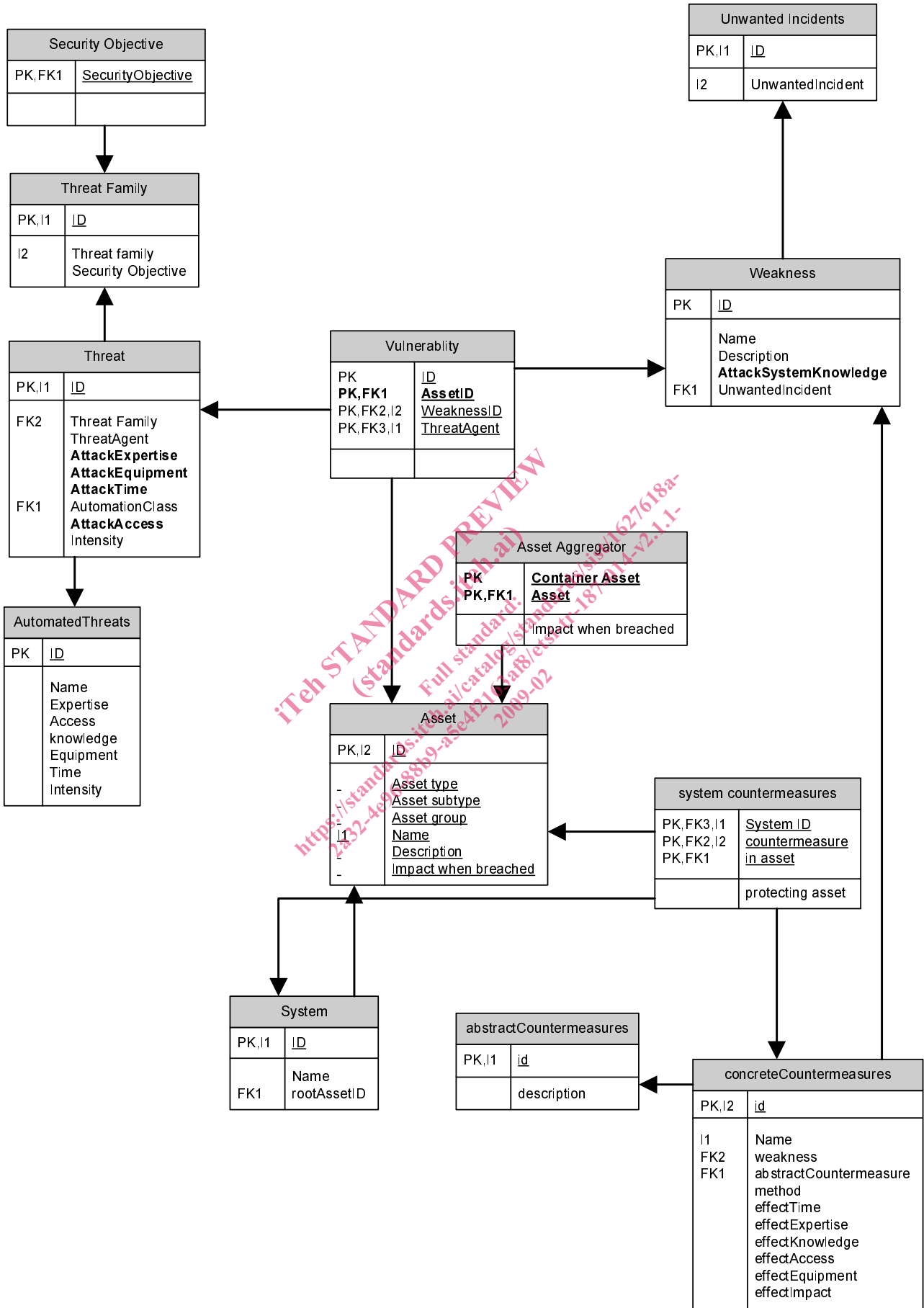


Figure 2: Database structure extracted from MS-Access™ TVRA test database

## 5 User guide

### 5.1 Access to the eTVRA home page

The ETSI TVRA homepage is accessed via the following URL:

<http://portal.etsi.org/eTVRA/>



NOTE: The eTVRA site is noted as under construction and the present document is a guide to the current version of the site. Feedback garnered through its operation will be used to improve and modify the site in a future release.

**Figure 3: eTVRA website welcome page**

#### 5.1.1 Access restrictions

Access to the eTVRA application is restricted in the following way:

**Table 1**

Role	Access
EOL account holders	Read only access to database content
eTVRA administrator	Full access to the database
ETSI support	Access to update webpages

On entering the eTVRA site the user will be directed to enter the EOL account user-name and password. If a TVRA user does not have such credentials they have to be requested from ETSI. EOL accounts may be applied for online from the following URL:

<http://webapp.etsi.org/createaccount/>



## 5.2 eTVRA step 1

### 5.2.1 Creation and editing systems

The first step defined for the eTVRA is identifying the objectives. As a pre-requisite it is essential to first define the system itself.

ETSI logo | ETVRA database | 2008-10-26

Home > Systems > Insert System

HOME PRINT HELP HELPDESK

**Insert System**

Name:

Description:

Asset: Null

[Insert](#) [Cancel](#)

Figure 4: Screen shot for entering a system

TVRA Webpage - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://localhost:1033/Applications/ETVRA/TVRA\_webpages/EditDelete\_System.aspx

Getting Started Latest Headlines

ETSI Web site | 2007-03-22

Home > Systems > Edit System

Home

Assets

Abstract Countermeasures

Concrete Countermeasures

Security Objectives

Systems

Threats

Threat Families

Unwanted Incidents

Vulnerabilities

Weaknesses

Reporting

Edit System

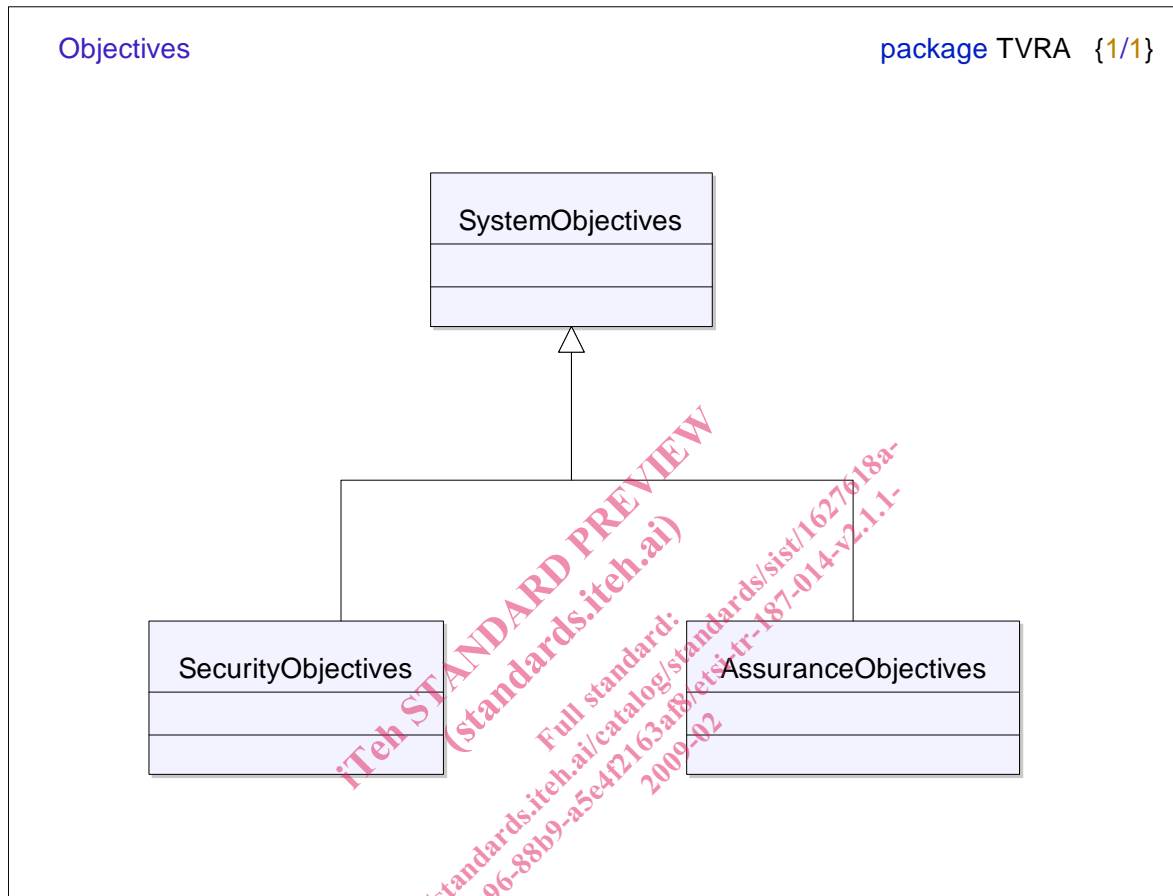
	SystemID	Name	Description	Asset
<a href="#">Edit</a> <a href="#">Delete</a>	1	SIP+ENUM scenario		SIP+ENUM test system
<a href="#">Edit</a> <a href="#">Delete</a>	3	Test01	Test01	Authentication store (database)

Done | McAfee SiteAdvisor

Figure 5: Screen shot for editing a system

## 5.2.2 Creation and editing of objectives

As stated in TS 102 165-1 [i.1] the objectives for security are the essential starting point of the design. Should these objectives be unclear or *unconsciously* changing during the design process the system becomes more difficult (and hence expensive) to secure. Alternatively, if the objectives are not clear from the outset of the design important security aspects may be left unaddressed that may lead to costly incidents and/or repair operations.



**Figure 6: Hierarchy of objectives in a system design**

As shown in figure 6 assurance objectives and security objectives are specializations of system objectives. Those characteristics of an objective that mark it out as a security objective are those that refer to one or more of the following system attributes:

- Authenticity.
- Confidentiality.
- Availability.
- Integrity.

Within the context of standardization there are a number of objectives for security that are intended to ensure availability of the network and customer confidence. These objectives break down to the following technical security issues for most telecommunications services:

- charging fraud;
- protection of privacy; and
- ensuring availability of the offered services.

The goals for telecommunications services should therefore aim to reduce these risks by reducing the ability to mount attacks that prevent the achievement of these objectives.