|  |
| --- |
| 3GPP TS 33.528 V0.0.0 (2023-04) |
| Technical Specification |
| 3rd Generation Partnership Project;Technical Specification Group Services and System Aspects;Security Assurance Specification (SCAS) for the Policy Control Function (PCF) (Release 18) |
|   |
|  |  |
|  |
| The present document has been developed within the 3rd Generation Partnership Project (3GPP TM) and may be further elaborated for the purposes of 3GPP.The present document has not been subject to any approval process by the 3GPPOrganizational Partners and shall not be implemented.This Specification is provided for future development work within 3GPPonly. The Organizational Partners accept no liability for any use of this Specification.Specifications and Reports for implementation of the 3GPP TM system should be obtained via the 3GPP Organizational Partners' Publications Offices. |

|  |
| --- |
|  |
| ***3GPP***Postal address3GPP support office address650 Route des Lucioles - Sophia AntipolisValbonne - FRANCETel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16Internethttp://www.3gpp.org |
| ***Copyright Notification***No part may be reproduced except as authorized by written permission.The copyright and the foregoing restriction extend to reproduction in all media.© 2022, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).All rights reserved.UMTS™ is a Trade Mark of ETSI registered for the benefit of its members3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational PartnersLTE™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational PartnersGSM® and the GSM logo are registered and owned by the GSM Association |

Contents

Foreword 4

Introduction 5

1 Scope 6

2 References 6

3 Definitions of terms, symbols and abbreviations 6

3.1 Terms 6

3.2 Symbols 6

3.3 Abbreviations 6

4 PCF-specific security requirements and related test cases 6

4.1 Introduction 6

4.2 PCF-specific adaptations of security functional requirements and related test cases 7

4.2.1 Introduction 7

4.2.2 Security functional requirements on the PCF deriving from 3GPP specifications and related test cases 7

4.2.3 Technical Baseline 7

4.2.3.1 Introduction 7

4.2.3.2 Protecting data and information 7

4.2.3.2.1 Protecting data and information – general 7

4.2.3.2.2 Protecting data and information – unauthorized viewing 7

4.2.3.2.3 Protecting data and information in storage 7

4.2.3.2.4 Protecting data and information in transfer 7

4.2.3.2.5 Logging access to personal data 7

4.2.3.3 Protecting availability and integrity 7

4.2.3.4 Authentication and authorization 7

4.2.3.5 Protecting sessions 7

4.2.3.6 Logging 7

4.2.4 Operating systems 8

4.2.5 Web servers 8

4.2.6 Network devices 8

4.3 PCF-specific adaptations of hardening requirements and related test cases. 8

4.3.1 Introduction 8

4.3.2 Technical Baseline 8

4.3.3 Operating Systems 8

4.3.4 Web Servers 8

4.3.5 Network Devices 8

4.3.6 Network Functions in service-based architecture 8

4.4 PCF-specific adaptations of basic vulnerability testing requirements and related test cases 8

Annex A (informative): 9

Change history 9

# Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

In the present document, modal verbs have the following meanings:

**shall** indicates a mandatory requirement to do something

**shall not** indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

**should** indicates a recommendation to do something

**should not** indicates a recommendation not to do something

**may** indicates permission to do something

**need not** indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

**can** indicates that something is possible

**cannot** indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

**will** indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

**will not** indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

**might** indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

**might not** indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

**is** (or any other verb in the indicative mood) indicates a statement of fact

**is not** (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

# Introduction

# 1 Scope

The present document contains requirements and test cases that are specific to the PCF network product class. It refers to the Catalogue of General Security Assurance Requirements and formulates specific adaptions of the requirements and test cases given there, as well as specifying requirements and test cases unique to the PCF network product class.

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

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

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 33.117: "Catalogue of general security assurance requirements"

[3] 3GPP TR 33.926: "Security Assurance Specification (SCAS) threats and critical assets in 3GPP network product classes".

# 3 Definitions of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

## 3.2 Symbols

Void.

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

PCF Policy Control Function

# 4 PCF-specific security requirements and related test cases

## 4.1 Introduction

The present document contains objectives, requirements and test cases that are specific to the PCF network product class. It refers to the Catalogue of General Security Assurance Requirements and formulates specific adaptions of the requirements and test cases given there, as well as specifying requirements and test cases unique to the PCF network product class.

## 4.2 PCF-specific adaptations of security functional requirements and related test cases

### 4.2.1 Introduction

The present clause contains PCF-specific security functional adaptations of requirements and related test cases.

### 4.2.2 Security functional requirements on the PCF deriving from 3GPP specifications and related test cases

### 4.2.3 Technical Baseline

#### 4.2.3.1 Introduction

The present clause provides baseline technical requirements.

#### 4.2.3.2 Protecting data and information

##### 4.2.3.2.1 Protecting data and information – general

There are no PCF-specific additions to clause 4.2.3.2.1 of TS 33.117 [2].

##### 4.2.3.2.2 Protecting data and information – unauthorized viewing

There are no PCF -specific additions to clause 4.2.3.2.2 of TS 33.117 [2].

##### 4.2.3.2.3 Protecting data and information in storage

There are no PCF -specific additions to clause 4.2.3.2.3 of TS 33.117 [2].

##### 4.2.3.2.4 Protecting data and information in transfer

There are no PCF-specific additions to clause 4.2.3.2.4 of TS 33.117 [2].

##### 4.2.3.2.5 Logging access to personal data

There are no PCF-specific additions to clause 4.2.3.2.5 of TS 33.117 [2].

#### 4.2.3.3 Protecting availability and integrity

There are no PCF-specific additions to clause 4.2.3.3 of TS 33.117 [2].

#### 4.2.3.4 Authentication and authorization

There are no PCF-specific additions to clause 4.2.3.4 of TS 33.117 [2].

#### 4.2.3.5 Protecting sessions

There are no PCF-specific additions to clause 4.2.3.5 of TS 33.117 [2].

#### 4.2.3.6 Logging

There are no PCF-specific additions to clause 4.2.3.6 of TS 33.117 [2].

### 4.2.4 Operating systems

There are no PCF-specific additions to clause 4.2.4 of TS 33.117 [2].

### 4.2.5 Web servers

There are no PCF-specific additions to clause 4.2.5 of TS 33.117 [2].

### 4.2.6 Network devices

There are no PCF-specific additions to clause 4.2.6 of TS 33.117 [2].

## 4.3 PCF-specific adaptations of hardening requirements and related test cases.

### 4.3.1 Introduction

The present clause contains PCF-specific adaptations of hardening requirements and related test cases.

### 4.3.2 Technical Baseline

There are no PCF-specific additions to clause 4.3.2 of TS 33.117 [2].

### 4.3.3 Operating Systems

There are no PCF-specific additions to clause 4.3.3 of TS 33.117 [2].

### 4.3.4 Web Servers

There are no PCF-specific additions to clause 4.3.4 of TS 33.117 [2].

### 4.3.5 Network Devices

There are no PCF-specific additions to clause 4.3.5 of TS 33.117 [2].

### 4.3.6 Network Functions in service-based architecture

There are no PCF-specific additions to clause 4.3.6 of TS 33.117 [2].

## 4.4 PCF-specific adaptations of basic vulnerability testing requirements and related test cases

There are no PCF-specific additions to clause 4.4 of TS 33.117 [2].

# Annex A (informative):

# Change history

|  |
| --- |
| **Change history** |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2023-04 | SA3#XXX | S3-XXXXX |  |  |  | TS skeleton | 0.0.0 |