

# ETSI TS 128 633 V17.1.0 (2024-10)



**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Telecommunication management;  
Inventory Management (IM) Network Resource Model (NRM)  
Integration Reference Point (IRP);  
Solution Set (SS) definitions  
(3GPP TS 28.633 version 17.1.0 Release 17)**



---

**Reference**

RTS/TSGS-0528633vh10

---

**Keywords**

LTE,UMTS

**ETSI**

---

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° w061004871

---

**Important notice**

The present document can be downloaded from the  
ETSI [Search & Browse Standards application](#).

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format on [ETSI deliver](#).

Users should be aware that the present document may be revised or have its status changed,  
this information is available in the [Milestones listing](#).

If you find errors in the present document, please send your comments to  
the relevant service listed under [Committee Support Staff](#).

If you find a security vulnerability in the present document, please report it through our  
[Coordinated Vulnerability Disclosure \(CVD\)](#) program.

---

**Notice of disclaimer & limitation of liability**

The information provided in the present deliverable is directed solely to professionals who have the appropriate degree of experience to understand and interpret its content in accordance with generally accepted engineering or other professional standard and applicable regulations.

No recommendation as to products and services or vendors is made or should be implied.

No representation or warranty is made that this deliverable is technically accurate or sufficient or conforms to any law and/or governmental rule and/or regulation and further, no representation or warranty is made of merchantability or fitness for any particular purpose or against infringement of intellectual property rights.

In no event shall ETSI be held liable for loss of profits or any other incidental or consequential damages.

Any software contained in this deliverable is provided "AS IS" with no warranties, express or implied, including but not limited to, the warranties of merchantability, fitness for a particular purpose and non-infringement of intellectual property rights and ETSI shall not be held liable in any event for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or any other pecuniary loss) arising out of or related to the use of or inability to use the software.

---

**Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2024.  
All rights reserved.

---

# Intellectual Property Rights

## Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The declarations pertaining to these essential IPRs, if any, are publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

Pursuant to the ETSI Directives including the ETSI IPR Policy, no investigation regarding the essentiality of IPRs, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

## Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

**DECT™**, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners. **oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners. **GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

---

# Legal Notice

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

The present document may refer to technical specifications or reports using their 3GPP identities. These shall be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between 3GPP and ETSI identities can be found under <https://webapp.etsi.org/key/queryform.asp>.

---

# Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

---

# Contents

Intellectual Property Rights .....	2
Legal Notice .....	2
Modal verbs terminology.....	2
Foreword.....	4
Introduction .....	4
1 Scope .....	5
2 References .....	5
3 Definitions and abbreviations.....	5
3.1 Definitions .....	5
3.2 Abbreviations .....	6
4 Solution Set definitions .....	6
<b>Annex A (normative): XML definitions .....</b>	<b>7</b>
A.0 General .....	7
A.1 Architectural features .....	7
A.1.0 Introduction .....	7
A.1.1 Syntax for Distinguished Names .....	7
A.2 Mapping .....	7
A.3 Solution Set definitions .....	7
A.3.1 XML definition structure.....	7
A.3.2 XML schema "inventoryNrm.xsd" .....	7
A.3.3 XML schema "inventoryNrmAlt2.xsd" .....	10
<b>Annex B (informative): Change history .....</b>	<b>13</b>
History .....	14

---

# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> 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.

---

# Introduction

The present document is part of a TS-family covering the 3<sup>rd</sup> Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication management; as identified below:

32.690: Inventory Management (IM); Requirements.

28.631: Inventory Management (IM) Network Resource Model (NRM) Integration Reference Point (IRP); Requirements.

28.632: Inventory Management (IM) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS).

**28.633: Inventory Management (IM) Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions.**

Inventory Management (IM), in general, provides the operator with the ability to assure correct and effective operation of the 3G network as it evolves. IM actions have the objective to monitor the actual configuration on the Network Elements (NEs) and Network Resources (NRs), and they may be initiated by the operator or by functions in the Operations Systems (OSs) or NEs. The final goal of IM is the establishment of an accurate and timely model of the actual inventory in the NEs or NRs.

The present document covers the Inventory Management (IM) Network Resource Model (NRM) Integration Reference Point (IRP): Solution Set (SS) definitions.

---

# 1 Scope

The present document provides the NRM-specific part related to the Inventory Management NRM IRP IS in 3GPP TS 28.632 [1] of solution set definitions.

---

# 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 TS 28.632: "Telecommunication management; Inventory Management (IM) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".
- [2] 3GPP TS 32.612: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Information Service (IS)".
- [3] 3GPP TS 32.616: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP); Solution Set (SS) definitions".
- [4] W3C REC-xml11-20060816: "Extensible Markup Language (XML) 1.1 (Second Edition)".
- [5] Void
- [6] W3C XML Schema Definition Language (XSD) 1.1 Part 1: Structures.
- [7] W3C XML Schema Definition Language (XSD) 1.1 Part 2: Datatypes.
- [8] W3C REC-xml-names-20060816: "Namespaces in XML 1.1 (Second Edition)".
- [9] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".
- [10] 3GPP TS 32.342: "Telecommunication management; File Transfer (FT) Integration Reference Point (IRP); Information Service (IS)".
- [11] 3GPP TS 28.623: "Generic network resources Integration Reference Point (IRP); Solution Set (SS) definition".

---

# 3 Definitions and abbreviations

## 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

**XML file:** See definition in TS 32.616 [3].

**XML document:** See definition in TS 32.616 [3].

**XML declaration:** See definition in TS 32.616 [3].

**XML element:** See definition in TS 32.616 [3].

**empty XML element:** See definition in TS 32.616 [3].

**XML content (of an XML element):** See definition in TS 32.616 [3].

**XML start-tag:** See definition in TS 32.616 [3].

**XML end-tag:** See definition in TS 32.616 [3].

**XML empty-element tag:** See definition in TS 32.616 [3].

**XML attribute specification:** See definition in TS 32.616 [3].

**DTD:** See definition in TS 32.616 [3].

**XML schema:** See definition in TS 32.616 [3].

**XML namespace:** See definition in TS 32.616 [3].

**XML complex type:** See definition in TS 32.616 [3].

**XML element type:** See definition in TS 32.616 [3].

## 3.2 Abbreviations

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

CORBA	Common Object Request Broker Architecture
DTD	Document Type Definition
IM	Inventory Management
IRP	Integration Reference Point
IS	Information Service
NRM	Network Resource Model
XML	eXtensible Markup Language
XSD	XML Schema Definition

---

## 4 Solution Set definitions

This specification defines the following 3GPP Inventory Management (IM) Network Resource Model (NRM) IRP Solution Set (SS) definitions:

- 3GPP Inventory Management (IM) Network Resource Model (NRM) IRP XML definitions (Annex A)

CORBA Solution Set is not present in the current version of this specification.

---

# Annex A (normative): XML definitions

## A.0 General

This annex provides the NRM-specific part related to the Inventory Management NRM IRP IS in 3GPP TS 28.632 [1] of the XML file format definition for the Bulk Configuration Management IRP IS in 3GPP TS 32.612 [2] as well as for use with File Transfer IRP [10].

The XML file formats are based on XML [4], XML Schema [6] [7] and XML Namespace [8] standards.

---

## A.1 Architectural features

### A.1.0 Introduction

The overall architectural feature of Inventory Management NRM IRP IS is specified in 3GPP TS 28.632 [1].

This clause specifies features that are specific to the XML Schema definitions.

### A.1.1 Syntax for Distinguished Names

The syntax of a Distinguished Name is defined in 3GPP TS 32.300 [9].

---

## A.2 Mapping

The mapping is not present in the current version of this specification.

---

## A.3 Solution Set definitions

### A.3.1 XML definition structure

The overall description of the file format of inventory data XML files is provided by 3GPP TS 32.616 [3].

A.3.2 defines the NRM-specific XML schema `inventoryNrm.xsd` for the Inventory Management NRM IRP IS alternative 1 defined in 3GPP TS 28.632 [1].

A.3.3 defines the NRM-specific XML schema `inventoryNrmAlt2.xsd` for the Inventory Management NRM IRP IS alternative 2 as defined in 3GPP TS 28.632 [1].

XML schema `inventoryNrmAlt1.xsd` and `inventoryNrmAlt2.xsd` explicitly declare NRM-specific XML element types for the related NRM.

The definition of those NRM-specific XML element types complies with the generic mapping rules defined in 3GPP TS 32.616 [3].

### A.3.2 XML schema "inventoryNrm.xsd"

The following XML schema `inventoryNrm.xsd` is the NRM-specific schema for the Inventory Management NRM IRP IS alternative 1 defined in 3GPP TS 28.632 [1].



```

<?xml version="1.1" encoding="UTF-8"?>

<!--
 3GPP TS 28.633 Inventory Management NRM IRP
 Inventory data file NRM-specific XML schema
 inventoryNrm.xsd
-->

<schema
  targetNamespace=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.633#inventoryNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"
  xmlns:in=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.633#inventoryNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"
  />

  <!-- Inventory Management Alternative 1 NRM IRP NRM class associated XML elements -->
  <simpleType name="eightOctetsType">
    <restriction base="hexBinary">
      <length value="8"/>
    </restriction>
  </simpleType>
  <simpleType name="fourOctetsType">
    <restriction base="hexBinary">
      <length value="4"/>
    </restriction>
  </simpleType>
  <simpleType name="angleValueType">
    <restriction base="short">
      <minInclusive value="0"/>
      <maxInclusive value="3600"/>
    </restriction>
  </simpleType>

  <element
    name="InventoryUnit"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element
              name="attributes"
              minOccurs="0">
              <complexType>
                <all>
                  <element
                    name="inventoryUnitType"
                    type="string"
                  />
                  <element
                    name="vendorUnitFamilyType"
                    type="string"
                    minOccurs="0"
                  />
                  <element
                    name="vendorUnitTypeNumber"
                    type="string"
                    minOccurs="0"
                  />
                  <element
                    name="vendorName"
                    type="string"/>
                  <element
                    name="serialNumber"
                    type="string"
                    minOccurs="0"/>
                  <element
                    name="dateOfManufacture"

```

```

        type="date"
        minOccurs="0"/>
      <element
        name="dateOfLastService"
        type="date"
        minOccurs="0"/>
      <element
        name="unitPosition"
        type="string"
        minOccurs="0"/>
      <element
        name="manufacturerData"
        type="string"
        minOccurs="0"/>
      <element
        name="versionNumber"
        type="string"
        minOccurs="0"/>
      <element name="relatedFunction" type="xn:dn" minOccurs="0"/>
    </all>
  </complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="in:InventoryUnit"/>
  <element ref="xn:VsDataContainer"/>
  <element ref="in:TmaInventoryUnit"/>
  <element ref="in:AntennaInventoryUnit"/>
</choice>
</sequence>
</extension>
</complexType>
</element>
<element name="TmaInventoryUnit" substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <!-- Inherited attributes from InventoryUnit-->
                <element name="inventoryUnitType" type="string"/>
                <element name="vendorUnitFamilyType" type="string" minOccurs="0"/>
                <element name="vendorUnitTypeNumber" type="string" minOccurs="0"/>
                <element name="vendorName" type="string"/>
                <element name="serialNumber" type="string" minOccurs="0"/>
                <element name="dateOfManufacture" type="date" minOccurs="0"/>
                <element name="dateOfLastService" type="date" minOccurs="0"/>
                <element name="unitPosition" type="string" minOccurs="0"/>
                <element name="manufacturerData" type="string" minOccurs="0"/>
                <element name="versionNumber" type="string" minOccurs="0"/>
                <element name="relatedFunction" type="xn:dn" minOccurs="0"/>
                <!-- End of inherited attributes from InventoryUnit -->
                <element name="tmaNumberOfNonLinearGainValues" type="short" minOccurs="0"/>
                <element name="tmaNonLinearGainValue" type="short" minOccurs="0"/>
                <element name="tmaAdditionalDataFieldNumber" type="short" minOccurs="0"/>
                <element name="tmaAntennaModelNumber" type="string" minOccurs="0"/>
                <element name="tmaAntennaOperatingBands" type="short" minOccurs="0"/>
                <element name="tmaBeamwidthForEachOpBandInBandOrder" type="in:eightOctetsType"
minOccurs="0"/>
                <element name="tmaGainForEachOpBandInBandOrder" type="in:fourOctetsType"
minOccurs="0"/>
                <element name="tmaInstallationDate" type="string" minOccurs="0"/>
                <element name="tmaInstallersId" type="string" minOccurs="0"/>
                <element name="tmaMaxSupportedGain" type="short" minOccurs="0"/>
                <element name="tmaMinSupportedGain" type="short" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="in:InventoryUnit"/>
  <element ref="xn:VsDataContainer"/>
</choice>
</sequence>
</extension>
</complexType>
</element>

```

```

</element>
<element name="AntennaInventoryUnit"
substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <!-- Inherited attributes from InventoryUnit-->
                <element name="inventoryUnitType" type="string"/>
                <element name="vendorUnitFamilyType" type="string" minOccurs="0"/>
                <element name="vendorUnitTypeNumber" type="string" minOccurs="0"/>
                <element name="vendorName" type="string"/>
                <element name="serialNumber" type="string" minOccurs="0"/>
                <element name="dateOfManufacture" type="date" minOccurs="0"/>
                <element name="dateOfLastService" type="date" minOccurs="0"/>
                <element name="unitPosition" type="string" minOccurs="0"/>
                <element name="manufacturerData" type="string" minOccurs="0"/>
                <element name="versionNumber" type="string" minOccurs="0"/>
                <element name="relatedFunction" type="xn:dn" minOccurs="0"/>
                <!-- End of inherited attributes from InventoryUnit-->
                <element name="maxTiltValue" type="in:angleValueType" minOccurs="0"/>
                <element name="minTiltValue" type="in:angleValueType" minOccurs="0"/>
                <element name="mechanicalOffset" type="in:angleValueType" minOccurs="0"/>
                <element name="baseElevation" type="integer" minOccurs="0"/>
                <element name="latitude" type="decimal" minOccurs="0"/>
                <element name="longitude" type="decimal" minOccurs="0"/>
                <element name="patternLabel" type="string" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="in:InventoryUnit"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
</schema>

```

### A.3.3 XML schema "inventoryNrmAlt2.xsd"

The following XML schema `inventoryNrmAlt2.xsd` is the NRM-specific schema for the Inventory Management NRM IRP IS alternative 2 defined in 3GPP TS 28.632 [1].

```

<?xml version="1.1" encoding="UTF-8"?>
<!--
  3GPP TS 28.633 Inventory Management NRM IRP
  Inventory data file NRM-specific XML schema
  inventoryNrmAlt2.xsd
-->
<schema xmlns="http://www.w3.org/2001/XMLSchema"
xmlns:xn="http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"
xmlns:in="http://www.3gpp.org/ftp/specs/archive/28_series/28.633#inventoryNrmAlt2"
targetNamespace="http://www.3gpp.org/ftp/specs/archive/28_series/28.633#inventoryNrmAlt2"
elementFormDefault="qualified">
  <import namespace="http://www.3gpp.org/ftp/specs/archive/28_series/28.623#genericNrm"/>
  <!-- Inventory Management Alternative 2 NRM IRP NRM class associated XML elements -->
  <element name="InventoryUnitNE"
substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="neId" type="string"/>
                  <element name="customerIdentifier" type="string" minOccurs="0"/>
                  <element name="productName" type="string"/>
                  <element name="vendorName" type="string"/>
                  <element name="productType" type="string" minOccurs="0"/>
                </all>
              </complexType>
            </element>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
</schema>

```

```

        <element name="salesUniqueId" type="string" minOccurs="0"/>
        <element name="operatorUniqueName" type="string" minOccurs="0"/>
        <element name="siteId" type="integer" minOccurs="0"/>
        <element name="additionalInformation" type="string"
minOccurs="0"/>
        <element name="hwList" type="xn:dnList" minOccurs="0"/>
        <element name="swList" type="xn:dnList" minOccurs="0"/>
        <element name="lICList" type="xn:dnList" minOccurs="0"/>
        <element name="mFunction" type="xn:dn" minOccurs="0"/>
    </all>
  </complexType>
</element>
  <element ref="in:InventoryUnitNE" minOccurs="0" maxOccurs="unbounded"/>
</sequence>
</extension>
</complexContent>
</complexType>
</element>
<element name="InventoryUnitHw"
substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="hwId" type="string"/>
                <element name="hwType" type="string"/>
                <element name="hwName" type="string" minOccurs="0"/>
                <element name="vendorName" type="string" minOccurs="0"/>
                <element name="hwVersion" type="string"/>
                <element name="salesUniqueId" type="string" minOccurs="0"/>
                <element name="hwUnitLocation" type="string"/>
                <element name="model" type="string" minOccurs="0"/>
                <element name="hwCapability" type="string" minOccurs="0"/>
                <element name="modificationDate" type="string" minOccurs="0"/>
                <element name="manualDataEntry" type="string" minOccurs="0"/>
                <element name="additionalInformation" type="string"
minOccurs="0"/>
                <element name="nEList" type="xn:dnList" minOccurs="0"/>
                <element name="swList" type="xn:dnList" minOccurs="0"/>
                <element name="lICList" type="xn:dnList" minOccurs="0"/>
                <element name="mFunction" type="xn:dn" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <element ref="in:InventoryUnitHw" minOccurs="0" maxOccurs="unbounded"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<element name="InventoryUnitSw"
substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="swId" type="string"/>
                <element name="swName" type="string" minOccurs="0"/>
                <element name="vendorName" type="string" minOccurs="0"/>
                <element name="swVersion" type="string" minOccurs="0"/>
                <element name="salesUniqueId" type="string" minOccurs="0"/>
                <element name="classification" type="string"/>
                <element name="swInstallationTime" type="dateTime"
minOccurs="0"/>
                <element name="swActivationTime" type="dateTime" minOccurs="0"/>
                <element name="swStatus" type="string" minOccurs="0"/>
                <element name="additionalInformation" type="string"
minOccurs="0"/>
                <element name="nEList" type="xn:dnList" minOccurs="0"/>
                <element name="hwList" type="xn:dnList" minOccurs="0"/>
                <element name="lICList" type="xn:dnList" minOccurs="0"/>
                <element name="mFunction" type="xn:dn" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

        </all>
      </complexType>
    </element>
    <element ref="in:InventoryUnitSw" minOccurs="0" maxOccurs="unbounded"/>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>
<element name="InventoryUnitLic"
substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="licId" type="string"/>
                <element name="licType" type="string" minOccurs="0"/>
                <element name="vendorName" type="string" minOccurs="0"/>
                <element name="validity" type="string" minOccurs="0"/>
                <element name="key" type="string" minOccurs="0"/>
                <element name="licActivationTime" type="dateTime"
minOccurs="0"/>
                <element name="licStatus" type="string" minOccurs="0"/>
                <element name="salesUniqueId" type="string" minOccurs="0"/>
                <element name="additionalInformation" type="string"
minOccurs="0"/>
                <element name="nEList" type="xn:dnList" minOccurs="0"/>
                <element name="hWList" type="xn:dnList" minOccurs="0"/>
                <element name="sWList" type="xn:dnList" minOccurs="0"/>
                <element name="mFunction" type="xn:dn" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <element ref="in:InventoryUnitLic" minOccurs="0" maxOccurs="unbounded"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
</schema>

```

## Annex B (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2014-06	SA#64	SP-140332	001	-	upgrade XSD	11.0.0	11.1.0
		SP-140358	002	-	remove the feature support statements		
2014-09	SA#65	SP-140560	003	-	Update the link from Solution Set to Information Service due to the end of Release 12	11.1.0	12.0.0
2016-01	SA#70				Upgrade to Rel-13 (MCC)	12.0.0	13.0.0
2016-03	SA#71	SP-160031	006	-	Make the XML schema well formed	13.0.0	13.1.0

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-06	SA#72	SP-160407	0007	-	F	Update the link from IRP Solution Set to IRP Information Service	13.2.0
2017-03	SA#75	-	-	-	-	Promotion to Release 14 without technical change	14.0.0
2017-06	SA#76	SP-170514	0008	-	F	Update link from IRP SS to IS	14.1.0
2018-06	-	-	-	-	-	Update to Rel-15 version (MCC)	<b>15.0.0</b>
2020-07	-	-	-	-	-	Update to Rel-16 version (MCC)	<b>16.0.0</b>
2022-03	-	-	-	-	-	Update to Rel-17 version (MCC)	<b>17.0.0</b>
2024-09	SA#105	SP-241164	0010	1	F	Rel-17 CR TS 28.633 Correction of XML references	<b>17.1.0</b>

---

# History

<b>Document history</b>		
V17.0.0	April 2022	Publication
V17.1.0	October 2024	Publication