

# SS7 Performance Measurements

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## USER GUIDE

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# 1 Introduction

This document describes the SS7 performance measurements.

For description of PM concepts and operations, i.e. how to work with PM jobs, refer to the [Performance Management](#).





## 2 Performance Measurement Groups

Page 3 lists the SS7 performance measurement groups.

*Table 1 PmGroups*

<b>pmGroupId</b>	<b>Properties</b>
Ss7TcapIetc	<ul style="list-style-type: none"> <li>• <b>description:</b> Measurements at TCAP ITU/ETSI/TTC/Chinese (IETC) level. The measured object identifier is "Ss7=1,TcapIetc=1".</li> <li>• <b>pmGroupVersion:</b> 1</li> </ul>
Ss7TcapAnsi	<ul style="list-style-type: none"> <li>• <b>description:</b> Measurements at TCAP ANSI level. The measured object identifier is "Ss7=1,TcapAnsi=1".</li> <li>• <b>pmGroupVersion:</b> 1</li> </ul>
Ss7Sccp	<ul style="list-style-type: none"> <li>• <b>description:</b> Measurements at SCCP level. The measured object identifier is "Ss7=1,Sccp=1".</li> <li>• <b>pmGroupVersion:</b> 1</li> </ul>
Ss7M3uaAssociation	<ul style="list-style-type: none"> <li>• <b>description:</b> Measurements at M3UA association level. The measured object identifier is "Ss7=1,M3ua=1,LocalSp=&lt;A&gt;,RemoteSp=&lt;B&gt;", where &lt;A&gt; and &lt;B&gt; are integers.</li> <li>• <b>pmGroupVersion:</b> 2</li> </ul>

The update frequency is 60 seconds for all measurements.







### 3 Measurements of Ss7TcapIetc PM Group

Page 5 provides measurement types of Ss7TcapIetc PM group.

*Table 2 Ss7TcapIetc Measurements*

measurementTypeId	Properties
ss7TcapIetcTransactionsPerSecond	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of TCAP IETC transactions per second. A transaction is one received and one sent TCAP message.</li> <li>• <b>collectionMethod:</b> GAUGE</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Transactions per second (TPS)</li> </ul>
ss7TcapIetcOutComponents	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent TCAP IETC components.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of components sent</li> </ul>
ss7TcapIetcInComponents	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received TCAP IETC components.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of components received</li> </ul>

*Table 2 Ss7TcapIetc Measurements*

ss7TcapIetcAbortedDialoguesLocally	<ul style="list-style-type: none"><li>• <b>description:</b> Number of aborted TCAP IETC dialogues by the local side.</li><li>• <b>collectionMethod:</b> CC</li><li>• <b>aggregation:</b> SUM</li><li>• <b>measurementStatus:</b> USED</li><li>• <b>resetAtGranPeriod:</b> true</li><li>• <b>measurementResult:</b> Number of Aborted dialogues</li></ul>
ss7TcapIetcAbortedDialoguesRemotely	<ul style="list-style-type: none"><li>• <b>description:</b> Number of aborted TCAP IETC dialogues by the remote side.</li><li>• <b>collectionMethod:</b> CC</li><li>• <b>aggregation:</b> SUM</li><li>• <b>measurementStatus:</b> USED</li><li>• <b>resetAtGranPeriod:</b> true</li><li>• <b>measurementResult:</b> Number of Aborted dialogues</li></ul>



## 4 Measurements of Ss7TcapAnsi PM Group

Page 7 provides measurement types of Ss7TcapAnsi PM group.

*Table 3 Ss7TcapAnsi Measurements*

measurementTypeId	Properties
ss7TcapAnsiTransactionsPerSecond	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of TCAP ANSI transactions per second. A transaction is one received and one sent TCAP message.</li> <li>• <b>collectionMethod:</b> GAUGE</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Transactions per second (TPS)</li> </ul>
ss7TcapAnsiOutComponents	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent TCAP ANSI components.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of components sent</li> </ul>
ss7TcapAnsiInComponents	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received TCAP ANSI components.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of components received</li> </ul>

*Table 3 Ss7TcapAnsi Measurements*

ss7TcapAnsiAbortedDialoguesLocally	<ul style="list-style-type: none"><li>• <b>description:</b> Number of aborted TCAP ANSI dialogues by the local side.</li><li>• <b>collectionMethod:</b> CC</li><li>• <b>aggregation:</b> SUM</li><li>• <b>measurementStatus:</b> USED</li><li>• <b>resetAtGranPeriod:</b> true</li><li>• <b>measurementResult:</b> Number of Aborted dialogues</li></ul>
ss7TcapAnsiAbortedDialoguesRemotely	<ul style="list-style-type: none"><li>• <b>description:</b> Number of aborted TCAP ANSI dialogues by the remote side.</li><li>• <b>collectionMethod:</b> CC</li><li>• <b>aggregation:</b> SUM</li><li>• <b>measurementStatus:</b> USED</li><li>• <b>resetAtGranPeriod:</b> true</li><li>• <b>measurementResult:</b> Number of Aborted dialogues</li></ul>



## 5 Measurements of Ss7Sccp PM Group

Page 9 provides measurement types of Ss7Sccp PM group.

*Table 4 Ss7Sccp Measurements*

measurementTypeld	Properties
ss7SccpAttemptsToBindWithWrongSsn	<ul style="list-style-type: none"><li>• <b>description:</b> Number of unsuccessful attempts to bind with a not configured or faulty configured Sub System Number (SSN).</li><li>• <b>collectionMethod:</b> CC</li><li>• <b>aggregation:</b> SUM</li><li>• <b>measurementStatus:</b> USED</li><li>• <b>resetAtGranPeriod:</b> true</li><li>• <b>measurementResult:</b> Number of unsuccessful attempts</li></ul>





## 6 Measurements of Ss7M3uaAssociation PM Group

Page 11 provides measurement types of Ss7M3uaAssociation PM group.

*Table 5 Ss7M3uaAssociation Measurements*

measurementTypeld	Properties
ss7M3uaAssociationInDatas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received DATA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutDatas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent DATA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationInKBytes	<ul style="list-style-type: none"> <li>• <b>description:</b> Amount of received data on M3UA association in KBytes. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> KByte</li> </ul>
ss7M3uaAssociationOutKBytes	<ul style="list-style-type: none"> <li>• <b>description:</b> Amount of sent data on M3UA association in KBytes. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> KByte</li> </ul>
ss7M3uaAssociationLostDatasInCongestion	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of lost DATA messages on M3UA association due to congestion. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>





**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationNotActiveTime	<ul style="list-style-type: none"> <li>• <b>description:</b> Duration in seconds M3UA association has spent in a state other than ACTIVE. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Seconds</li> </ul>
ss7M3uaAssociationCongestionTime	<ul style="list-style-type: none"> <li>• <b>description:</b> Duration in seconds M3UA association has spent in congestion. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Seconds</li> </ul>
ss7M3uaAssociationInErrors	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received ERROR messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationOutErrors	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent ERROR messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationDiscardedDatas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of discarded DATA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInNotifies	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received NOTIFY messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>



Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationInScons	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Signaling Congestion (SCON) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInCongestionInds	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received congestion indications from SCTP on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of occurrences</li> </ul>
ss7M3uaAssociationNotActive	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of times M3UA association became not active. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Seconds</li> </ul>

**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationInAspacs	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Active (ASPAC) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutAspacs	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Active (ASPAC) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInAspacAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Active Acknowledgements (ASPAC ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>



Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationOutAspacAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Active Acknowledgements (ASPAC ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInDauds	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received DAUD messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutDauds	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent DAUD messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationInDavas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received DAVA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutDavas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent DAVA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInDunas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received DUNA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>



**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationOutDunas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent DUNA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInDupus	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received DUPU messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutDupus	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent DUPU messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationInAspdnAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Down Acknowledgement (ASPDN ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutAspdnAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Down Acknowledgement (ASPDN ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInAspdns	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Down (ASPDN) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>





Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationOutAspdns	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Down (ASPDN) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInAspiaAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Inactive Acknowledgements (ASPIA ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
s7M3uaAssociationOutAspiaAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Inactive Acknowledgements (ASPIA ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationInAspias	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Inactive (ASPIA) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutAspias	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Inactive (ASPIA) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInAspupAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Up Acknowledgements (ASPUP ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>



Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationOutAspupAcks	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Up Acknowledgements (ASPUP ACK) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInAspups	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Up (ASPUP) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutAspups	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Up (ASPUP) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationInAspsms	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) State Maintenance (ASPSM) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutAspsms	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) State Maintenance (ASPSM) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInAsptms	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Application Server Process (ASP) Traffic Maintenance (ASPTM) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>



Table 5 Ss7M3uaAssociation Measurements

ss7M3uaAssociationOutAsptms	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Application Server Process (ASP) Traffic Maintenance (ASPTM) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationInNonDdatas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received non-DATA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutNonDdatas	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent non-DATA messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>

**Table 5** *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationInMgmts	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received Management (MGMT) messages (ERROR and NOTIFY) on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutMgmts	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent Management (MGMT) messages (ERROR and NOTIFY) on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>



**Table 5**    *Ss7M3uaAssociation Measurements*

ss7M3uaAssociationInSsnms	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of received SS7 Signalling Network Management (SSNM) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>
ss7M3uaAssociationOutSsnms	<ul style="list-style-type: none"> <li>• <b>description:</b> Number of sent SS7 Signalling Network Management (SSNM) messages on M3UA association. There is one measurement per association identified by the Local Sp, Remote Sp value pair.</li> <li>• <b>collectionMethod:</b> CC</li> <li>• <b>aggregation:</b> SUM</li> <li>• <b>measurementStatus:</b> USED</li> <li>• <b>resetAtGranPeriod:</b> true</li> <li>• <b>measurementResult:</b> Number of messages</li> </ul>