

In Service Performance Northbound API Cloud Execution Environment

INTERWORK DESCRIPTION

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1 Introduction

This document describes the structure and content of the In Service Performance (ISP) log file in the Cloud Execution Environment (CEE). This XML file is produced by an external script querying the monitoring system through its API, and it can be used as input for the ISP Tool.

The XML log file acts as the northbound interface. The monthly log file is saved on the local disk of the active Cloud Infrastructure Controller (CIC) under the following directory and file name:

`/var/cache/ispreports/ISP-report_YYYY-MM.xml`

For example:

`/var/cache/ispreports/ISP-report_2014-06.xml`

The month in the file name is the month for which the file contains the service outage data.

The XML log file contains outage of service information for the previous month from 00:00:00 on the first day of the month to 23:59:59 on the last day of the month. It is prepared once per month from the history stored in the monitoring database.

The file includes a log record for each service outage. The records contain information about the start and end time of the outage, the cause of the outage, and the identifier of the node that was out of service.

The monthly created log files can be collected from the CICs by using the Secure File Transfer Protocol (SFTP). All the CICs must be checked for the log file of each specific month since the active role can be moved from one CIC to another, so the log files of different months can be stored on different CICs.

The log files are available at the CICs for six months if the storage capacity of the local disks allows that. The log files are deleted earlier to free up disk space if there is not enough space for the new log files.

Scope

In the following sections, this document provides a detailed description of all elements in the XML file.

The list of Key Performance Indicators (KPIs) contained by the log files, in case of an Ericsson factory default installation, is provided in *Preconfigured Key Performance Indicators*.



2 ISPLog

The root element of the ISP Log File is the **ISPLog** element. This element includes the following sub-elements as shown in Figure 1:

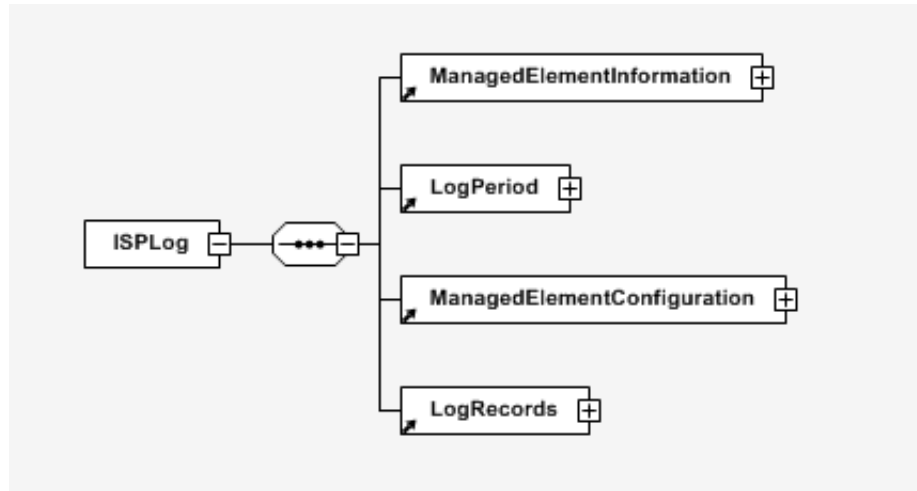


Figure 1 ISPLog Element Structure Overview

Table 1 shows a detailed description for each sub-element of the **ISPLog** element:

Table 1 ISPLog Element Structure Description

Element	Description	Type	Occurrence	Example
ManagedElementInformation	This is the container of all basic information about the managed element (ME). This element is further explained in Section 3 on page 4.	complexType	1 Mandatory	N/A
LogPeriod	This is the container of information about the period covered by the ISPLog root class. This element is further explained in Section 4 on page 6.	complexType	1 Mandatory	N/A

Table 1 ISPLog Element Structure Description

Element	Description	Type	Occurrence	Example
ManagedElementConfiguration	<p>This is the container of all basic configuration data of the ME.</p> <p>This element is further explained in Section 5 on page 10.</p>	complexType	<p>1</p> <p>Mandatory</p>	N/A
LogRecords	<p>This is the container of all possible numbered ISP Events.</p> <p>This element is further explained in Section 6 on page 12.</p>	complexType	<p>1</p> <p>Mandatory</p>	N/A

The following is an example of the **ISPLog** element in XML format:

```

<ISPLog>
  <ManagedElementInformation>
    ...
  </ManagedElementInformation>
  <LogPeriod>
    ...
  </LogPeriod>
  <ManagedElementConfiguration>
    ...
  </ManagedElementConfiguration>
  <LogRecords>
    ...
  </LogRecords>
</ISPLog>

```

Example 1 ISPLog Element in XML Format



3 ManagedElementInformation

The **ManagedElementInformation** element is the container of all basic information about the ME. This element includes the following sub-elements as shown in Figure 2:

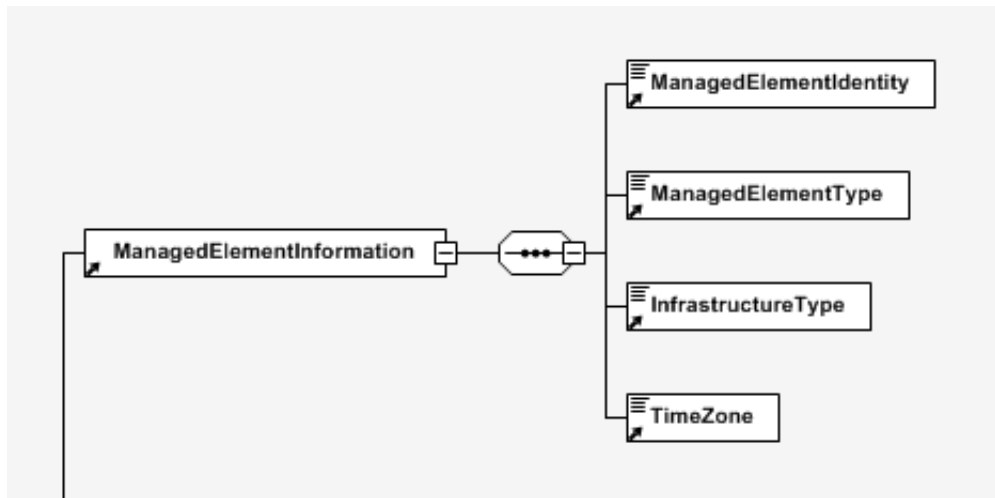


Figure 2 ManagedElementInformation Element Structure Overview

Table 2 shows a detailed description for each sub-element of the **ManagedElementInformation** element:

Table 2 ManagedElementInformation Element Structure Description

Element	Description	Type	Occurrence	Example
ManagedElementIdentity	This string that represents the name of a node or cluster.	string	1 Mandatory	ECS
ManagedElementType	Managed Element Type. If the Managed Element Type is ME, the product is not a stand-alone but a colocated one.	elementType	1 Mandatory	ME



Table 2 *ManagedElementInformation Element Structure Description*

Element	Description	Type	Occurrence	Example
InfrastructureType	<p>Infrastructure Type is the evolution of Platform. Only the following evolutions are considered at Ericsson:</p> <ul style="list-style-type: none"> • Component-Based Architecture (CBA) • Automatic Cross-Connection Equipment (AXE) • Connectivity Packet Platform (CPP) 	infrastructureType	1 Mandatory	CBA ⁽¹⁾
TimeZone ⁽²⁾	The timezone where the ME is physically located	timezoneType	1 Mandatory	UTC-01:00

(1) Infrastructure Type is always CBA.

(2) The value of the TimeInformation element in Table 6 must be corrected according to this setting.

The following is an example of the **ManagedElementInformation** element in the XML format:

```
<ManagedElementInformation>
  <ManagedElementIdentity>ECS</ManagedElementIdentity>
  <ManagedElementType>ME</ManagedElementType>
  <InfrastructureType>CBA</InfrastructureType>
  <TimeZone>UTC-01:00</TimeZone>
</ManagedElementInformation>
```

Example 2 *ManagedElementInformation Element in XML Format*

4 LogPeriod

The **LogPeriod** element is the container of information about the period covered by the **ISPLog** root class. This element includes the following sub-elements shown in Figure 3:

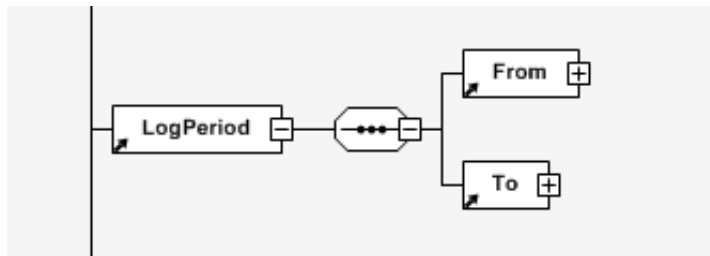


Figure 3 LogPeriod Element Structure Overview

Table 3 shows a detailed description for each sub-element of the **LogPeriod** element:

Table 3 LogPeriod Element Structure Description

Element	Description	Type	Occurrence	Example
From	Date and Time stamp for the time when the ISP Log starts reporting ISP Events registered on the ME This element is further explained in Section 4.1 on page 6.	timestampType	1 Mandatory	N/A
To	Date and Time stamp for the time when the ISP Log stops reporting ISP Events registered on the ME This element is further explained in Section 4.2 on page 8.	timestampType	1 Mandatory	N/A

Note: If **Local time** is selected for the **TimeInformation** element in Table 6, then the values of the elements of **LogPeriod** must be corrected according to the setting of the **TimeZone** element in Table 2.

The following is an example of the **LogPeriod** element in the XML format:

```
<LogPeriod>
  <From>
    .
    .
    .
  </From>
  <To>
    .
    .
    .
  </To>
</LogPeriod>
```

Example 3 LogPeriod Element in XML Format

4.1 From

The **From** element contains the Date and Time stamp for the time when the ISP Log starts reporting ISP Events registered on the ME. This element includes the following sub-elements as shown in Figure 4:

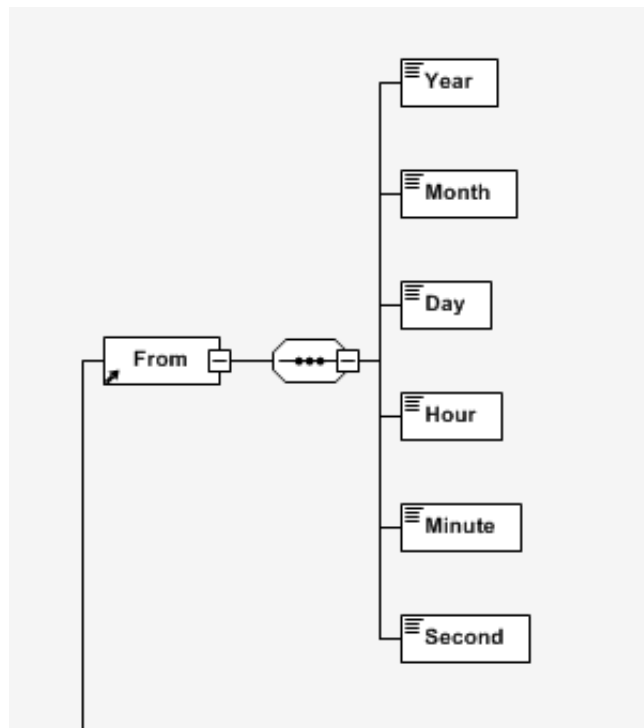


Figure 4 From Element Structure Overview

Table 4 shows a detailed description for each sub-element of the **From** element:

Table 4 From Element Structure Description

Element	Description	Type	Occurrence	Example
Year	Year is valid until Y2038 32-bit Unix time.	year	1 Mandatory	2014
Month	Month in decimals, 1–12	month	1 Mandatory	11
Day	Day in decimals, 1–31	day	1 Mandatory	1
Hour	Hour in decimals, 0–23	hour	1 Mandatory	0
Minute	Minute in decimals, 0–59	minute	1 Mandatory	0
Second	Second in decimals, 0–59	second	1 Mandatory	0



Note: If **Local time** is selected for the **TimeInformation** element in Table 6, then the values of the elements of **From** must be corrected according to the setting of the **TimeZone** element in Table 2.

The following is an example of the **From** element in the XML format:

```
<From>
  <Year>2014</Year>
  <Month>11</Month>
  <Day>1</Day>
  <Hour>0</Hour>
  <Minute>0</Minute>
  <Second>0</Second>
</From>
```

Example 4 From Element in XML Format

4.2 To

The **To** element contains the Date and Time stamp for the time when the ISP Log stops reporting ISP Events registered on the ME. This element includes the following sub-elements as shown in Figure 5:

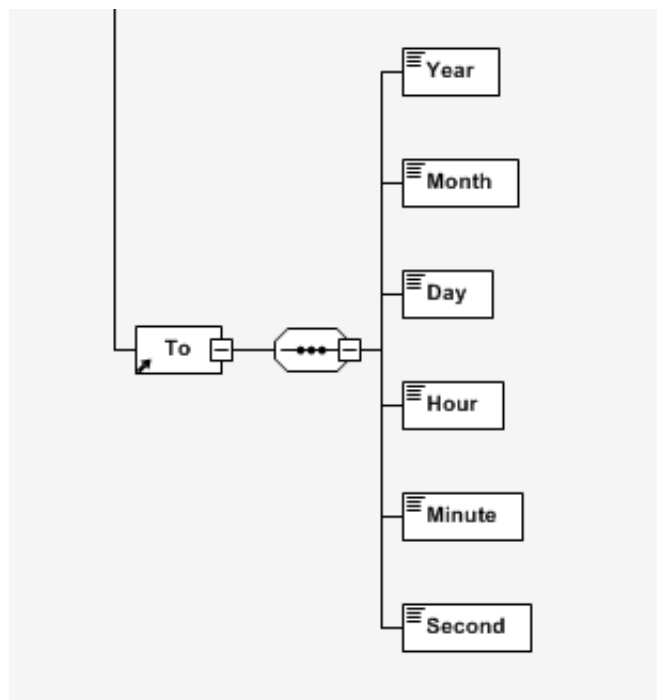


Figure 5 To Element Structure Overview

Table 5 shows a detailed description for each sub-element of the **To** element:



Table 5 *To Element Structure Description*

Element	Description	Type	Occurrence	Example
Year	Year is valid until Y2038 32-bit Unix time.	year	1 Mandatory	2014
Month	Month in decimals, 1–12	month	1 Mandatory	11
Day	Day in decimals, 1–31	day	1 Mandatory	30
Hour	Hour in decimals, 0–23	hour	1 Mandatory	23
Minute	Minute in decimals, 0–59	minute	1 Mandatory	59
Second	Second in decimals, 0–59	second	1 Mandatory	59

Note: If **Local time** is selected for the **TimeInformation** element in Table 6, then the values of the elements of **To** must be corrected according to the setting of the **TimeZone** element in Table 2.

The following is an example of the **To** element in the XML format:

```
<To>
  <Year>2014</Year>
  <Month>11</Month>
  <Day>30</Day>
  <Hour>23</Hour>
  <Minute>59</Minute>
  <Second>59</Second>
</To>
```

Example 5 *To Element in XML Format*



5 ManagedElementConfiguration

The **ManagedElementConfiguration** element is the container of all basic configuration data of the ME. In CEE, the software configuration is constant and it is determined by the software version. Information on the version is included in the field SoftwareInventory. The element includes the following sub-elements as shown in Figure 6:

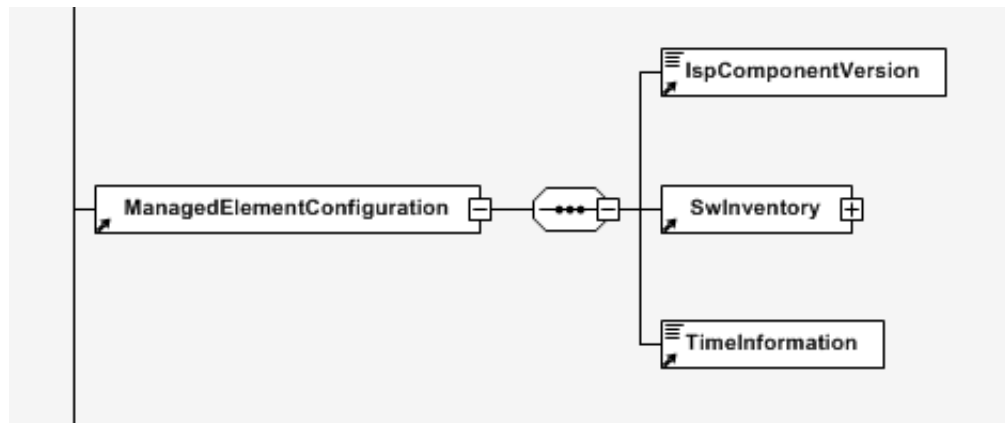


Figure 6 ManagedElementConfiguration Element Structure Overview

Table 6 shows a detailed description for each sub-element of the **ManagedElementConfiguration** element:

Table 6 ManagedElementConfiguration Element Structure Description

Element	Description	Type	Occurrence	Example
IspComponentVersion	ISP Component Version installed on the Managed Element	ispVer	1 Mandatory	ISP 1.0
SwInventory	Contains only one SwItem element that provides information about the software version. TheSwInventory element is further explained in Section 5.1 on page 11.	complexType	1 Mandatory	N/A
TimeInformation	Time Information option: Local time or UTC. If Local time is selected, then the time values in Table 3, Table 4, and Table 5 must be corrected according to the setting of the TimeZone element in Table 2.	timeInformation	1 Mandatory	UTC

The following is an example of the **ManagedElementConfiguration** element in the XML format:

```
<ManagedElementConfiguration>
  <IspComponentVersion>ISP 1.0</IspComponentVersion>
  <SwInventory>
    ...
  </SwInventory>
  <TimeInformation>UTC</TimeInformation>
</ManagedElementConfiguration>
```

Example 6 ManagedElementConfiguration Element in XML Format

5.1

SwInventory

The **SwInventory** element only contains one **SwItem** element that provides information about the software version.

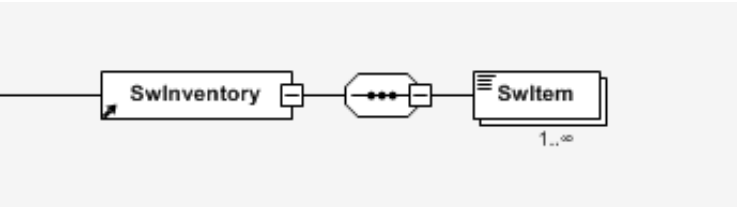


Figure 7 SwInventory Element Structure Overview

Table 7 shows a detailed description for the **SwItem** sub-element of the **SwInventory** element:

Table 7 SwInventory Element Structure Description

Element	Description	Type	Occurrence	Example
SwItem	V-Model CXP Software Item	string	Minimum: 1 Maximum: Unbounded Mandatory	ERIC-COM-CXP9017585_2-R5A02 Used ERIC-COREMW_COMMON-CXP9017566_1-R4A05 ERIC-ComSa-CXP9017697_3-P2A75 Used

The following is an example of the **SwInventory** element in the XML format:

```
<SwInventory>
  <SwItem>ERIC-COM-CXP9017585_2-R5A02 Used</SwItem>
  <SwItem>ERIC-COREMW_COMMON-CXP9017566_1-R4A05</SwItem>
  ...
  <SwItem>ERIC-ComSa-CXP9017697_3-P2A75 Used</SwItem>
</SwInventory>
```

Example 7 SwInventory Element in XML Format



6 LogRecords

The **LogRecords** element is the container of all possible numbered ISP Events. The element includes a series of the **LogRecord** sub-elements as shown in Figure 6:

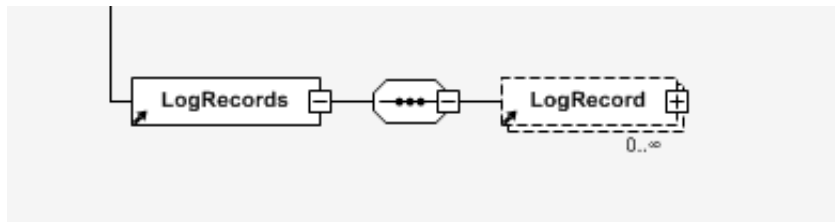


Figure 8 LogRecords Element Structure Overview

Table 8 shows a detailed description for the **LogRecord** sub-element of the **ZoneInfo** element:

Table 8 LogRecords Element Structure Description

Element	Description	Type	Occurrence	Example
LogRecord	Numbered log record container This element is further explained in Section 6.1 on page 12.	complexType	Minimum: 0 Maximum: Unbounded Optional	N/A

The following is an example of the **LogRecords** element in the XML format:

```
<LogRecords>
  <LogRecord number="1">
    ...
  </LogRecord>
  <LogRecord number="2">
    ...
  </LogRecord>
  ...
</LogRecords>
```

Example 8 LogRecords Element in XML Format

6.1 LogRecord

The **LogRecord** element is a numbered log record container. The element includes the **ServiceOutageNetworkElement** sub-element as shown in Figure 9.

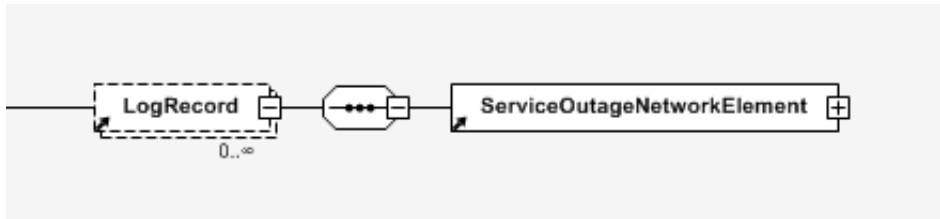


Figure 9 LogRecord Element Structure Overview

Table 7 shows a detailed description of the **ServiceOutageNetworkElement** sub-element of the **LogRecord** element:

Table 9 LogRecord Element Structure Description

Element	Description	Type	Occurrence	Example
ServiceOutageNetworkElement	<p>This element contains the details for a service outage event.</p> <p>This element is further explained in Section 6.1.1 on page 13.</p>	complexType	<p>1</p> <p>Mandatory</p>	N/A

The following is an example of the **LogRecord** element in the XML format:

```
<LogRecord number="1">
  <ServiceOutageNetworkElement>
    ...
  </ServiceOutageNetworkElement>
</LogRecord>
```

Example 9 LogRecord Element in XML Format

6.1.1 ServiceOutageNetworkElement

The **ServiceOutageNetworkElement** element contains the details for a service outage event. The element includes the following sub-elements as shown in Figure 10:

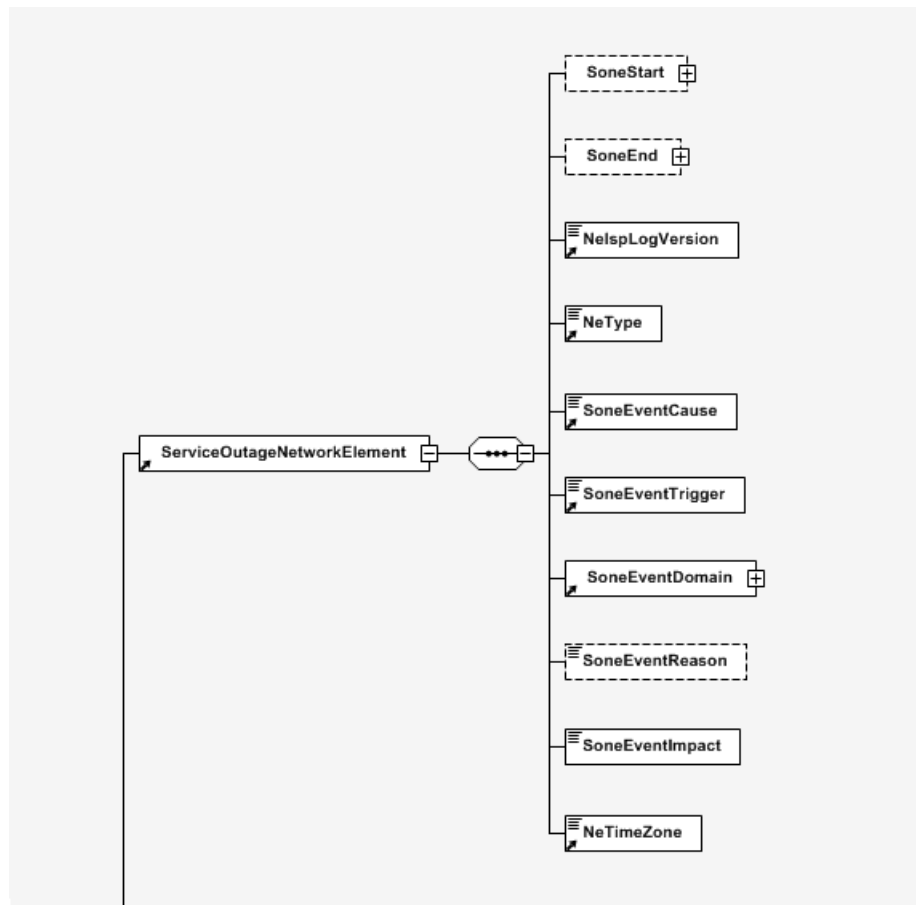


Figure 10 ServiceOutageNetworkElement Element Structure Overview

Table 10 shows a detailed description for the sub-elements of the **ServiceOutageNetworkElement** element:

Table 10 ServiceOutageNetworkElement Element Structure Description

Element	Description	Type	Occurrence	Example
SoneStart	Date and Time stamp for the time when the service outage started This element is further explained in Section 6.1.1.1 on page 15.	timestampType	Minimum: 0 Maximum: 1 Optional	N/A
SoneEnd	Date and Time stamp for the time when the service outage ended This element is further explained in Section 6.1.1.2 on page 17.	timestampType	Minimum: 0 Maximum: 1 Optional	N/A
NeIsLogVersion	XML Schema Definition (XSD) file version	string	1 Mandatory	ISP 1.0
NeType	Type of the network element on which the service outage occurred	elementType	1 Mandatory	Generic NE



Table 10 *ServiceOutageNetworkElement Element Structure Description*

Element	Description	Type	Occurrence	Example
SoneEventCause	Cause of the service outage event	CbalspEventCause	1 Mandatory	Unscheduled Product Attributable
SoneEventTrigger	Trigger of the service outage event	CbalspEventTrigger	1 Mandatory	Unplanned Automatic
SoneEventDomain	The domain of the node on which the service outage occurred This element is further explained in Section 6.1.1.3 on page 18.	complexType	1 Mandatory	N/A
SoneEventReason	The reason of the service outage event	string	Minimum: 0 Maximum: 1 Optional	Problem with: Nova Compute Server process is running
SoneEventImpact	Integer between 0 and 100 Higher value means more serious service outage. Default value is 100.	Percentage	1 Mandatory	1
NeTimeZone ⁽¹⁾	Time zone of the affected network element	timezoneType	1 Mandatory	UTC-01:00

(1) The values of the elements in Table 11 and Table 12 must be corrected according to this setting.

The following is an example of the **ServiceOutageNetworkElement** element in the XML format:

```
<ServiceOutageNetworkElement>
  <SoneStart>
    ...
  </SoneStart>
  <SoneEnd>
    ...
  </SoneEnd>
  <NeIsLogVersion>ISP 1.0</NeIsLogVersion>
  <NeType>Generic NE</NeType>
  <SoneEventCause>Unscheduled Product Attributable</SoneEventCause>
  <SoneEventTrigger>Unplanned Automatic</SoneEventTrigger> ...
  <SoneEventDomain>
    ...
  </SoneEventDomain>
  <SoneEventReason>Problem with: Nova Compute Server process is running</SoneEventReason>
  <SoneEventImpact>1</SoneEventImpact>
  <NeTimeZone>UTC-01:00</NeTimeZone>
</ServiceOutageNetworkElement>
```

Example 10 *ServiceOutageNetworkElement Element in XML Format*

6.1.1.1

SoneStart

The **SoneStart** element contains the Date and Time stamp for the time when the service outage started. The element includes the following sub-elements as shown in Figure 11.

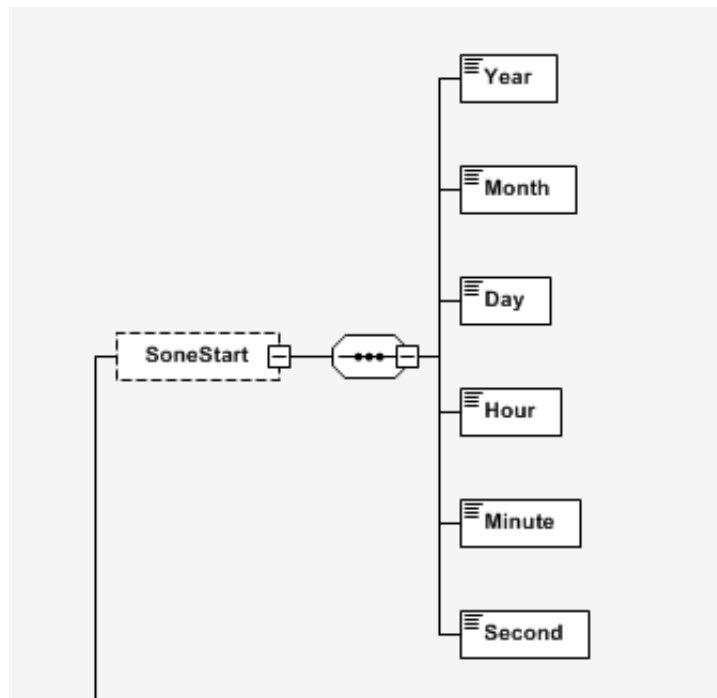


Figure 11 SoneStart Element Structure Overview

Table 11 shows a detailed description for the sub-elements of the **SoneStart** element:

Table 11 SoneStart Element Structure Description

Element	Description	Type	Occurrence	Example
Year	Year is valid until Y2038 32-bit Unix time.	year	1 Mandatory	2014
Month	Month in decimals, 1–12	month	1 Mandatory	11
Day	Day in decimals, 1–31	day	1 Mandatory	13
Hour	Hour in decimals, 0–23	hour	1 Mandatory	12
Minute	Minute in decimals, 0–59	minute	1 Mandatory	29
Second	Second in decimals, 0–59	second	1 Mandatory	5

Note: The values of the elements of **SoneStart** must be corrected according to the setting of the **NeTimeZone** element in Table 10.

The following is an example of the **SoneStart** element in the XML format:

```
<SoneStart>
  <Year>2014</Year>
  <Month>11</Month>
  <Day>13</Day>
  <Hour>12</Hour>
  <Minute>29</Minute>
  <Second>5</Second>
</SoneStart>
```

Example 11 *SoneStart Element in XML Format*

6.1.1.2 SoneEnd

The **SoneEnd** element contains the Date and Time stamp for the time when the service outage ended. The element includes the following sub-elements as shown in Figure 12.

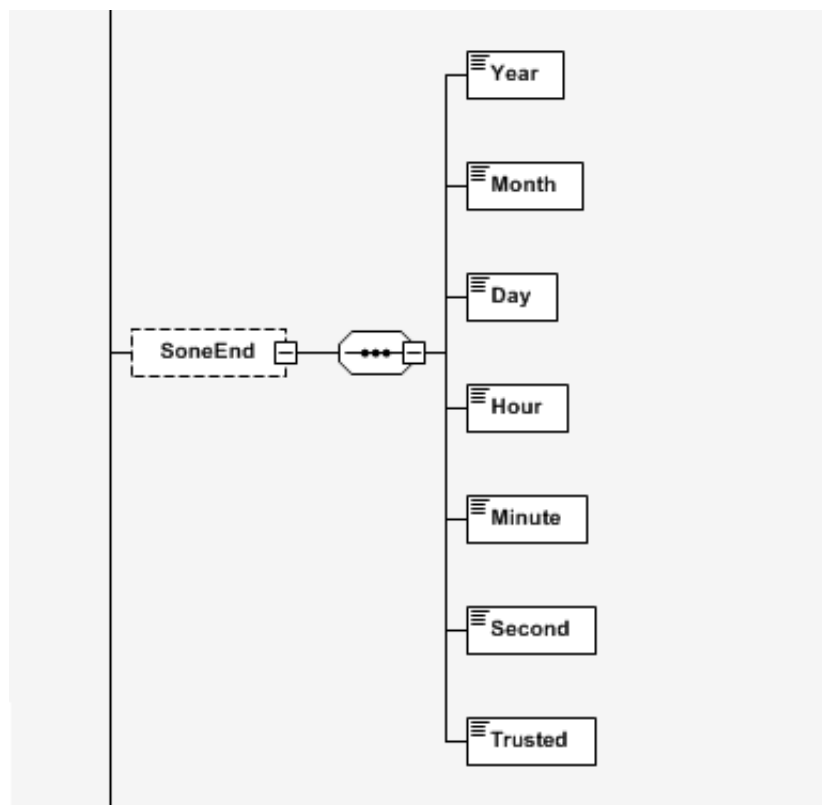


Figure 12 *SoneEnd Element Structure Overview*

Table 12 shows a detailed description for the sub-elements of the **SoneEnd** element:

Table 12 *SoneEnd Element Structure Description*

Element	Description	Type	Occurrence	Example
Year	Year is valid until Y2038 32-bit Unix time.	year	1 Mandatory	2014

**Table 12** *SoneEnd Element Structure Description*

Element	Description	Type	Occurrence	Example
Month	Month in decimals, 1–12	month	1 Mandatory	11
Day	Day in decimals, 1–31	day	1 Mandatory	13
Hour	Hour in decimals, 0–23	hour	1 Mandatory	12
Minute	Minute in decimals, 0–59	minute	1 Mandatory	30
Second	Second in decimals, 0–59	second	1 Mandatory	5
Trusted	Indicates whether the outage event ended within the given LogPeriod interval specified by the From and To elements, see Table 3. <ul style="list-style-type: none">• true: The event ended before To.• false: The event did not end before To.	boolean	1 Mandatory	false

Note: The values of the elements of **SoneEnd** must be corrected according to the setting of the **NeTimeZone** element in Table 10.

The following is an example of the **SoneEnd** element in the XML format:

```
<SoneEnd>
  <Year>2014</Year>
  <Month>11</Month>
  <Day>13</Day>
  <Hour>12</Hour>
  <Minute>30</Minute>
  <Second>5</Second>
  <Trusted>false</Trusted>
</SoneEnd>
```

Example 12 *SoneEnd Element in XML Format*

6.1.1.3 SoneEventDomain

The **SoneEventDomain** element represents the domain of the node on which the service outage occurred. The element includes a series of the **IspEventDomainElement** sub-elements as shown in Figure 6:

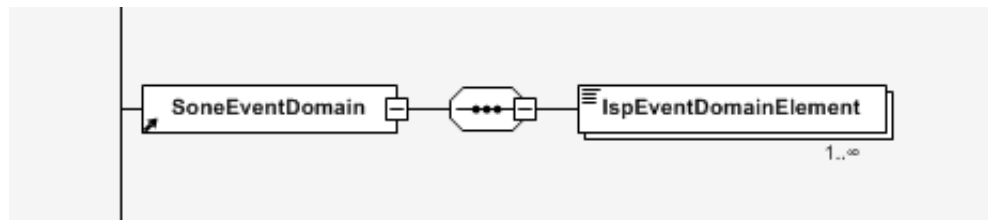


Figure 13 SoneEventDomain Element Structure Overview

Table 13 shows a detailed description for the **IspEventDomainElement** sub-element of the **SoneEventDomain** element:

Table 13 SoneEventDomain Element Structure Description

Element	Description	Type	Occurrence	Example
IspEventDomainElement	The network element affected by the service outage	string	Minimum: 1 Maximum: Unbounded Mandatory	node-2.ericsson.com

The following is an example of the **SoneEventDomain** element in the XML format:

```
<SoneEventDomain>
  <IspEventDomainElement>node-2.mirantis.com</IspEventDomainElement>
</SoneEventDomain>
```

Example 13 SoneEventDomain Element in XML Format

Refer to the *Preconfigured Key Performance Indicators* for more information.