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API Documentation

Synergy SKY SNMP Framework for Infrastructure Alerts

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1 Introduction

The Synergy SKY SNMP Trap Framework is based on the **Simple Network Management Protocol** (SNMP) version 2c and is designed to send alerts and other relevant information to a third party network monitoring system.

Synergy SKY AS is registered with dedicated private enterprise code in Internet Assigned Numbers Authority's database for SMI Network Management Private Enterprise Codes, see <http://www.iana.org/assignments/enterprise-numbers/enterprise-numbers>.

Synergy SKY AS private enterprise code: 1.3.6.1.4.1.43058

2 Alerts in Synergy SKY

2.1 Defining an Alert Rule

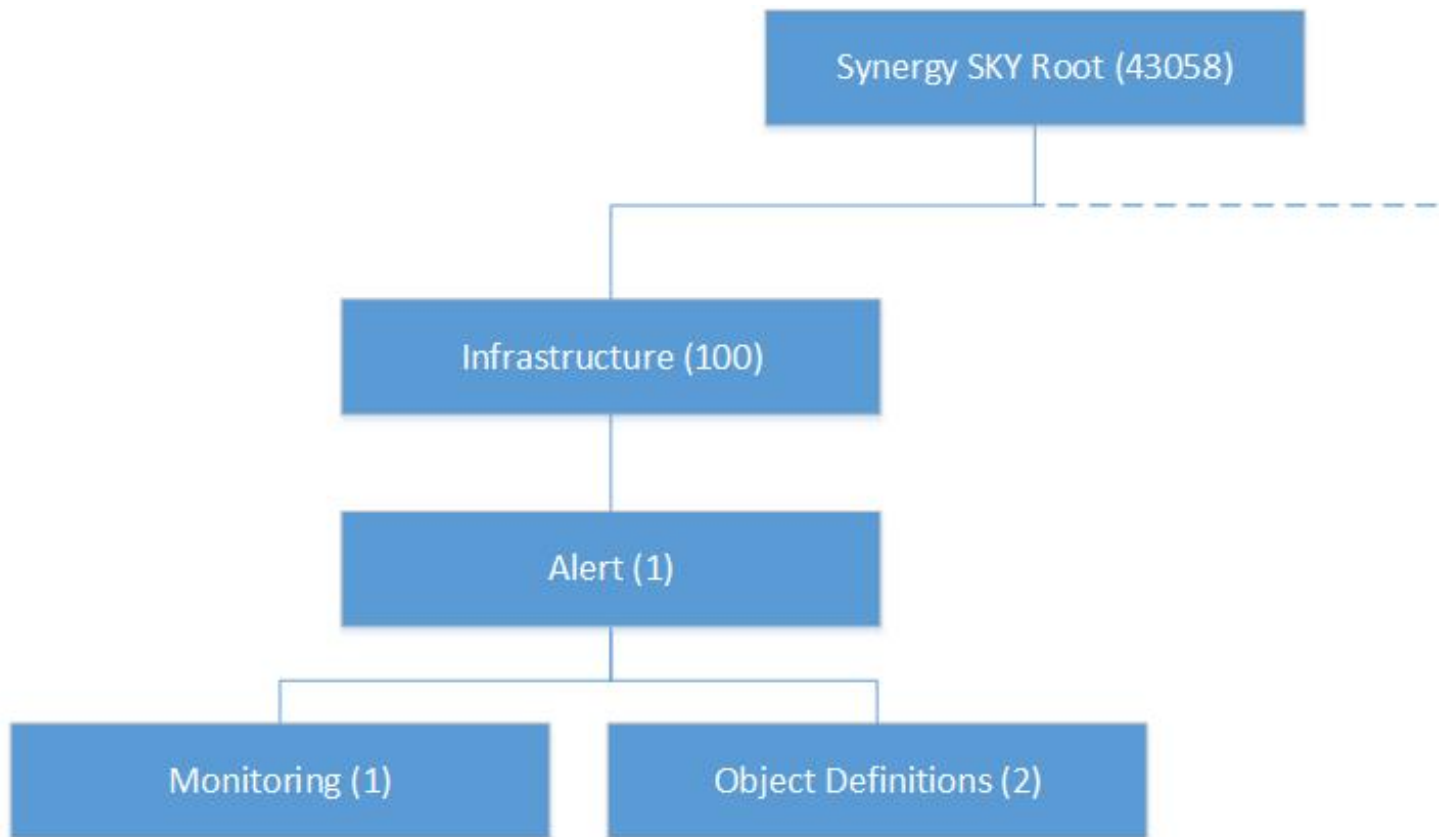
Alerts to be sent via the SNMP Trap Framework must be defined in the Synergy SKY graphical user interface, refer to the Administrator's guide for more information about howto define alert rules.

Alert rules that should trig SNMP traps should be defined as follows:

User:	<input type="text" value="SNMP Trap"/>
Component:	<input type="text" value="All items checked"/>
Alert Event:	<input type="text" value="All Events"/>
Operator:	<input type="text" value="Greater than or equal to"/>
Threshold %:	<input type="text" value="0"/>
Alert Name:	<input type="text" value="SNMP Alert Name"/>
Alert Description:	<input type="text" value="SNMP Alert Description"/>
Severity:	<input type="text" value="Critical"/>
<input type="button" value="Update"/> <input type="button" value="Cancel"/>	

SNMP traps will then be generated based on the alert rule data (component, alert type, threshold, severity etc.).

3 MIB Tree Structure



3.1 Alert Types

The table below describes the different alert types and when they became available.

Oid	Alert Name	Description	Alert Agent Version
1.3.6.1.4.1.43058.100.1.1.1	isdnLinkDownTrap	Notification that a link to the ISDN Gateway is down	3.0
1.3.6.1.4.1.43058.100.1.1.2	isdnLinkUpTrap	Notification that a link to the ISDN Gateway is up	3.0
1.3.6.1.4.1.43058.100.1.1.5	mcuVideoCapacityWarningTrap	Notification that the video utilization on the specified MCU has exceeded the defined capacity threshold	3.0
1.3.6.1.4.1.43058.100.1.1.9	callControlZoneDownTrap	Notification that a zone is flagged as down for the specified call control	3.0
1.3.6.1.4.1.43058.100.1.1.10	callControlZoneUpTrap	Notification that a zone is flagged as up for the specified call control	3.0
1.3.6.1.4.1.43058.100.1.1.11	callControlCapacityWarningTrap	Notification that the utilization exceeds the defined capacity threshold for the specified call control	3.0
1.3.6.1.4.1.43058.100.1.1.12	isdnCapacityWarningTrap	Notification that the utilization exceeds the defined capacity threshold for the specified ISDN Gateway	3.0
1.3.6.1.4.1.43058.100.1.1.14	systemDownTrap	Notification that Synergy SKY has lost the link to the specified system	3.0
1.3.6.1.4.1.43058.100.1.1.15	systemUpTrap	Notification that Synergy SKY has regained the link to the specified system	3.0
1.3.6.1.4.1.43058.100.1.1.16	gatekeeperRegistrationLostTrap	Notification that the specified system has been deregistered from the gatekeeper	3.0
1.3.6.1.4.1.43058.100.1.1.17	gatekeeperRegistrationRegainedTrap	Notification that the specified system has regained gatekeeper registration	3.0
1.3.6.1.4.1.43058.100.1.1.18	recordingLiveCallsCapacityWarningTrap	Notification that the number of live streamed recording calls has exceeded the defined capacity threshold for the specified recording service	3.0
1.3.6.1.4.1.43058.100.1.1.20	recordingStorageCapacityWarningTrap	Notification that the number of recording calls has exceeded the defined capacity threshold for the specified recording service	3.0
1.3.6.1.4.1.43058.100.1.1.21	callControlPeerDownTrap	Notification that a peer is flagged as down for the specified call control	3.0
1.3.6.1.4.1.43058.100.1.1.22	callControlPeerUpTrap	Notification that a peer is flagged as up for the specified call control	3.0
1.3.6.1.4.1.43058.100.1.1.23	callControlRegistrationCapacityWarningTrap	Notification that the number of registrations has exceeded the defined capacity threshold for the specified recording service	3.0
1.3.6.1.4.1.43058.100.1.1.24	mcuAudioCapacityWarningTrap	Notification that the audio utilization on the specified MCU has exceeded the defined capacity threshold	3.0
1.3.6.1.4.1.43058.100.1.1.28	diskSpaceWarningTrap	Notification that the disk space utilization on the specified system has exceeded the defined capacity threshold	3.0

3.2 Trap Object Definition

Each of the traps described in the table above contains a predefined set of meta data as specified in the table below

Oid	Object Name	Data Type	Description	Alert Agent Version
1.3.6.1.4.1.43058.100.1.2.1	trapComponentId	Integer32	The ID of the component that caused this alert, e.g. an MCU	3.0
1.3.6.1.4.1.43058.100.1.2.2	trapSeverityLevel	SeverityLevel	The severity level of the alert that was thrown	3.0
1.3.6.1.4.1.43058.100.1.2.3	trapAlertType	AlertType	The type of alert that was thrown	3.0
1.3.6.1.4.1.43058.100.1.2.4	trapName	DisplayString	Name of trap as defined in Synergy SKY	3.0
1.3.6.1.4.1.43058.100.1.2.5	trapDescription	DisplayString	Description of trap as defined in Synergy SKY	3.0
1.3.6.1.4.1.43058.100.1.2.6	trapComponentName	DisplayString	The name of the component that caused the trap to be generated	3.0
1.3.6.1.4.1.43058.100.1.2.7	trapComponentIPAddress	DisplayString	The IP address or host name (depending on what is defined in Synergy SKY) of the component that caused the trap to be generate	3.0

3.2.1 Custom Data Types

There are two custom data types used in the Trap Object Definition that is described below:

3.2.1.1 AlertType

The AlertType data type is an enumerated type representing the different available alerts in Synergy SKY.

3.2.1.2 SeverityLevel

The SeverityLevel data type is an enumerated type representing the different available severity levels (low, medium, high and critical) in Synergy SKY.

4 Appendix 1: MIB file

SYNERGYSKY-ALERT-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY, OBJECT-TYPE, OBJECT-IDENTITY, NOTIFICATION-TYPE, Integer32, enterprises, IpAddress
 FROM SNMPv2-SMI

sysUpTime, snmpTrapOID
 FROM SNMPv2-MIB

DisplayString, TEXTUAL-CONVENTION, MacAddress
 FROM SNMPv2-TC;

synergySKYAlertModule MODULE-IDENTITY

LAST-UPDATED "201404291000Z"
 ORGANIZATION "Synergy SKY AS"
 CONTACT-INFO

"Postal:
 Oslo,
 NORWAY"

DESCRIPTION

"The Synergy SKY Alert MIB specifies a conceptual group of observable events and objects generated from the Alert engine in the Synergy SKY platform.

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This SNMP MIB module (hereinafter 'Specification') embodies Synergy SKY AS's proprietary intellectual property. Synergy SKY AS retains all title and ownership in this Specification, including any revision of this Specification.

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REVISION "201404291000Z"

DESCRIPTION "Added information about component name and component IP address in all traps and corrected some typos"

REVISION "201404072000Z"

DESCRIPTION "Updated traps with sysUptime and renamed trapOID to snmpTrapOID. Also removed duplicate trap 1.3.6.1.4.1.43058.100.1.1.5"

REVISION "201402281200Z"

DESCRIPTION "Initial version of this Specification"

::= { alert }

synergysky OBJECT IDENTIFIER ::= { enterprises 43058 }

infrastructure OBJECT IDENTIFIER ::= { synergysky 100 }

alert OBJECT IDENTIFIER ::= { infrastructure 1 }

AlertType ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"Enumerated type representing an alert from Synergy SKY"

SYNTAX INTEGER {

isdnLinkDown(1),
 isdnLinkUp(2),
 mcuVideoCapacityWarning(5),
 callControlZoneDown(9),
 callControlZoneUp(10),
 callControlCapacityWarning(11),
 isdnCapacityWarning(12),
 systemDown(14),
 systemUp(15),
 gatekeeperRegistrationLost(16),
 gatekeeperRegistrationRegained(17),
 recordingLiveCallsCapacityWarning(18),


```

    recordingStorageCapacityWarning(20),
    callControlPeerDown(21),
    callControlPeerUp(22),
    callControlRegistrationCapacityWarning(23),
    mcuAudioCapacityWarning(24),
    diskSpaceWarning(28),
    recordingCurrentCallsCapacityWarning(34)
}

```

SeverityLevel ::= TEXTUAL-CONVENTION

```

STATUS current
DESCRIPTION
  "Enumerated type representing the alert Level"
SYNTAX INTEGER {
  low(4),
  medium(3),
  high(2),
  critical(1)
}

```

synergySKYMonitoring OBJECT-IDENTITY

```

STATUS current
DESCRIPTION "OID for SynergySKYAlertModule monitoring branch"
::= { synergySKYAlertModule 1 }

```

isdnLinkDownTrap NOTIFICATION-TYPE

```

OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
STATUS current
DESCRIPTION
  "Notification that a link to the ISDN Gateway is down"
::= { synergySKYMonitoring 1 }

```

isdnLinkUpTrap NOTIFICATION-TYPE

```

OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
STATUS current
DESCRIPTION
  "Notification that a link to the ISDN Gateway is up"
::= { synergySKYMonitoring 2 }

```

mcuVideoCapacityWarningTrap NOTIFICATION-TYPE

```

OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
STATUS current
DESCRIPTION
  "Notification that the video utilization on the specified MCU has exceeded the defined capacity threshold"
::= { synergySKYMonitoring 5 }

```

callControlZoneDownTrap NOTIFICATION-TYPE

```

OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
STATUS current
DESCRIPTION
  "Notification that a zone is flagged as down for the specified call control"
::= { synergySKYMonitoring 9 }

```

callControlZoneUpTrap NOTIFICATION-TYPE

```

OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
STATUS current
DESCRIPTION
  "Notification that a zone is flagged as up for the specified call control"
::= { synergySKYMonitoring 10 }

```

callControlCapacityWarningTrap NOTIFICATION-TYPE

```

OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
STATUS current
DESCRIPTION
  "Notification that the utilization exceeds the defined capacity threshold for the specified call control"
::= { synergySKYMonitoring 11 }

```

```
isdncapacitywarningtrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the utilization exceeds the defined capacity threshold for the specified I
  DSN Gateway"
  ::= { synergySKYMonitoring 12 }

systemdowntrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that Synergy SKY has lost the link to the specified system"
  ::= { synergySKYMonitoring 14 }

systemuptrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that Synergy SKY has regained the link to the specified system"
  ::= { synergySKYMonitoring 15 }

gatekeeperregistrationlosttrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the specified system has been deregistered from the gatekeeper"
  ::= { synergySKYMonitoring 16 }

gatekeeperregistrationregainedtrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the specified system has regained gatekeeper registration"
  ::= { synergySKYMonitoring 17 }

recordinglivecallscapacitywarningtrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the number of live streamed recording calls has exceeded the defined capac
  ity threshold for the specified recording service"
  ::= { synergySKYMonitoring 18 }

recordingstoragecapacitywarningtrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the number of recording calls has exceeded the defined capacity threshold
  for the specified recording service"
  ::= { synergySKYMonitoring 20 }

callcontrolpeerdowntrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that a peer is flagged as down for the specified call control"
  ::= { synergySKYMonitoring 21 }

callcontrolpeeruptrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that a peer is flagged as up for the specified call control"
  ::= { synergySKYMonitoring 22 }

callcontrolregistrationcapacitywarningtrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
  trapDescription, trapComponentName, trapComponentIPAddress}
```

```

STATUS current
DESCRIPTION
  "Notification that the number of registrations has exceeded the defined capacity threshold f
or the specified recording service"
  ::= { synergySKYMonitoring 23 }

mcuAudioCapacityWarningTrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the audio utilization on the specified MCU has exceeded the defined capa
city threshold"
    ::= { synergySKYMonitoring 24 }

diskSpaceWarningTrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the disk space utilization on the specified system has exceeded the defi
ned capacity threshold"
    ::= { synergySKYMonitoring 28 }

recordingCurrentCallsCapacityWarningTrap NOTIFICATION-TYPE
  OBJECTS { sysUpTime, trapComponentId, snmpTrapOID, trapSeverityLevel, trapAlertType, trapName,
trapDescription, trapComponentName, trapComponentIPAddress}
  STATUS current
  DESCRIPTION
    "Notification that the number of current recorded calls has exceeded the defined capacity thr
eshold for the specified recording service"
    ::= { synergySKYMonitoring 34 }

synergySkyBindingPrefix OBJECT IDENTIFIER
  ::= { alert 2 }

trapComponentId OBJECT-TYPE
  SYNTAX Integer32
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION "Component ID"
  ::= { synergySkyBindingPrefix 1 }

trapSeverityLevel OBJECT-TYPE
  SYNTAX SeverityLevel
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION "The severity level of the alert that was thrown"
  ::= { synergySkyBindingPrefix 2 }

trapAlertType OBJECT-TYPE
  SYNTAX AlertType
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION "The type of alert that was thrown"
  ::= { synergySkyBindingPrefix 3 }

trapName OBJECT-TYPE
  SYNTAX DisplayString
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION "Name of trap as defined in Synergy SKY"
  ::= { synergySkyBindingPrefix 4 }

trapDescription OBJECT-TYPE
  SYNTAX DisplayString
  MAX-ACCESS read-only
  STATUS current
  DESCRIPTION "Description of trap as defined in Synergy SKY"
  ::= { synergySkyBindingPrefix 5 }

trapComponentName OBJECT-TYPE
  SYNTAX DisplayString
  MAX-ACCESS read-only
  STATUS current

```

```
DESCRIPTION "The name of the component that caused the trap to be generated"
 ::= { synergySkyBindingPrefix 6 }

trapComponentIPAddress OBJECT-TYPE
SYNTAX      DisplayString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION "The IP address or host name (depending on what is defined in Synergy SKY) of the c
omponent that caused the trap to be generate"
 ::= { synergySkyBindingPrefix 7 }

END
```

Categories: Internal | API