

*Service Management Delivery Services*

**Zero Calls Policy**

**Low Level Design Documentation (LLD)**

**Prepared for:**

****

**V1.0**

**Final**

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Version History

|  |  |  |  |
| --- | --- | --- | --- |
| Version  Number | Revision  Date | Summary of Changes  (List the reason for each version of the document) | Author(s) |
| V1.0 |  | Original |  |
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# Introduction

## Document Objective

This LLD intends to describe the requirements for Zero Calls Policy

# High Level Algorithm

## Describe function

* The following are Network Events(NE) that indicate cell with zero calls.
* These events should be suppressed if there is a Site Down(SD) or Partial Site Down(PSD) associated with the event.
* If there is a Zero Calls Synthetic Event (SE) for the associated then the NE should be updated with the SE and the SE Severity Updated (see Table 1)
* If there is no associate SD, PSD or SE then after a period of hibernation (See Table 1 for period) a Synthetic Event should be generated. The NE should be updated with the SE details

## Lookup for Severity and Hibernation Period

|  |  |  |
| --- | --- | --- |
| **% Cells in Zero Calls** | **SE Severity** | **Hibernation Time** |
| More than or equal to 75% | Critical | 15Mins |
| More than or equal to 50% and less than 75% | Major | 30Mins |
| More than or equal to 25% and less than 50% | Minor | 45Mins |
| Less than 25% | Minor | 60Mins |

Table

# Pre-requisites

## Rules File

The EventId is based on the event Summary, as shown in the table below.

|  |  |  |
| --- | --- | --- |
| **EventId** | **Vendor** | **Summary** |
| NET\_ZERO\_CALLS\_001 | Motorola | noCallsOnCell |
| NET\_ZERO\_CALLS\_001 | Alcatel | Zero Originating calls |
| NET\_ZERO\_CALLS\_001 | Alcatel | Zero Call |
| NET\_ZERO\_CALLS\_001 | Alcatel | Zero Terminating calls |
| NET\_ZERO\_CALLS\_001 | Huawei | Zero Call |
| NET\_ZERO\_CALLS\_001 | Huawei | Zero Terminating calls |
|  |  |  |
|  |  |  |

Table

## TSRM Classification

The following classification should be added in TSRM

|  |  |
| --- | --- |
| **EventId** | **Classification** |
| NET\_ZERO\_CALLS\_001 | ??????? |

Table

## Data Sources

The following Netcool/Impact data types are required for this policy:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Impact Data Source** | **Impact Data Type** | **Data Base Name** | **Table Name** | **Fields** |
| defaultobjectserver | OS\_Status | Object Server | Alerts.status | **Not required** |
|  |  |  |  |  |
|  |  |  |  |  |

Table

## Customized Functions

This policy used 2 customized functions:

* MobiLib.getSleepTime ()
* MobiLib.AddGenericJournal ()

# Policy Details

## Event Reader

**EventReader Name:** ml\_defaulteventreader

**Policy name:** ML\_ZeroCall

**Filter:** ImpactFlag = 4 and EventId = NET\_ZERO\_CALLS\_001’ and HibernateFlag = 0 and Agent != 'Netcool Impact' and MaintFlag in (1,2)

## Synthetic Event

The synthetic event to be raised should be populated with data as shown in the table below

|  |  |
| --- | --- |
| **Field Name** | **Value** |
| Node | @SiteCode |
| Summary | “<Percentage of Cells in Zero Call> Cells of <BSC Name> in Zero Call” |
| AlertGroup | 'Cell Zero Call' |
| AlertKey | @BSC\_Name |
| Severity | 4 |
| Type | 1 |
| FirstOccurrence | Current Time |
| LastOccurrence | CurrentTime |
| Class | 200026 |
| Domain | @Domain |
| ManCity | @ ManCity |
| CovCity | @ CovCity |
| BSC\_Name | @ BSC\_Name |
| Region | @ Region |
| Site | @Site |
| Network | @Network |
| LogTicket | 1 |
| ImpactFlag | 2 |
| OutsourceContractor | @ OutsourceContractor |
| BusImportance | @ BusImportance |
| OmcEms | @ OmcEms |
| MaintFlag | @MaintFlag |
| AdvCorrServerSerial | @ServerSerial |
| EventId | SYN\_ZERO\_CALLS\_001 |
| OwnerUID | 65534 |
| Agent | Netcool Impact |
| TTHibernate | 60 |
| SiteCode | @SiteCode |
|  |  |
|  |  |
|  |  |
|  |  |

Table

## Low Level Algorithm

### Processing A Cell Zero Call Event

* Event Enters Policy as defined by Event Reader
* Set @ImpactFlag = 5
* If ther is an associated Site Down or Partial Site Down Event
  + add this alarm in Journal Text field of the SD or PSD
  + ImpactFlag = 6
  + Exit the ploicy
* If there is an associated Synthetic Event
  + step unto 2nd Hibernation
* Hibernate Period defined in table 1 seconds
* If the Network Event does not exist then
  + ImpactFlag = 6
  + Exit
* If there is an associated Synthetic Event
  + step unto 2nd Hibernation
* Create Synthetic Event
* Get the Synthetic Event details
* Update Network Event with Synthetic Event Details
* Get the number of Cells with Zero Calls in this BSC
* Get the total number of Cells in this BSC
* Update Synthetic Event
  + Summary (“<Percentage of Cells in Zero Call> Cells of <BSC Name> in Zero Call”)
  + Severity (See Table 1)
* Set @ImpactFlag = 6

## Low Level Flow Chart

### ML\_Zero\_Call

