

## 1 KPIs for an asset

KPI name	KPI description	UOM	NOW	TREND
KPI Avg No Alm per 10m	Mean average number of alarms per 10 minute buckets per selected interval in chosen period. NOTE: interval should be greater than 10 minutes.	count	Y	Y
KPI Avg No Alm per 1h	Mean average number of alarms per 1 hour buckets per selected interval in chosen period. NOTE: interval should be greater than 1 hour.	count	Y	Y
KPI Avg No Alm per 1d	Mean average number of alarms per 1 day buckets per selected interval in chosen period. NOTE: interval should be greater than 1 day.	count	Y	Y
KPI Highest 10m	Highest alarm count in 10 minute bucket per selected interval in chosen period. NOTE: interval should be greater than 10 minutes	count	Y	Y
KPI Highest 1h	Highest alarm count in 1 hour bucket per selected interval in chosen period. Note: interval should be greater than 1 hour.	count	Y	Y
KPI No Alm	Asset's alarm count per selected interval in chosen period.	count	Y	Y
KPI No Int	Asset's intervention count per selected interval in chosen period.	count	Y	Y
KPI No Dis	Asset's disable intervention count per selected interval in chosen period.	count	Y	Y
KPI % 10m > 5 Alm	Percentage of 10 minute periods containing more than 5 alarms per selected interval in chosen period. NOTE: interval should be higher than 10 minutes.	perc	Y	Y
KPI % 10m > 10 alm	Percentage of 10 minute periods containing more than 10 alarms per selected interval in chosen period. NOTE: interval should be higher than 10 minutes.	perc	Y	Y
KPI % 1h > 30 Alm	Percentage of 1 hour periods containing more than 30 alarms per selected interval in chosen period. NOTE: interval should be higher than 1 hour.	perc	Y	Y
KPI No 10m Accpt	Count of number of 10 minute buckets with an acceptable number (0 or 1) of alarms per selected interval in chosen period. NOTE: interval should be higher than 10 minutes.	count	Y	Y
KPI No 1h Accpt	Count of number of 1 hour buckets with an acceptable number (<=6) of alarms per selected interval in chosen period. NOTE: interval should be higher than 1 hour.	count	Y	Y
KPI No 1d Accpt	Count of number of 1 day buckets with an acceptable number (<=144) of alarms per selected interval in chosen period. NOTE: interval should be higher than 1 day.	count	Y	Y
KPI % Top 10 MFA	Percentage contribution of top 10 most frequent alarms in period (bad actors) per selected interval in chosen period.	perc	Y	Y
KPI % Top 10 MFI	Percentage contribution of top 10 most frequent interventions in selected period (bad actors) per selected	perc	Y	Y

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	interval in chosen period.			
KPI Top 20 ALM BA count	Top 20 most frequent alarm, for the selected period, counts (bad actors) in the selected period per selected interval.	count	Y	Y
KPI Top 20 INT BA count	Top 20 most frequent intervention, for the selected period, counts (bad actors) in the chosen period per selected interval.	count	Y	Y
KPI Message Count	Message count per selected interval in the chosen period.	count	Y	Y
KPI P0 No Alm	P0 priority count per selected interval in chosen period.	count	Y	Y
KPI P1 No Alm	P1 priority count per selected interval in chosen period.	count	Y	Y
KPI P2 No Alm	P2 priority count per selected interval in chosen period.	count	Y	Y
KPI P3 No Alm	P3 priority count per selected interval in chosen period.	count	Y	Y
KPI Min Date	Very first message's timestamp	ticks	Y	n/a
KPI Max Date	Very last message's timestamp	ticks	Y	n/a
KPI Chatter Count	Chattering alarm count per selected interval for the chosen period. Chattering alarm is an alarm which came ON 3 or more times in 60s period.	count	Y	Y
KPI Stale Count	Stale alarm count per selected interval for the chosen period. Stale alarm is an alarm that was On for 24 or more hours.	count	Y	Y
KPI Avg Max No Alm per 10m	Average of the Maximum alarm count in 10 minute bucket per selected interval over the chosen period. NOTE: interval should be greater than 10 minutes	count	Y	Y
KPI Highest 1h	Highest alarm count in 1 hour bucket per selected interval in chosen period. NOTE: interval should be greater than 1 hour	count	Y	Y
{assetName}/{evtType} BA report/{n}.{property}	assetName – Asset to run the report on n – Bad actor index Property - eventAddress, tag, alarmIdentifier, tagDescription, count, percentage		Y	Period data available
{assetName}/Fleeting report/{n}.{property}	n – bad actor index property - eventAddress, tag, alarmIdentifier, tagDescription, count, averageOntoOff, percentageOfTotal, percentageOfitself		Y	Period data available
{assetName}/Stale report/{n}.{property}	n – bad actor index property - eventAddress, tag, alarmIdentifier, tagDescription, count, totalOnTime		Y	Period data available
{assetName}/Chattering report/{n}.{property}	n – bad actor index property - eventAddress, tag, alarmIdentifier, tagDescription, count, percentageOfTotal, percentageOfitself		Y	Period data available

KPI % time > steady target (>1)	Percentage of 10 minute buckets above steady target (>1) per selected interval for the chosen period.	perc	Y	Y
KPI % Time > upset target (>10)	Percentage of 10 minute buckets above upset target (>10) per selected interval for the chosen period.	perc	Y	Y
KPI Max no {EVT} per 10m	Max number of {event types} per 10min per selected period (ALM, INT) for chosen period.	count	Y	Y
KPI Flood Count	Flood count per selected interval for chosen period. NOTE: interval should be greater than 10 minutes.	count	Y	Y
KPI avg % time > upset target (>10)	Average of the % time alarm count in 10 minute bucket per selected interval over the chosen period > target. NOTE: interval should be greater than 10 minutes	Perc	Y	Y(1pt)
KPI avg % time > steady target (>1)	Average of the % time alarm count in 10 minute bucket per selected interval over the chosen period > target. NOTE: interval should be greater than 10 minutes	Perc	Y	Y(1pt)
KPI max no int per 10m	Highest number of interventions in a 10 minute bucket per selected interval for chosen period.	Count	Y	Y
KPI max no alm per 10m	Highest number of alarms in a 10 minute bucket per selected interval for chosen period.	Count	Y	Y
KPI md avg no alm per 1d	Median average number of alarms per 1 day bucket, per interval for chosen period. NOTE: selected interval should be greater than 1 day.	Count	Y	Y
KPI md avg no alm per 1h	Median average number of alarms per 1 hour bucket, per interval for chosen period. NOTE: selected interval should be greater than an hour.	Count	Y	Y
KPI md avg no alm per 10m	Median average number of alarms per 10 minute bucket, per interval for chosen period. NOTE: selected interval should be greater than 10 minutes.	Count	Y	Y
KPI avg no alm per 1d	Mean average number of alarms per 1 day bucket, per interval for chosen period. NOTE: selected interval should be greater than 1 day.	Count	Y	Y
KPI avg no alm per 1hr	Mean average number of alarms per 1 hour bucket, per interval for chosen period. NOTE: selected interval should be greater than an hour.	Count	Y	Y
KPI avg no alm per 10m	Mean average number of alarms per 10 minute bucket, per interval for chosen period. NOTE: selected interval should be greater than 10 minutes.	count	Y	Y
KPI Longest Flood	Longest flood time span per selected interval in the chosen period.	sec	Y	Y
KPI % time in flood	Percentage time spent in flood per selected interval in the chosen period.	perc	Y	Y
KPI Overall Status	Overall asset performance per selected interval for the chosen period. NOTE: interval should be greater than 10minutes. String values can be "Acceptable"(0), "Manageable"(1), "Over-Demanding"(2), "Unacceptable"(3).	Tagdata - int, string data - string	Y	Y

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## 2 KPIs for tag

KPI name	KPI description	NOW	TREND
KPI Av No Alm per 10m	Mean average number of alarms on a tag per 10 minute buckets per selected interval in chosen period. NOTE: interval should be greater than 10 minutes.	Y	Y
KPI Av No Alm per 1h	Mean average number of alarms on a tag per 1 hour buckets per selected interval in chosen period. NOTE: interval should be greater than 1 hour.	Y	Y
KPI Avg No Alm per 1d	Mean average number of alarms on a tag per 1 day buckets per selected interval in chosen period. NOTE: interval should be greater than 1 day.	Y	Y
KPI Highest 10m	Highest alarm count in 10 minute bucket for selected tag per selected interval in chosen period. NOTE: interval should be greater than 10 minutes	Y	Y
KPI Highest 1h	Highest alarm count in 1 hour bucket for selected tag per selected interval in chosen period. Note: interval should be greater than 1 hour.	Y	Y
KPI No Alm	Tag's alarm count per selected interval in chosen period.	Y	Y
KPI No Int	Tag's intervention count per selected interval in chosen period.	Y	Y
KPI No Dis	Tag's disable intervention count per selected interval in chosen period.	Y	Y
KPI % 10m > 5 Alm	Percentage of 10 minute periods containing more than 5 alarms per selected interval in chosen period for selected tag. NOTE: interval should be higher than 10 minutes.	Y	Y
KPI % 10m > 10 Alm	Percentage of 10 minute periods containing more than 10 alarms per selected interval in chosen period for selected tag. NOTE: interval should be higher than 10 minutes.	Y	Y
KPI % 1h > 30 Alm	Percentage of 1 hour periods containing more than 30 alarms per selected interval in chosen period for selected tag. NOTE: interval should be higher than 1 hour.	Y	Y
KPI No 10m Accpt	Count of number of 10 minute buckets with an acceptable number (0 or 1) of alarms per selected interval in chosen period. NOTE: interval should be higher than 10 minutes.	Y	Y
KPI No 1h Accpt	Count of number of 1 hour buckets with an acceptable number (<=6) of alarms per selected interval in chosen period. NOTE: interval should be higher than 1 hour	Y	Y
KPI No 1d Accpt	Count of number of 1 day buckets with an acceptable number (<=144) of alarms per selected interval in chosen period. NOTE: interval should be higher than 1 day.	Y	Y
KPI Message Count	Tag's message count per selected interval in the chosen period.	Y	Y
KPI P0 No Alm	Tag messages with P0 priority count per selected interval in chosen period.	Y	Y
KPI P1 No Alm	Tag messages with P1 priority count per selected interval in	Y	Y

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	chosen period.		
KPI P2 No Alm	Tag messages with P2 priority count per selected interval in chosen period.	Y	Y
KPI P3 No Alm	Tag messages with P3 priority count per selected interval in chosen period.	Y	Y
Disable State	TREND tested, NOW needs ES query changed, RAW works	Y	Y
Manual State	TREND tested, NOW needs ES query changed, RAW works	Y	Y
KPI Min Date	Very first timestamp for this tag message	Y	n/a
KPI Max Date	Very last timestamp for this tag message	Y	n/a
KPI Chatter Count	Chattering alarm count per selected interval for the chosen period. Chattering alarm is an alarm which came ON 3 or more times in 60s period.	Y	Y
KPI Stale Count	Stale alarm count per selected interval for the chosen period. Stale alarm is an alarm that was on for 24 or more hours.	Y	Y
KPI % of total ALM	Percentage of alarms on the tag of the total number of alarms in the selected period.	Y	Y
KPI % of total INT	Percentage of interventions on the tag of the total number of interventions in the selected period.	Y	Y
KPI Overall Status	Acceptable, Manageable, Over-Demanding, Unacceptable	Y	Y
KPI Alm Int ratio	Tag alarm and intervention ratio in the selected period.	Y	Y
KPI Alarm on Delay		Y	Y
KPI Alarm off Delay		Y	Y
KPI Manual Time	Tag in manual mode setting for the selected period of time per chosen interval.	Y	Y
KPI Disabled Time	Tag in disabled mode setting for the selected period of time per chosen interval.	Y	Y
KPI Mean on Time	Tag's mean alarm duration time in the chosen period per selected interval.	Y	Y
KPI Setting Change count	Tag setting change count (manual, disabled mode) in the chosen period per selected interval.	Y	Y
KPI Median on Time	Tag's median alarm duration time in the chosen period per selected interval.	Y	Y
KPI Modal on Time	Tag's modal alarm duration time in the chosen period per selected interval.	Y	Y
KPI on Time	Tag's total alarm on time in chosen period per selected interval.	Y	Y
KPI No of Days Event Occurred	Note: if trending more than 1 point make sure the interval is more than 1d, for example 10d etc	Y	Y
"{tag}/ARM.Cause", "{tag}/ARM.Consequence", "{tag}/ARM.Cost", "{tag}/ARM.Urgency", "{tag}/ARM.Action",	Alarm Response manual property report	Y	

"{tag}/ARM.Suggestion",			
{eventAddress}/Source report/{field name}	Any field value in our message definition	Y	n/a

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### 3 KPIs for alarm identifier

KPI name	KPI description	NOW	TREND
KPI Stale Count	Stale alarm count per selected interval for the chosen period. Stale alarm is an alarm that was on for 24 or more hours.	Y	Y
KPI P0 No Alm	Tag/alarm identifier messages with P0 priority count per selected interval in chosen period.	Y	Y
KPI P1 No Alm	Tag/alarm identifier messages with P1 priority count per selected interval in chosen period.	Y	Y
KPI P2 No Alm	Tag/alarm identifier messages with P2 priority count per selected interval in chosen period.	Y	Y
KPI P3 No Alm	Tag/alarm identifier messages with P3 priority count per selected interval in chosen period.	Y	Y
KPI on time	Tag/alarm identifier total alarm on time in chosen period per selected interval.	Y	Y
KPI No of Days Event Occurred		Y	Y
KPI No Alm	Tag/alarm identifier alarm count per selected interval in chosen period.	Y	Y
KPI modal on time	Tag/alarm identifier alarm modal on time in chosen period per selected interval.	Y	Y
KPI Min Date	Very first message's timestamp	Y	n/a
KPI Message Count	Message count per selected interval in the chosen period.	Y	Y
Count	Message count per selected interval in the chosen period.	Y	Y
KPI median on time	Tag/alarm identifier median alarm duration time in the chosen period per selected interval.	Y	Y
KPI mean on time	Tag/alarm identifier mean alarm duration time in the chosen period per selected interval.	Y	Y
KPI Max Date	Very last message's timestamp	Y	n/a
KPI Highest 10m	Highest alarm count in 10 minute bucket per selected interval in chosen period. NOTE: interval should be greater than 10 minutes	Y	Y
KPI Highest 1h	Highest alarm count in 1 hour bucket per selected interval in chosen period. NOTE: interval should be greater than 10 minutes	Y	Y
KPI Chatter	Chattering alarm count per selected interval for the chosen period. Chattering alarm is an alarm which came ON 3 or more times in 60s period.	Y	Y
KPI Avg No Alm per 10m	Mean average number of alarms per 10 minute buckets per selected interval in chosen period. NOTE: interval should be greater than 10 minutes.	Y	Y

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KPI Avg No Alm per 1h	Mean average number of alarms per 1 hour buckets per selected interval in chosen period. NOTE: interval should be greater than 1 hour.	Y	Y
KPI alarm on delay		Y	Y
KPI alarm off delay		Y	Y
KPI % of total ALM	Percentage of alarms on the tag of the total number of alarms in the selected period.	Y	Y
KPI % 10m > 10 Alm	Percentage of 10 minute periods containing more than 10 alarms per selected interval in chosen period for selected tag. NOTE: interval should be higher than 10 minutes.	Y	Y
KPI % 10m > 5 Alm	Percentage of 10 minute periods containing more than 10 alarms per selected interval in chosen period for selected tag. NOTE: interval should be higher than 5 minutes.	Y	Y
KPI % 1h > 30 Alm	Percentage of 1 hour periods containing more than 30 alarms per selected interval in chosen period for selected tag. NOTE: interval should be higher than 1 hour.	Y	Y
State	The state of the alarm. Indicates whether its in alarm or not. Raw, now and interp data available.	Y	Y

## 4 KPIs for event type

KPI name	KPI description	NOW	TREND
KPI Count	Message count per selected interval in the chosen period.	Y	Y
KPI Message Count	Message count per selected interval in the chosen period.	Y	Y
KPI Min Date	Very first message's timestamp	Y	n/a
KPI Max Date	Very last message's timestamp	Y	n/a

## 5 KPIs for event alarm type

KPI name	KPI description	NOW	TREND
KPI Count	Message count per selected interval in the chosen period.	Y	Y
KPI Message Count	Message count per selected interval in the chosen period.	Y	Y
KPI % of Total Alarms			

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## 6 KPIs for event intervention type

KPI name	KPI description	NOW	TREND
KPI % of Total Interventions		Y	Y

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