

IoT Training Thingsboard

Hasbi Ash Shiddieqy

Agenda

01

Alarm Trigger

02

Dashboard State

03

RPC Call

Yang akan dilakukan

Thingsboard Analisa Data dengan Proses event

Thingsboard Alarm Trigger

Mengontrol Beberapa IoT Sensor melalui 1 Dashboard

Dashboard State dengan Multisensor IoT

Mengontrol RPC Call pada IoT

Thingsboard RPC Call



01

Alarm Trigger

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Rule Chain for Alarm

?

×

Add Rule Chain

Name*

Alarm Trigger

☐ Debug mode

Description

Cancel

Add

filter

^

asset profile switch

check alarm status

check fields presence

check relation

device profile switch

entity type

entity type switch

gps geofencing filter

message type

message type switch

script

switch

Enrichment

^

calculate delta

customer attributes

?

×

Add rule node: script

Name*

Overvoltage_Overcurrent

Debug mode

TBEL

Java Script

function Filter(msg, metadata, msgType) {

1 return msg.voltage > 240 || msg.current >100;

}

Tidy

?

Test filter function

Description

Cancel

Add

Create Alarm

alarm

Filter

check alarm status

Enrichment

Transformation

Action

clear alarm

create alarm

External

Flow

Add rule node: create alarm

Name*
Create Alarm

☐ Use message alarm data

TBEL JavaScript Show help

function Details(msg, metadata, msgType) {

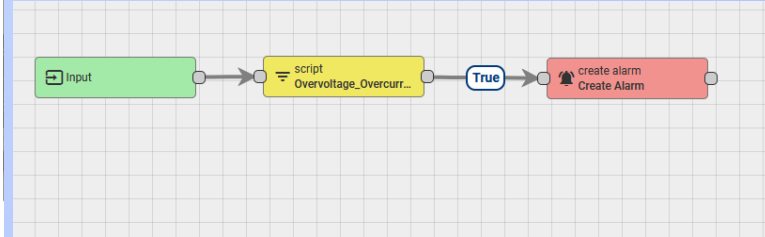
```
1 var details = {};  
2 if (metadata.prevAlarmDetails != null) {  
3   details = JSON.parse(metadata.prevAlarmDetails);  
4   //remove prevAlarmDetails from metadata  
5   metadata.remove('prevAlarmDetails');  
6   //now metadata is the same as it comes IN this rule node  
7 }  
8  
9  
10 return details;  
}
```

Test details function

Alarm type*
Over

Hint: use \${metadata[key]} for value from metadata, \${message[key]} for value from message body

Cancel Add



Test Alarm

```
curl -v -X POST -d '{"temperature": 25}'  
$THINGSBOARD_HOST_NAME_AND_PORT/api/v1/$ACCESS_TOKEN/telemetry --header "Content-  
Type:application/json"
```

```
curl -v -X POST -d '{"voltage": 240}'  
http://103.175.217.120:8080/api/v1/5ejha2qijh5muygcg051/telemetry --header  
"Content-Type:application/json"
```

☐ Type ↓Severity

☐ TemperatureMajor

☐ TemperatureCritical

☐ Low HumidityWarning

Alarms table

Alarm widget

Displays alarms based on defined time window and other filters.

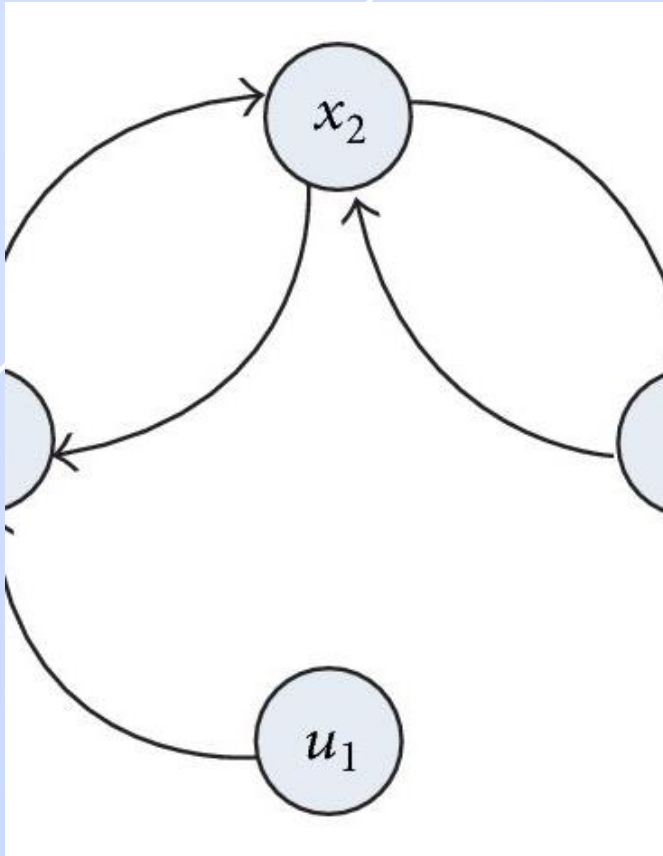
Alarms

🔍 ⚙️ ☰ 🗖

🕒 Realtime - last day

<input type="checkbox"/> Created time ↓	Originator	Type	Severity	Status	Assignee	
<input type="checkbox"/> 2023-07-07 05:14:37	EnergyMeterS6	Over	Critical	Active Unacknowledged	👤 Unassign...	💬 ⋮ ✓ ✕

Items per page: 10 1 - 1 of 1 |< < > >|



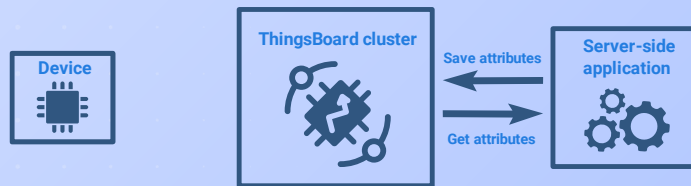
02

Dashboard State

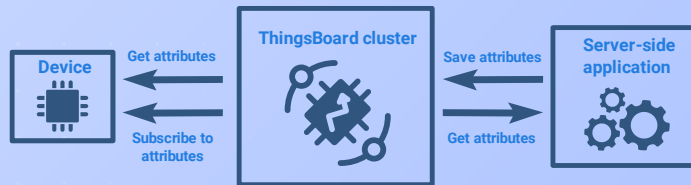
Attribute types

Server-side attributes
Shared attributes
Client-side attributes

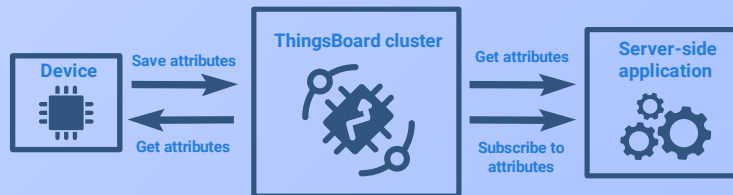
Server-side attributes



Shared attributes



Client-side attributes



Asset Relation

Assign assets to customers
Manage asset attributes
Browse asset alarms

Tel-U EnergyMeter

Asset details

?

×

Details

Attributes

Latest telemetry

Alarms

Events

Relations

Audit Logs

Version control

Filter: Active, Cleared, Acknowledged, Unacknowledged

For all time

↺

🔍

Created time ↓	Originator	Type	Severity	Assignee	Status	Details
2023-07-07 05:14:37	EnergyMeterS6	Over	Critical	Unassigned	Cleared Unacknowledged	...
2023-07-07 05:13:23	EnergyMeterS6	Over	Critical	Unassigned	Cleared Unacknowledged	...

Tel-U EnergyMeter

Asset details

?

×

Details

Attributes

Latest telemetry

Alarms

Events

Relations

Audit Logs

Version control

Outbound relations

Direction
From

+

↺

🔍

<input type="checkbox"/> Type ↑	To entity type	To entity name	
<input type="checkbox"/> Contains	Device	EnergyMeter_S1	<div><div></div><div></div></div>
<input type="checkbox"/> Contains	Device	EnergyMeter_S2	<div><div></div><div></div></div>
<input type="checkbox"/> Contains	Device	EnergyMeterS4	<div><div></div><div></div></div>
<input type="checkbox"/> Contains	Device	EnergyMeterS5	<div><div></div><div></div></div>
<input type="checkbox"/> Contains	Device	EnergyMeterS6	<div><div></div><div></div></div>