

SAY'MON in 5min

FOSDEM, 03 Feb 2019
Konstantin Mikhailov

SAYMON

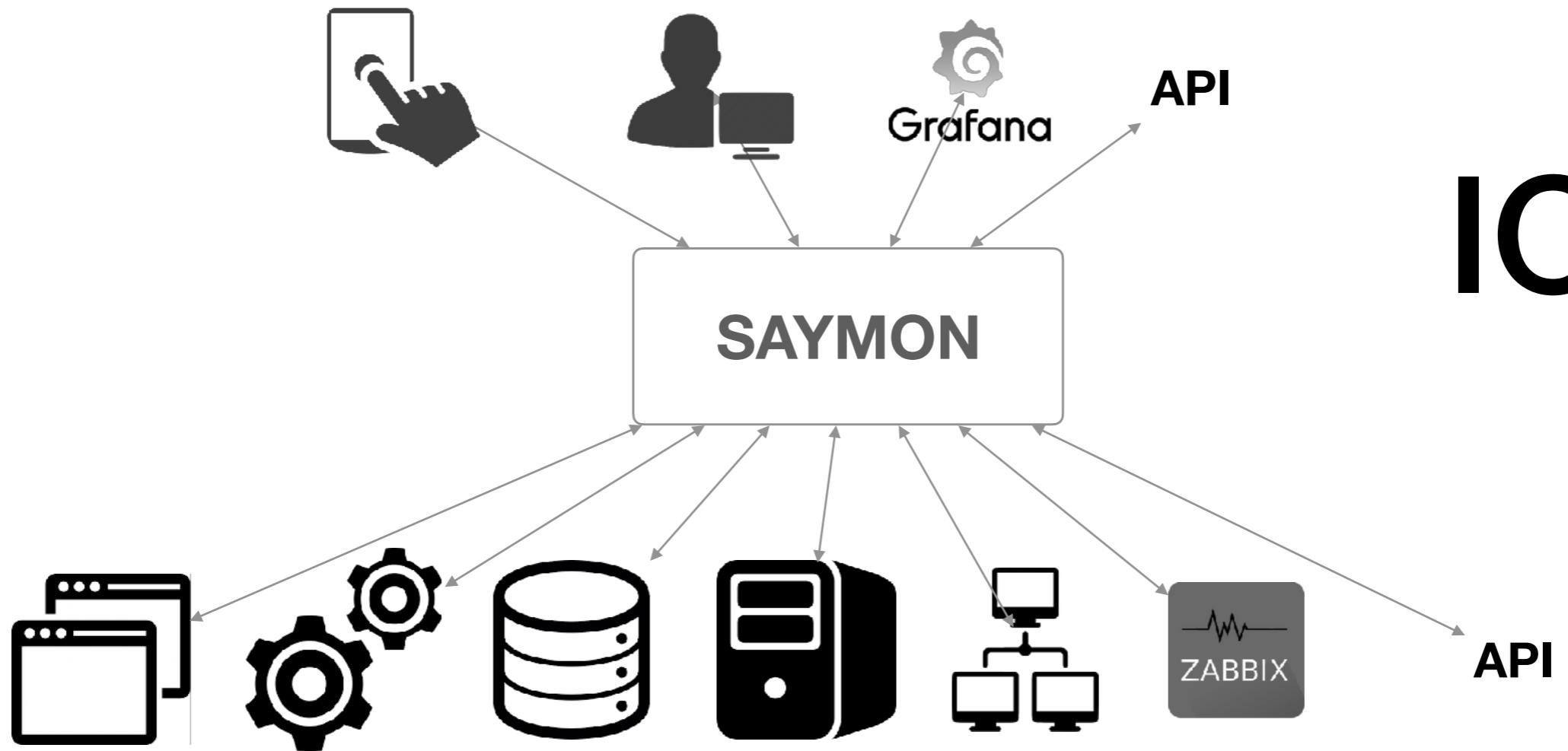
is a software tool, platform...

Gives you
Freedom of Resource and Service modelling,
Monitoring, Management and Visualization

for ICT & IoT

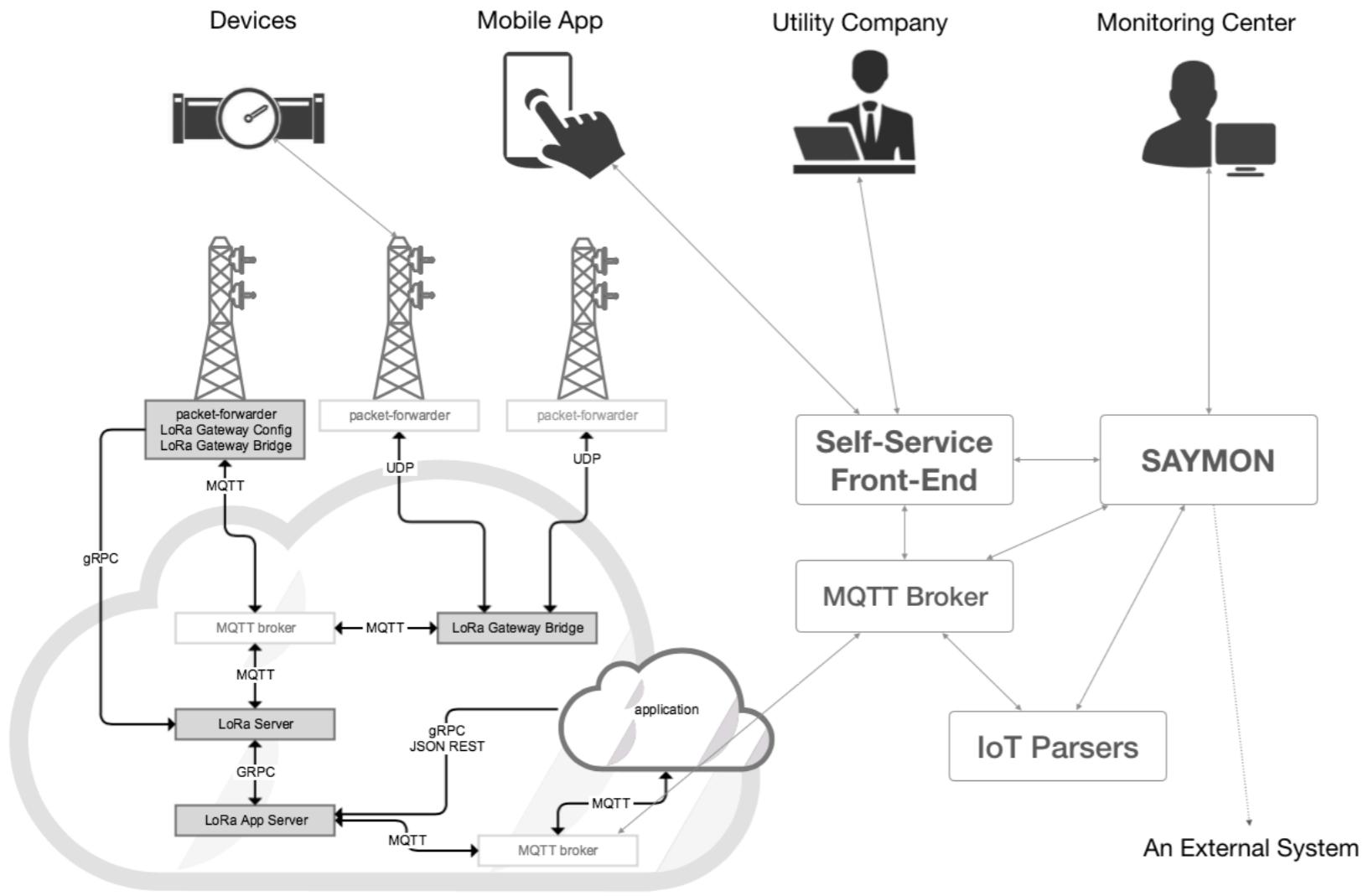
SAYMON works fine for both ICT and IoT

ICT



there're already commercial ICT deployments
- number of enterprises and telecom

IoT



There're PoCs for industrial IoT, for utility (smart village - energy accounting), smart office. Technically **MQTT** support and **Parsers** set for device specific exchange handling.



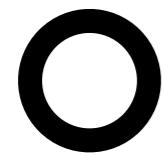
Sensaqua

Ecology startup company Sensaqua uses SAYMON as IoT cloud for ecology (water) express analysis. They measure chemical elements existence in the water and store it to the cloud, them do their chemistry math in the cloud, visualize it instant and history to users.

<http://sensaqua.net/en>

SAYMON

is Objects oriented data-model
gives trees of objects with tags
with check methods, states propagation
and long term time-series data, state and audit logs



an Object

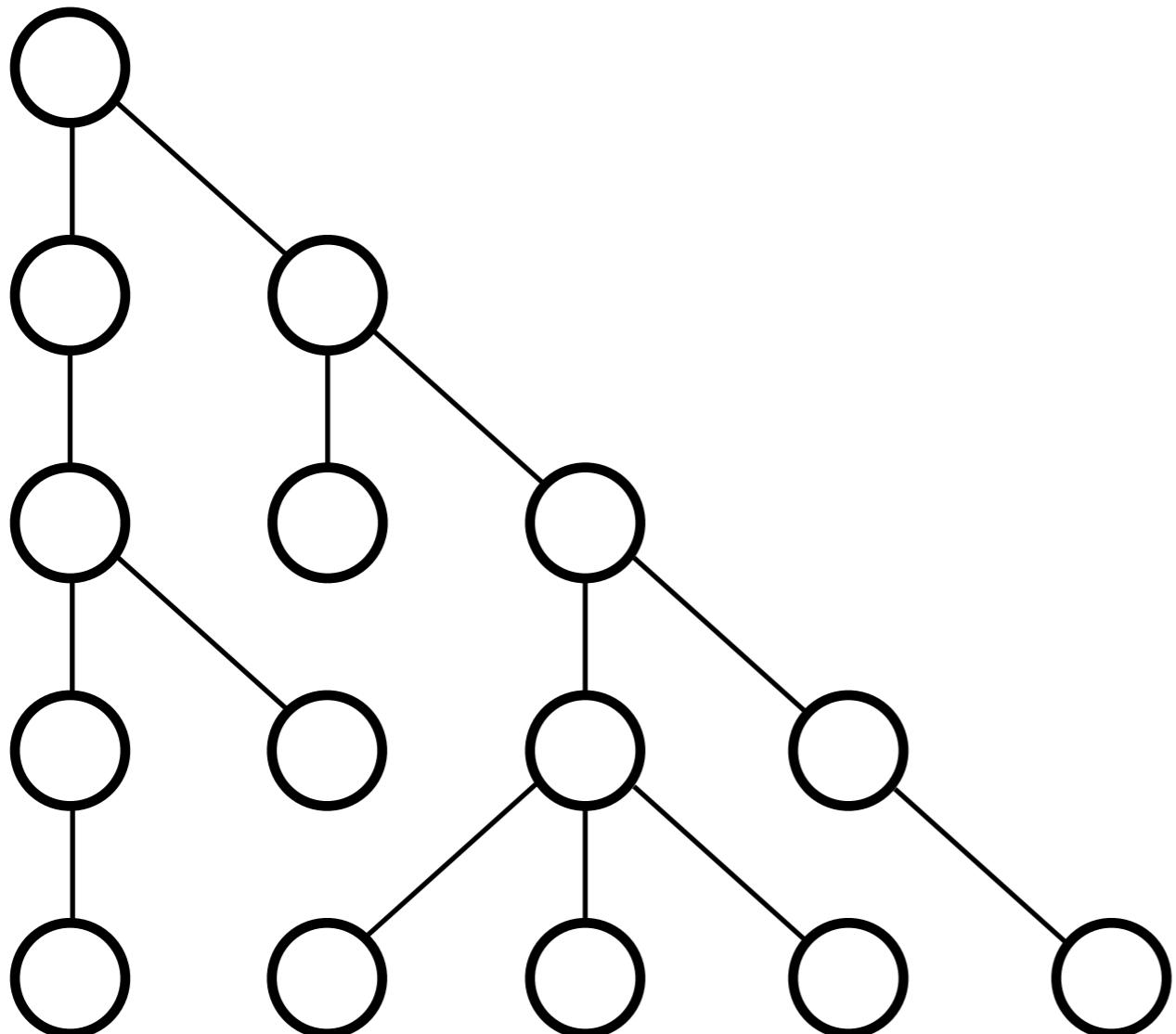
Image description	Class of object
Properties list	Parent object
Documents associated	Children objects
Visualisation properties	
Widgets associated	
	Check method associated
	State condition set
	Triggers to act on state change
	Incidents criteria and correlation
State change history	
Modification history	
Measurements history	

Check Methods

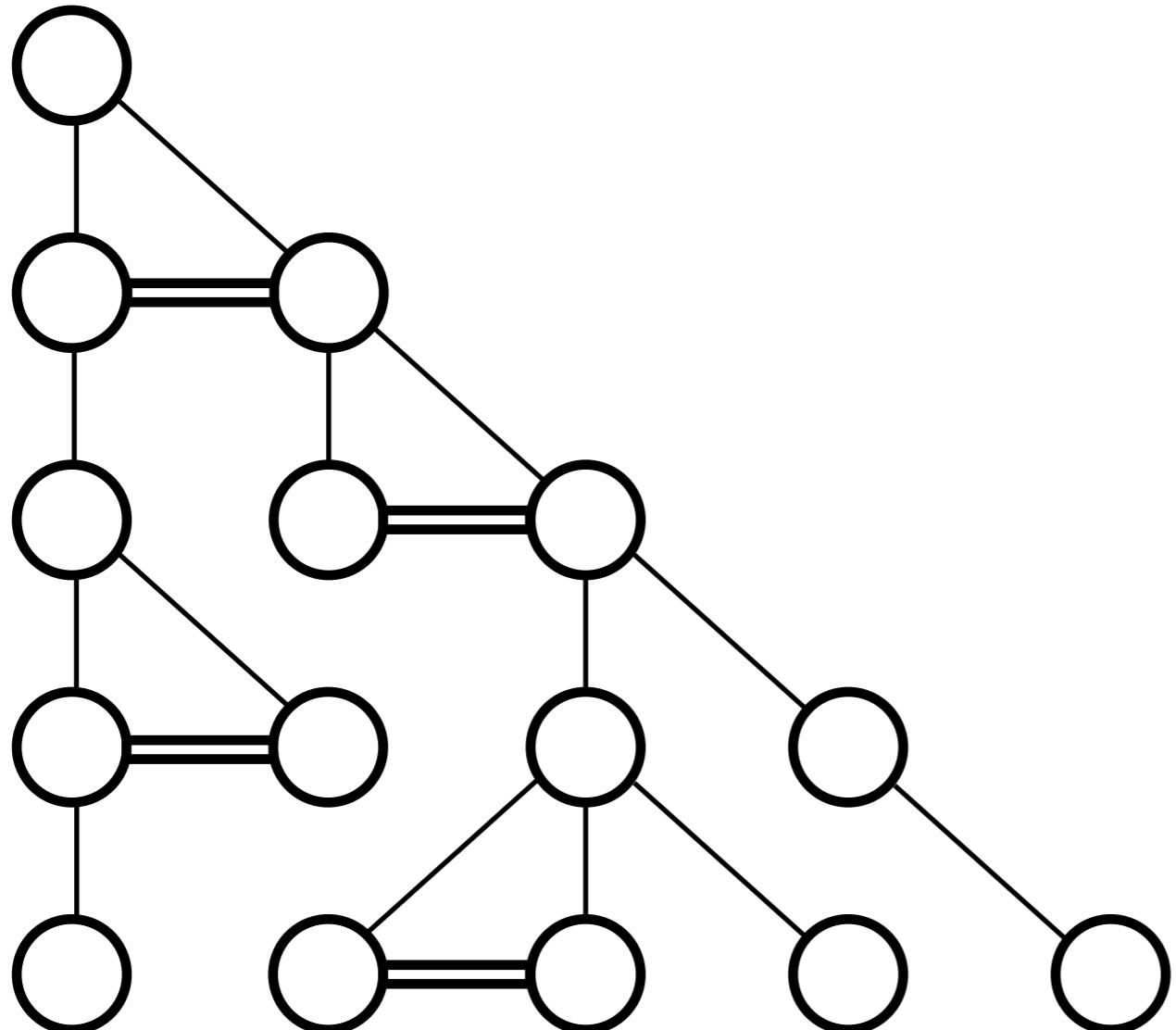
File/Directory Change
HTTP(s) check
SQL check
Script check
Ping check
TCP/UDP Port
SNMP Get/Trap
MQTT
JMX
...
<custom>

States
Created
Initiated
In work
Warning
Alarm
...
<custom>

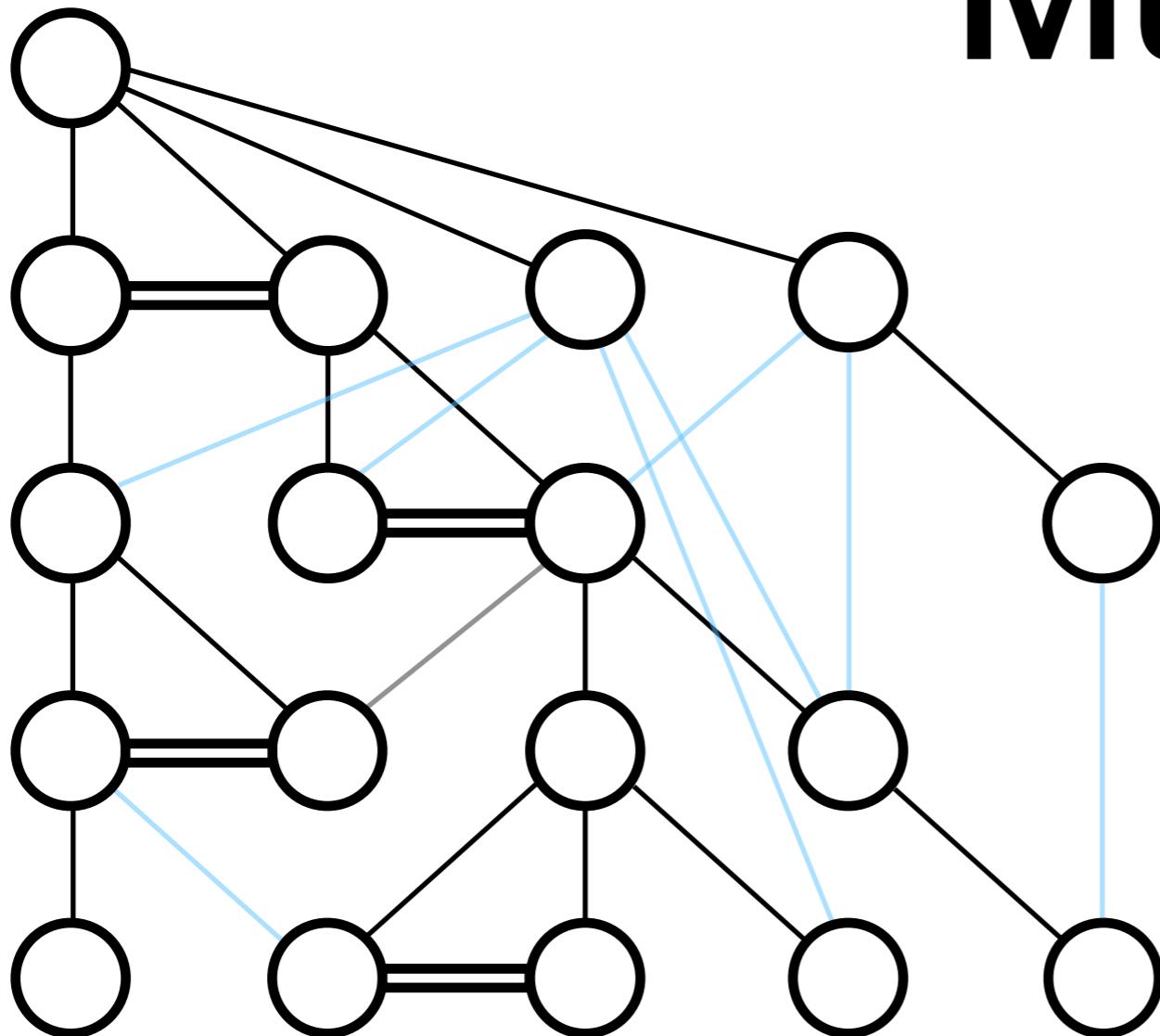
Objects



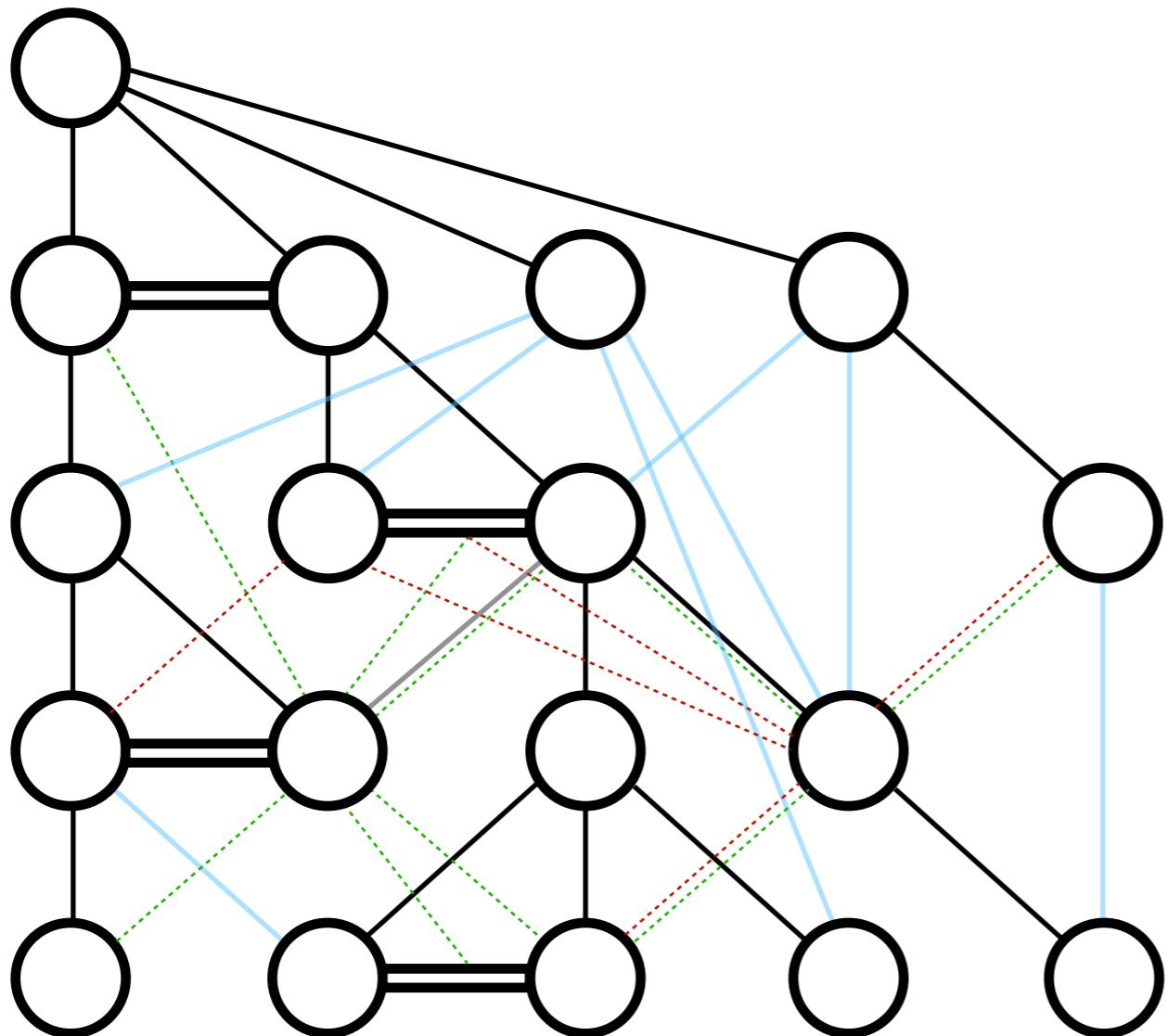
Links



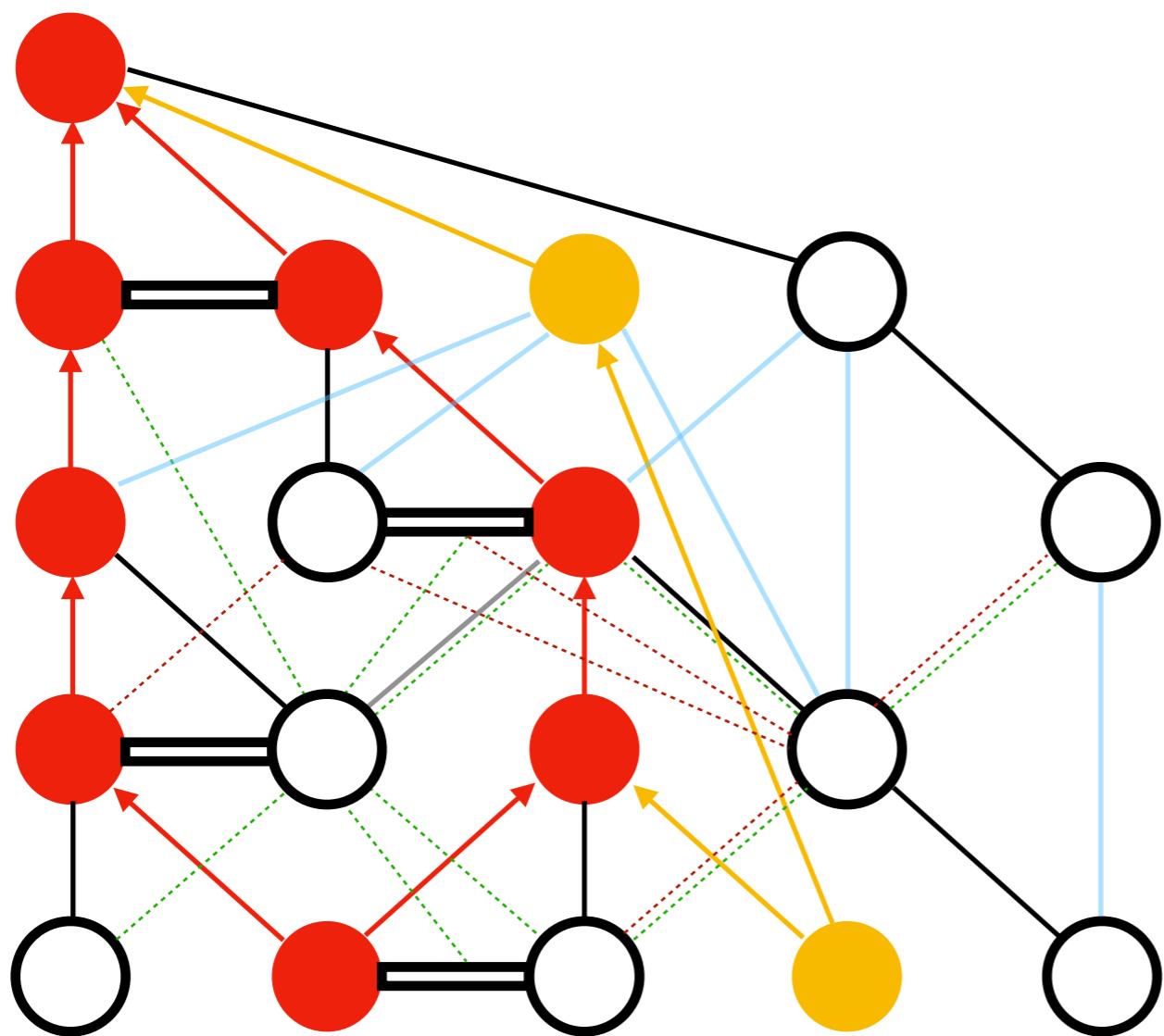
Multi-parent



Tags

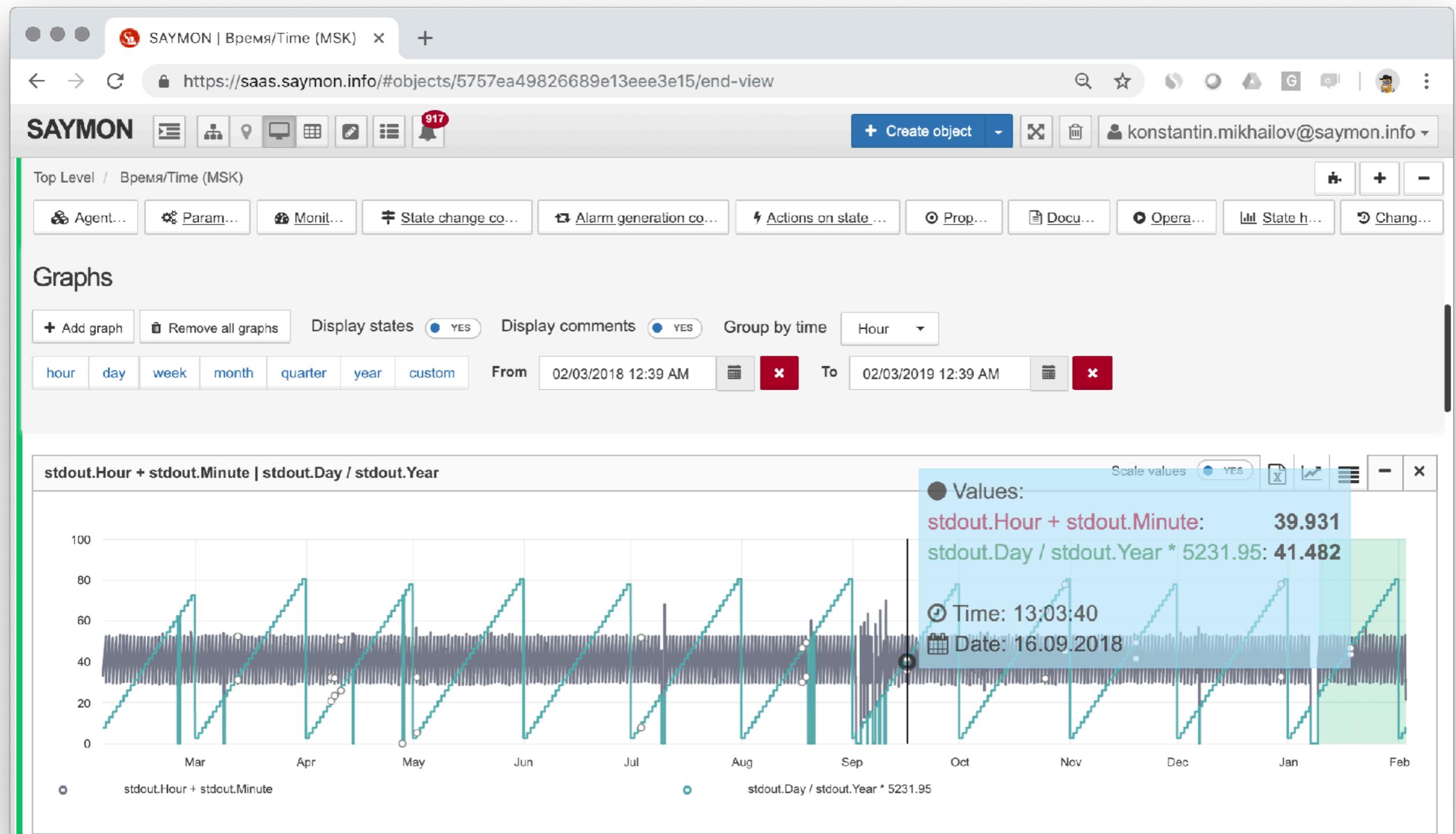


States



SAYMON

Native UI - tree, plan, geo, mass, incidents, widgets
Both pull & push (web-sockets) HTTP2



SAYMON | Время/Time (MSK) <https://saas.saymon.info/#objects/5757ea49826689e13eee3e15/end-view>

SAYMON [Create object](#) [883](#) konstantin.mikhailov@saymon.info

Top Level / Время/Time (MSK)

Agent d... Parameter... Monitor... State change conditi... Alarm generation conditi... Actions on state cha... Properties Document... Operations State hist... Change...

State change conditions

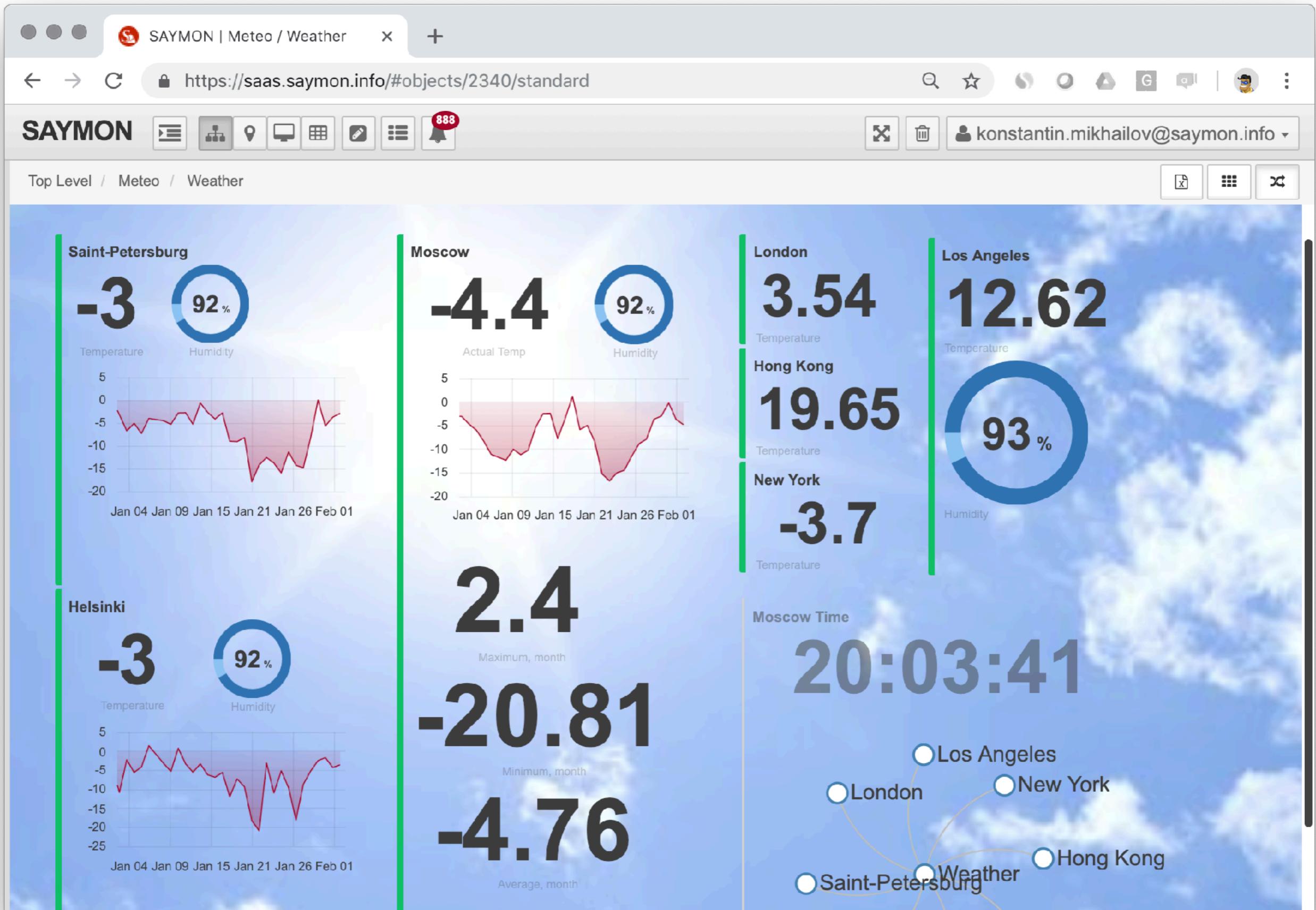
- 1 If { stdout contains Sat then transition to state: In work
- 2 If not 1 and { stdout contains 14: then transition to state: Notice
- 3 If not 2 and { exitCode = 0 then transition to state: In work
- 4 If not 3 and { stderr > 0 then transition to state: Alarm
- 5 If not 4 and { stderr Manual input then transition to state: In work
- 6 If not 5 and { + then transition to state: Alarm

Apply to class Derive from class

stdout.Hour + stdout.Minute

stdout.Day / stdout.Year * 5231.88

javascript:void(0)



SAYMON | Meteo / Weather

Add widget [Los Angeles /Top Level/Meteo/Weather/Los Angeles](#)

Object/Link: [Los Angeles /Top Level/Meteo/Weather/Los Angeles](#)

Metric name: -- Not selected --

Show label NO YES

Label text:

Value type: Current

Abbreviated value YES

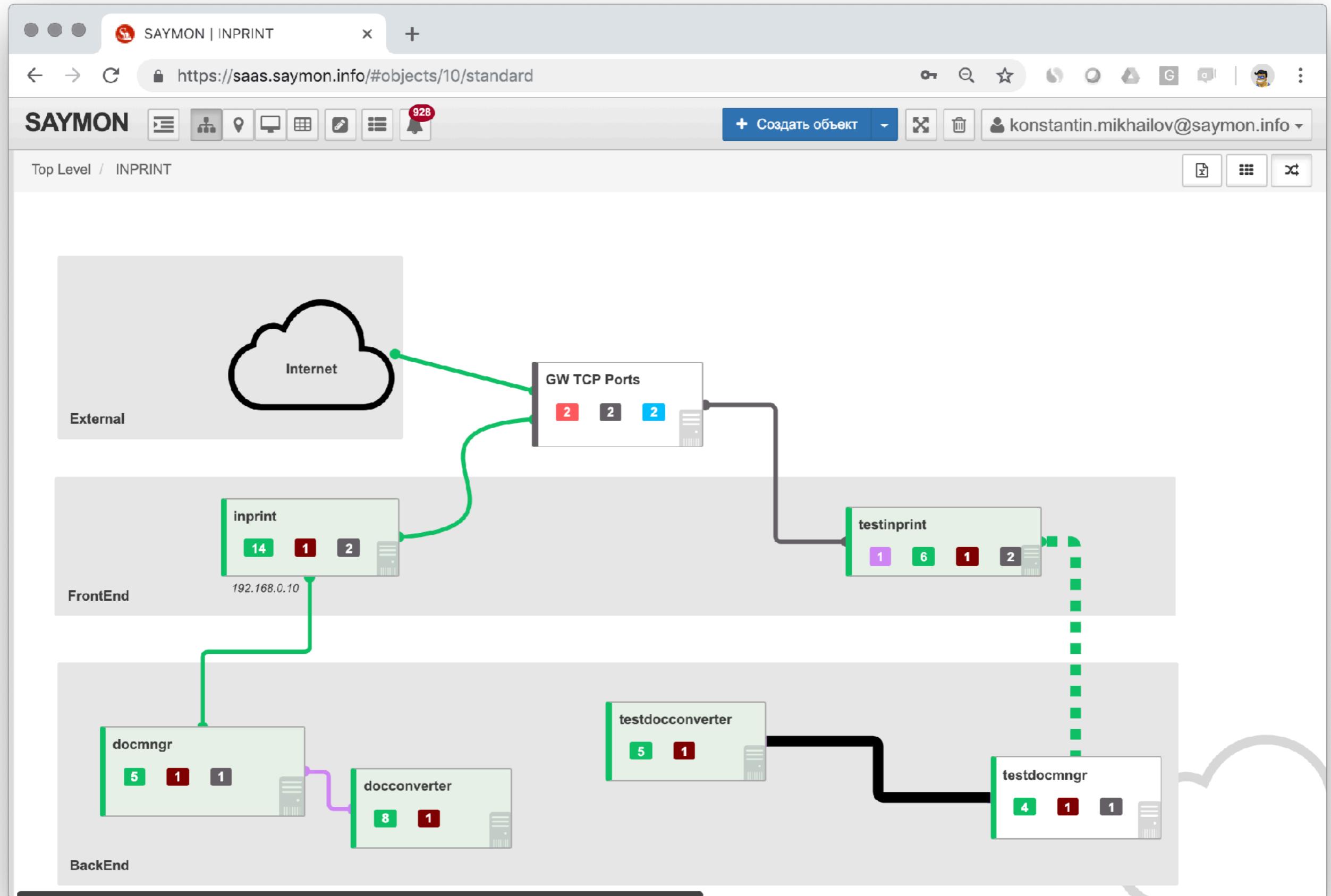
Theme: Standard

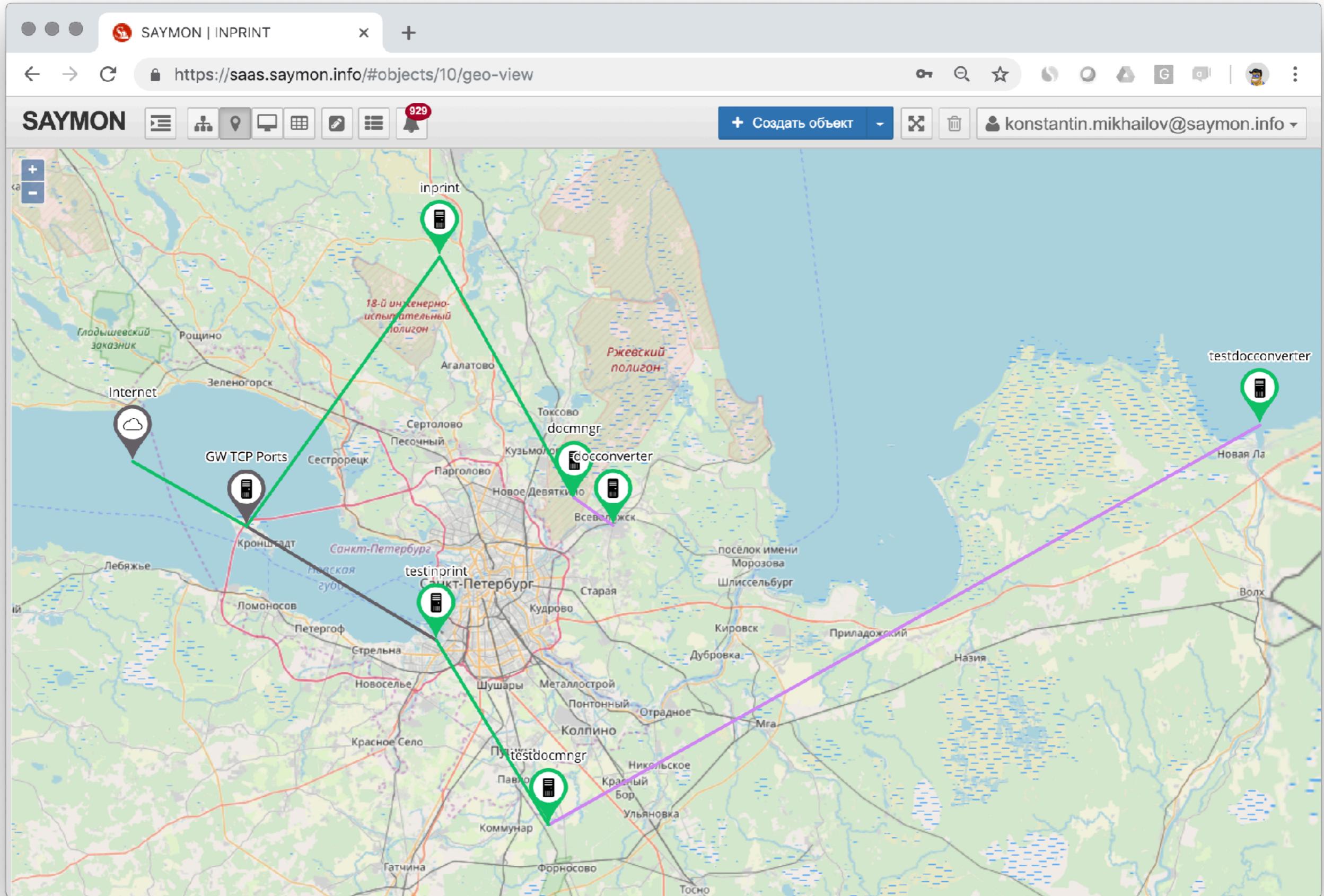
Dictionary:

<input type="text"/> Key	=	<input type="text"/> Value	<input type="button"/> +	<input type="button"/> x
--------------------------	---	----------------------------	--------------------------	--------------------------

Add **Cancel**

The screenshot shows a web-based dashboard titled 'SAYMON' with a header bar containing icons for search, refresh, and user authentication. The main area displays two vertical panels for 'Saint-Peter' and 'Helsinki', each showing a large temperature reading of '-3' and a small line chart. A central modal window is open, titled 'Add widget' with a link to 'Los Angeles /Top Level/Meteo/Weather/Los Angeles'. Inside the modal, there are nine preview cards for different widget types: Counter (value 40), Ring (value 41%), Level (value 63%), Circle (value 69%), Radial (value 100%), Chart (line graph), Structure, Section (with 'Agent data' sub-section), and Button (play icon). To the right of the preview cards is a configuration panel with fields for 'Object/Link', 'Metric name', 'Show label' (with a radio button for 'NO' selected), 'Label text', 'Value type' (set to 'Current'), 'Abbreviated value' (with a radio button for 'YES' selected), 'Theme' (set to 'Standard'), and a 'Dictionary' section with a key-value input field and a '+' button. At the bottom of the modal are 'Add' and 'Cancel' buttons.





SAYMON | Examples / KM MOD X +

← → C https://saas.saymon.info/#objects/5980505b42d0d93ca8a37e56/table-view

SAYMON 891 konstantin.mikhailov@saymon.info

Top Level / Examples / KM MODELING / Online Stores B

Contents of object: Online Stores B

Only display objects in states: – Not selected --

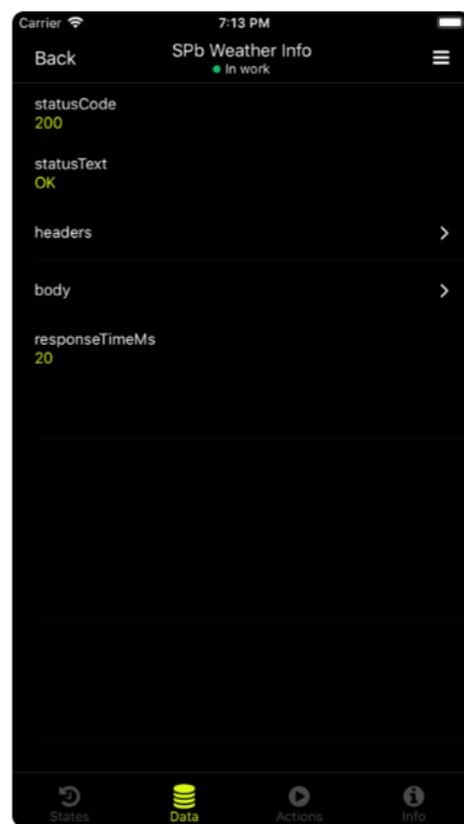
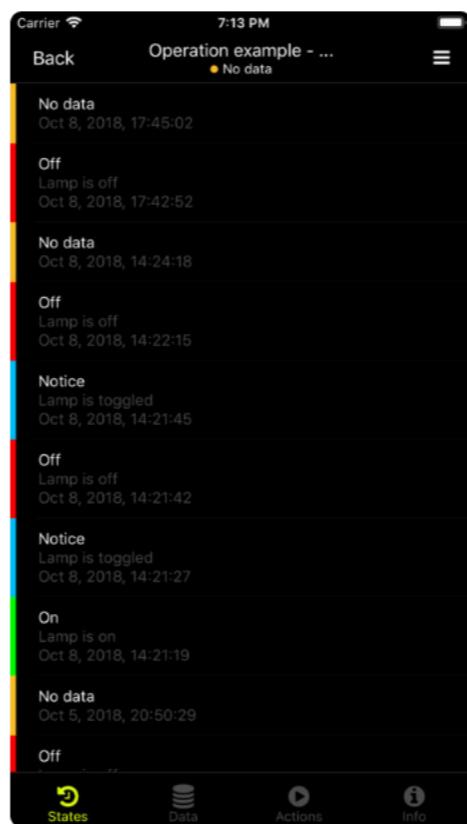
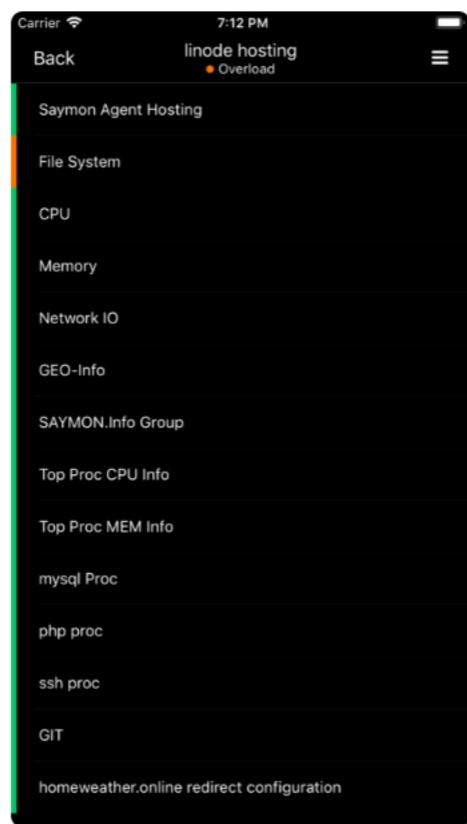
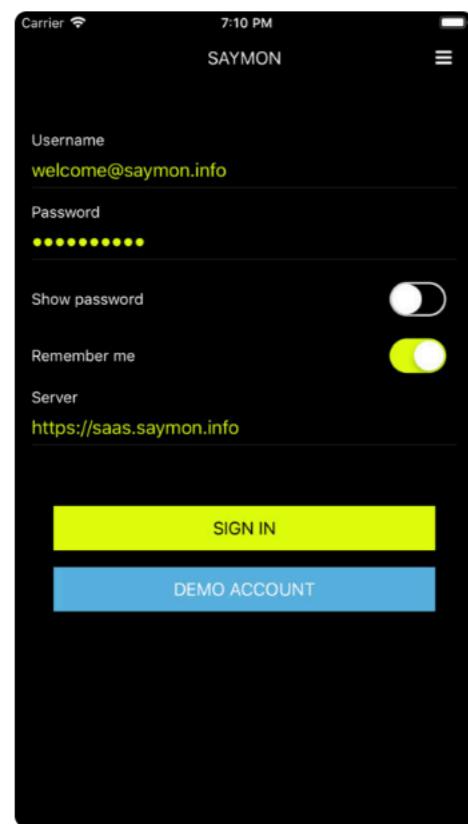
State ▲	Duration	Name ▲	Widgets	Time
Alarm	2 weeks	mts.ru lk	401 7,499	⌚ 22.01.2019, 17:05:44
Alarm	2 weeks	rt.ru search	676 Not Found	⌚ 22.01.2019, 17:05:50
Alarm	2 weeks	ulmart.ru search	1.29 K OK	⌚ 22.01.2019, 17:10:40
Warning	2 minutes	re-store.ru	1.32 K OK	⌚ 02.02.2019, 18:07:02
Warning	8 minutes	iport.ru	1.58 K OK	⌚ 02.02.2019, 18:00:37
Warning	7 minutes	citilink.ru search	625	⌚ 02.02.2019, 18:01:53
Warning	2 minutes	citilink.ru	625	⌚ 02.02.2019, 18:06:56
Warning	10 minutes	ebay.com search	625	⌚ 02.02.2019, 17:59:21
In work	2 hours	kupivip.ru	625	⌚ 02.02.2019, 16:21:23
In work	3 hours	euroset.ru	625	⌚ 02.02.2019,

App Store Preview



Mobile Apps

Screenshots [iPhone](#) [iPad](#)



Open API

SAYMON Server REST API documentation.

General information

This documentation provides description of all SAYMON REST API methods.

Each method description contains:

- method verb (`GET`, `POST` etc.);
- method URL (like `/node/api/users/session`);
- short method description;
- required permissions specification (if method requires permissions);
- method parameters specification (if method has parameters);
- method options specification (if method has options);
- request body example (if method expects body);
- response example (if method returns non-empty response body).

Method URL

Method URL is relative to your actual SAYMON installation host name. You get the full method URL by appending method URL in description to your SAYMON host name URL. Example:

```
https://saas.saymon.info + /node/api/users/session = https://saas.saymon.info/node/api/users/session
```

Method permissions

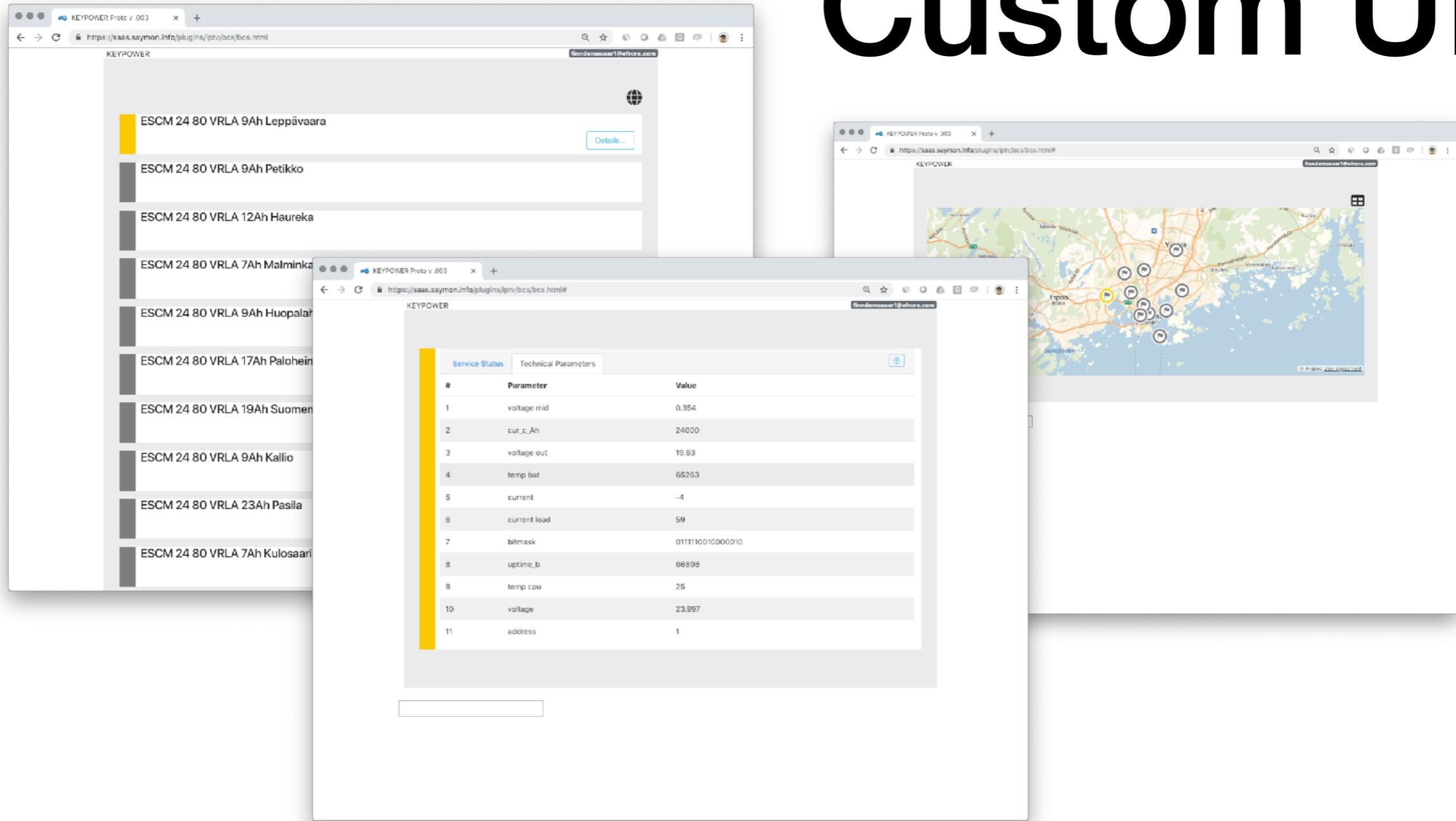
If a method requires specific permissions from a user, these permissions are listed in `Permissions` section.

For example, method `POST /node/api/agents/update` specifies `upload-agent-updates` as a required permission. This means

<https://saas.saymon.info/apidoc>



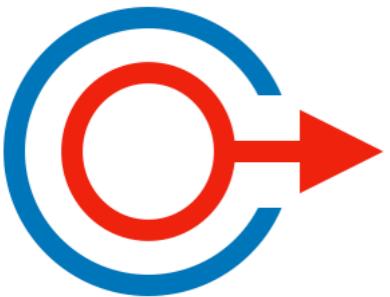
Custom UI



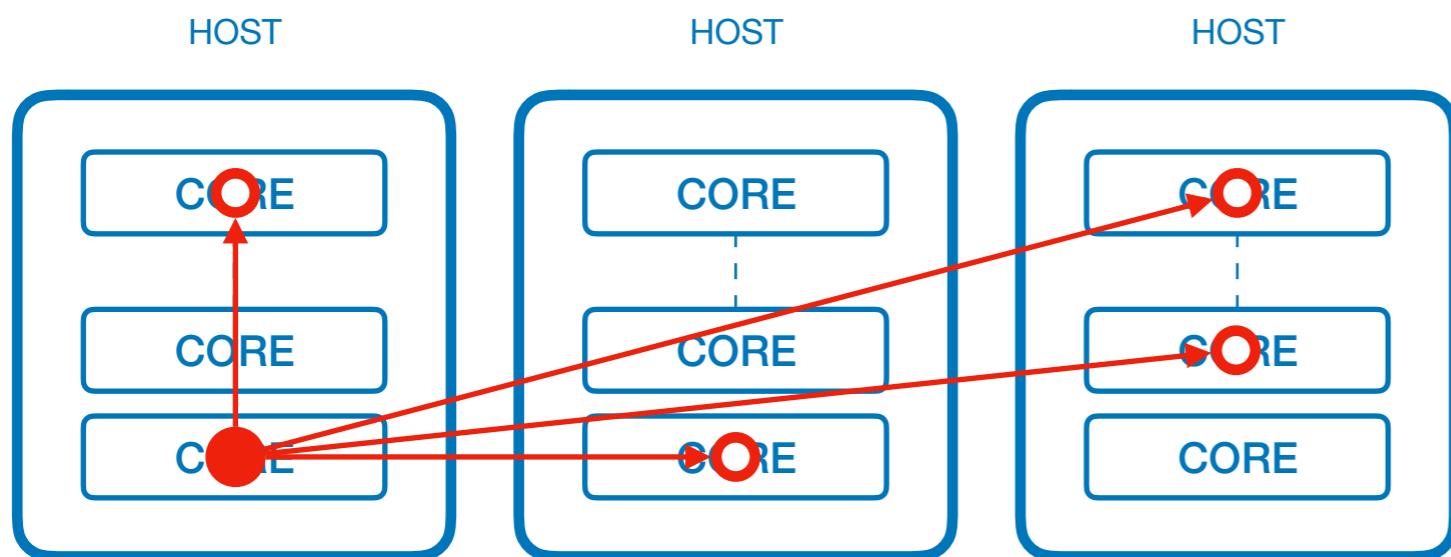
Components



NodeJS Actors (the Logics), Comedy, Kafka, Redis,
MongoDB, OpenTSDB



the Comedy



Comedy grid computing for NodeJS software
The framework Open-Sourced by SAYMON team



<https://github.com/untu/comedy>

<https://medium.com/saymon/comedy-node-js-actors-for-flexible-scalability-731baf42fa1d>

Current focus

ML/DML
Cloud Service
Marketplace for extensions and ecosystem

Join SAYMON



@SAYMONplatform





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