In the Community

Piotr Goryl on behalf of S2Innovation team, Tango Webinar, 18-11-2020, cyber-space

S2 INNOVATION

- The company has been founded in 2017 basing on experience with building of NCPS Solaris synchrotron (Krakow, PL) **control system,**
- From the beginning we are part of the Tango Community,
- In 2019, Cosylab d.d. invested in us,
- Main motivation of running the company is to join world of laboratories and industry

Our vision


Application
Looking for needs
Technology development
Knowledge acquisition and compilation

Our expertise

- Control systems engineering:
  - For particle accelerators,
  - For large scale infrastructure,
  - For laboratories,
- Software development:
  - Python, C++, Java, .Net, HTML/JavaScript/CSS, Matlab,…
- Computation,
- Documentation,
- DevOps,
- Ask us what else we can do for you.

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Our Team

- Developers / engineers
  - 5 (almost) full time developers (**Kuba**, **Mateusz**, **Michal Liszcz**, **Michal Gandor**, **Wojtek**),
  - 2 “permanent” part-time, contractor developers (**Grzegorz**, **Krystian**),
- Management and administration
  - 2 company managers (**Piotr**, **Wojtek**),
  - Projects manager (**Lukasz**),
  - Management assistant (**Karolina**)

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What we are doing for the Tango Community

- **Tango 9lts support** (cppTango) – Michal
  - Bug solving, PR reviews, training
- **PyTango support** – Mateusz, Wojtek, Grzegorz
  - Tests on Windows, Solving Windows related issues
- **JTango support** – Krystian
  - Tests implementation, bug fixing, refactoring, documentation

What we are doing for the Tango Community

- **Documentation** – Michal, Kasia, Kuba
  - Updates to screenshots, maintenance and PRs review, had written documentation for tools (ATKPanel, Log View),
- **Tango RFC** – Piotr, Michal
- **Device Classes Catalogue** – Kasia, Piotr
  - Catalogue as a python package, maintenance of weekly run of an import script

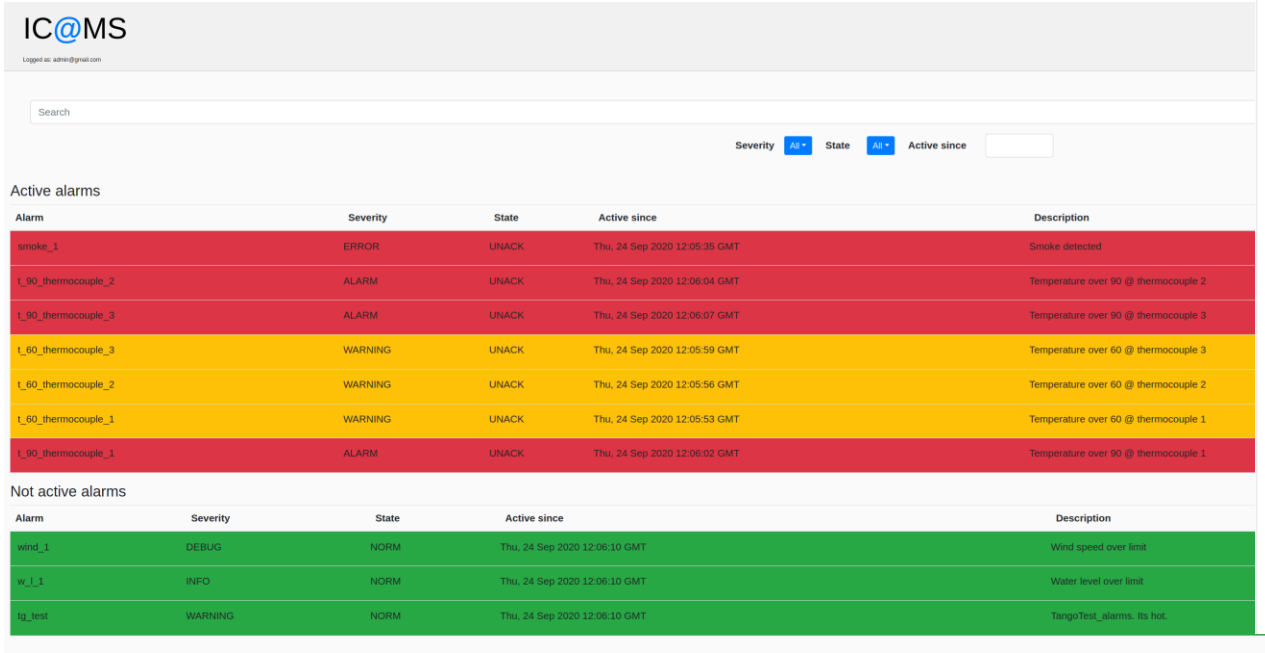
Other Tango-related collaborations

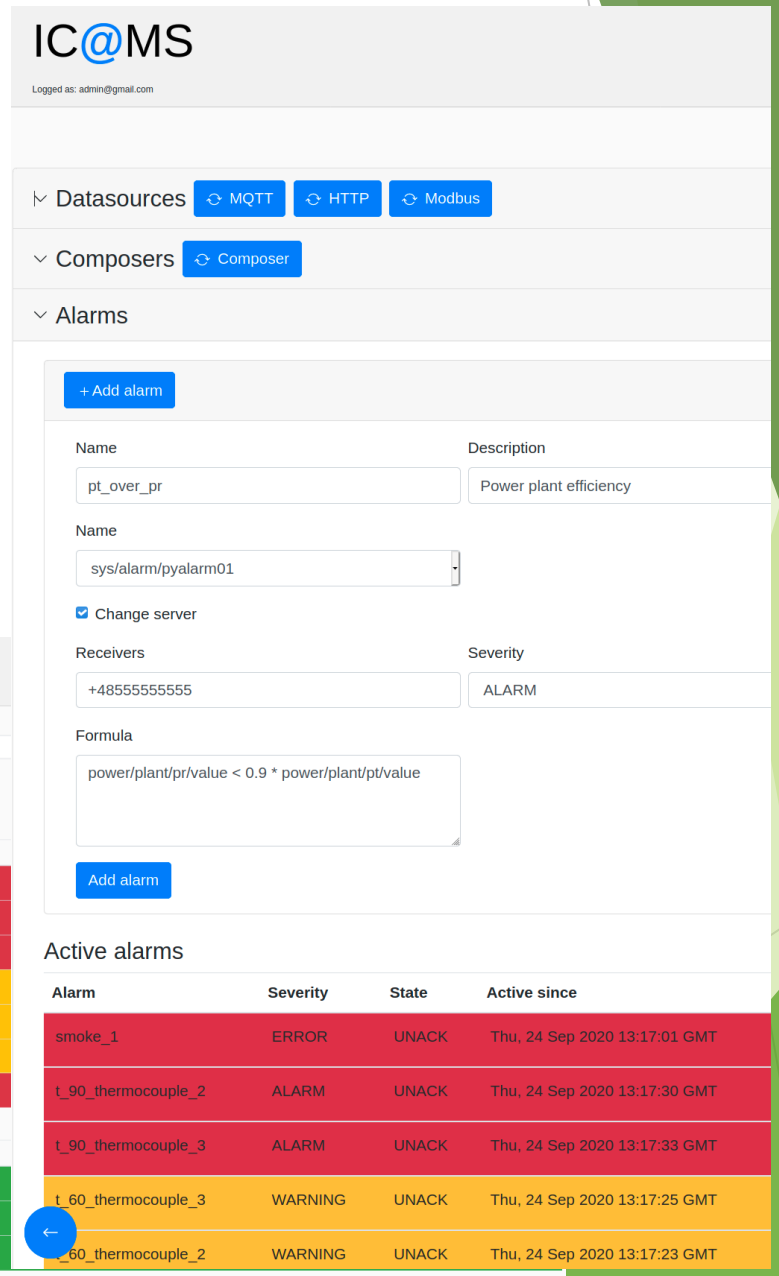
- **Community**
  - TangoBox VM,
  - Docker containers,
  - Benchmarking tools,
- **MAX-IV** – 3 developers working remotely within the team at Lund,
- **ESRF** - Plugin for XIMEA camera for Lima,
- Enabling Tango Controls at **ICFO** (Barcelona, Spain)
- **PREVAC** (Rogow, Poland) – various device servers
- Integration of a Timepix detector with Sardana at Laboratoire de Physique des Solides/**CNRS** (Paris, France)
- PANIC system deployment at **NCPS Solaris** (Krakow, Poland)

IC@MS

Integrated **C**loud(enabled) **@**larm **M**anagement **S**ystem

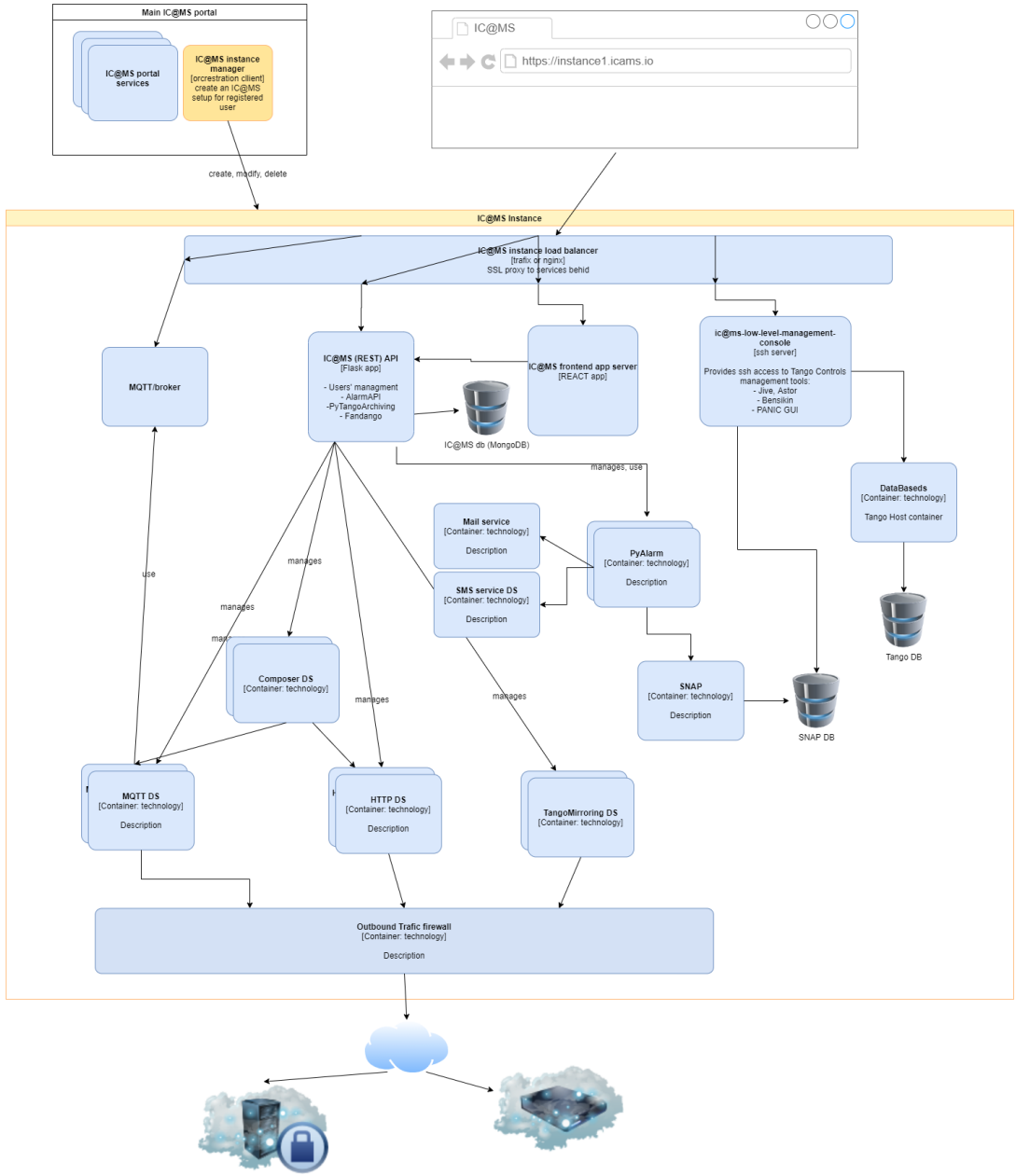
- Web interface for PANIC,
- Notifications via SMS, emails, dashboard,
- Integration with Twilio





IC@MS

- Based on Tango Controls / PANIC
- End-user centric
- Run on Docker swarm at Azure, could be deployed on any infrastructure (cloud/local, docker swarm/kubernetes)
- Byproducts:
  - MQTT and HTTP device servers,
  - Extended Composer device server



Non-Tango projects

- Switchgear controller firmware development (embedded Debian + FreeRTOS + hardware integration) for JM-TRONIK (Warsaw, Poland),
- Configuration of EPICS based motion controllers (CINEL, Italy),
- DONES – a neutron source for testing materials for DEMO (continuation of ITER),
- Subcontracting to Cosylab,
- Learning other technologies
  - Mendix, Wise PaaS, MindSphere, …

S2Energy - a platform for energy management

We plan to use our domain knowledge to help accelerator laboratories increase energy efficiency

Plans

- Continue increasing of our involvement in the Tango Controls Community,
- Enabling new labs with Tango Controls (we already made a Tango based offer for a laboratory at USA ;-)),
- First production deployment of IC@MS,
- Two accelerators optimised their energy consumption with S2Energy,
- Extending the team – Tango Controls training,
- Get involved in DONES (related to ITER and Demo projects),

Thank You!

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