Design Round-Table – Internet of Things Platform Design

InterConnect 2017

Mats Göthe
Senior Design Lead
Watson IoT Platform

Victoria Paterson
Senior Design Lead
Watson IoT Platform

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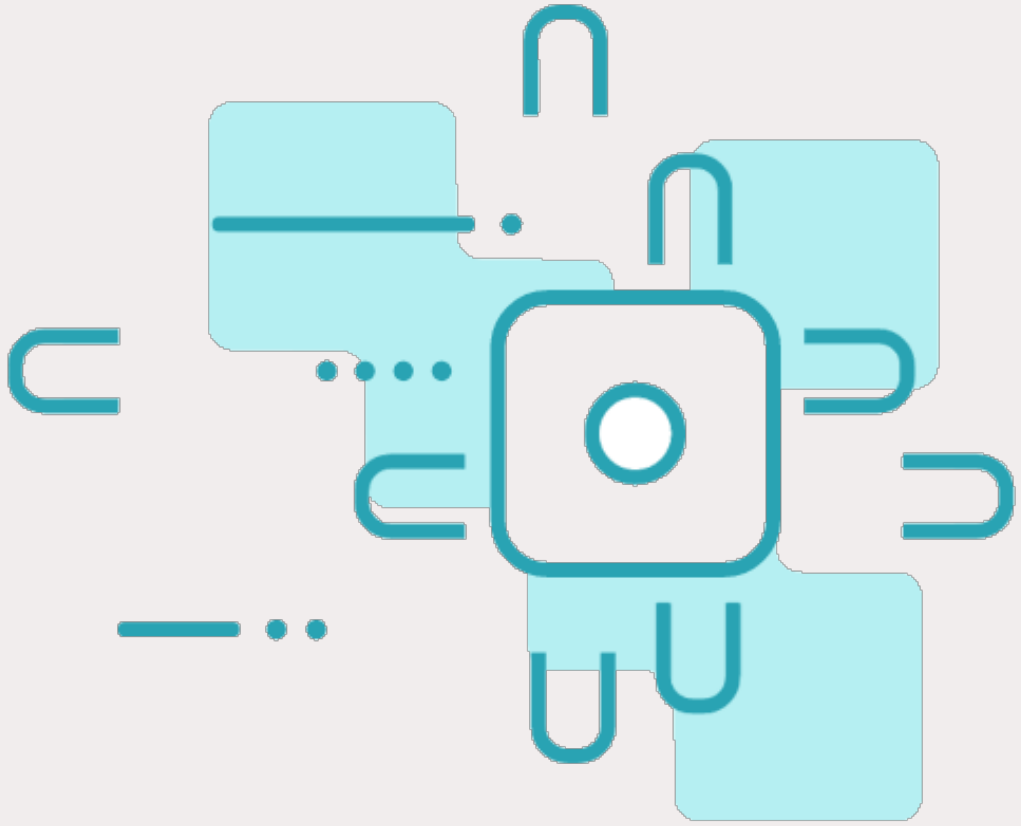
Abstract

The IBM Watson Internet of Things design team is continuously researching usage patterns, use-cases and experiences with the Watson IoT Platform.

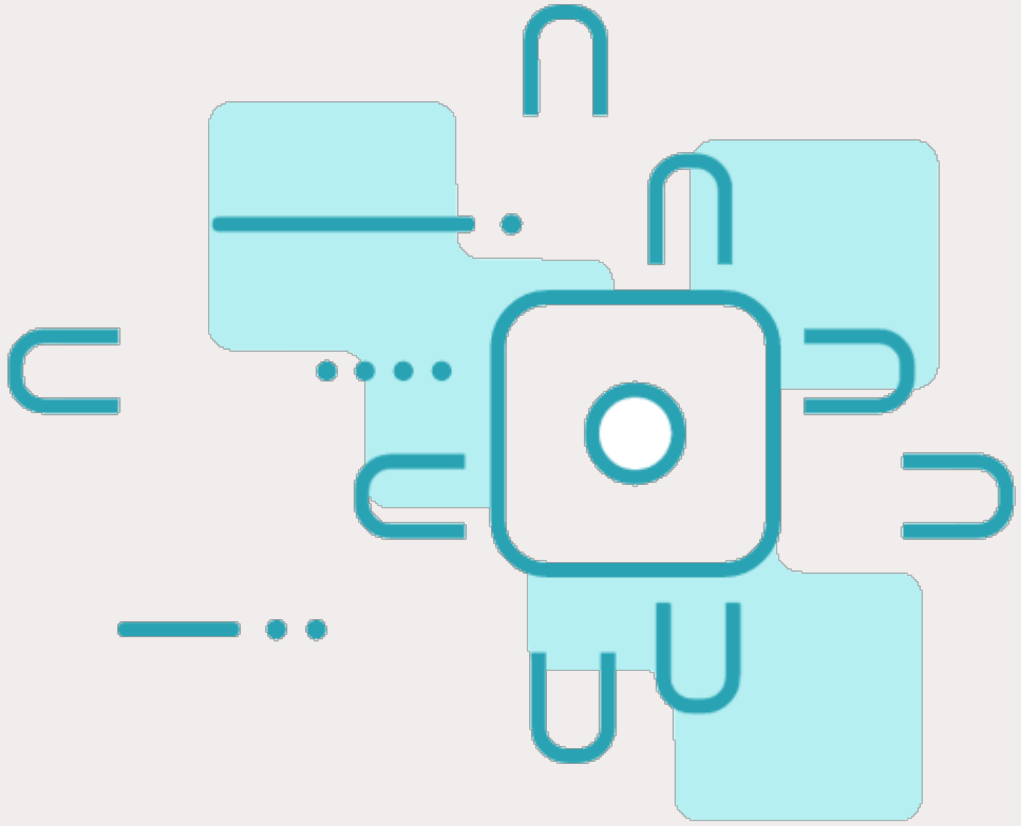
This round table session will present and discuss the IoT Platform capabilities and the design roadmap for 2017.

Attendees will share their feedback and experiences with the IoT platform and discuss needs and requests for design enhancements.



Agenda

- Introductions
- Discussion topics
  - Your IoT solution
    (Monday March 20th)
  - Your use of the Watson IoT Platform
    (Wednesday March 22th)
- Summary and conclusions
- How to engage
  with Watson IoT Platform Design



Introduktions

– “Hi, I’m Mats, Design Lead for the IBM Watson IoT Platform”

Who are you?

- Your name
- Your company
- Your role

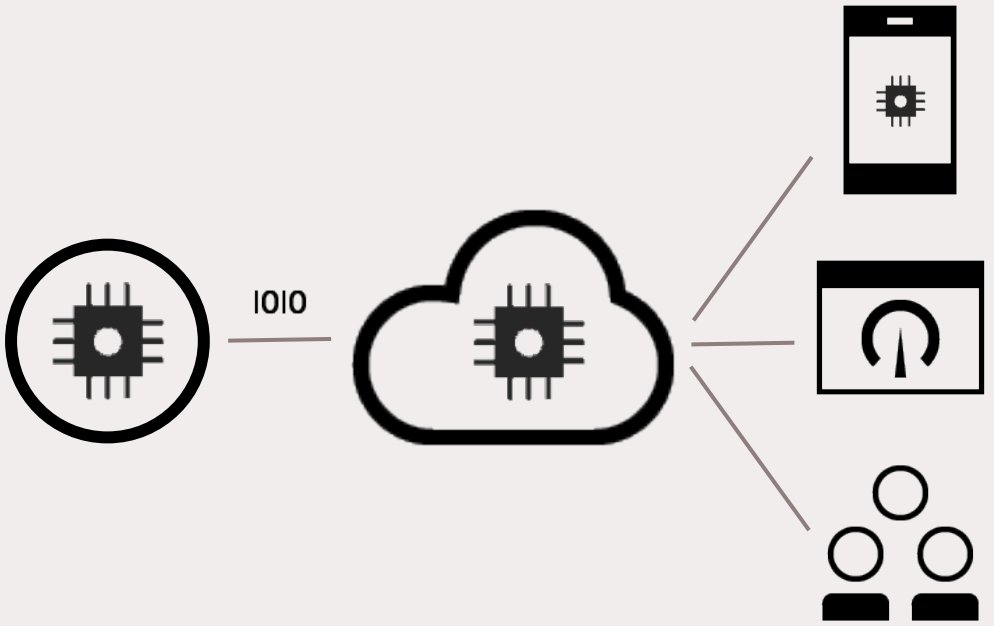
Your IoT Solution

What is Watson IoT Platform?

The IBM Watson Internet of Things Platform is a fully managed, cloud-hosted service available in IBM Bluemix.

Devices get connected and start sending data securely to the IBM Watson IoT Platform service using the MQTT messaging protocol.

From there, devices are managed using your online dashboard or secure APIs, so that apps can access real-time and historical data.



What is Watson IoT Platform?

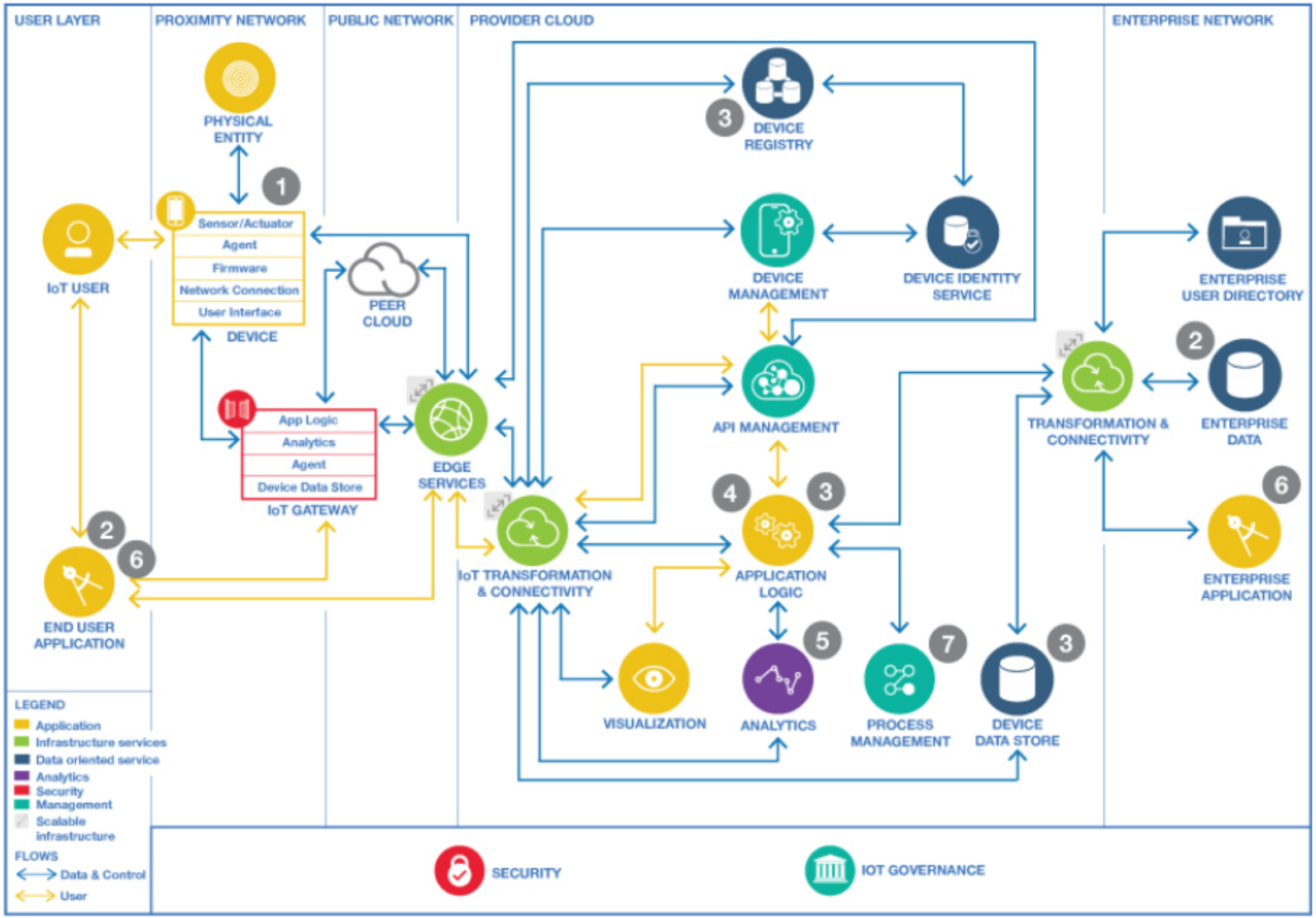
IoT Platform Connect connects devices from chips to intelligent appliances to your applications and industry solutions and performs device management functions

IoT Platform Information Management ingest, transform and aggregate data from your IoT devices, diverse data sources and platforms into asset-based data structures. Exploit a variety of cloud-based storage services as your IoT data historian

IoT Platform Risk and Security Management to manage risk and gather insights across your entire IoT landscape using dashboards and sophisticated alerts.

IoT Platform Analytics automate insights to data w/ Real-Time analytics

Internet of Things architecture overview



https://www.ibm.com/devops/method/category/architectures/

Discussion – Your IoT solution

- What IoT solutions are you building today?
- How are you using Watson IoT Platform in these solutions?
- What have you found to be the most useful / valuable about the IoT Platform in your IoT solution?

Discussion – Your IoT solution

- What roles in your organization is using the Watson IoT Platform?
- How are they using the IoT Platform?
- What are the most important User Interface and API use-cases for the IoT Platform?

Discussion – Watson IoT Platform Roadmap

- What capabilities, most important to your IoT solution, would you like to see in the Watson IoT Platform Roadmap?

Discussion – Watson IoT Platform Roadmap

- What capabilities in the IoT Platform Roadmap are the most important to your organization?
- What capabilities are you missing in the IoT Platform Roadmap?

Your use of the Watson IoT Platform

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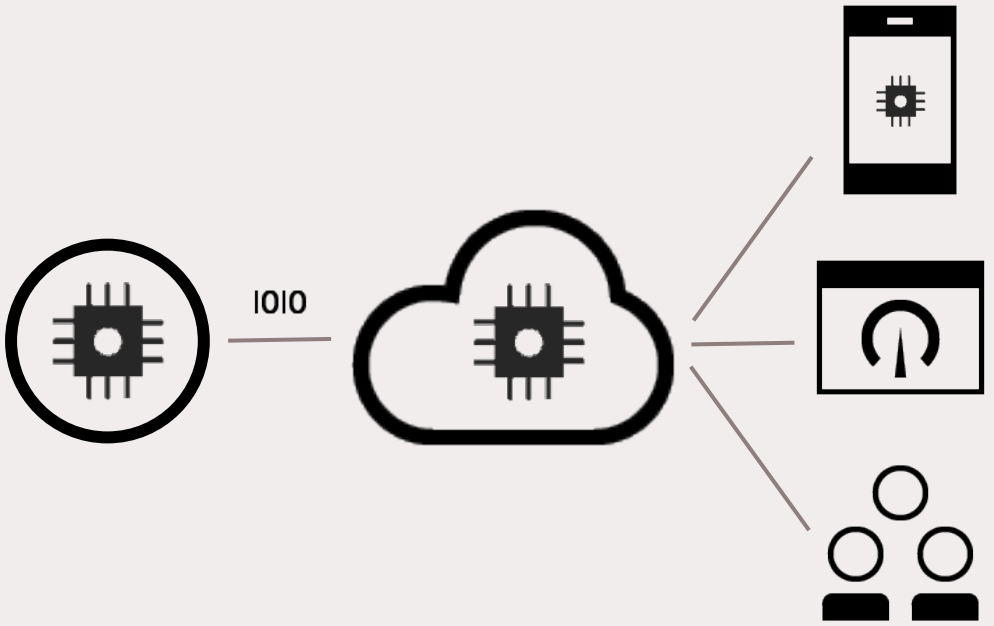

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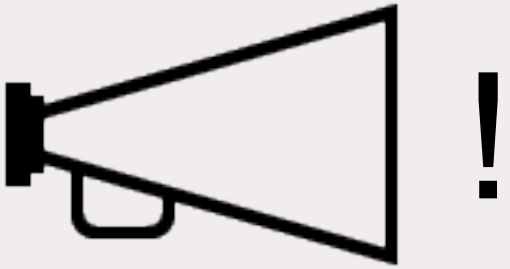
IoT Platform Risk and Security Management to manage risk and gather insights across your entire IoT landscape using dashboards and sophisticated alerts.

IoT Platform Analytics automate insights to data w/ Real-Time analytics, Language Processing, Machine Learning, Natural Language, Image, Video and Text analytics. Machine Learning.

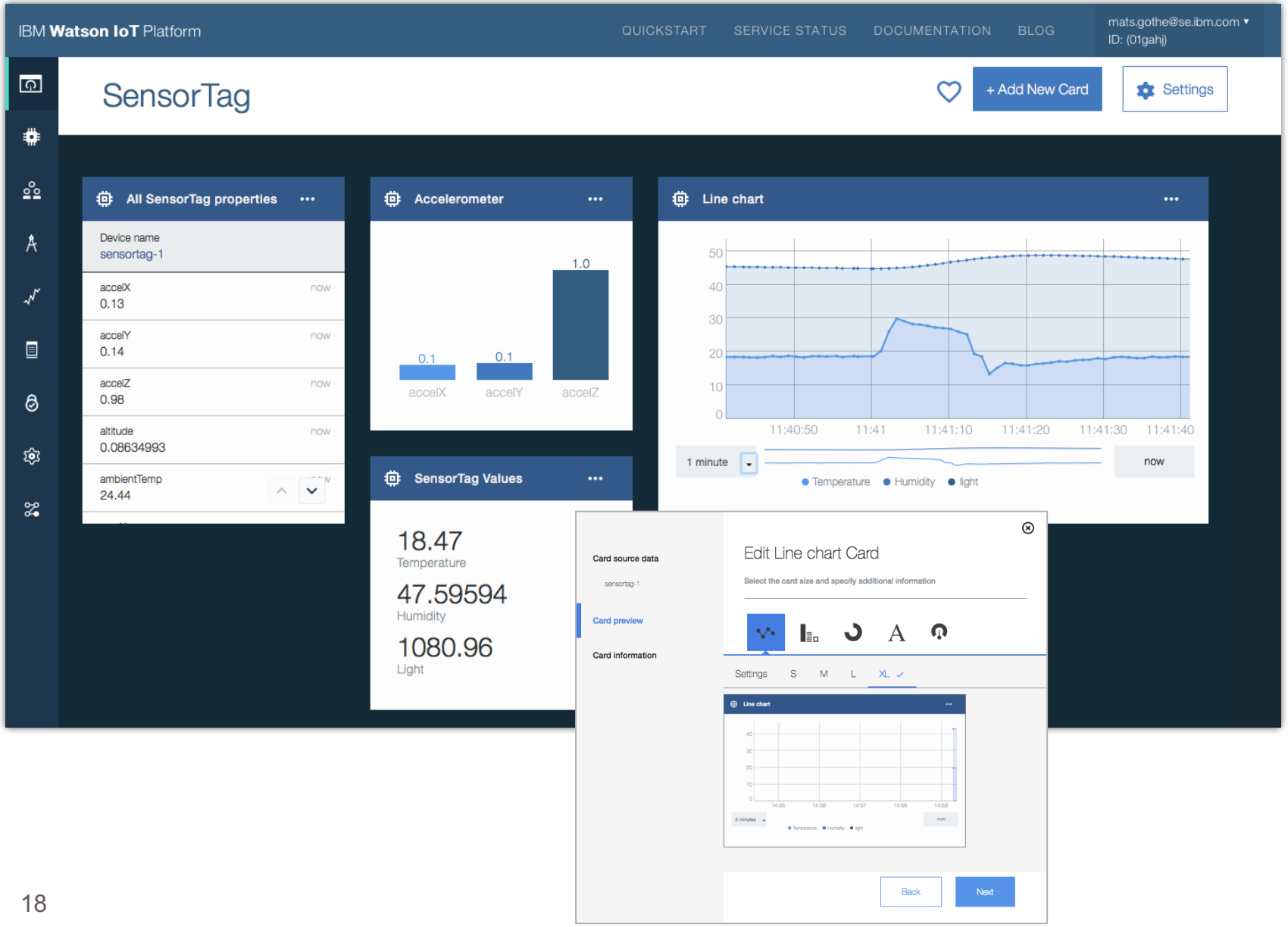
IoT Platform Designs in 2016

In 2016 we added significant new capabilities to the Watson IoT Platform user experience

- IoT Platform Dashboards
- Access Control - Predefined and Custom Roles
- Analytics - Real-Time Analytics and Schemas in Watson IoT Platform
- Analytics – Edge Analytics
- Connect - Custom Device Management Packages
- Risk and Security Management Policies
- Extensions - Configure SSO service
- Extensions - Configure Email service
- Extensions - Configure External Historian service
- Extensions – Configure Blockchain service
- Extensions – IoT Platform Integrations Jasper, Orange, AT&T and ARM
- New IoT Platform design (experimental feature)



IoT Platform Dashboards



IoT Platform Dashboards /w Boards and Cards

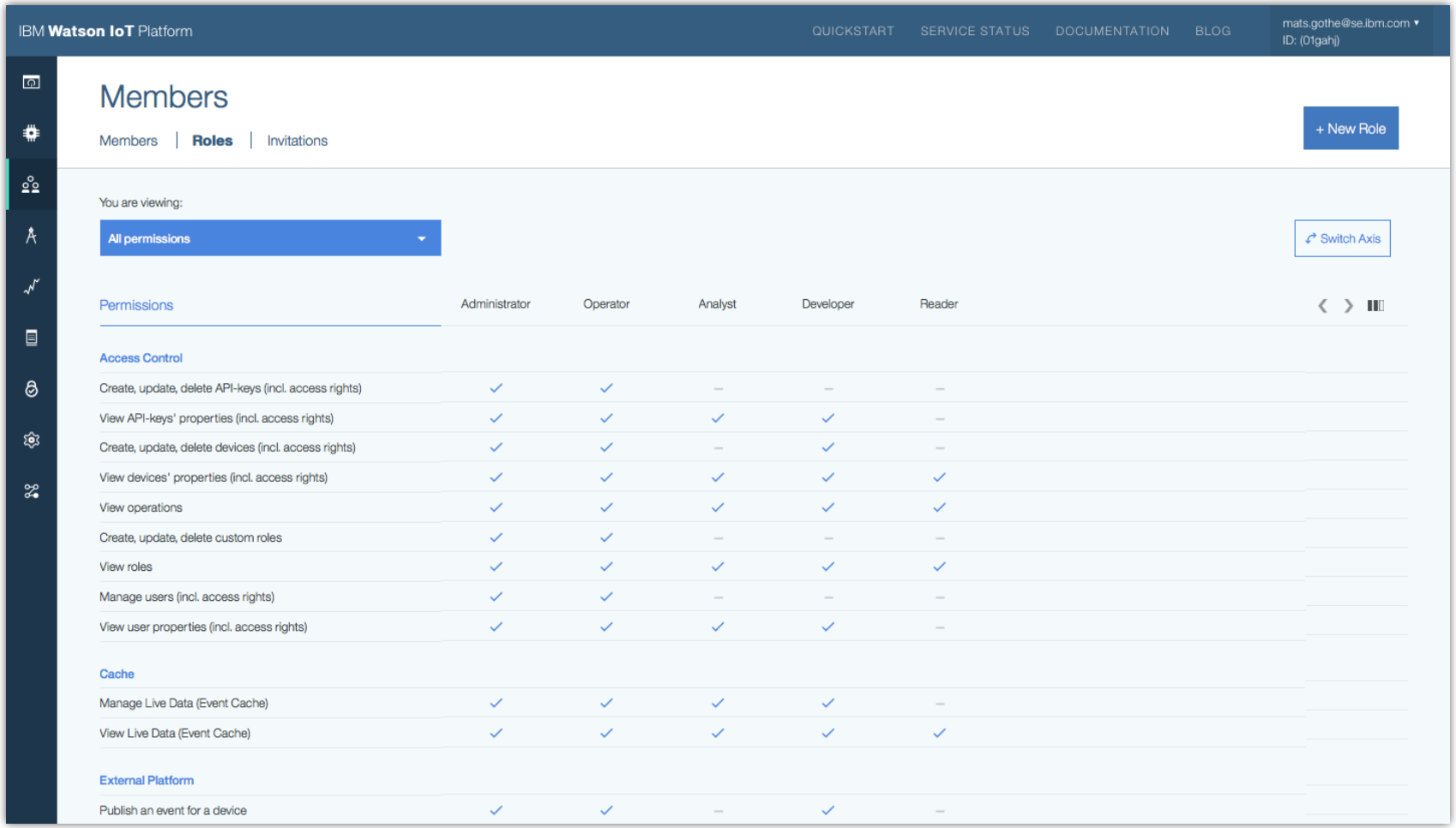
Personal and Shared boards

Predefined cards for

- Usage Overview
- Device and Rule centric Real-Time Analytics
- Risk Management

Custom card server

IoT Platform Roles and Permissions

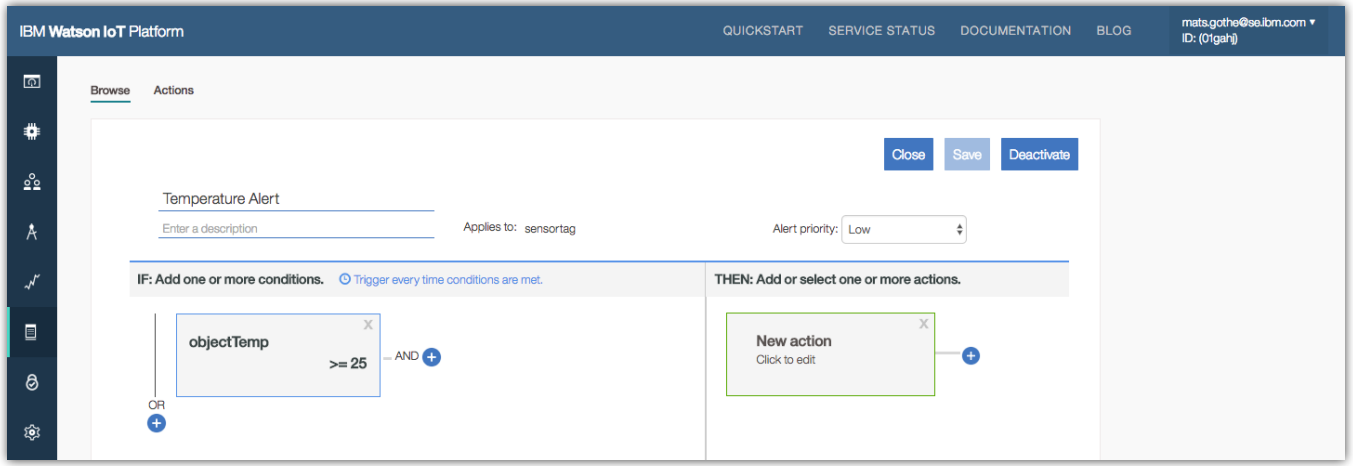


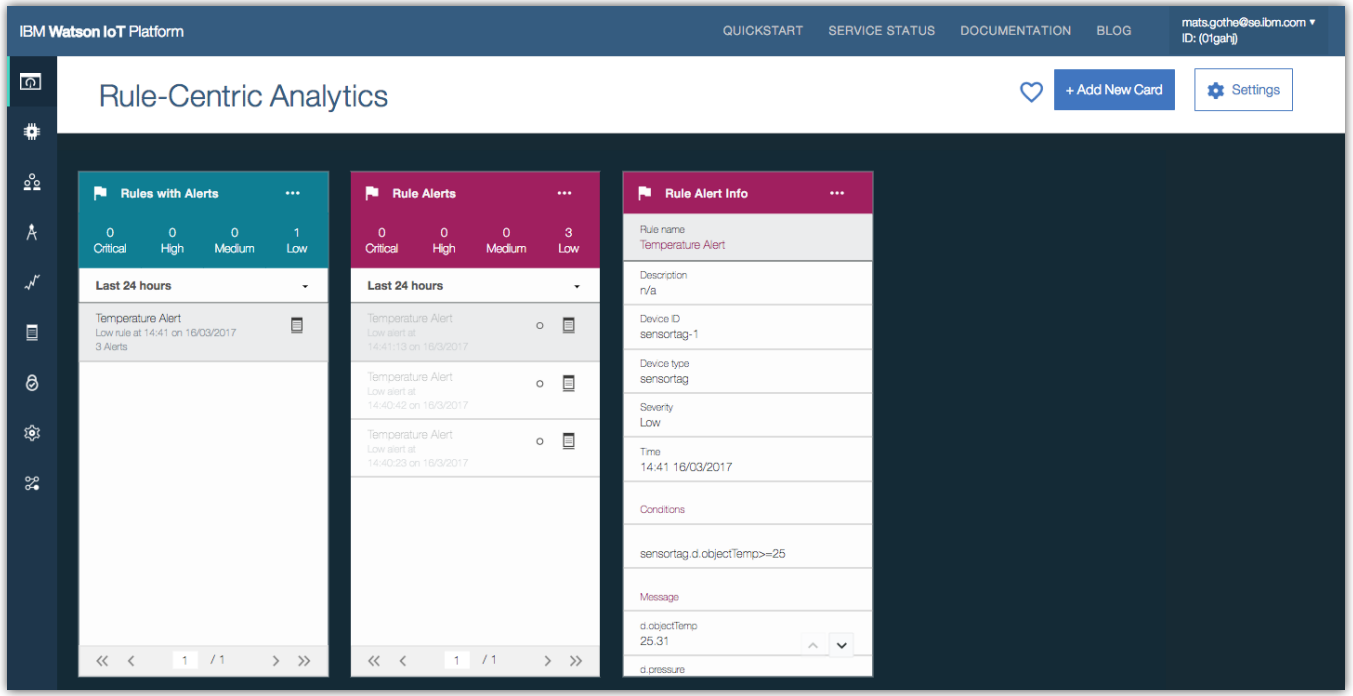
New predefined and custom roles

Permissions to ‘view’ vs ‘manage’

Bases for resource level access control

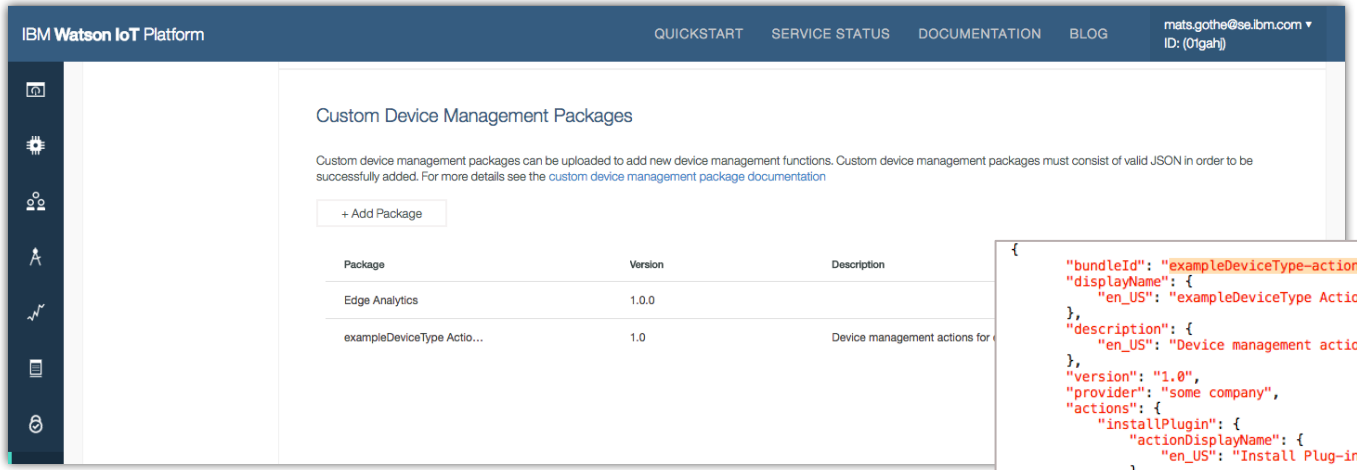
IoT Platform Roles and Permissions

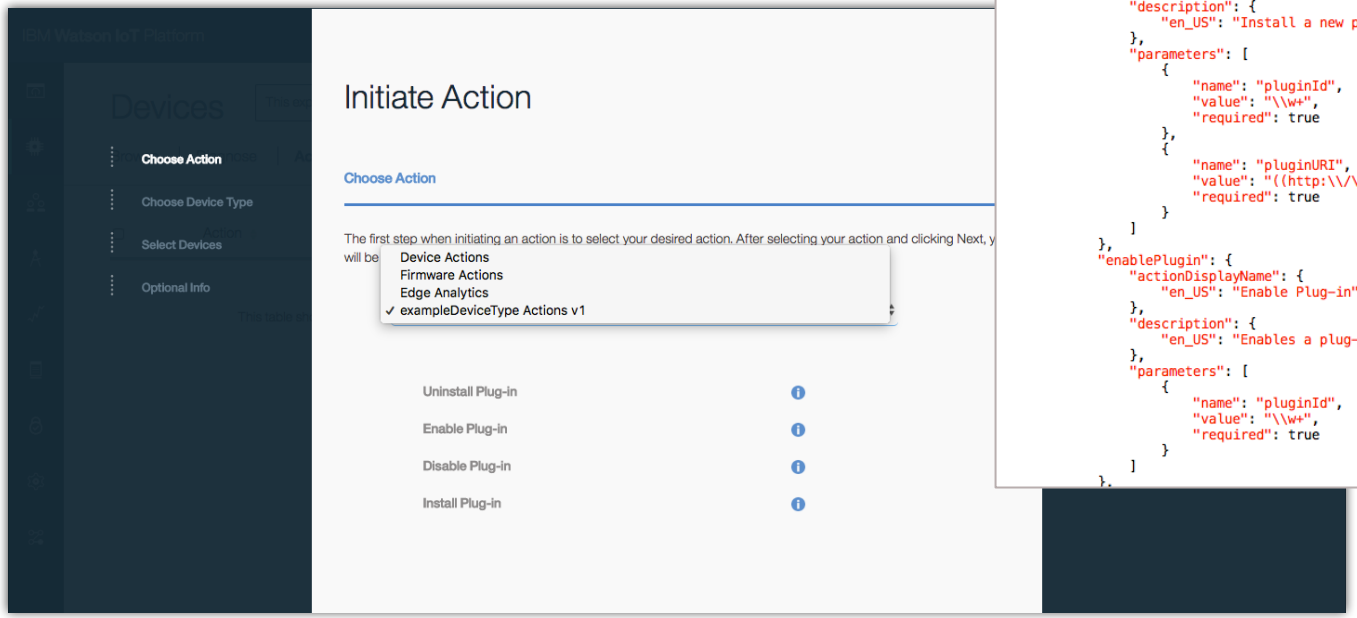




- Real-Time Analytics and Schemas migrated to Watson IoT Platform
- Consistent with IoT Platform design
- Integrated with IoT Platform dashboard
- Cloud and Edge rules

• Custom Device Management Packages





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{
    "bundleId": "exampleDeviceType-actions-v1",
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    },
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        "en_US": "Device management actions for exampleDeviceType devices"
    },
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    "provider": "some company",
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            },
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                    "name": "pluginId",
                    "value": "\\w+",
                    "required": true
                },
                {
                    "name": "pluginURI",
                    "value": "((http:\\/\\/|https:\\/\\/)(.*)+)",
                    "required": true
                }
            ]
        },
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                "en_US": "Enable Plug-in"
            },
            "description": {
                "en_US": "Enables a plug-in on the device"
            },
            "parameters": [
                {
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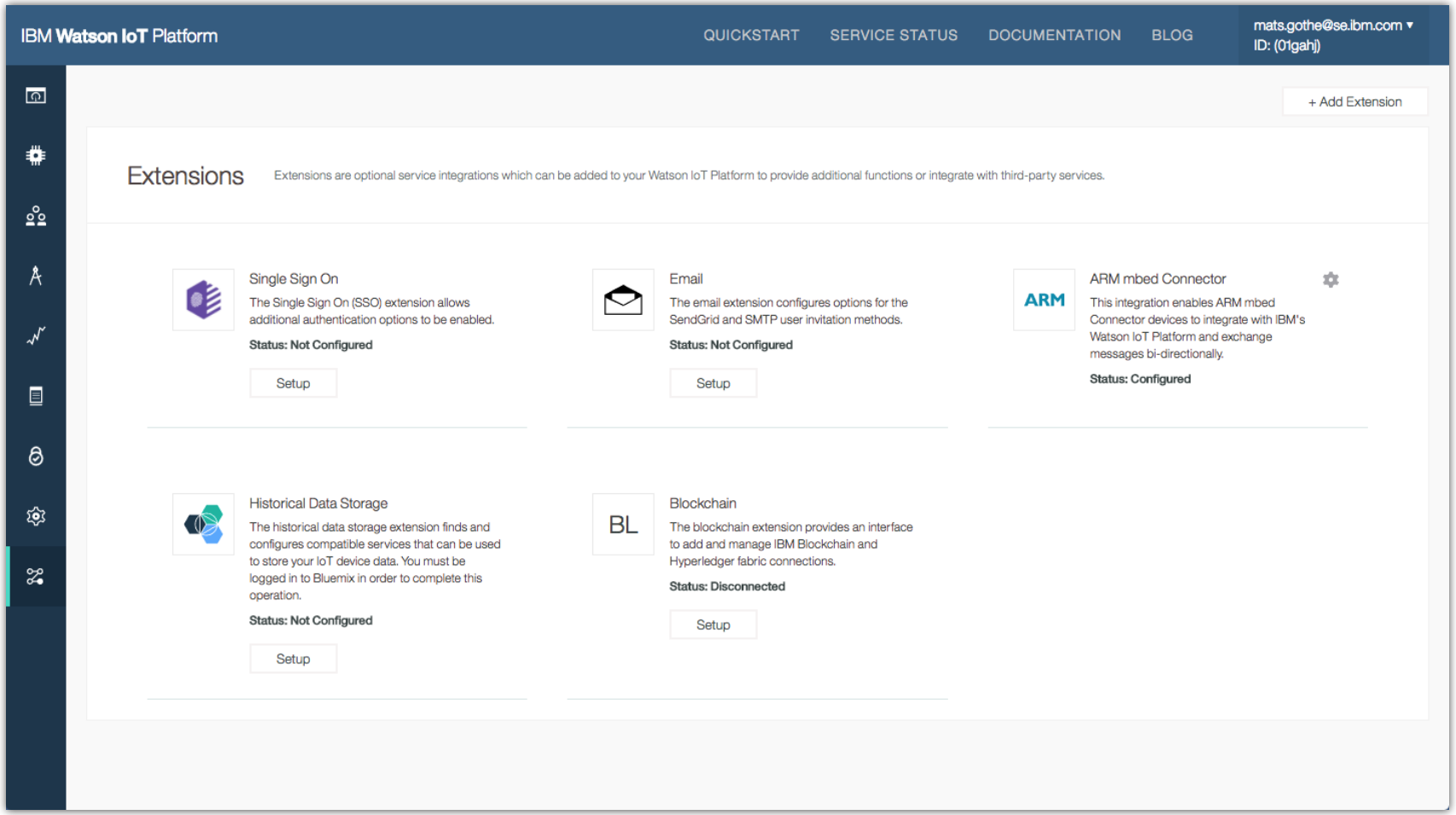
                    "value": "\\w+",
                    "required": true
                }
            ]
        },
```

Custom Device Management Packages

Custom MQTT Commands w/ Parameters integrated with IoT Platform Device Management

Download and install JSON formatted package provided by 3rd parties

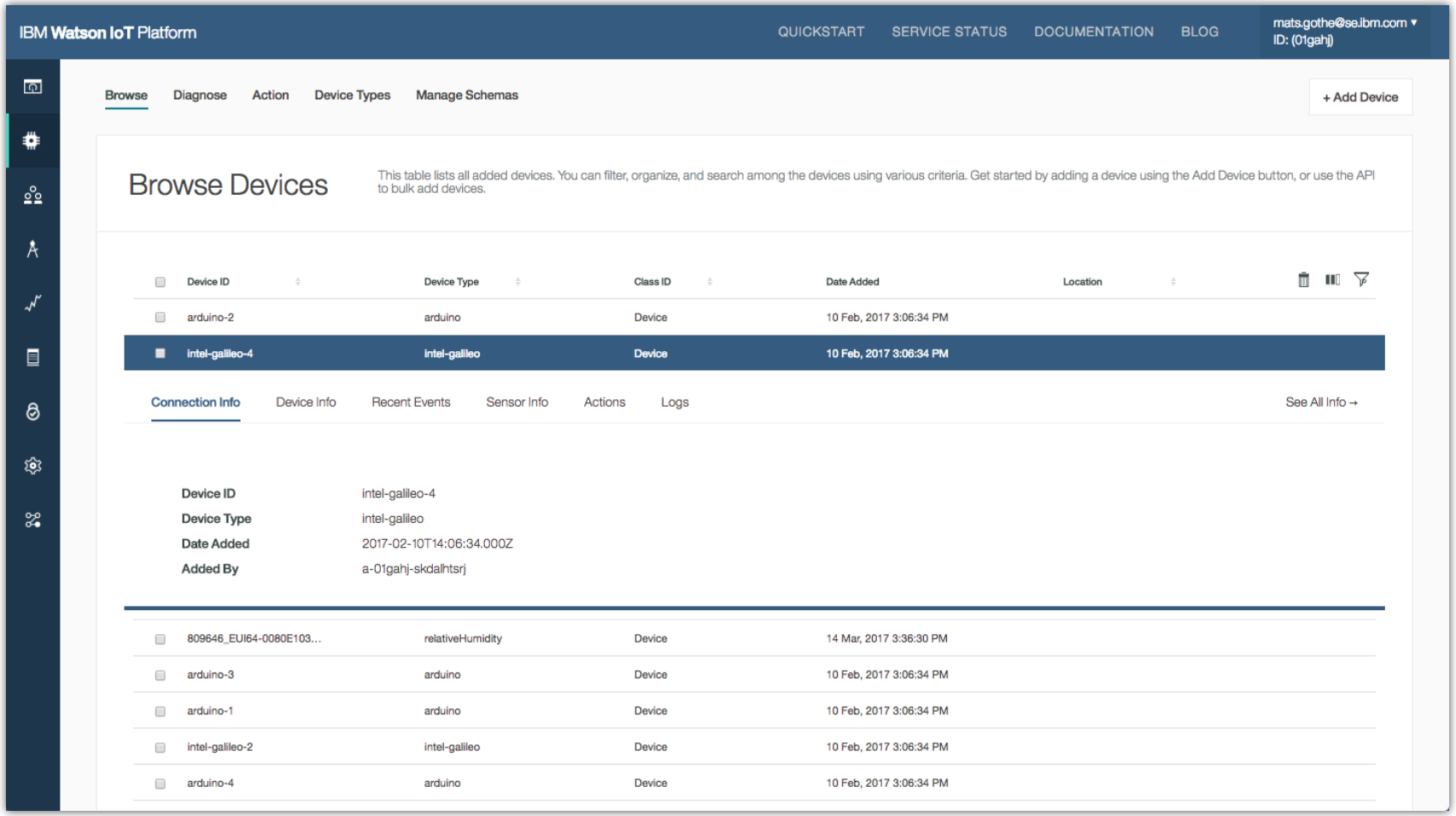
IoT Platform Extensions



IoT Platform Extensions

- Configure SSO
- Configure Email
- Configure external historian
- Configure Blockchain

IoT Platform Extensions



New IoT Platform design

- New resource creation
- New in-place view / edit
- Vertical tab'ed sections
- (In Experimental mode)

Discussion –
IoT Platform Designs in 2016

- Do you agree or disagree with the usefulness of these additions to the Watson IoT Platform User Experience design?
- What tasks work particularly well / are easy to use versus tasks that frustrate / confuse?
- What improvements do you request in IoT Platform User Experience design?

Discussion – Watson IoT Platform Roadmap

- What capabilities, most important to your IoT solution, would you like to see in the Watson IoT Platform Roadmap?

Discussion – Watson IoT Platform Roadmap

- What capabilities in the IoT Platform Roadmap are the most important to your organization?
- What capabilities are you missing in the IoT Platform Roadmap?

Summary and Conclusions

Learn more about Watson IoT Platform

- Are you visiting the Watson IoT Platform Blog to receive notifications on platform updates? https://developer.ibm.com/iotplatform/blog/
- Are you enabling Experimental Features to try new platform capabilities?
- Are you participating in the IoT Platform beta programs?

Learn more about Watson IoT Platform

Learn more about IBM's point of view on the Internet of Things

ibm.com/IoT

Try out our Internet of Things platform

ibm.biz/try_iot
Bluemix.net

Join us in our IoT conversations

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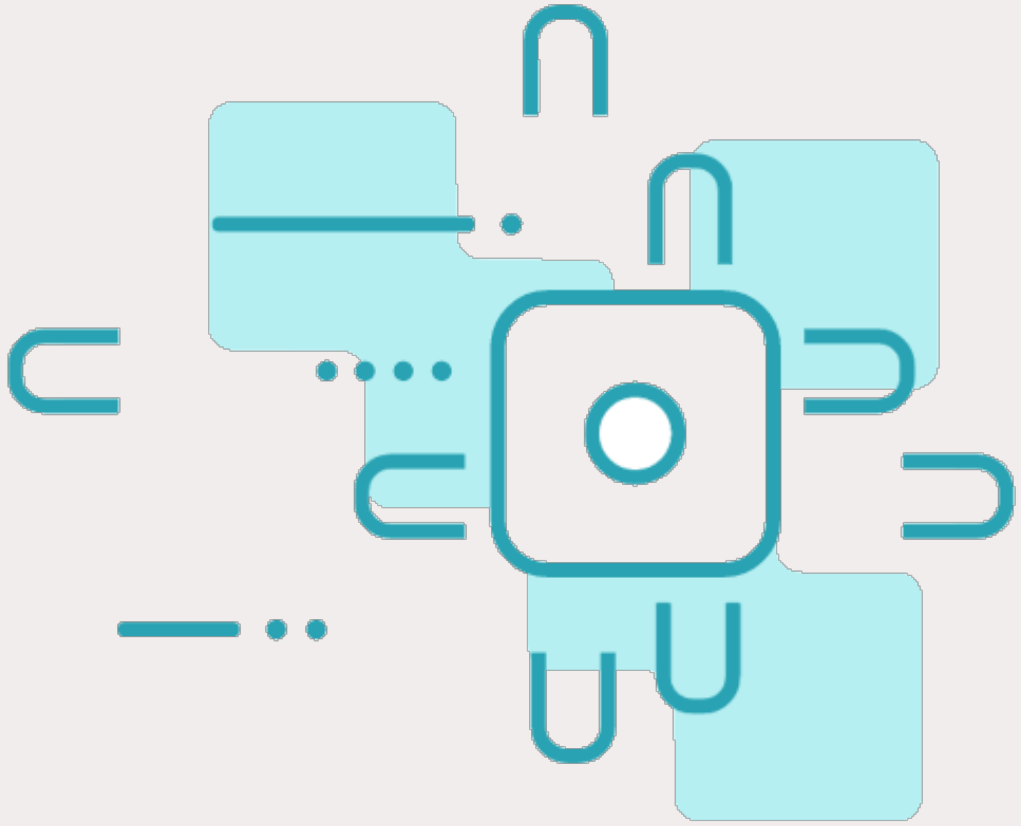

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Join the Design Partner Program

The Watson IoT Platform Design Partner Program (DPP) is a group of selected clients and partners that are building, integrating and deploying IoT solutions using the Watson IoT Platform.

The members of the DPP are meeting monthly with IoT Platform offering management, design and development to learn about new IoT Platform capabilities in the roadmap and to provide their feedback and guidance on priorities.

Join the IoT Platform Design Partner Program

Mail us at
IOTDPP@us.ibm.com

Sight up at
https://ibm.biz/Bds5dt

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