



Case Study: What can IoT do in a Facility Management situation?

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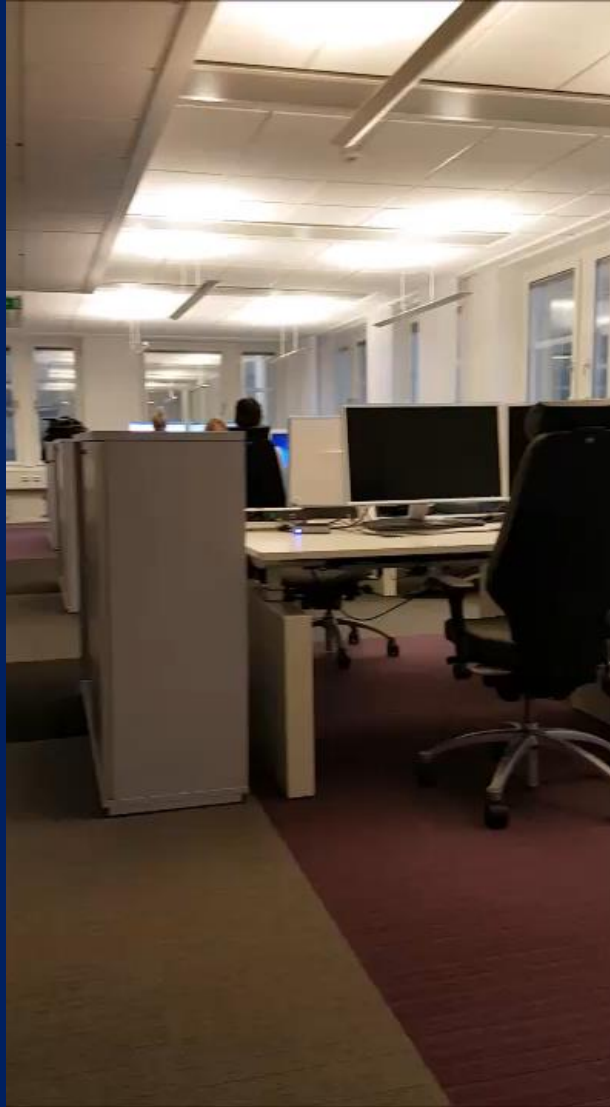
Project Annero

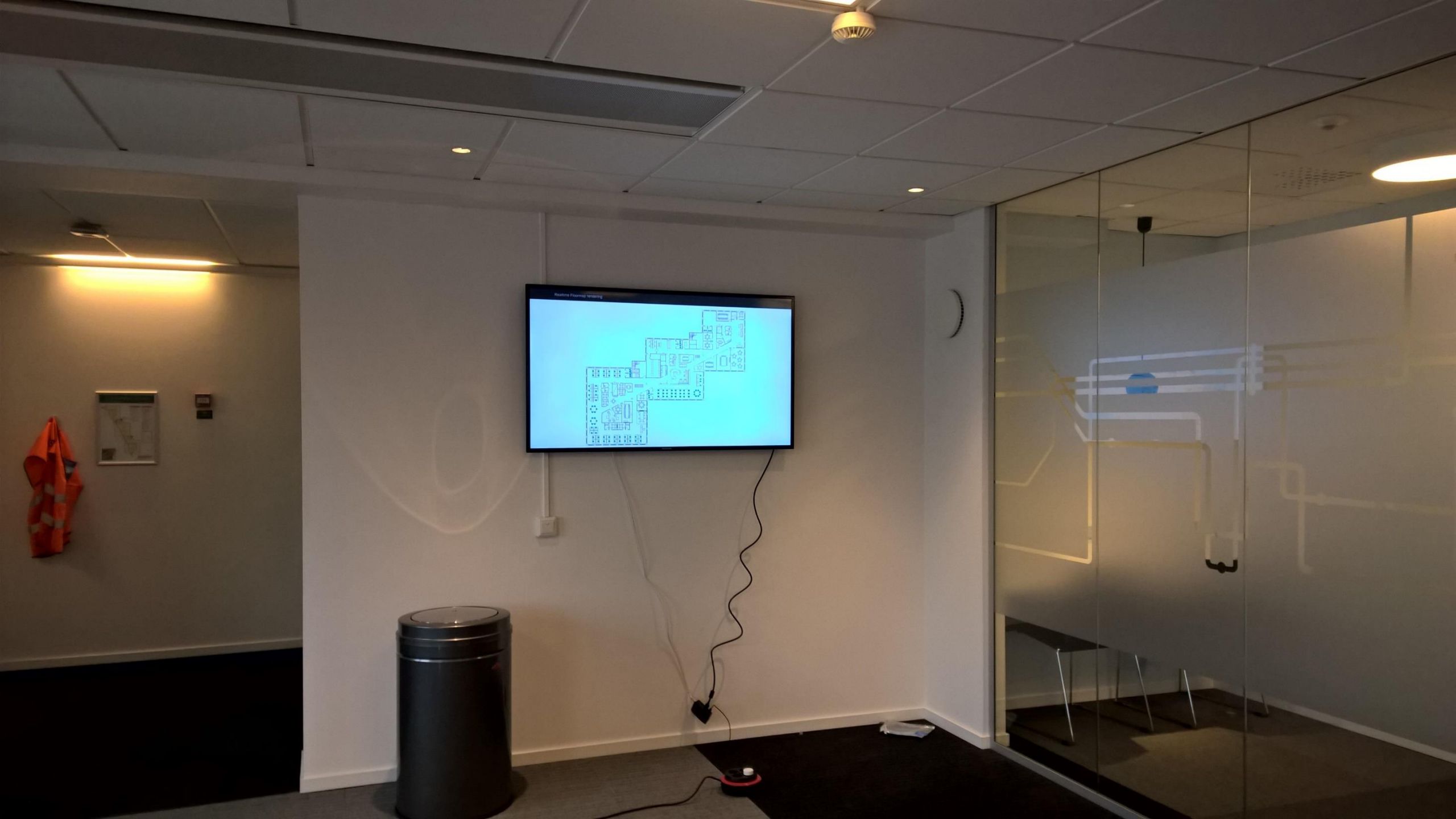
Smart Office

Microsoft, Yanzi, Intel and Coor

Yanzi Networks

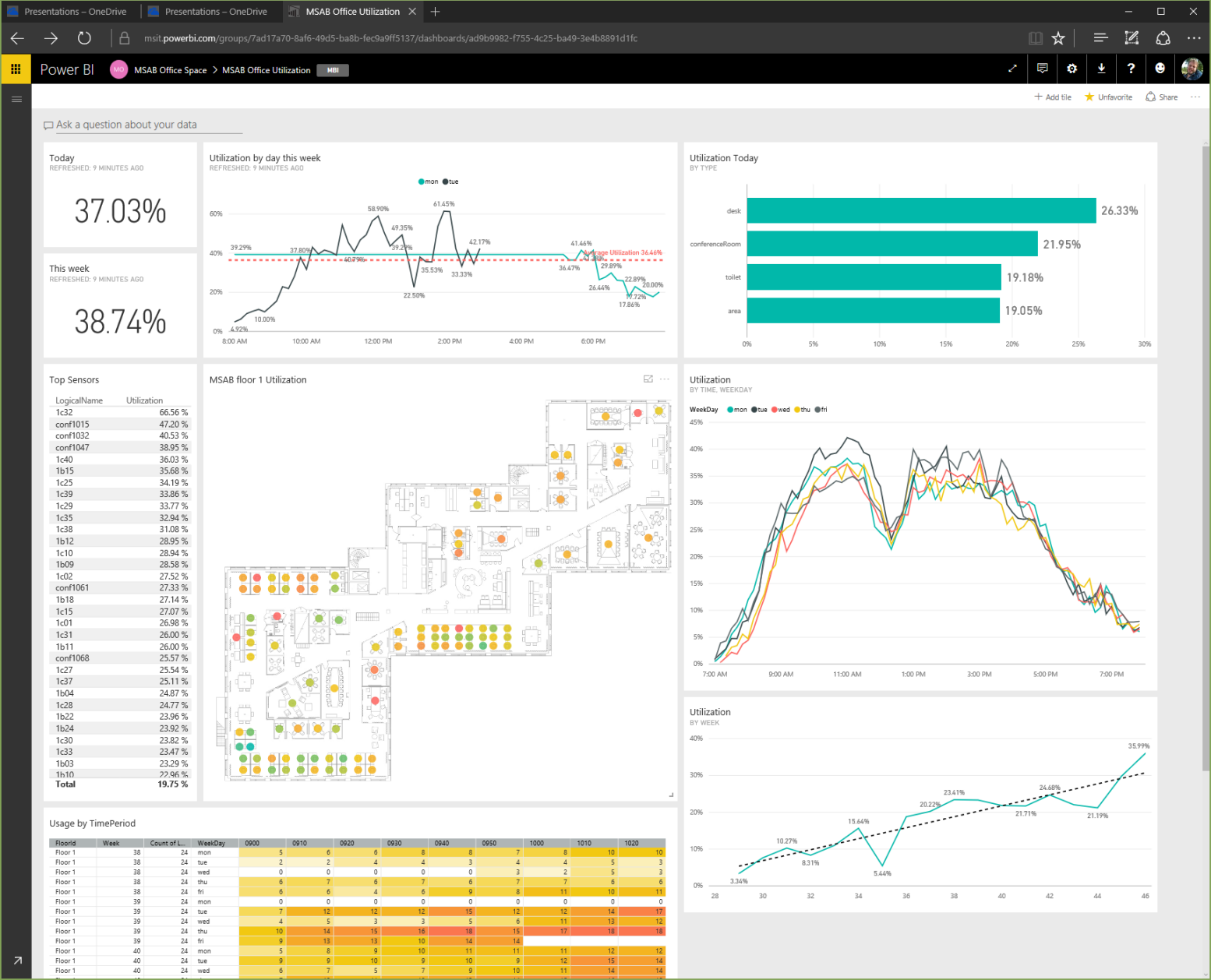






Asset: 1b05 Status: Occupied Time: 2018-09-19 17:03:52



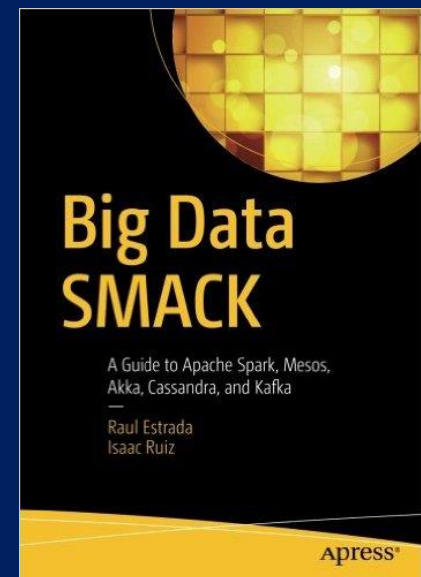


Lambda Architecture

Visualization Layer?



From SMACK TO *SMACK*



PaaS saves my a...

Serverless Computing

Data Producers

Devices

Gateways

Services

Ingestion layer



IoT Hub



Event Hub

Aggregation layer



Stream Analytics



Service Fabric



Functions



Hadoop /
HDInsight



Machine Learning



Cognitive
Services



Hadoop /
HDInsight

Storage layer



SQL Database



Data Lake



DocumentDB

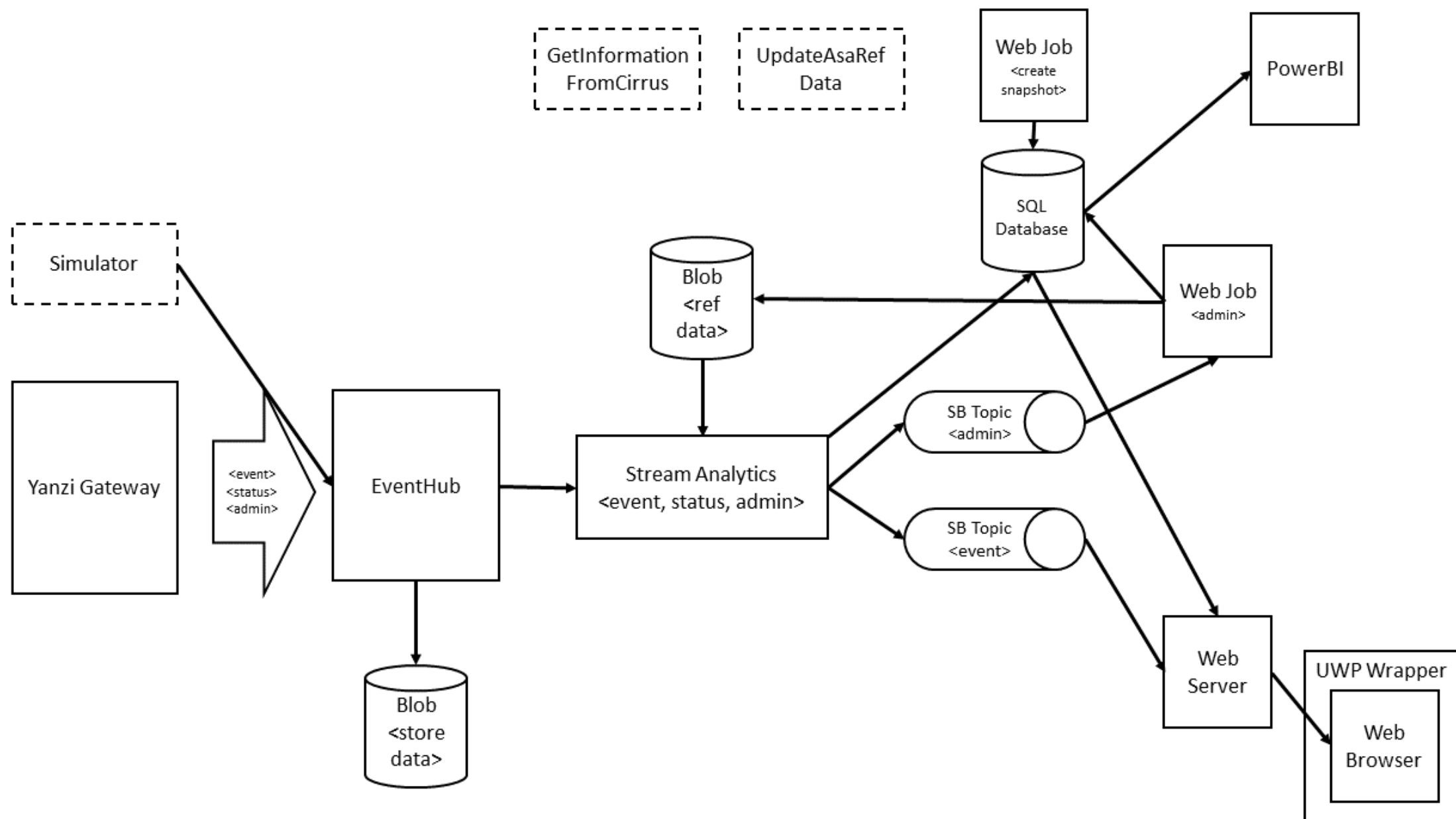


Storage



SQL Data
Warehouse

Microsoft Azure



Annero Prod

Azure Web Apps Document

Executing Java Web Jobs or

ms.portal.azure.com/#

Report a bug

Search resources

dagk@microsoft.com

Preview

Microsoft Azure

Resources

ANNERO-MS-PROD

annero4prod

Event Hub

annero

Application Insights

annero

Log Analytics

AzureActivity(annero)

Solution

annero-prod-server

SQL server

annero4prod

SQL database

annero4prod_Copy

SQL database

storage4annero

Storage account

storage4annero2webjob

Storage account

save-all-to-storage

Stream Analytics job

transform-compute

Stream Analytics job

annero-prod-app-plan

App Service plan

annero

App Service

Incoming Messages, Incoming Requests and 2 mor...

120K

100K

80K

60K

40K

20K

0K

12 PM

6 PM

Feb 6

6 AM

INCOMING MESSAGES

423.73 K

INCOMING REQUESTS

2.36 M

InputEvents, OutputEvents and one more metric p...

400

300

200

100

0

6:45 AM

7 AM

7:15 AM

7:30 AM

INPUT EVENTS

18.61 K

OUTPUT EVENTS

9.81 K

CPU percentage and DTU percentage today

ANNERO4PROD

100%

80%

60%

40%

20%

0%

12 PM

6 PM

Feb 6

6 AM

CPU PERCENTAGE

4.87 %

DTU PERCENTAGE

4.87 %

Total requests

30K

20K

10K

0K

12 PM

6 PM

Feb 6

6 AM

BLOB

431.75 K

FILE

0

QUEUE

0

CPU Percentage and Memory Percentage

ANNERO-PROD-APP-PLAN

100%

50%

0%

12 PM

6 PM

Feb 6

6 AM

Capacity

80GB

60GB

40GB

20GB

0GB

Jan 31

February

Feb 3

Feb 5

Storage

2GB

1.5GB

1GB

0.5GB

0GB

Jan 31

February

Feb 3

Feb 5

Resource groups

All resources

Recent

App Services

SQL databases

Virtual machines (classic)

Virtual machines

Cloud services (classic)

Subscriptions

Storage accounts

Storage accounts (class...

Azure Active Directory

Monitor

Security Center

Billing

Help + support

Azure Advisor

More services >

Annero Prod

buzzfrog/annero-demo

←

→

↺

GitHub, Inc. [US]

github.com/buzzfrog/annero-demo

 This repository

Search

Pull requests

Issues

Gist

 buzzfrog / annero-demo

Unwatch

2

Star

1

Fork

1

<> Code

🕒 Issues 0

🔀 Pull requests 0

📁 Projects 0

📖 Wiki

📈 Pulse

📊 Graphs

⚙️ Settings

This is the demonstration code for a Facility Management lot System

Edit

New

Add topics

📄 6 commits

🌿 1 branch

📦 0 releases

👤 1 contributor

📄 MIT

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download

 buzzfrog committed on GitHub Update install-simulated-solution.md Latest commit 34f68f8 on Dec 8 2016

📁 deployment	updated desk id's	3 months ago
📁 documents	Update install-simulated-solution.md	2 months ago
📁 simulators/SimulatorWebJobHost	initial	3 months ago
📁 sql/AnneroSqlDatabase	initial	3 months ago
📁 web/show-floormap	updated desk id's	3 months ago
📁 webjob	initial	3 months ago
📁 win	initial	3 months ago
📄 .gitattributes	initial	3 months ago
📄 .gitignore	initial	3 months ago
📄 LICENSE	Initial commit	3 months ago
📄 README.md	added doc for powerbi	3 months ago

📖 README.md

Welcome

Welcome to the project "Annero" which is a collaboration between [Microsoft Sweden](#), [Yanzi Networks](#), [Coor](#) and [Intel](#).

This is an example and should be treated as such.

This project has three objectives.

1. To implement an IoT solution for Facility Management at Microsoft's offices in Sweden.
2. Take lessons from it and extract a general template for creating this solution in other situations and places.

Next step

- Incorporate Command and Control
- Machine Learning
- Combine with other services and sensors



Thanks for listening.
Dag König

Come to our booth if you want to know more.