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MindSphere
Paradigms shift of the digitalization
SAP IoT Summit Mumbai – 15th July, 2016

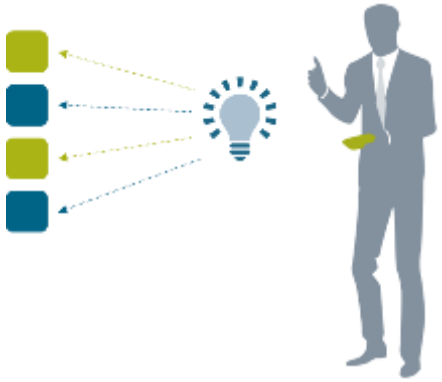
Source: The Washington Post Online

Source: The Washington Post Online

The internet of things (IoT) is bringing paradigm shifting trends to the industry

Shift from hardware to software

Users become designers



New business models become possible

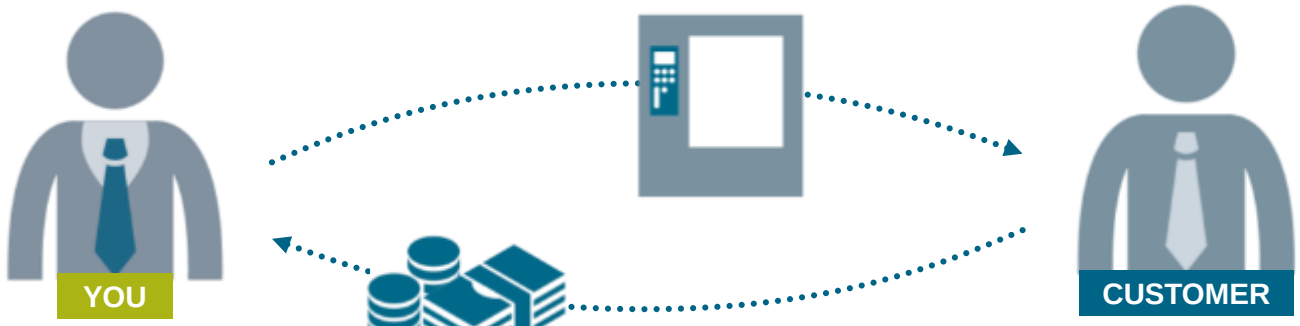
From the **record store** to **streaming**

From the **taxi** to **ride sharing**

Creating value through new business models

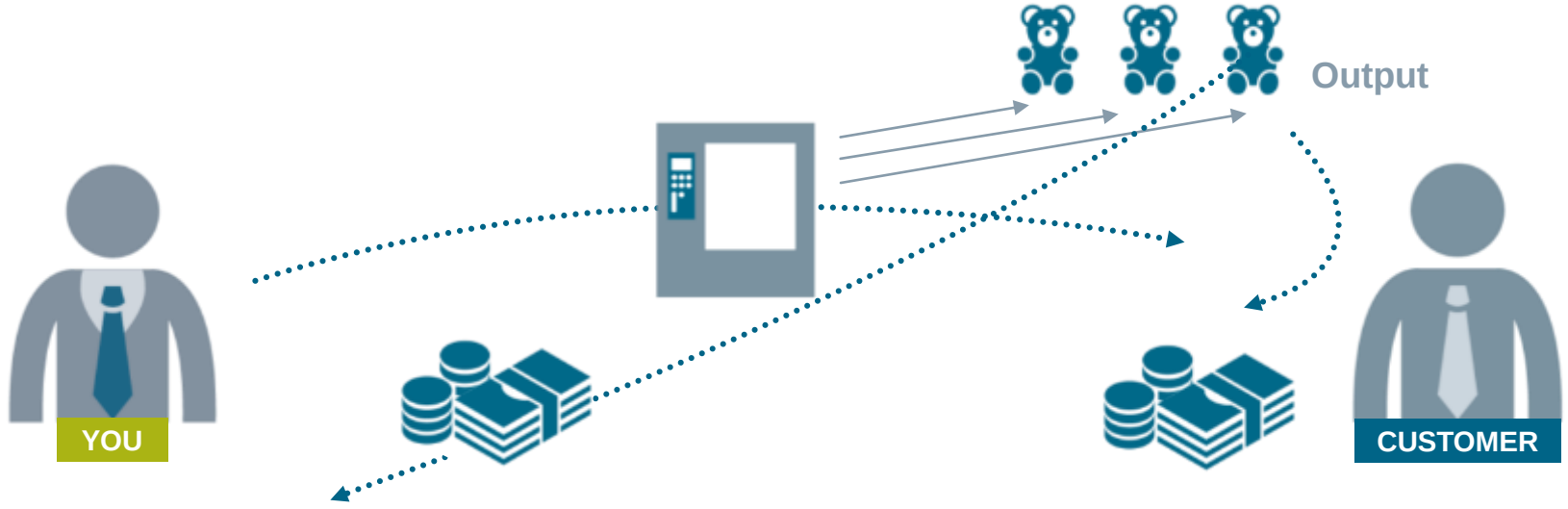
Today:

Revenue through machine sales

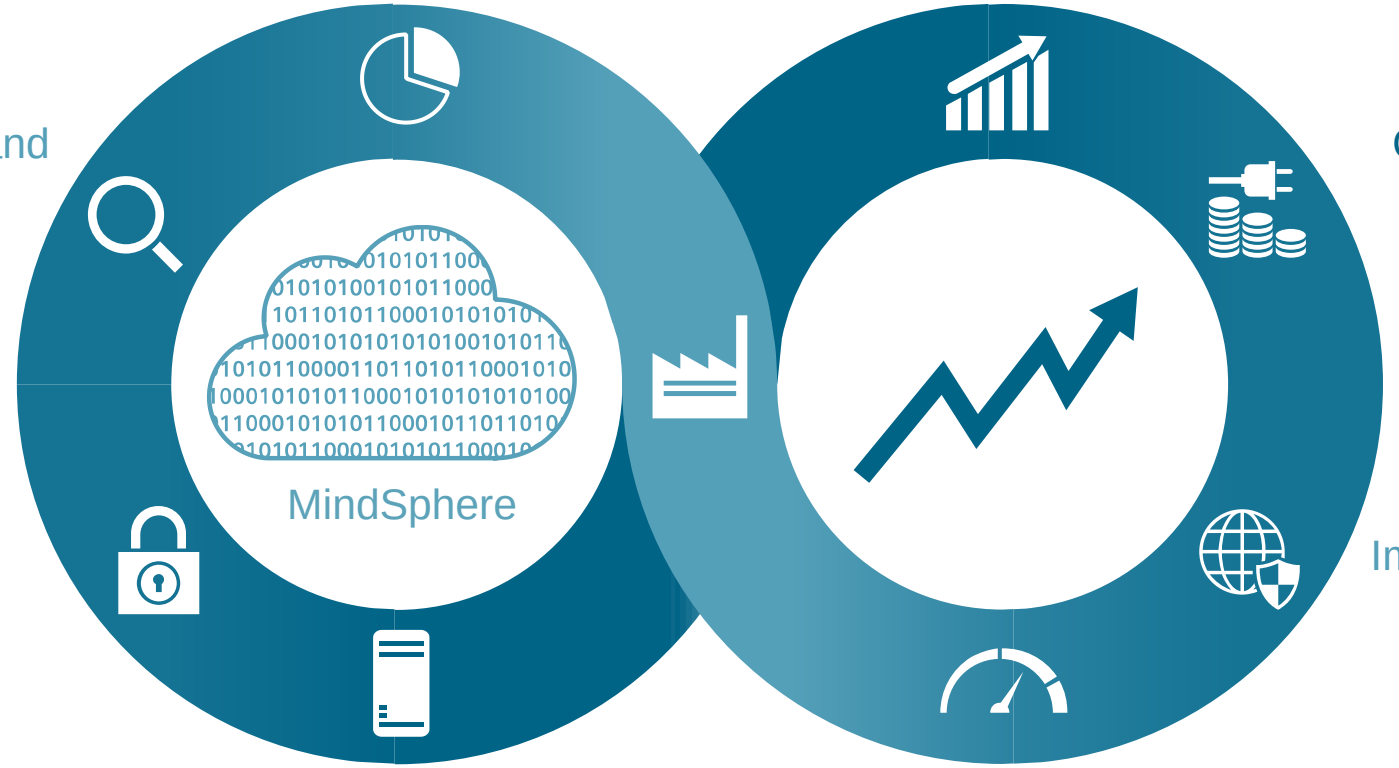


The future:

New scope for value creation through the sale of machine output



From data … … to added value



MindSphere will develop into an open ecosystem of connected assets applications

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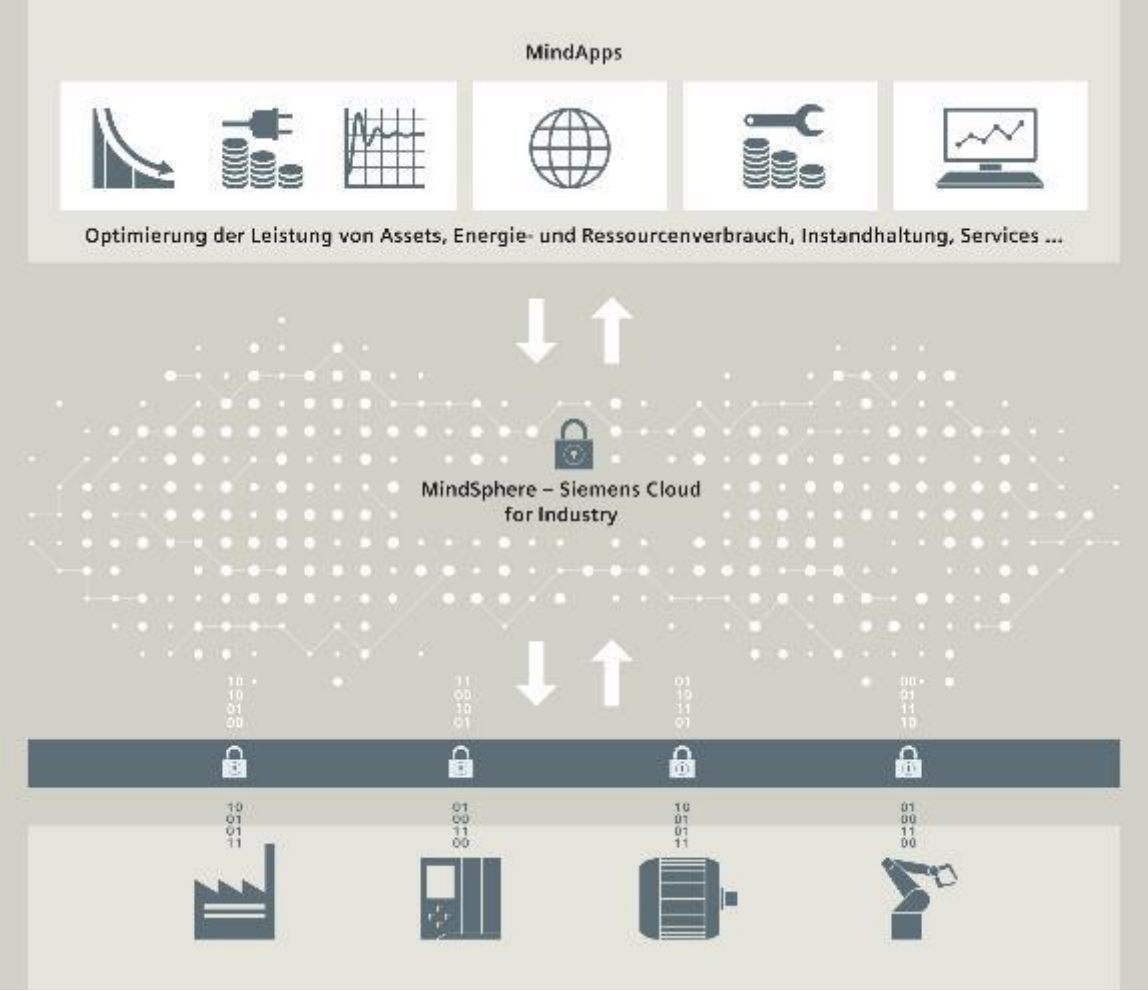
- SIMATIC
- SINUMERIK
- SINAMICS
- SCALANCE
- PCS 7
- Third-party products

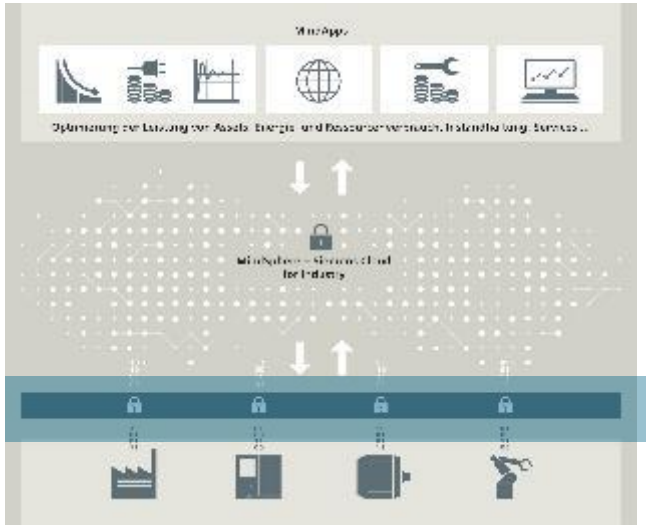
MindSphere – an open cloud platform for Industry Customers based on SAP HANA Cloud Platform



Optimization of plants and machines as well as energy and resources

- **Open standards** for connectivity of Siemens und third-party products
- **Plug and play connection** of Siemens products (engineering in the TIA Portal)
- **Cloud for industry** with open application interface for individual customer applications
- Transparent **pay-per-use pricing model**
- Opportunities for completely new **service models**

MindConnect APIs - easy and integrated connectivity as additional differentiator



MindConnect APIs Development Characteristics:

- **Close Siemens internal collaboration** regarding embedded Agents in SIMATIC, Sinumerik, Scalance, Simotics, PCS 7, TIA portal, etc.
- **Java based** multi platform Agent (installable on Windows / Linux) as well as small footprint **Agent Code Library** for integration in 3rd party assets

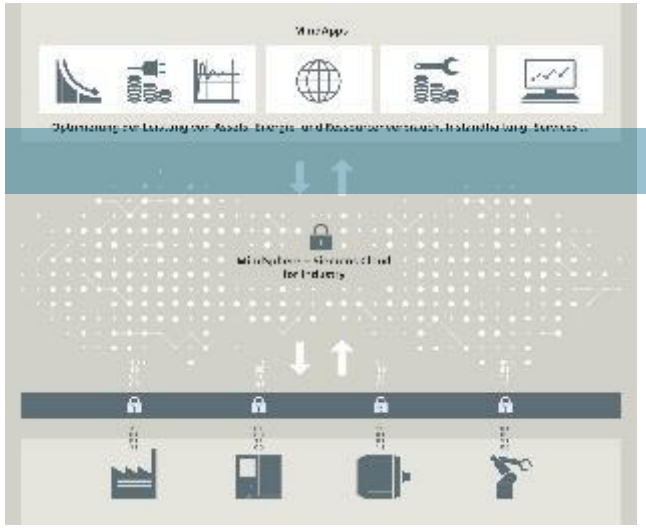
Key MindConnect Features

1. Dedicated IoT Gateways focused on brownfield installations with **MindConnect Nano** and **SIMATIC IoT 2000**

2. MindConnect **embedded Agents** in standard Siemens industrial products focused on greenfield as unique differentiator, with e.g. SIMATIC, Sinumerik

3. **TIA portal integrated** MindSphere engineering to lower effort significantly coming with v14

MindApp APIs – scalable application development for digital business models



MindApps API Development Characteristics:

- **APIs** of MindSphere for development of customer owned analytical apps (MindApps)
- Optimized for **industrial IoT App development**
- Ensure app **scalability** leveraging MindSphere
- Taking advantage of **future innovation** of platform and connectivity

Key MindApp API Features

1. **Development tools** for standard Integrated Development Environments (IDEs) Eclipse.
   Additional **modules supporting** IoT use cases (e.g. parsing , analytics and visualization modules)

2. **MindSphere App Store** provides numerous ready to use Applications (MindApps).
   For App developers the App Store offers a **monetarization and promotion channel** to industrial customers.

3. **Developer community** supported via Developer Portal, Developer Conference, dedicated consulting, free demo apps, and much more

MindSphere offers an easy way into digital services for OEMs and end-customers

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Customer finds	Customer receives	Customer implements	Customer sells	Customer operates
new service ideas	a secure connection of assets and processes	new services efficiently	services	services efficiently
with …	with …	with …	with …	with …
… our best practices and our expertise	… MindConnect Nano from Siemens	… our solutions, Fleet Manager and Visual Analyzer	… MindSphere ecosystem	… our platform: MindSphere – Siemens Cloud for Industry

MindSphere is seen as a leading platform for industrial IoT

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MindSphere makes your company ready for Digitalization
Digital Engineering Cover 04/16

MindSphere looks like the starter drug to Industry 4.0
EngineeringSpot 03/16

MindSphere wins Gold Award for "Lead Generation"
Hannover Fair 04/16

GE and Siemens take the lead – watch out for Predix and MindSphere …
Société Générale 03/16

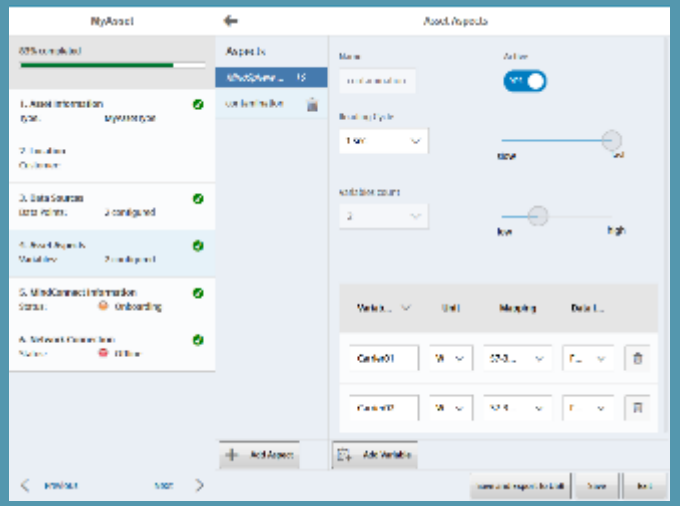
MindSphere enables customers to create new data-driven services in only two easy steps

STEP 1
Connect

Get MindSphere user-account, receive and integrate Connector Box into machine / equipment

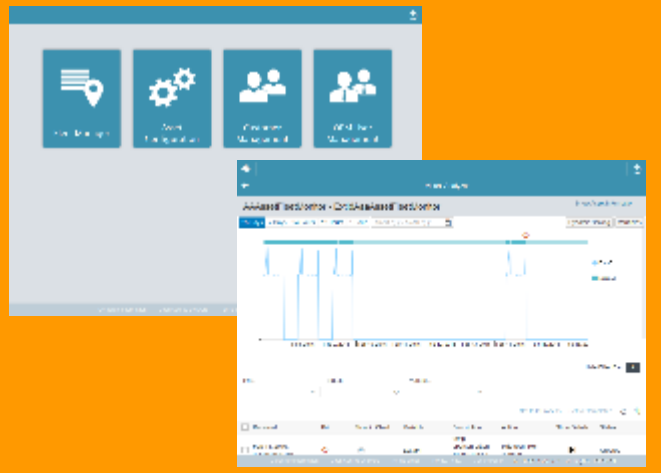
STEP 2
Configure

Configure data acquisition, connectivity and Visual Analyzer via MindSphere



Run the Service

Monitor e.g. health status of all assets in MindSphere with Fleet Manager and drill into details using Visual Analyzer

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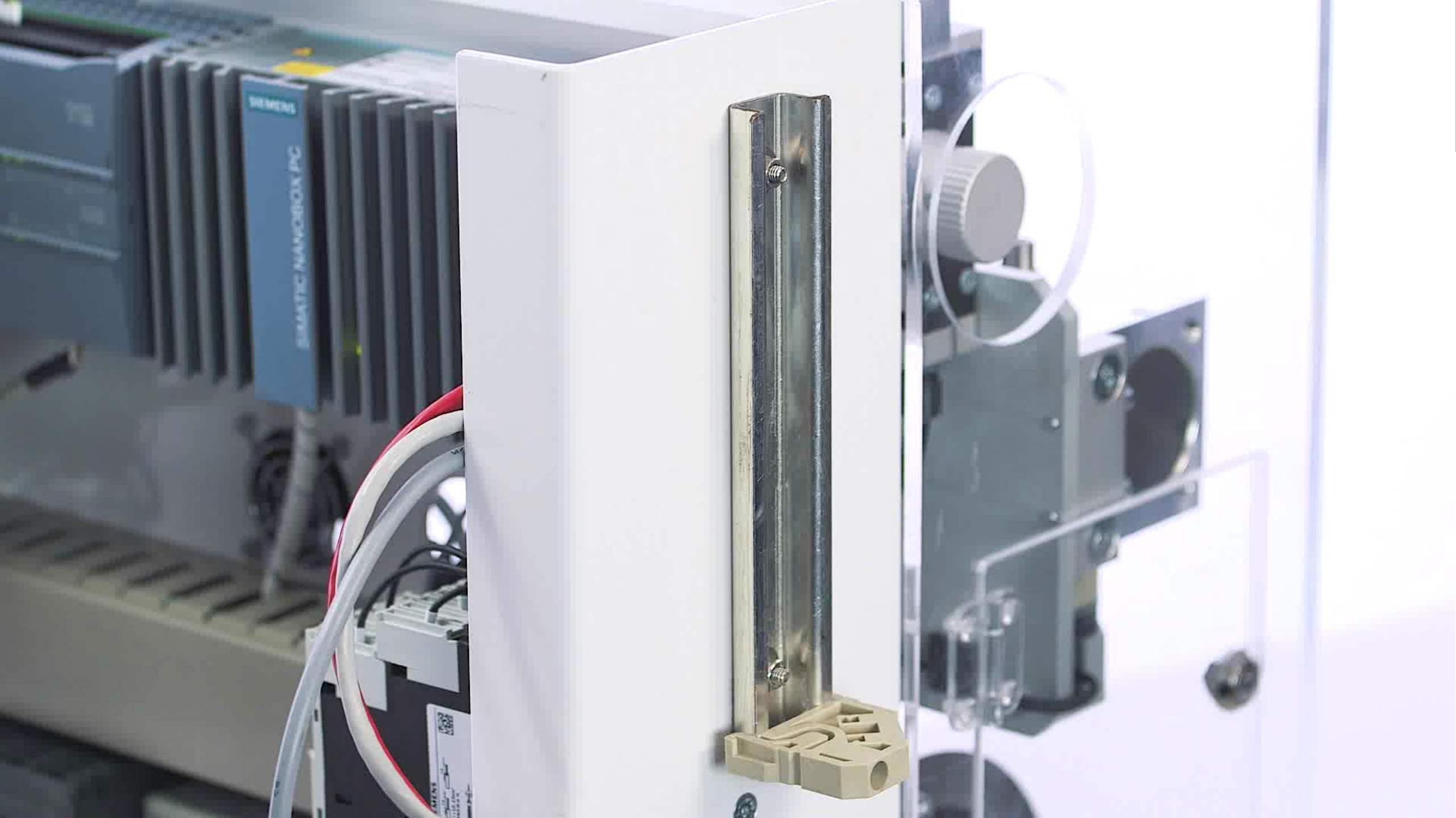
Quick Start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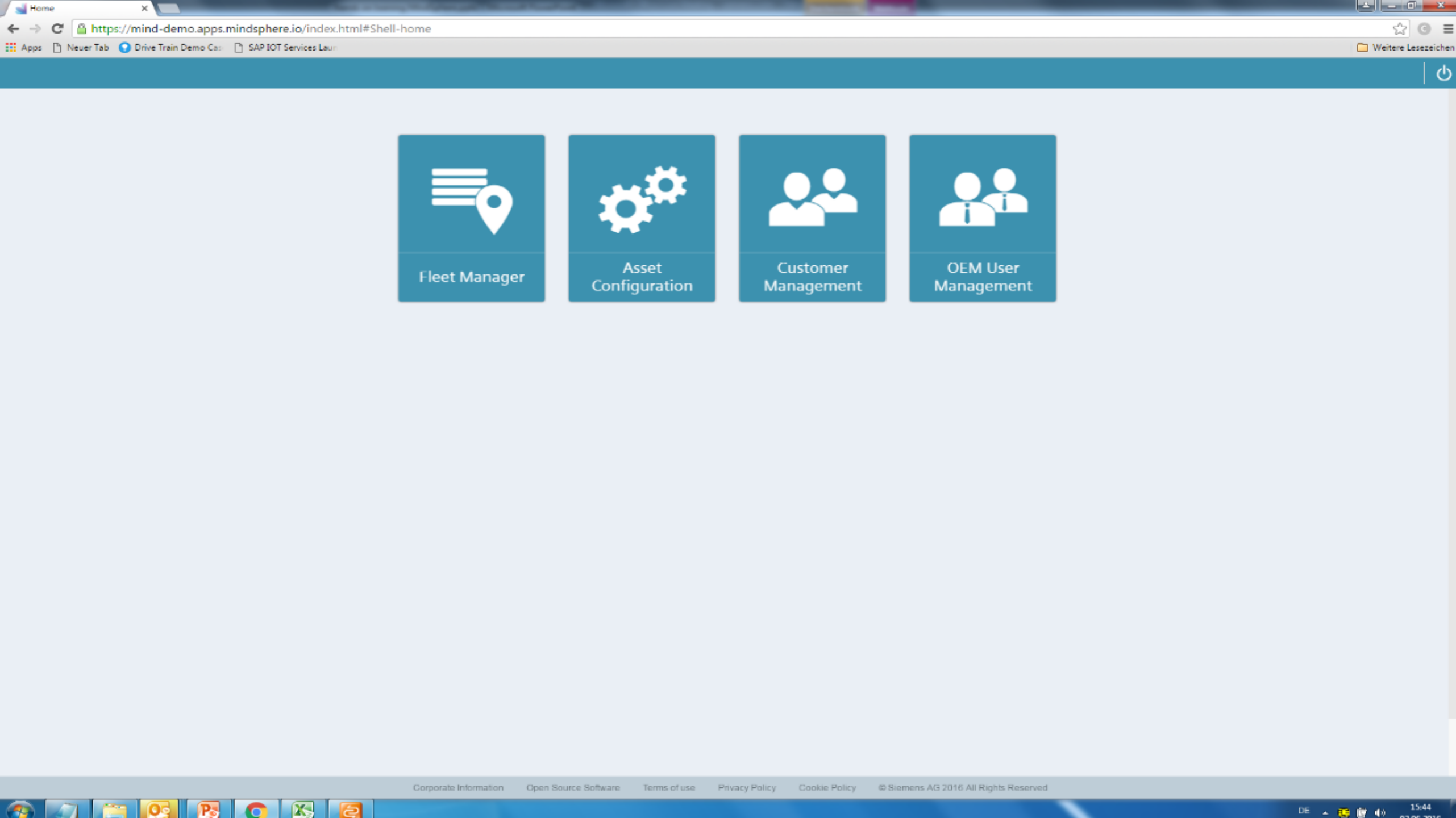
SIMATIC IMM/IBOX PC


Home
https://mind-demo.apps.mindsphere.io/index.html#Shell-home
Apps
Neuer Tab
Drive Train Demo Cas
SAP IOT Services Laun
Weitere Lesezeichen
Fleet Manager
Asset Configuration
Customer Management
OEM User Management
Corporate Information
Open Source Software
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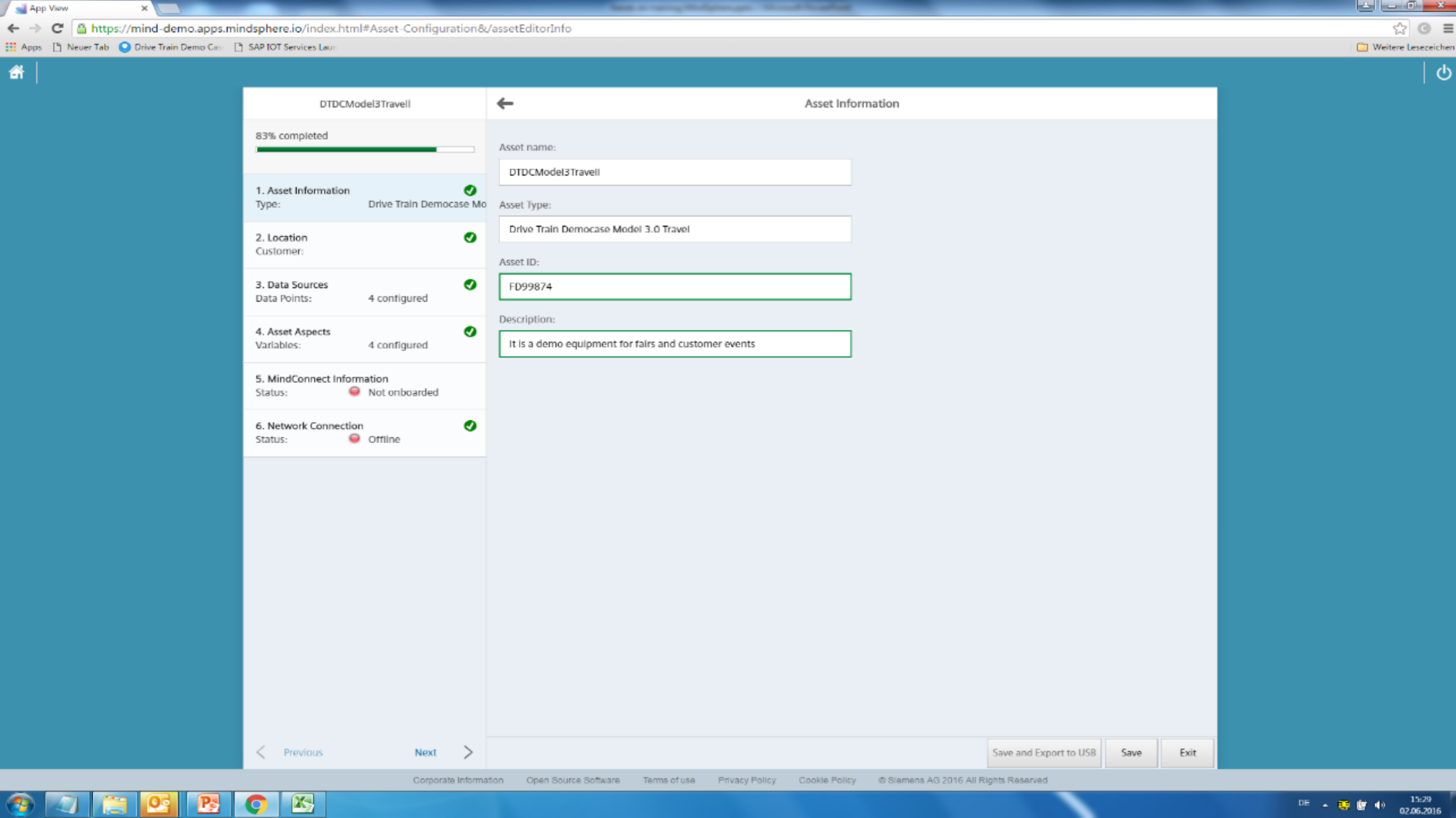
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Apps
Neuer Tab
Drive Train Demo Ca
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Weitere Lesezeichen
DTDCModel3Travell
83% completed
1. Asset Information
Type:
Drive Train Democase Mo
2. Location
Customer:
3. Data Sources
Data Points:
4 configured
4. Asset Aspects
Variables:
4 configured
5. MindConnect Information
Status:
Not onboarded
6. Network Connection
Status:
Offline
Previous
Next
Asset Information
Asset name:
DTDCModel3Travell
Asset Type:
Drive Train Democase Model 3.0 Travel
Asset ID:
FD99874
Description:
It is a demo equipment for fairs and customer events
Save and Export to USB
Save
Exit
Corporate Information
Open Source Software
Terms of use
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Cookie Policy
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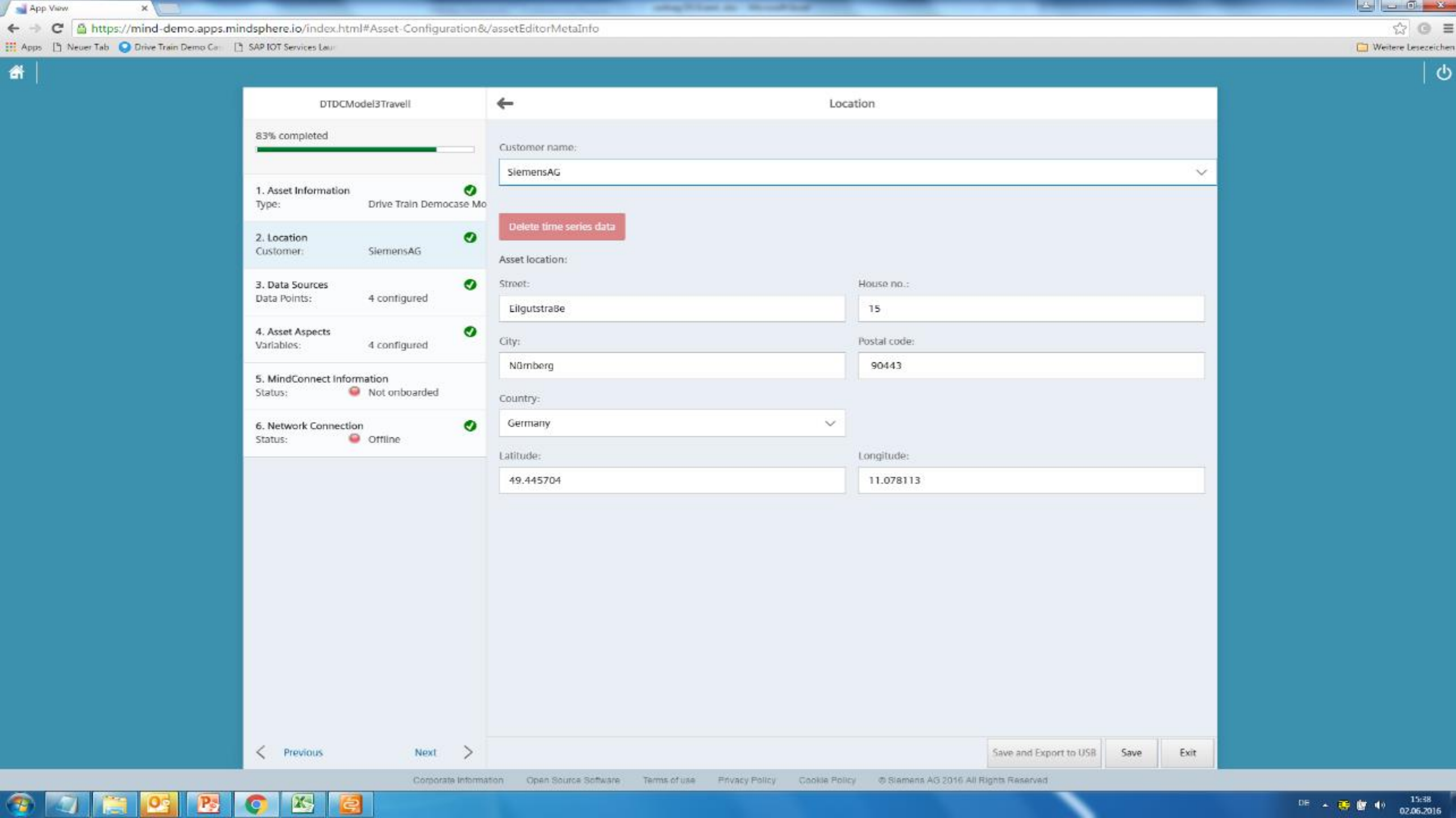
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DTDCModel3TravelI
Location
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2. Location
Customer: SiemensAG
3. Data Sources
Data Points: 4 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
Customer name:
SiemensAG
Delete time series data
Asset location:
Street:
EilgutstraBe
House no.:
15
City:
Nürnberg
Postal code:
90443
Country:
Germany
Latitude:
49.445704
Longitude:
11.078113
Previous
Next
Save and Export to USB
Save
Exit
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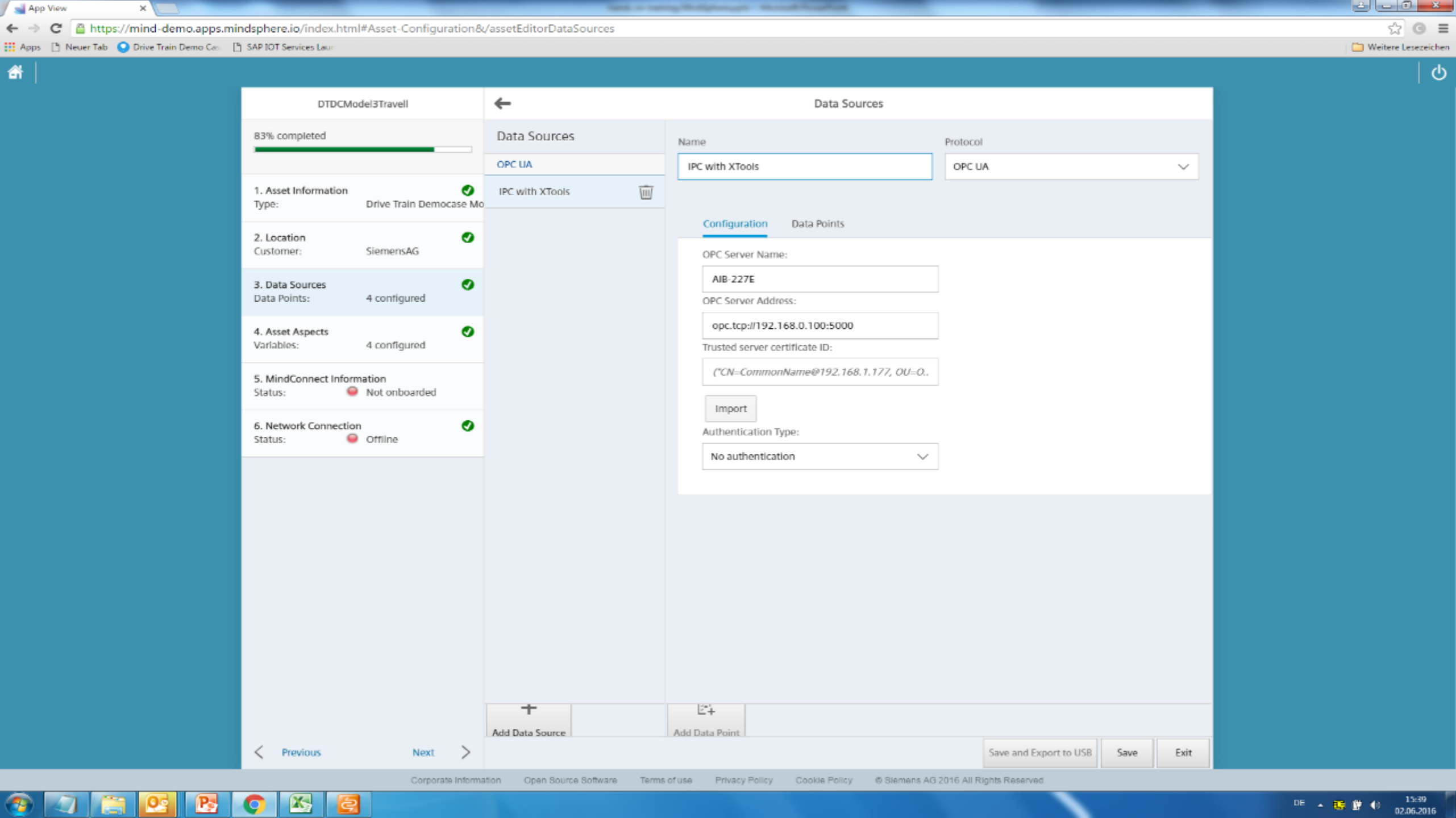
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Customer: SiemensAG
3. Data Sources
Data Points: 4 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
Previous
Next
Data Sources
Data Sources
OPC UA
IPC with XTools
Name
IPC with XTools
Protocol
OPC UA
Configuration
Data Points
OPC Server Name:
AIB-227E
OPC Server Address:
opc.tcp://192.168.0.100:5000
Trusted server certificate ID:
("CN=CommonName@192.168.1.177, OU=O..
Import
Authentication Type:
No authentication
Add Data Source
Add Data Point
Save and Export to USB
Save
Exit
Corporate Information
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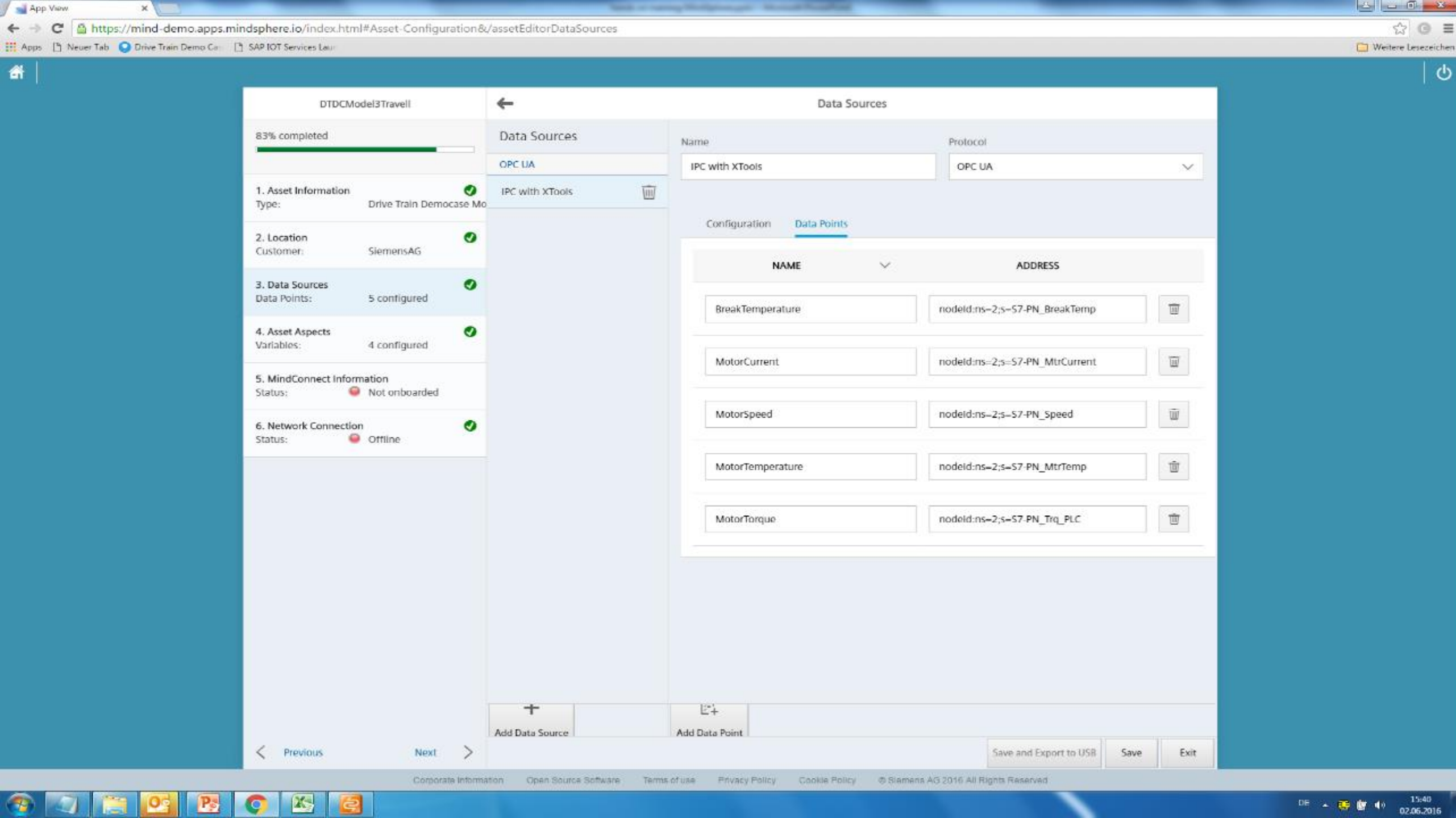
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Data Sources
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2. Location
Customer: SiemensAG
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Data Points: 5 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
Previous
Next
Data Sources
OPC UA
IPC with XTools
Name
IPC with XTools
Protocol
OPC UA
Configuration
Data Points
NAME
ADDRESS
BreakTemperature
nodeId:ns=2;s=S7-PN_BreakTemp
MotorCurrent
nodeId:ns=2;s=S7-PN_MtrCurrent
MotorSpeed
nodeId:ns=2;s=S7-PN_Speed
MotorTemperature
nodeId:ns=2;s=S7-PN_MtrTemp
MotorTorque
nodeId:ns=2;s=S7-PN_Trq_PLC
Add Data Source
Add Data Point
Save and Export to USB
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Exit
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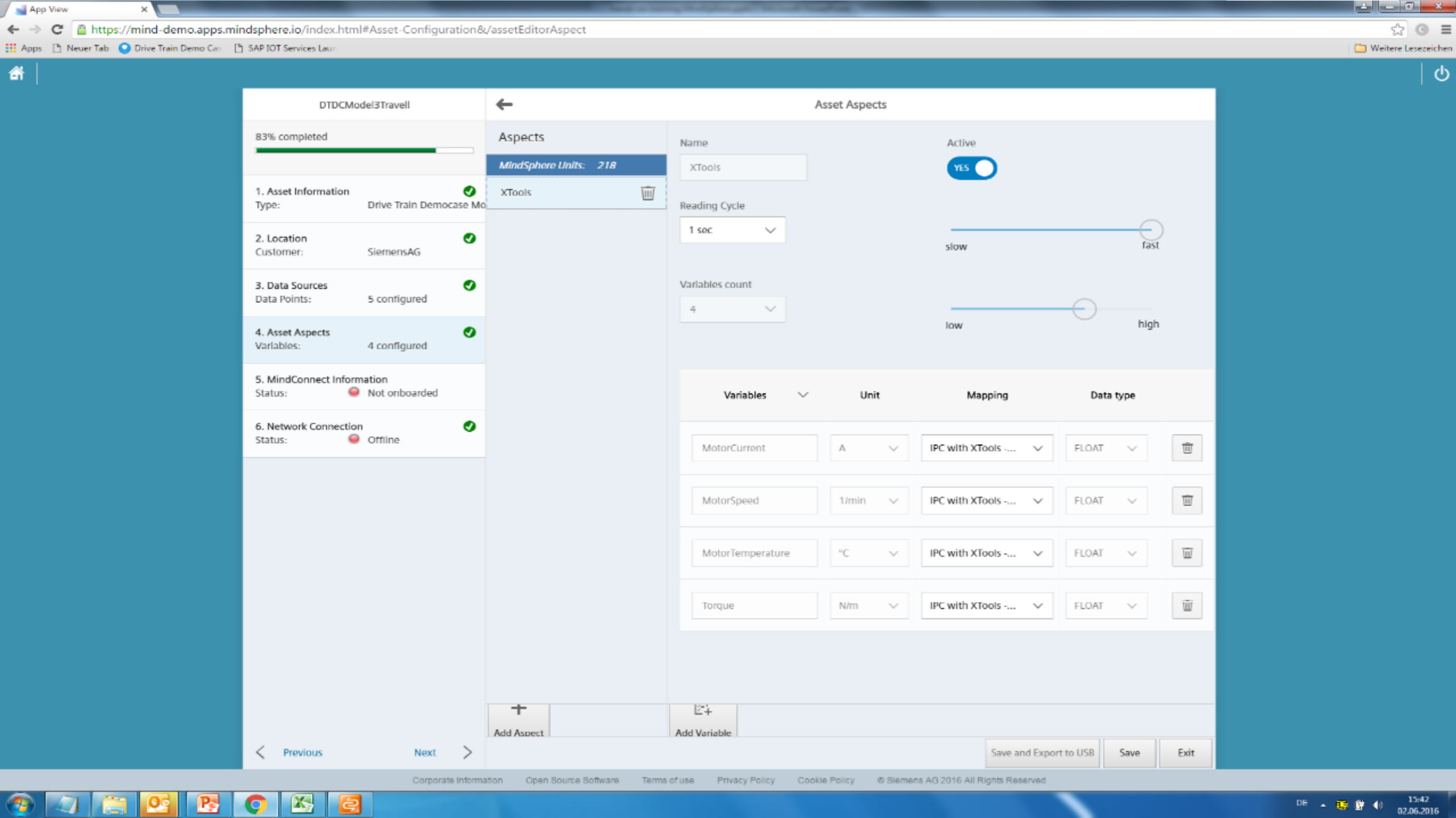
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Asset Aspects
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Type: Drive Train Democase Mo
2. Location
Customer: SiemensAG
3. Data Sources
Data Points: 5 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
Aspects
MindSphere Units: 218
XTools
Name
XTools
Active
YES
Reading Cycle
1 sec
slow
fast
Variables count
4
low
high
Variables
Unit
Mapping
Data type
MotorCurrent
A
IPC with XTools -...
FLOAT
MotorSpeed
1/min
IPC with XTools -...
FLOAT
MotorTemperature
°C
IPC with XTools -...
FLOAT
Torque
N/m
IPC with XTools -...
FLOAT
Add Aspect
Add Variable
Previous
Next
Save and Export to USB
Save
Exit
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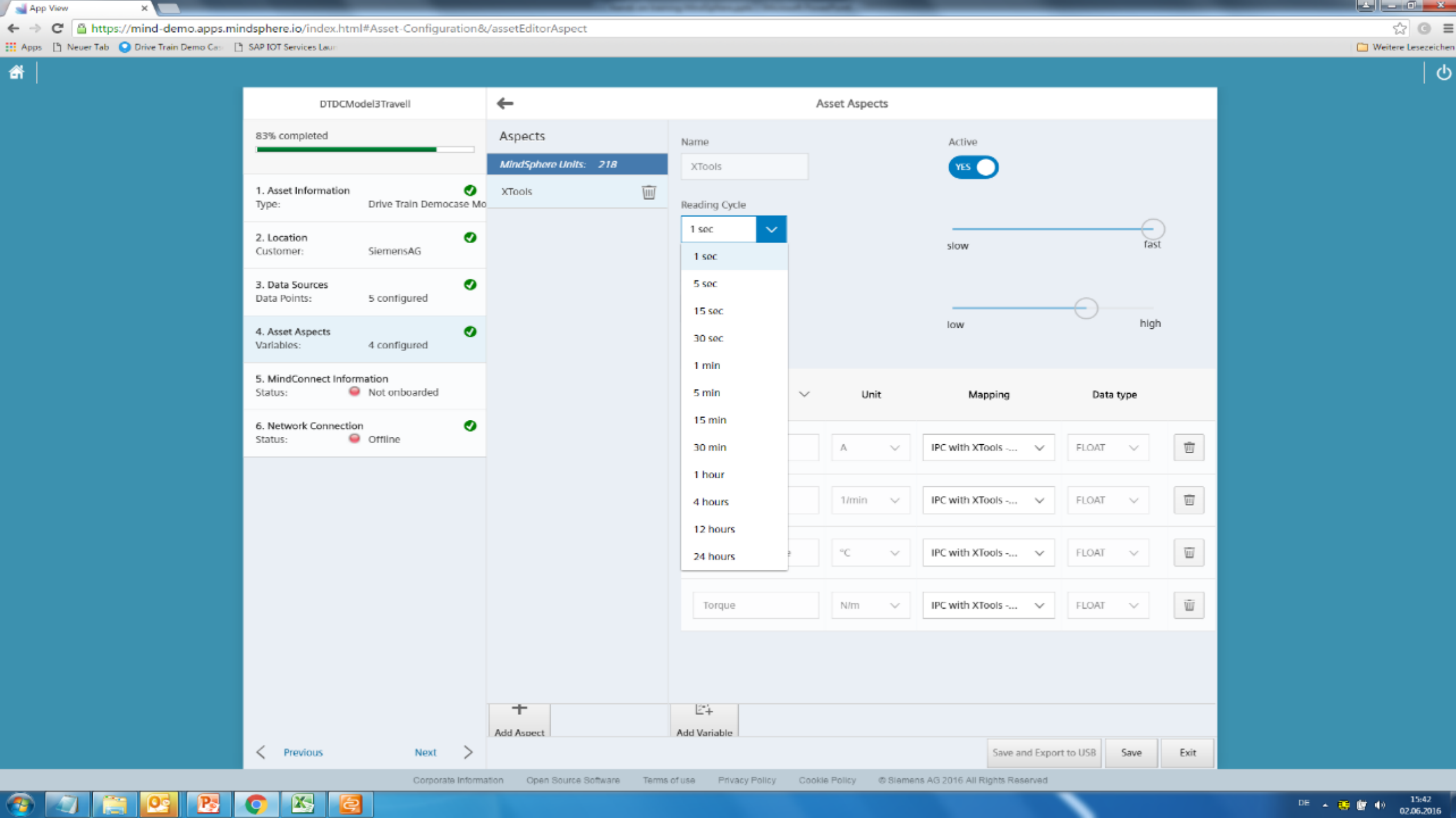
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Asset Aspects
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2. Location
Customer: SiemensAG
3. Data Sources
Data Points: 5 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
Previous
Next
Aspects
MindSphere Units: 218
XTools
Name
XTools
Active
YES
Reading Cycle
1 sec
1 sec
5 sec
15 sec
30 sec
1 min
5 min
15 min
30 min
1 hour
4 hours
12 hours
24 hours
slow
fast
low
high
Unit
Mapping
Data type
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°C
N/m
IPC with XTools -...
FLOAT
Torque
Add Aspect
Add Variable
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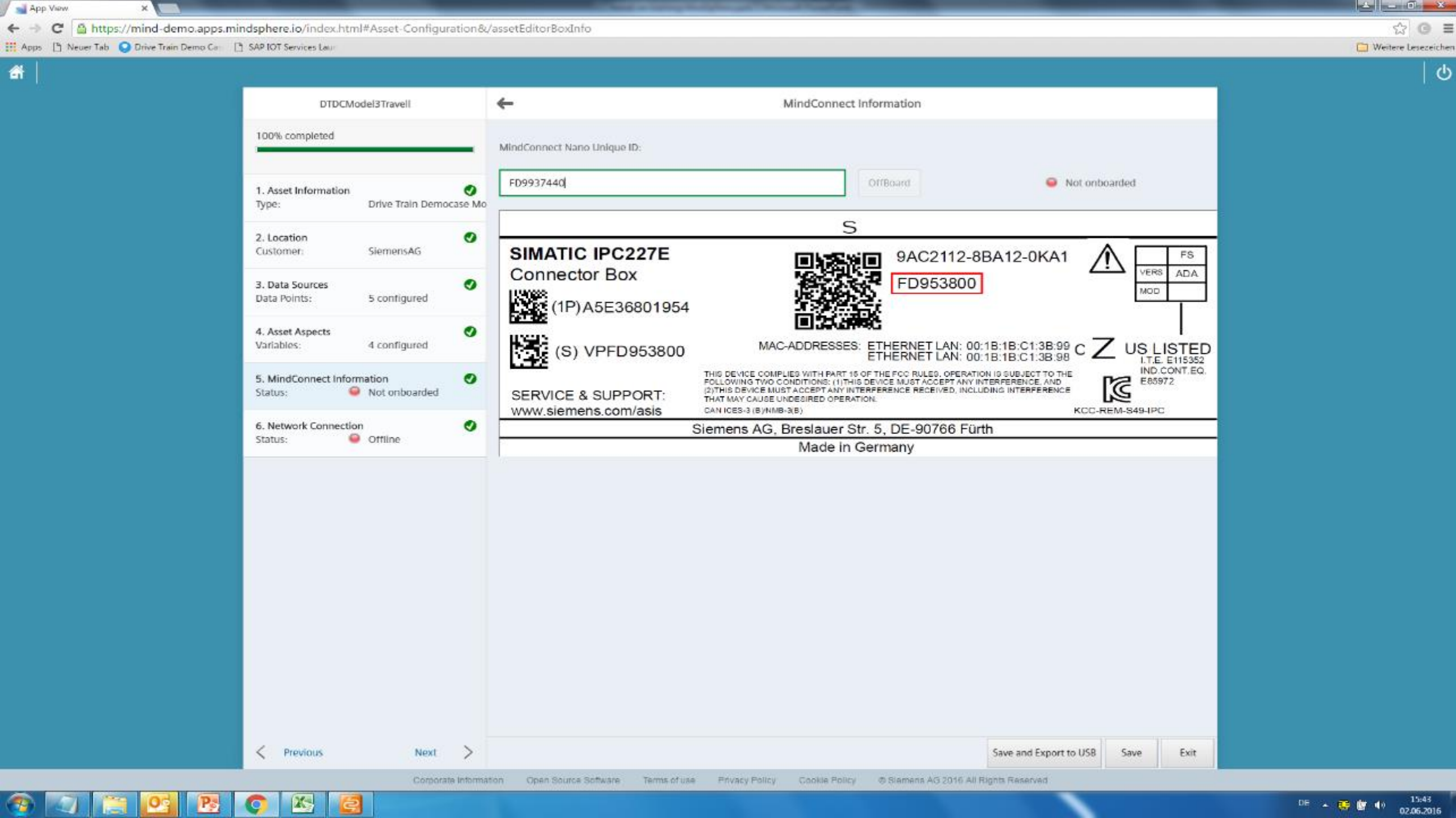
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DTDCModel3TravelI
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100% completed
1. Asset Information
Type: Drive Train Democase Mo
2. Location
Customer: SiemensAG
3. Data Sources
Data Points: 5 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
MindConnect Nano Unique ID:
FD9937440
OffBoard
Not onboarded
S
SIMATIC IPC227E
Connector Box
(1P)A5E36801954
(S) VPFD953800
9AC2112-8BA12-0KA1
FD953800
FS
VERS
ADA
MOD
MAC-ADDRESSES: ETHERNET LAN: 00:1B:1B:C1:3B:99
ETHERNET LAN: 00:1B:1B:C1:3B:98
US LISTED
I.T.E. E115352
IND.CONT.EQ.
E85972
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1)THIS DEVICE MUST ACCEPT ANY INTERFERENCE, AND (2)THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
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KCC-REM-S49-IPC
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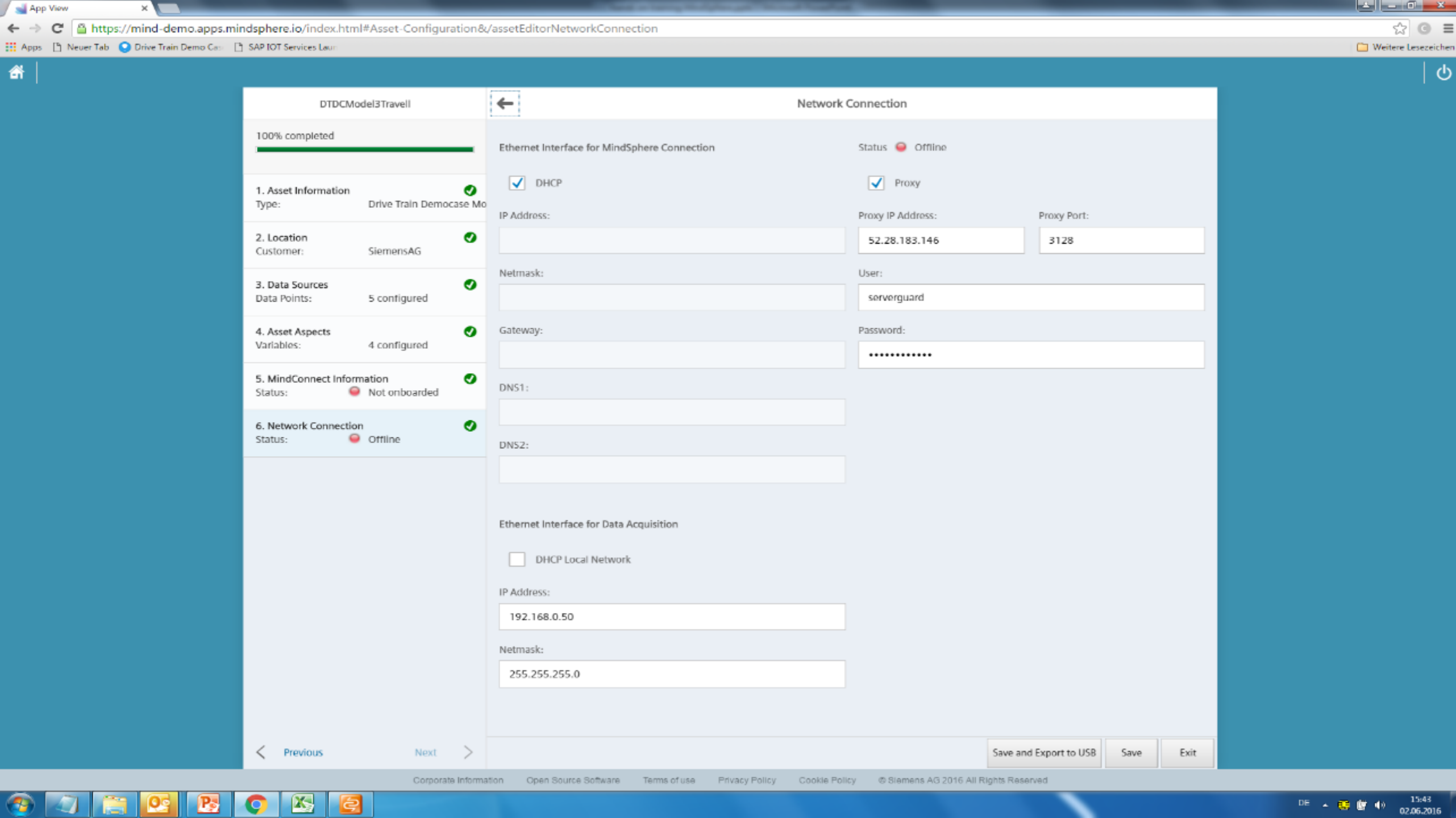
App View
https://mind-demo.apps.mindsphere.io/index.html#Asset-Configuration&/assetEditorNetworkConnection
DTDCModel3Travell
100% completed
1. Asset Information
Type: Drive Train Democase Mo
2. Location
Customer: SiemensAG
3. Data Sources
Data Points: 5 configured
4. Asset Aspects
Variables: 4 configured
5. MindConnect Information
Status: Not onboarded
6. Network Connection
Status: Offline
Previous
Next
Network Connection
Ethernet Interface for MindSphere Connection
Status Offline
DHCP
Proxy
IP Address:
Proxy IP Address:
52.28.183.146
Proxy Port:
3128
Netmask:
User:
serverguard
Gateway:
Password:
DNS1:
DNS2:
Ethernet Interface for Data Acquisition
DHCP Local Network
IP Address:
192.168.0.50
Netmask:
255.255.255.0
Save and Export to USB
Save
Exit
Corporate Information
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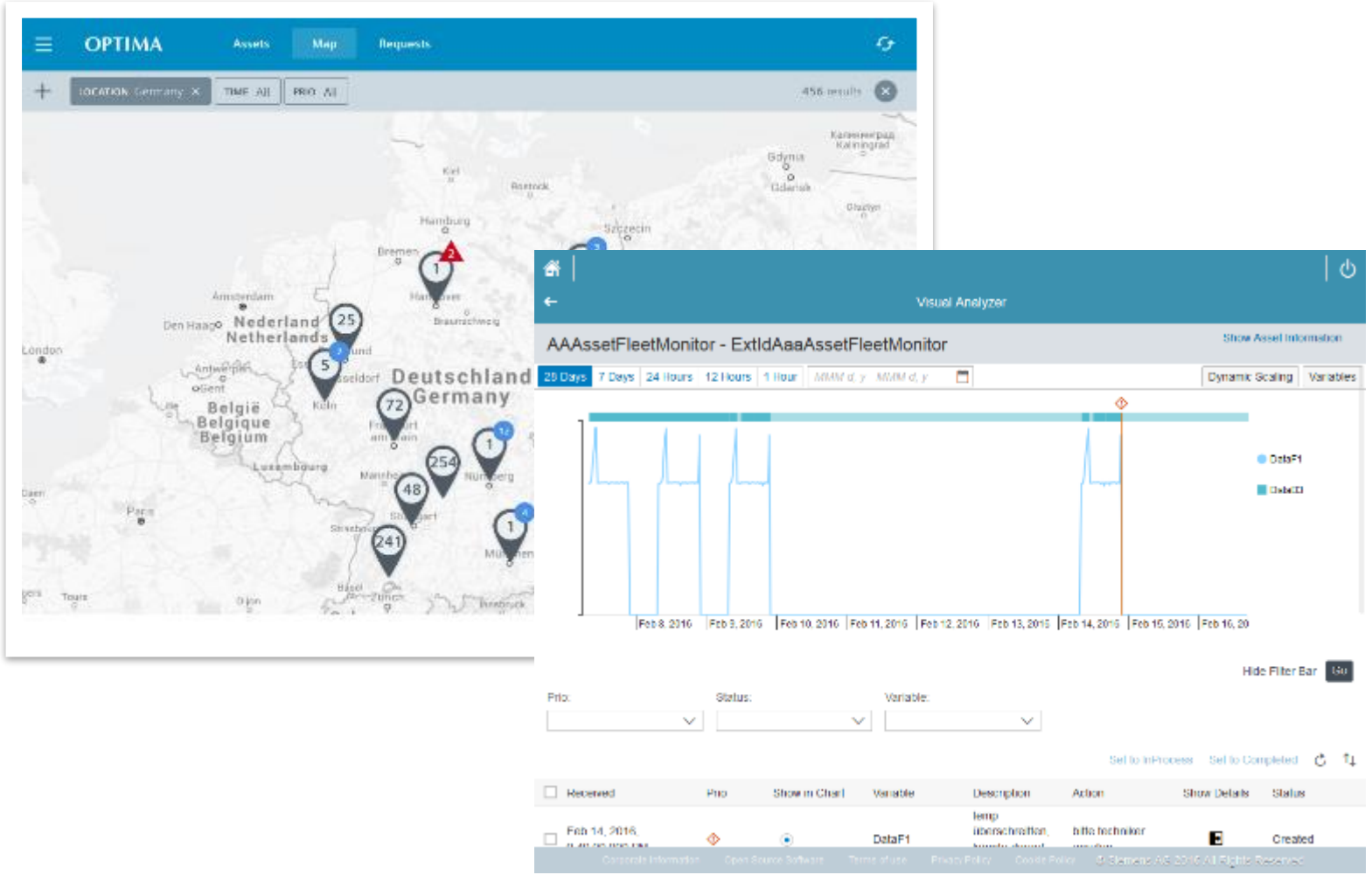
Efficiently create your service, for instance to reduce downtimes of assets

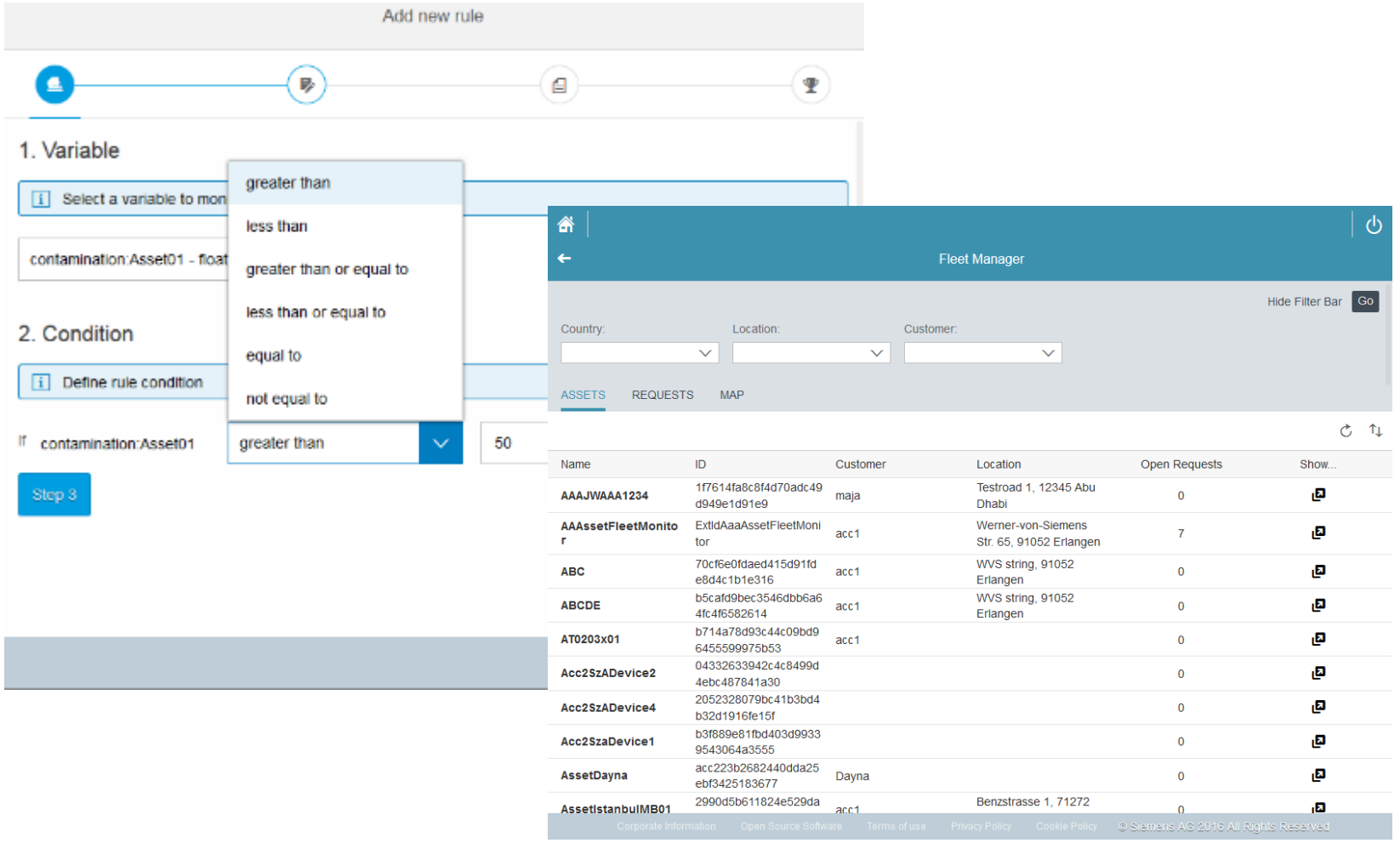


Run the Service

Fleet Manager & Visual Analyzer

Monitor the health status of all assets in the Fleet Manager and analyze problems in detail in the Visual Analyzer

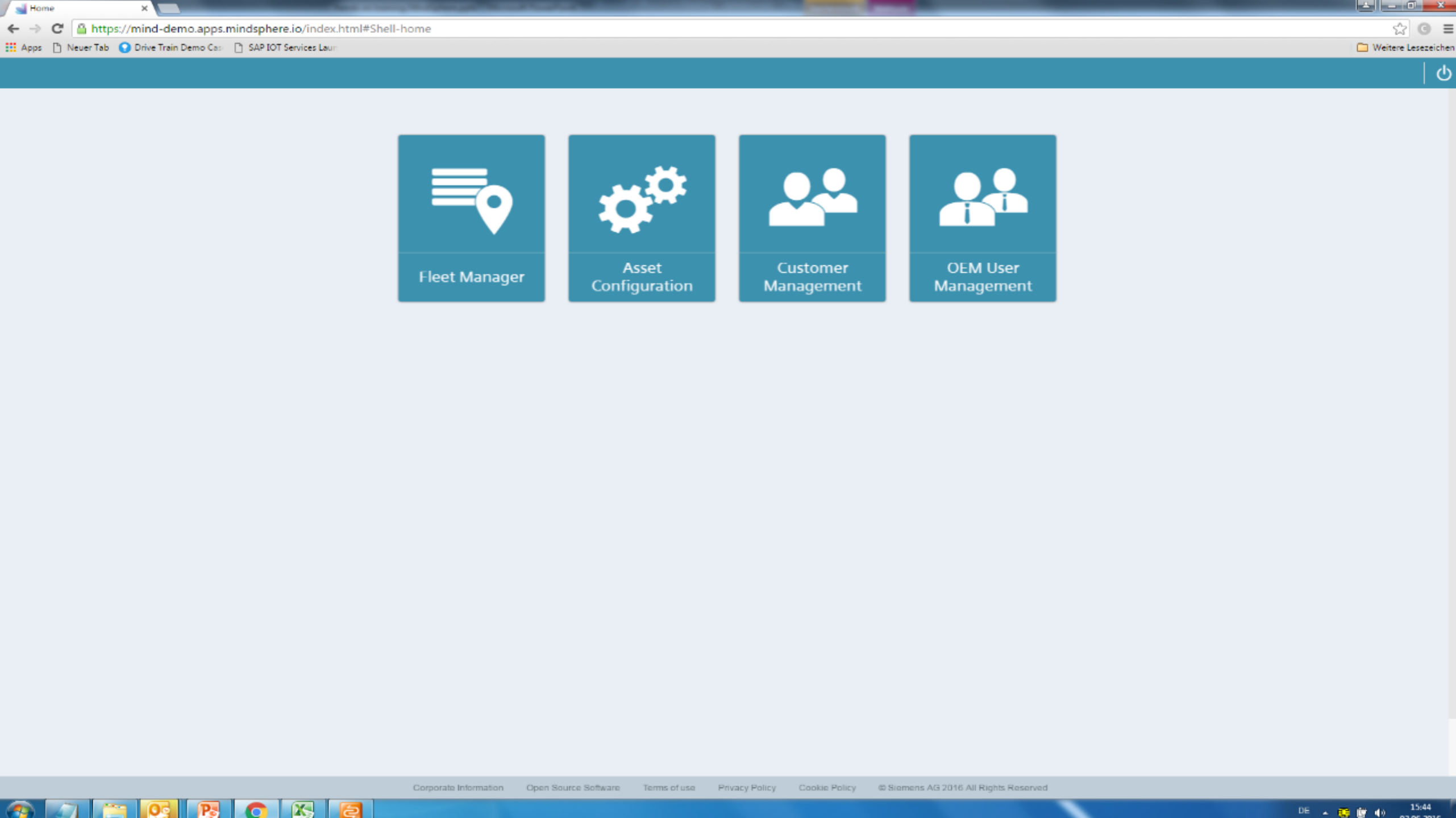
Requests system facilitates recommending actions



Run the Service

Set rules & send requests

Send recommended or requested actions and address specific users or user groups


Home
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Apps
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Weitere Lesezeichen
Fleet Manager
Asset Configuration
Customer Management
OEM User Management
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App View

https://mind-demo.apps.mindsphere.io/index.html#Fleet-Manager

Apps | Neuer Tab | Drive Train Demo Ce | SAP IOT Services Lau | Weitere Lesezeichen

Fleet Manager

Hide Filter Bar | Go

Country: | Location: | Customer:

ASSETS | REQUESTS

Name	ID	Customer	Location	Open Requests	Show...
Bearbeitungszentrum	eff9f49f0cff4b21b622ff7d2d268844	SW	Seedorfer Str. 91, 78713 Schramberg	⚠ 27	
CustNo3439710	c26532a5e5914d3f8ebbadca73c50201			0	
CustNo7364893	340e5249defd4a2b94b5e9aabfa49f35			0	
CustNo8564392	1648e0b7977a49f795e3cbfa9e113e76			0	
DTDCModel2Fair	3a899d148e854c858e289c4ae44a6cd0	SiemensAG	Schuhstr. 60, 91052 Erlangen	0	
DTDCModel3Travel	1d2c976e28af4e59bfa64c425396d67c	SiemensAG	Schuhstr. 60, 91052 Erlangen	0	
DTDCModel3TravelI	db06251952cd4636b0e06049660b7edb	minddemo	Eilgutstraße 15, 90443 Nürnberg	0	
DerbyDemo	bc9a97648e0042a985d13602614c7105	minddemo	Tarvonsalmenkatu 19 1, 02601 Espoo	0	
EWN	207fdaedb82a4230af7b4cca46940c11			0	
Fillingmachine	6b72c0f6f4954da9b5f15f7d612a994a	Optima	Steinbeisweg 20, 74523 Schwaebisch Hall	⚠ 208	
Gehring	48d19cdb734c442aa2ffae0d93d3f74c			0	
Honmaschine17610	aae3d930889a4b05a8a82919dc39d30e	Gehring	Parkstr. 11, 10231 Berlin	⚠ 95	
MCNxECx6C14	b85d470f6f07400cbd7062c8eeb53df5	SiemensAG	Schuhstr. 60, 91052 Erlangen	0	
OnboardingDemo	d48bcc10333a4181bc830cb4512685b7	minddemo		0	
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Papierstreichmaschine	1c4a0ae378614c7b9c4ced38d70792f4	Schaeffler	Kaiserstraße 100, 52134 Herzogenrath	⚠ 9	
Rotorbestueckanlage	af03cb3ccb4d4b9386425cf06759adb0	EWN	Industriestr. 1, 97616 Bad Neustadt	⚠ 2012	
Runmyrobot	a02ad796712e418aa869b7dc07b03c5a	EWN	Industriestraße 1, 97616 Bad Neustadt	⚠ 76	
SW	b1a2987296054478809ea7c506b0af57			0	
Schaeffler	b2afd3a9d2454f42bc365186abb1b560			0	
SiemensAG	57316bb2b42c4c65bb4647bbb841f056			0	
Stang	226452169e8d4dfa827793cdd94b9b06	minddemo	Schuhstraße 60, 91052 Erlangen	0	

DTDCModel3Travel
- Visual Analyzer
- Information
- Rules

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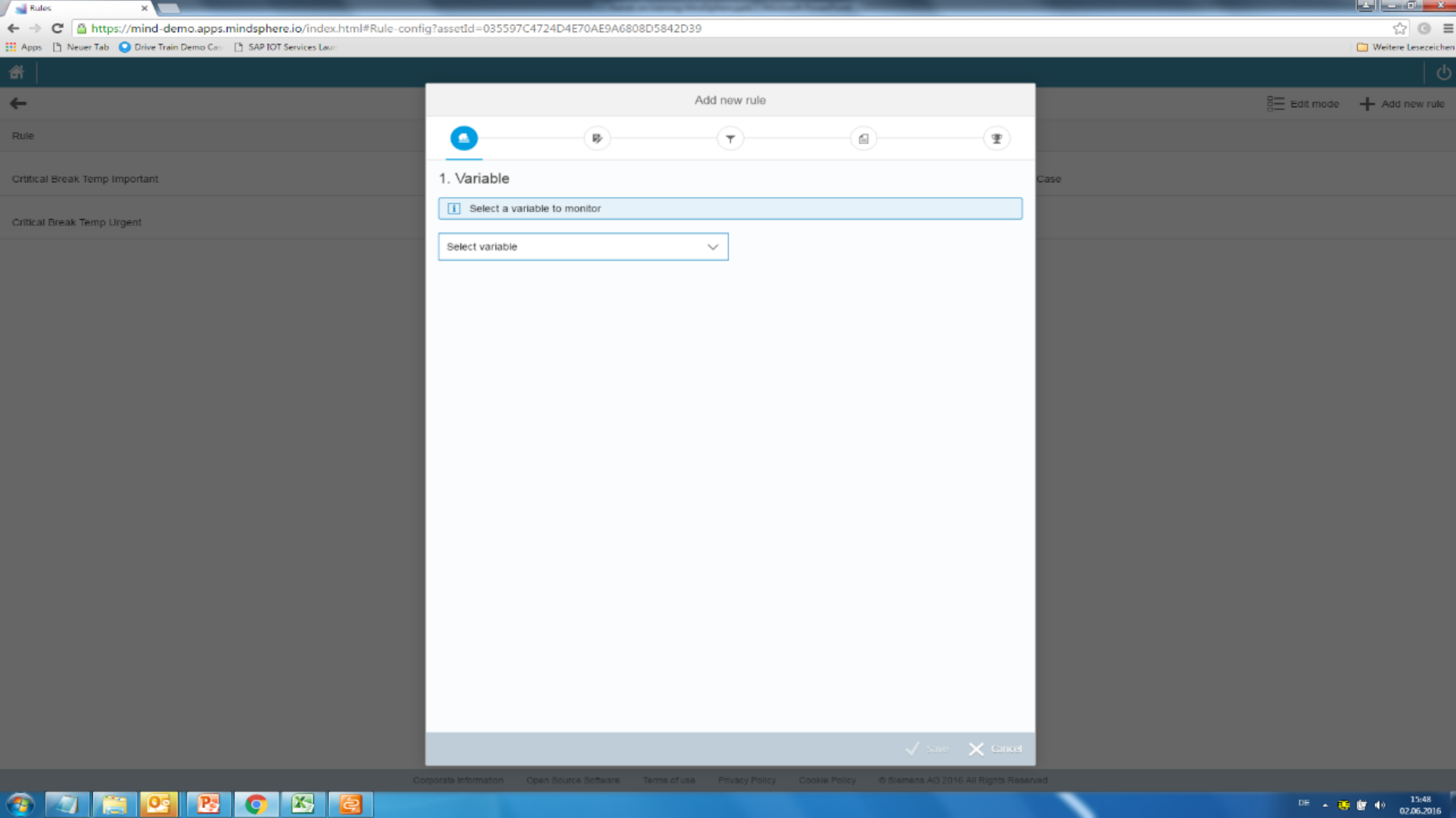
Rules for DTDCModel3Travel

Edit mode | Add new rule

Rule	Prio	Description	Action
Critical Break Temp Important		Critical Break Temp Important	E-Mail to owner of Demo Case
Critical Break Temp Urgent		Critical Break Temp Urgent	Call Demo Case owner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Apps
Neuer Tab
Drive Train Demo Ca
SAP IOT Services Lau
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Critical Break Temp Important
Critical Break Temp Urgent
Case
Add new rule
1. Variable
Select a variable to monitor
Select variable
Save
Cancel
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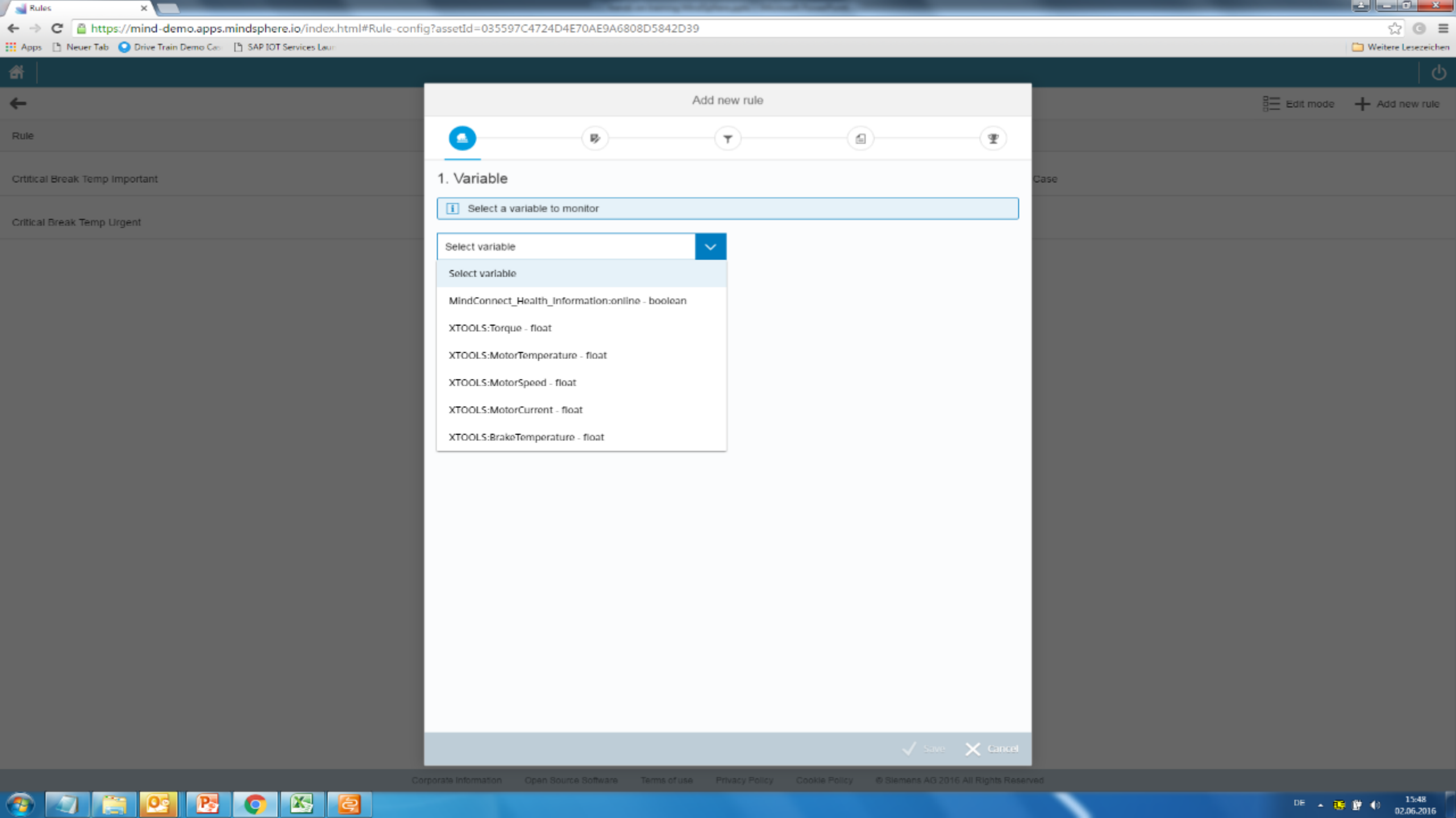
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Apps
Neuer Tab
Drive Train Demo Ca
SAP IOT Services Lau
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Crtitical Break Temp Important
Case
Critical Break Temp Urgent
Add new rule
1. Variable
Select a variable to monitor
Select variable
Select variable
MindConnect_Health_Information:online - boolean
XTOOLS:Torque - float
XTOOLS:MotorTemperature - float
XTOOLS:MotorSpeed - float
XTOOLS:MotorCurrent - float
XTOOLS:BrakeTemperature - float
Save
Cancel
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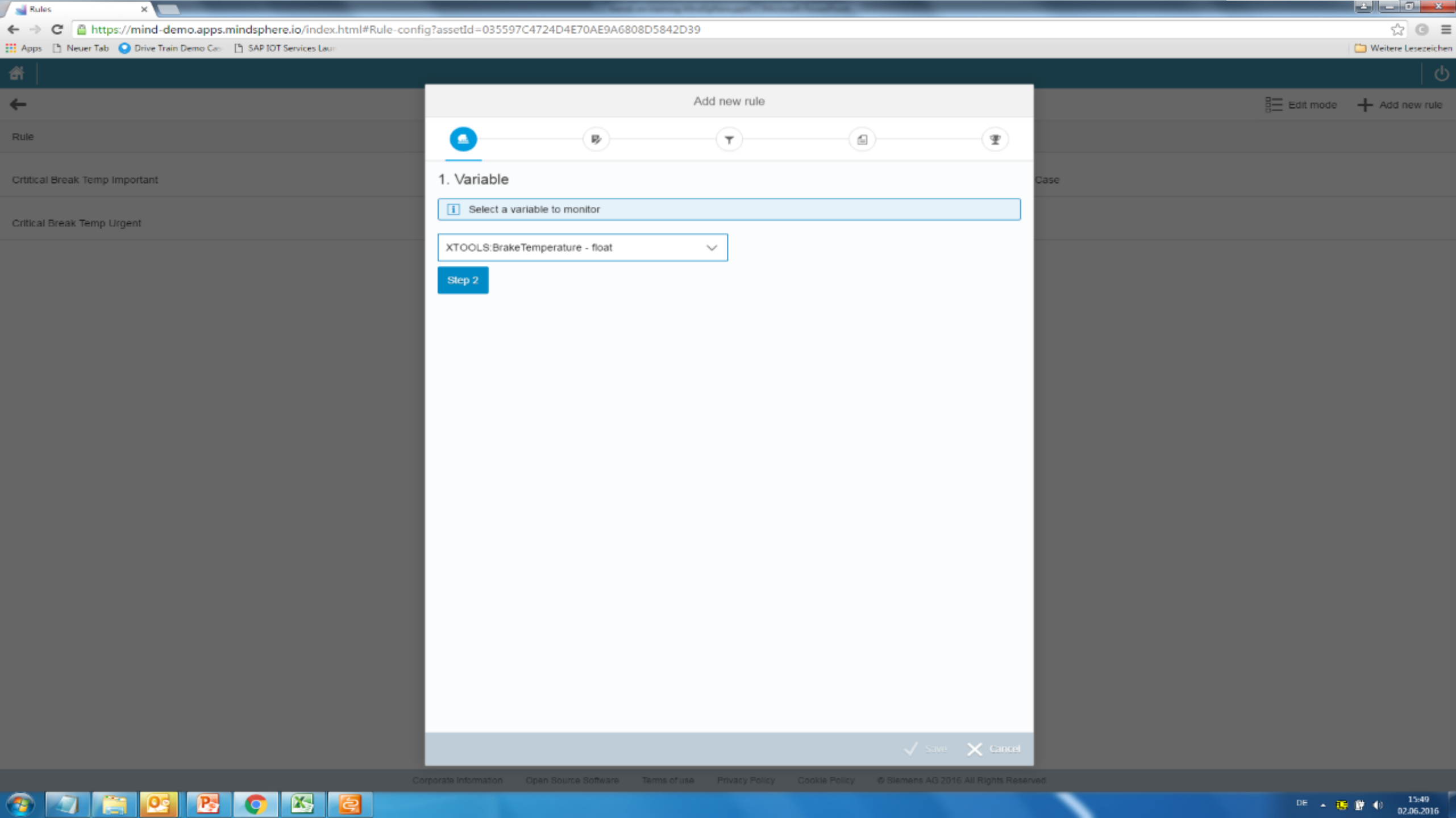
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Apps
Neuer Tab
Drive Train Demo Ca
SAP IOT Services Lau
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Crtitical Break Temp Important
Case
Critical Break Temp Urgent
Add new rule
1. Variable
Select a variable to monitor
XTOOLS:BrakeTemperature - float
Step 2
Save
Cancel
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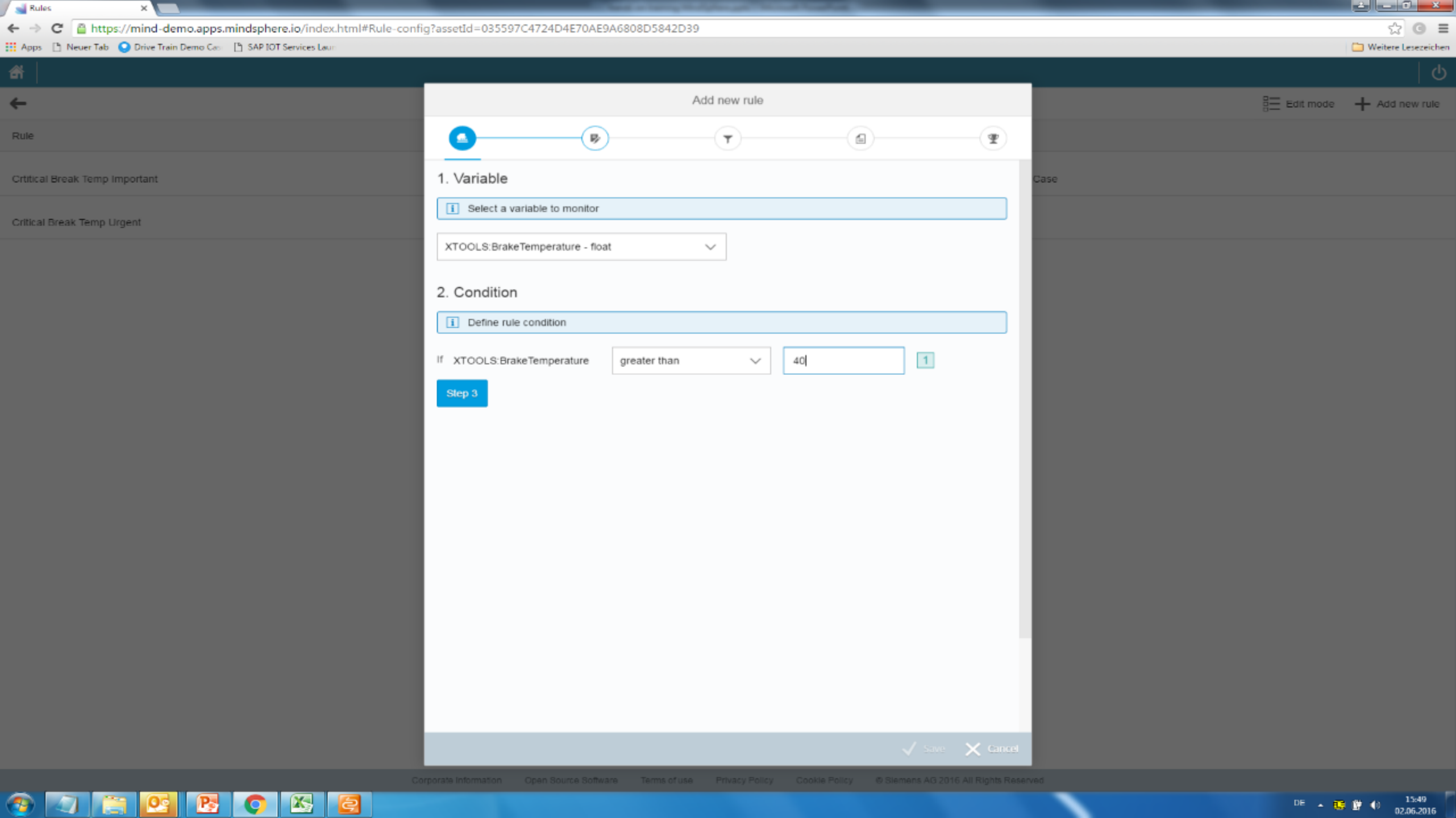
Rules
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Edit mode
Add new rule
Rule
Crtitical Break Temp Important
Critical Break Temp Urgent
Case
Add new rule
1. Variable
Select a variable to monitor
XTOOLS:BrakeTemperature - float
2. Condition
Define rule condition
If XTOOLS:BrakeTemperature
greater than
40
1
Step 3
Save
Cancel
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Rules

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Apps | Neuer Tab | Drive Train Demo Ca | SAP IOT Services Lau | Weitere Lesezeichen

Edit mode | Add new rule

Rule

Critical Break Temp Important | Case

Critical Break Temp Urgent

Add new rule

XTOOLS:BrakeTemperature - float

2. Condition

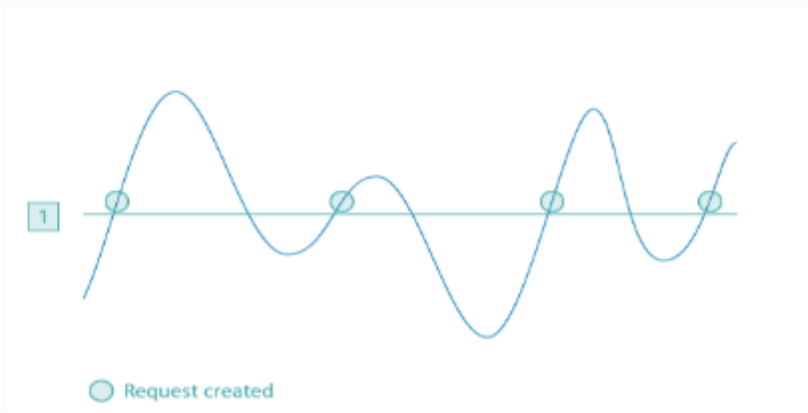
Define rule condition

If XTOOLS:BrakeTemperature | greater than | 40 | 1

3. Requests limitations

Set additional condition.

Additional condition | None | Hide info



Step 4

Save | Cancel

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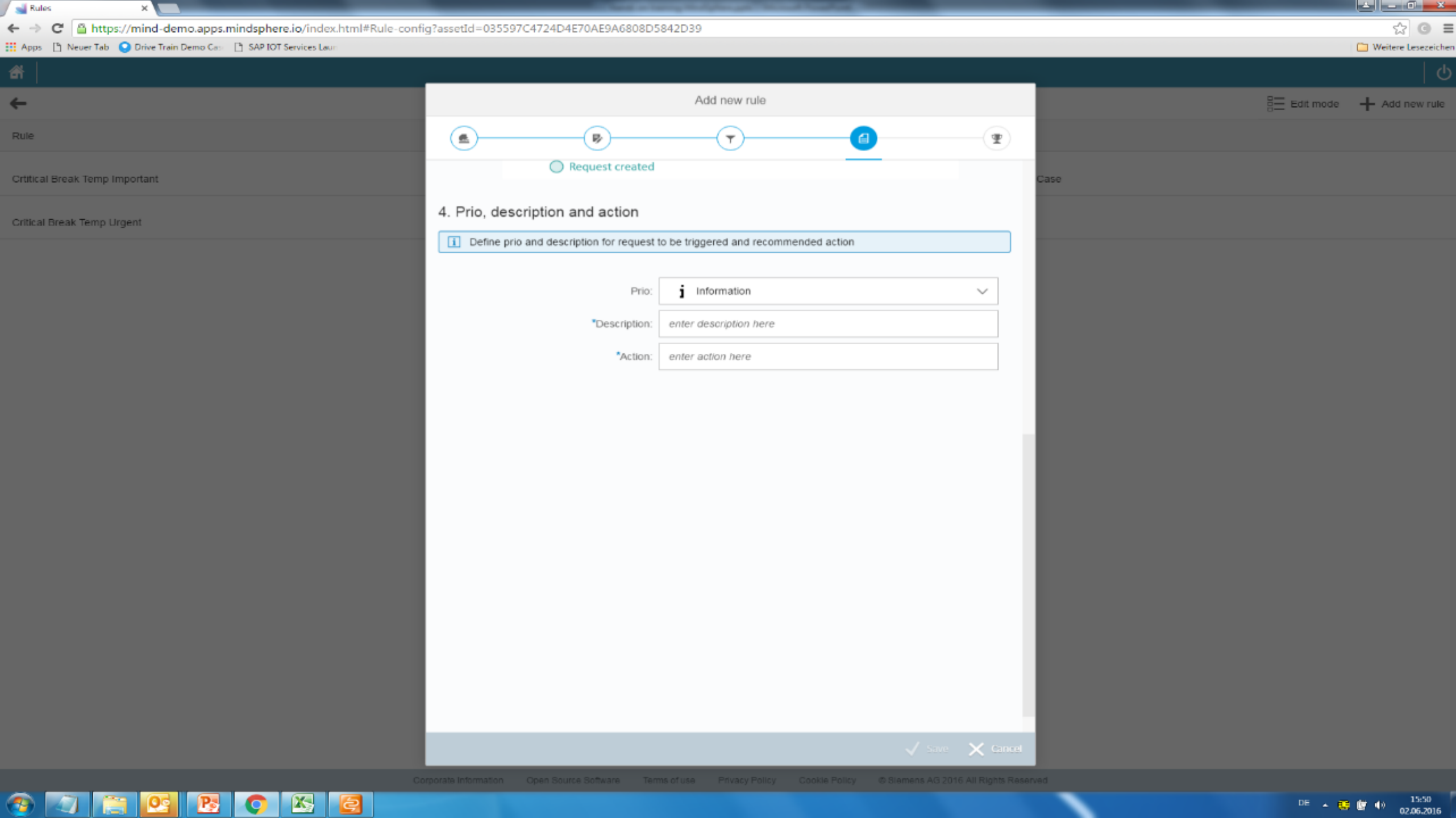
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https://mind-demo.apps.mindsphere.io/index.html#Rule-config?assetId=035597C4724D4E70AE9A6808D5842D39
Apps
Neuer Tab
Drive Train Demo Ca
SAP IOT Services Lau
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Critical Break Temp Important
Critical Break Temp Urgent
Case
Add new rule
Request created
4. Prio, description and action
Define prio and description for request to be triggered and recommended action
Prio:
Information
*Description:
enter description here
*Action:
enter action here
Save
Cancel
Corporate Information
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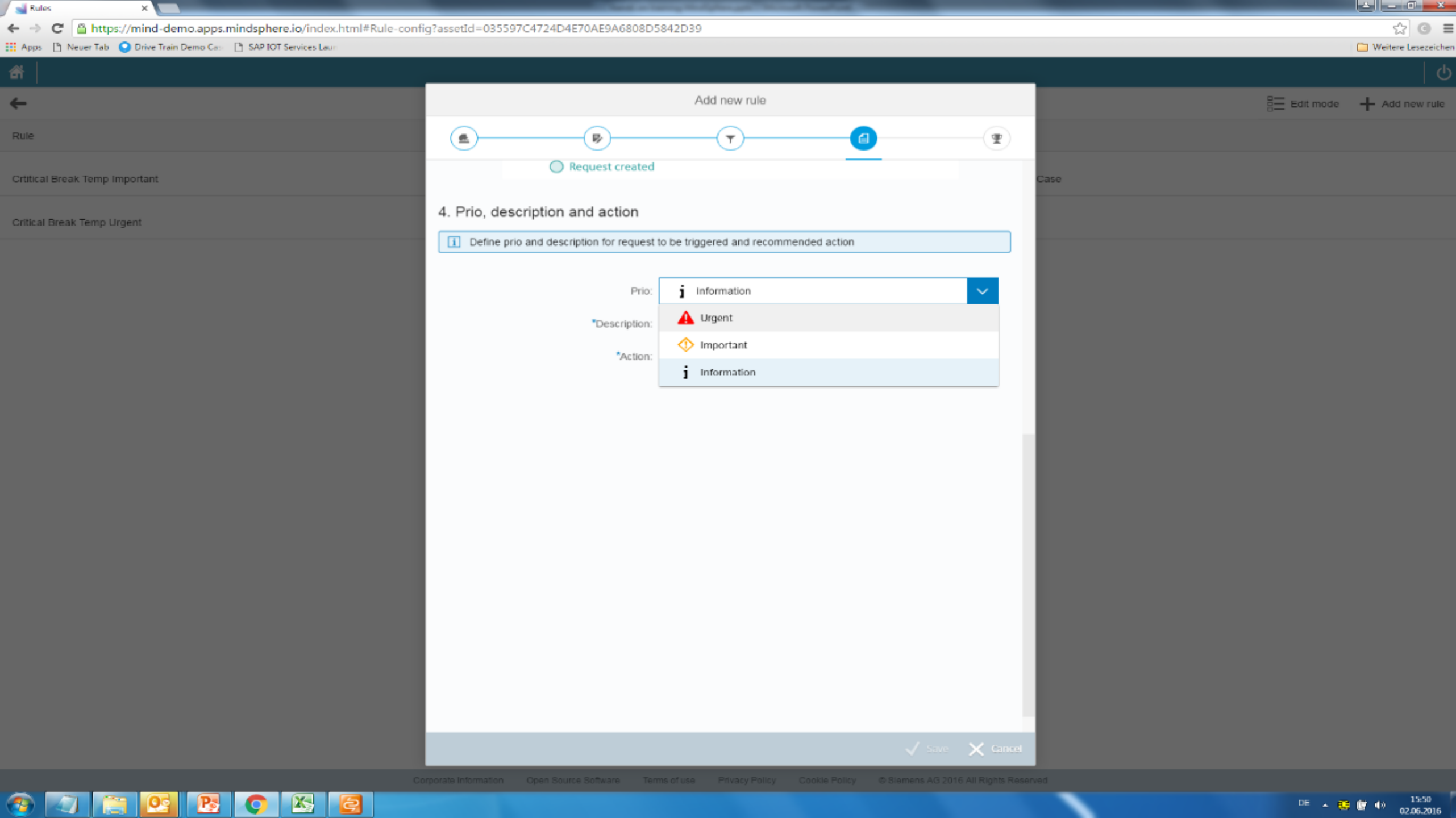
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https://mind-demo.apps.mindsphere.io/index.html#Rule-config?assetId=035597C4724D4E70AE9A6808D5842D39
Apps
Neuer Tab
Drive Train Demo Ca
SAP IOT Services Lau
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Critical Break Temp Important
Critical Break Temp Urgent
Case
Add new rule
Request created
4. Prio, description and action
Define prio and description for request to be triggered and recommended action
Prio:
Information
*Description:
*Action:
Urgent
Important
Information
Save
Cancel
Corporate Information
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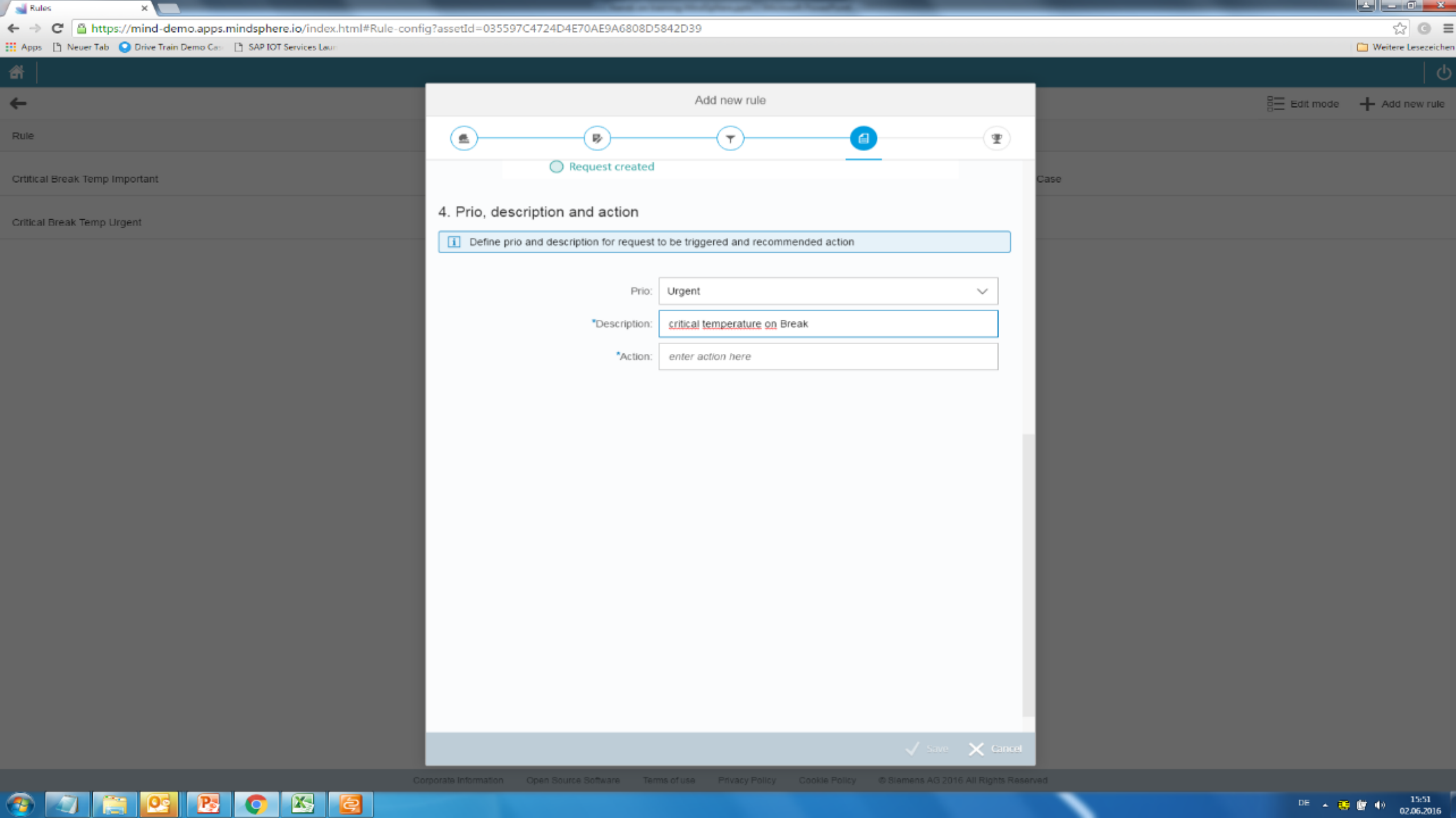
Rules
https://mind-demo.apps.mindsphere.io/index.html#Rule-config?assetId=035597C4724D4E70AE9A6808D5842D39
Apps
Neuer Tab
Drive Train Demo Ca
SAP IOT Services Lau
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Critical Break Temp Important
Critical Break Temp Urgent
Case
Add new rule
Request created
4. Prio, description and action
Define prio and description for request to be triggered and recommended action
Prio:
Urgent
*Description:
critical temperature on Break
*Action:
enter action here
Save
Cancel
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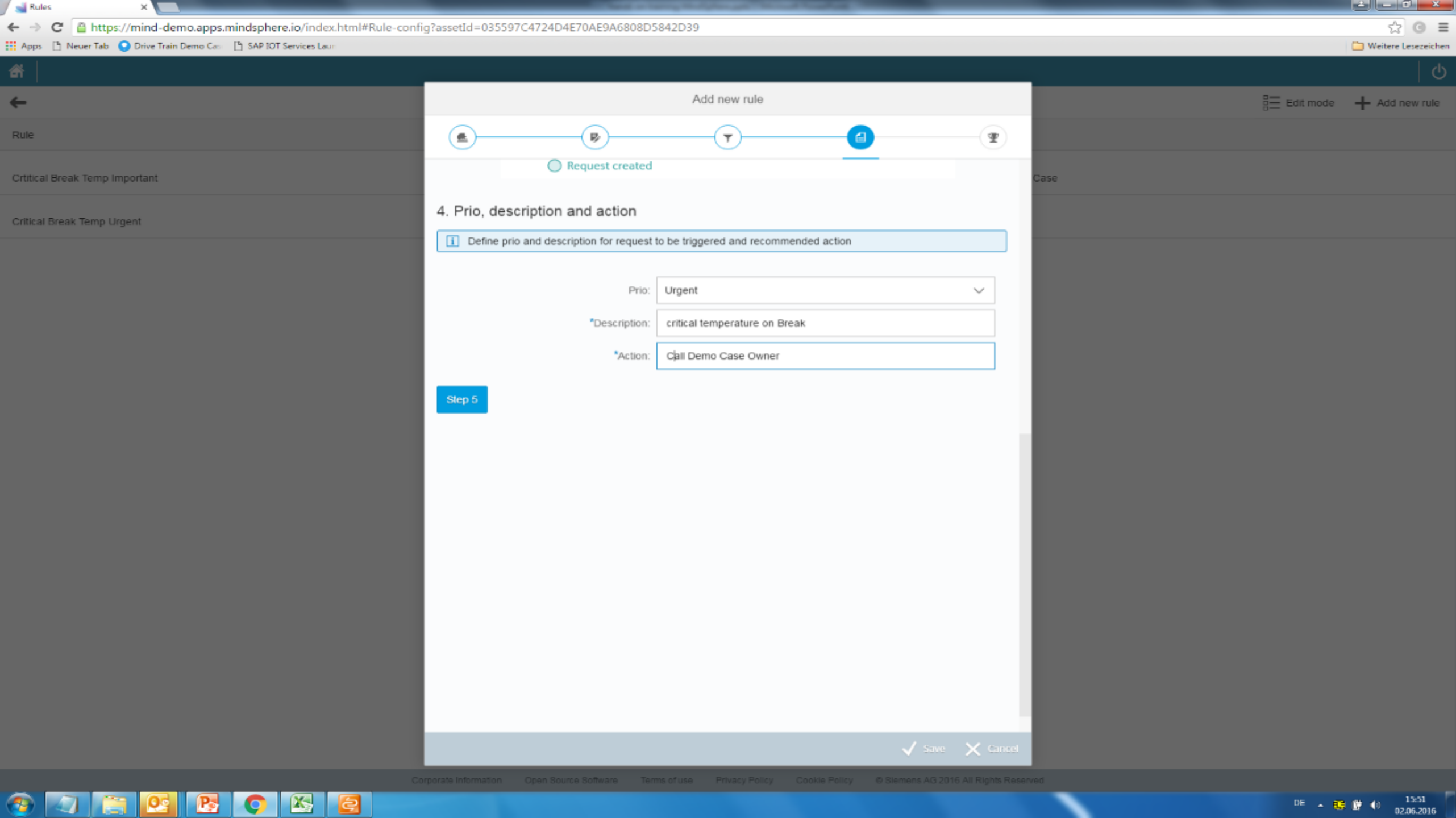
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https://mind-demo.apps.mindsphere.io/index.html#Rule-config?assetId=035597C4724D4E70AE9A6808D5842D39
Apps
Neuer Tab
Drive Train Demo Cas
SAP IOT Services Laur
Weitere Lesezeichen
Edit mode
Add new rule
Rule
Crtitical Break Temp Important
Critical Break Temp Urgent
Case
Add new rule
Request created
4. Prio, description and action
Define prio and description for request to be triggered and recommended action
Prio:
Urgent
*Description:
critical temperature on Break
*Action:
Call Demo Case Owner
Step 5
Save
Cancel
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Rules

https://mind-demo.apps.mindsphere.io/index.html#Rule-config?assetId=035597C4724D4E70AE9A6808D5842D39

Apps | Neuer Tab | Drive Train Demo Ca | SAP IOT Services Lau | Weitere Lesezeichen

Edit mode | Add new rule

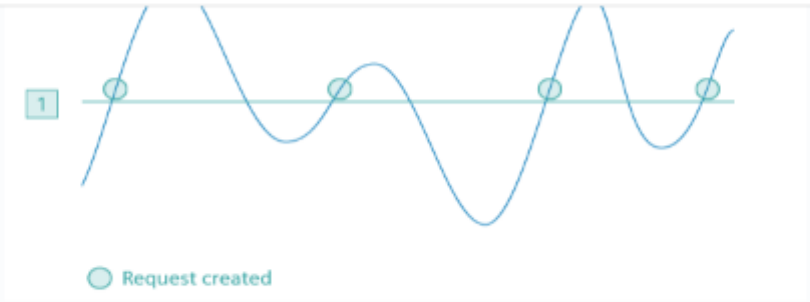
Rule

Crtitical Break Temp Important

Critical Break Temp Urgent

Case

Add new rule



4. Prio, description and action

Define prio and description for request to be triggered and recommended action

Prio: Urgent

*Description: critical temperature on Break

*Action: Call Demo Case Owner

5. Rule name

Define rule name

*Rule name: critcal temp on Break

Save | Cancel

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App View

https://mind-demo.apps.mindsphere.io/index.html#Fleet-Manager&/asset/035597C4724D4E70AE9A6808D5842D39/analysis

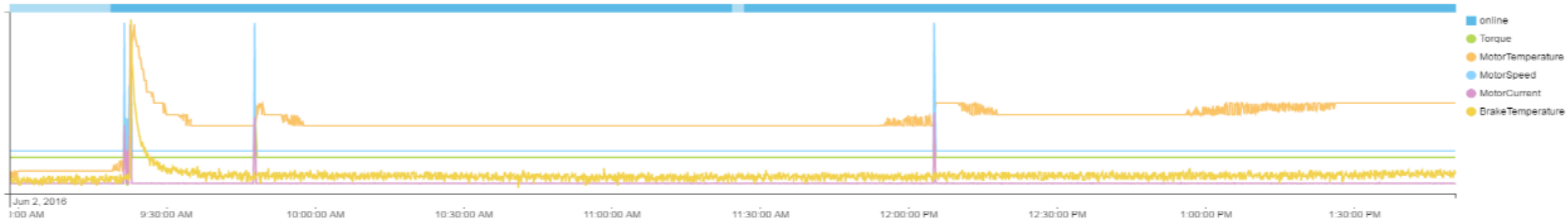
Apps | Neuer Tab | Drive Train Demo Ca | SAP IOT Services Lau | Weitere Lesezeichen

Visual Analyzer

DTDCModel3Travel - 1d2c976e28af4e59bfa64c425396d67c

Show Asset Information

28 Days | 7 Days | 24 Hours | 12 Hours | 1 Hour | MMM d, y - MMM d, y | Undo | Dynamic Scaling | Variables



Hide Filter Bar | Go

Prio: | Status: | Variable:

Set to InProcess | Set to Completed | Create Manual Request

Received	Prio	Show in Chart	Variable	Description	Action	Show Details	Status
No data							

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What the customer orders and gets

MindAccess Users

- Receive Email with Login Data (User Name and Password)
- Own URL: OEM.mindsphere.io
- MindApps are activated inside of MindShpere (Fleet Manager and Visual Analyzer are automatically activated with MindAccess order)

MindConnect Nano

- Hardware delivery
- Preinstalled IPC (based on SIMATIC Nano Box)

MindSphere can already enable a broad variety of use cases and business models

SIEMENS

CRM, Marketing & Sales

- Performance and Usage Dashboard
- Customer Self-Service Portal
- Customer Intelligence and Cross-/ Up-selling

Research & Development

- Product Usage Analysis
- Product Quality Analysis
- Firmware and Application Management

Operations, Production & IT

- Asset and Material Tracing
- Asset Condition Monitoring
- Automated Production and Supply Chain Management
- Automated Analytics and Reporting
- Resource and Energy Management
- Connected Operations Intelligence

Service & Support

- **Asset/ Fleet Management**
- **Availability Management**
- **Warranty Management**
- **Performance Management**
- **Condition Management**
- Cross-Factory Benchmarking
- (Condition-based) Diagnostics and Monitoring
- (Condition-based) Predictive Maintenance
- Product Tracing
- Service Parts Planning
- Automated Service Execution
- Remote Service and Remote Maintenance

Availability Management

- Automatic evaluation of critical condition values
- Proactive alarming, inspection and problem fixing

✓ **Increased machine up-time**

Warranty Management

- OEM analysis of machinery data and maintenance activities
- Expanded warranty given proper, compliant maintenance

✓ **Greater warranty reliability**

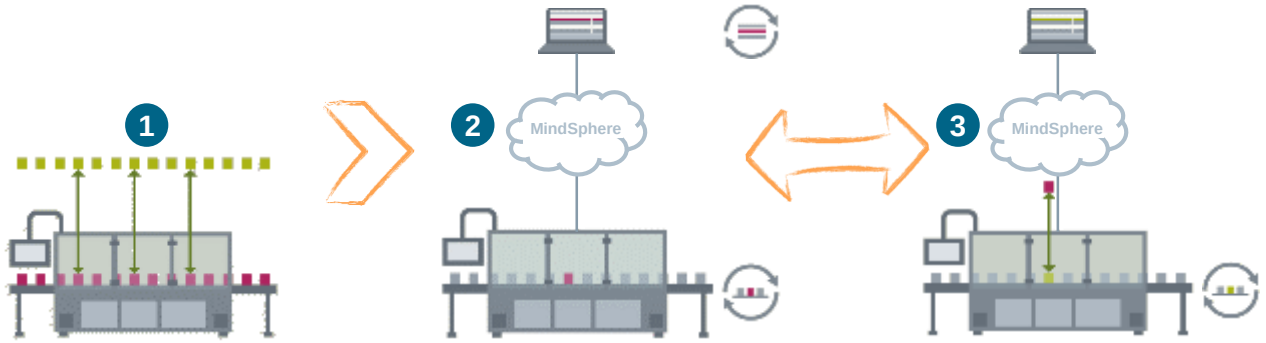
Performance Management

- Continuous evaluation of components power consumption
- Specific recommendation to optimize configuration

✓ **Optimized energy consumption**

Use Case Example – Condition Management

Increased machinery uptimes (e.g. Honing Machine)



MINDSPHERE ENABLED SOLUTION

2 Scalable alerts related to honing stone wear
- Detailed monitoring of feed force, machining time, and tool life
- Forecast of remaining tool life
- Optimal coordination of tool availability and conditioning

CUSTOMER GROUP/ INDUSTRY

- OEMs
- System and Machine Manufacturer
- Machine Tool Manufacturer
- Discrete Parts Manufacturing Industry

CHALLENGES TODAY

- As machining time increases, honing stones become worn.

1 To guarantee quality, the honing stones must be replaced before either critical threshold values or the end of tool life has been reached.

This can result in:
- Honing stone wear that's not directly detectable
- Loss of quality and productivity
- Possibility of having to re-machine parts

BENEFIT FOR OEM

- New options for service business
- Offering of sophisticated, distinguishable machinery
- Implementation of newly enabled service models

…FOR END-CUSTOMER

- Increased output
- Sturdier processes

3 Strategically scheduled maintenance and optimized service processes
- Planning safety and cost efficiency

Planned release schedule for MindSphere
Out of the box analytics

SIEMENS

CY 2016							CY 2017	
Q2			Q3		Q4		Q1	
Connect and visualize	**Define rules**	**Requests**	**Extend data acquisition**	**Define KPIs**	**Create own dashboards and reports**	**Analyze data using natural language**	**Create and manage algorithms**	**Attach workflows to events**
• Connection of assets • Transfer of time series data • Overview of all assets with Fleet Manager • Analyze data with Visual Analyzer	• Define rules to monitor incoming data based on thresholds • Automatic generation of events and requests	• Based on automatically created events, specialists analyze the data and find potential problems • Notify customers manually	• Event-triggered acquisition • Acquisition of controller events and events from log files • Acquisition of high frequency data (e.g. vibration data)	• Combine variables into KPIs • Define rules for KPI monitoring	• Develop your own dashboards and reports • Share with different user groups internally • Share with customers	• Ask questions of your data in natural language • Usable with minimal data analysis expertise	• Create own analytics, potentially supported by experts • Manage and execute algorithms as part of rules and KPI computation	• Attach a series of notifications & actions to an event • Automatic notifications via text message (SMS) and email

MindConnect Nano

MindConnect Lib

MindConnect Software

MindConnect for SINUMERIK

MindConnect Pico

MindConnect S7-1200

MindConnect FBs for S7-1500

OPC Cloud Connect

Printing International
Machine Performance Assistant, powered by Siemens Plant Data Services

Printing International is building pad printing machinery to print on all kinds of plastics, glass, ceramics, porcelain, on caps and closures, medical devices and pharmaceuticals.

Challenge	• Transparency on machine performance • Worldwide service network • Remote support, contractual availability • IT security

Solution	• Cloud based Fleet management application
	• Easy connectivity with Data service box
	  • Remote Access
	  • Machine cycle data collector
	  • Production data collector
	  • Cockpit
	  • Production Reporting
	• Service Desk
	• Siemens Remote Services

Customer benefit	• Faster and more efficient services • Improved knowledge of the machines in the field (designed to perform) • Technology service Differentiator → Early adaptor (Be the first)

Are you aware of the full **potential** of your installed basis?

Would you like to **monitor** and continuously improve your fleet **around the world**?

Do you want to reduce your **warranty costs**?

Do you intend to **profit** from the “software-ization” of the machine building industry?

Would you like to offer **added value**, e.g. with extended warranties?

Refine your machine building expertise.

Get ahead of the competition with new services and business models.

Secure customer relations, market share and growth.

The time is …  … now.

Digital Enterprise Software Suite –
The Siemens answer to Industrie 4.0 requirements

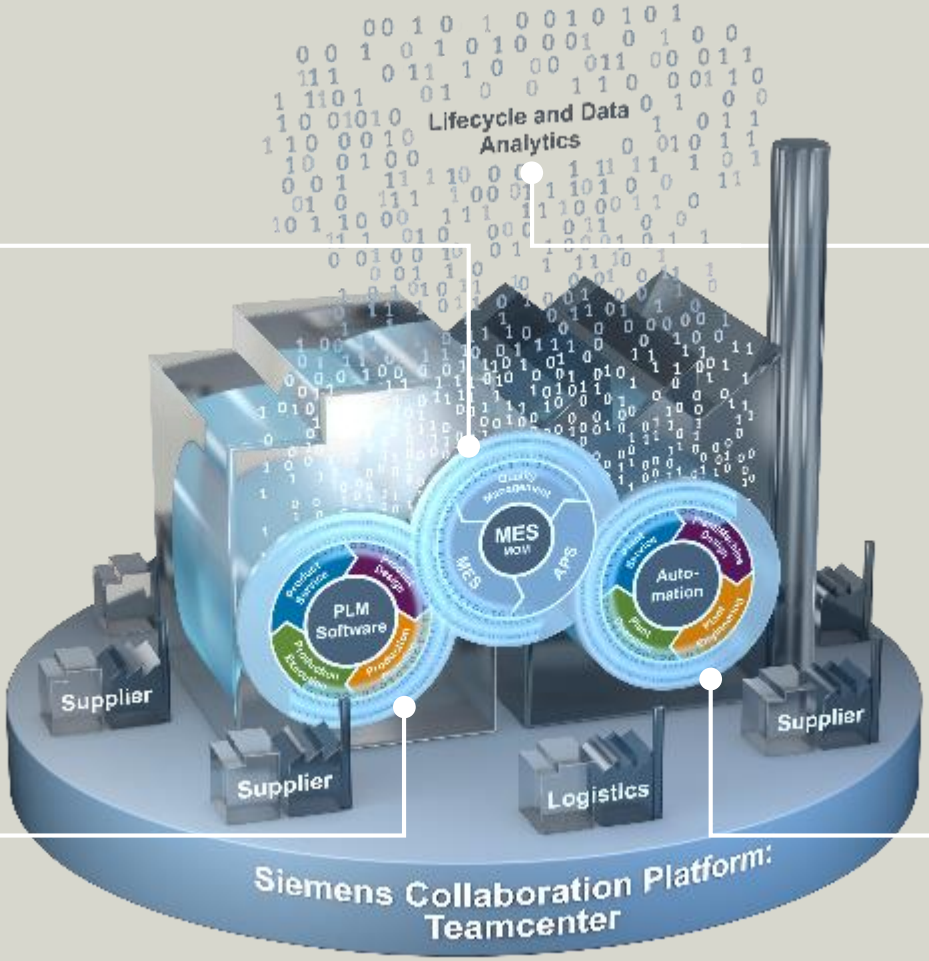
SIEMENS

MES

SIMATIC IT

Lifecycle and Data Analytics

MindSphere / OMNEO



PLM

Teamcenter / NX

TIA

SIMATIC / SINUMERIK

Thank you for your attention!

Alexandre Mendes

Head of Regional Management and Business Development

DF PL DS TS RA&TA

+49 162 262 4907

alexandre.mendes@siemens.com

Siemens Plant Data Services