



Kuwait 4th Flow Measurement Technology Conference

3-5 December 2019
Hilton Kuwait Resort





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الراعي الرسمي



BEN LEACH

MD – Swinton Technology

The image shows a laptop on a wooden desk, displaying the EyeMet software interface. The interface features a sidebar with navigation options like Dashboard, Metering, Maintenance, Documentation, Training, Compliance, Settings, and Log out. The main content area displays a 'CHECK ALL STATION EXPOSURE' section with a pie chart, a table of station data, and a line graph showing 'Station Exposure Economy' over time. The background of the slide includes a large EyeMet logo and a desk setup with a potted plant, a pen holder, and a mouse.

Customisable interface,
organize your metering, your way.

- What is custody metering:

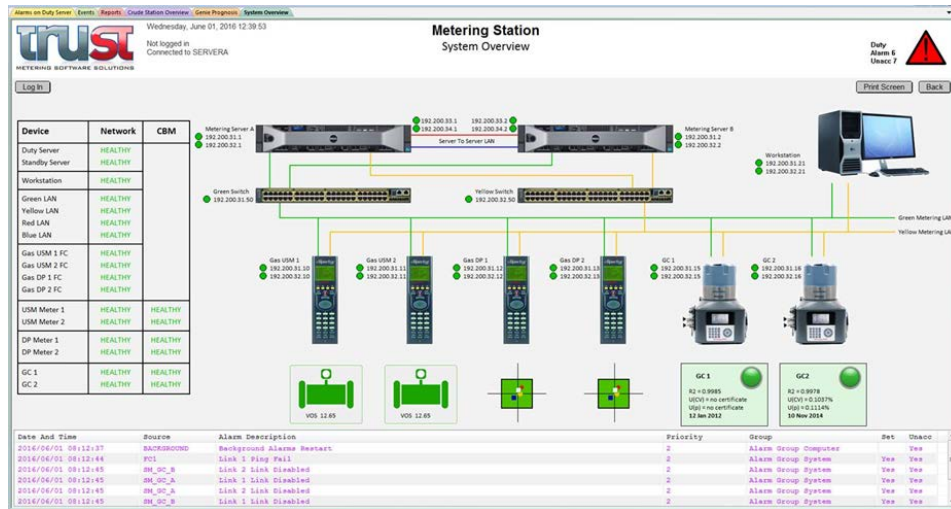
Custody Transfer in the oil and gas industry refers to the transactions involving transporting physical substance from one operator to another. This includes the transferring of raw and refined petroleum between tanks and tankers; tankers and ships and other transactions. Custody transfer in fluid measurement is defined as a **metering point** where the fluid is being measured for sale from one party to another. During custody transfer, **accuracy is of great importance** to both the company delivering the material and the eventual recipient, when transferring a material.

- Custody Metering:
 - Measurement in the field
 - Computation in control system
 - Representation and historization
 - Reporting of quantity and quality
 - Data transfer to central system (DCS/SCADA)

What all it takes:

- Reporting correct quantity and quality
- Monitoring – CBM
- Health check
- Validation
- Maintenance scheduling and records
- Handling mis measurement
- Dispensation

Metering Systems



What all it takes:

- Reporting correct quantity and quality 👍
- Monitoring – CBM 👍 👎
- Health check 👍 👎
- Validation – uncertainty 👎
- Maintenance scheduling and records 👎
- Handling mis measurement 👎
- Dispensation 👎
- Asset management 👎

EyeMet is a metering **Management Information System (MIS)** - a solution that provides a high-level overview of the status and performance of a company's metering systems. The dashboards graphically represent metering data in order to clearly illustrate information for metering technicians, metering engineers and managers, enabling appropriate and informed operational decisions to be made.

High level data management / dashboard type system interfaces have been available for some time; however, they are generic plant wide systems that don't focus on the specifics of the metering systems or provide any financial risk/exposure data.





EYEMET SERVER
CORPORATE
HEADQUARTERS



FIREWALL



NETWORK
SWITCH



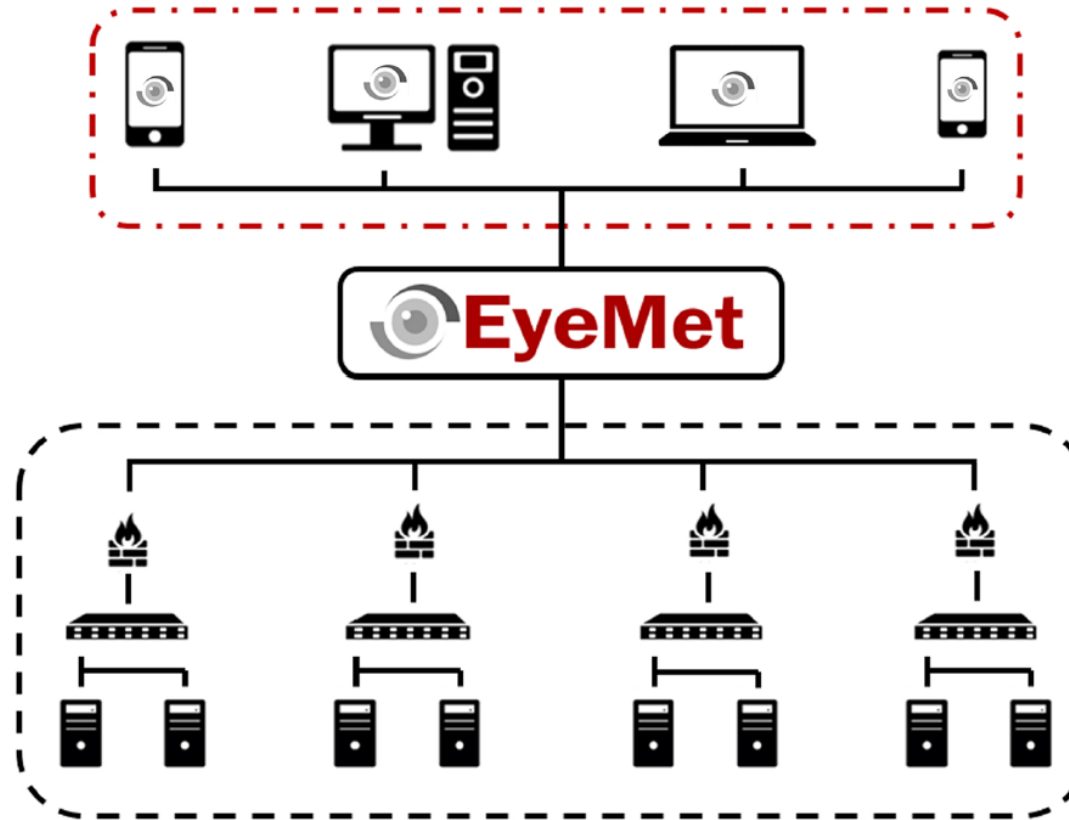
FLOWCOMPUTER

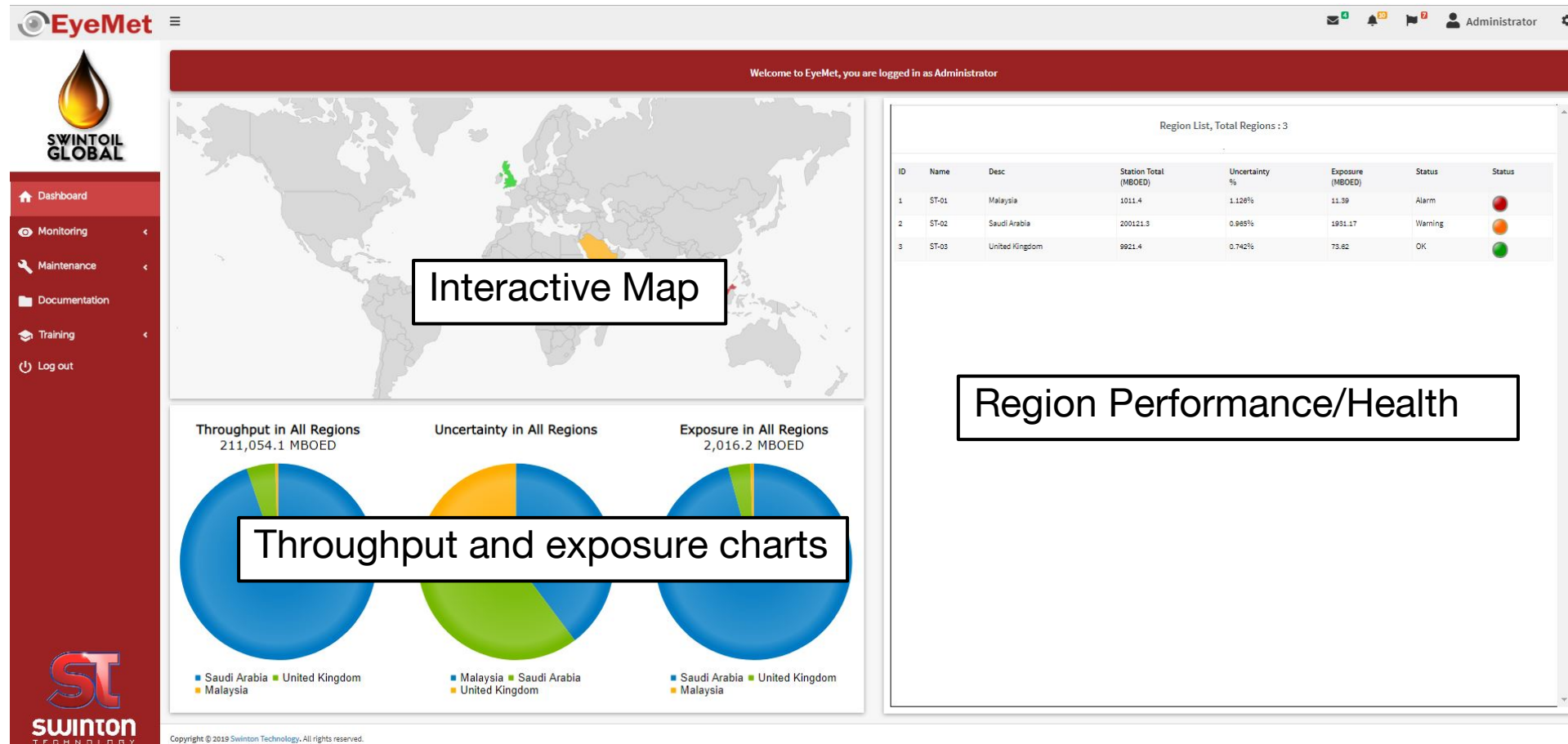


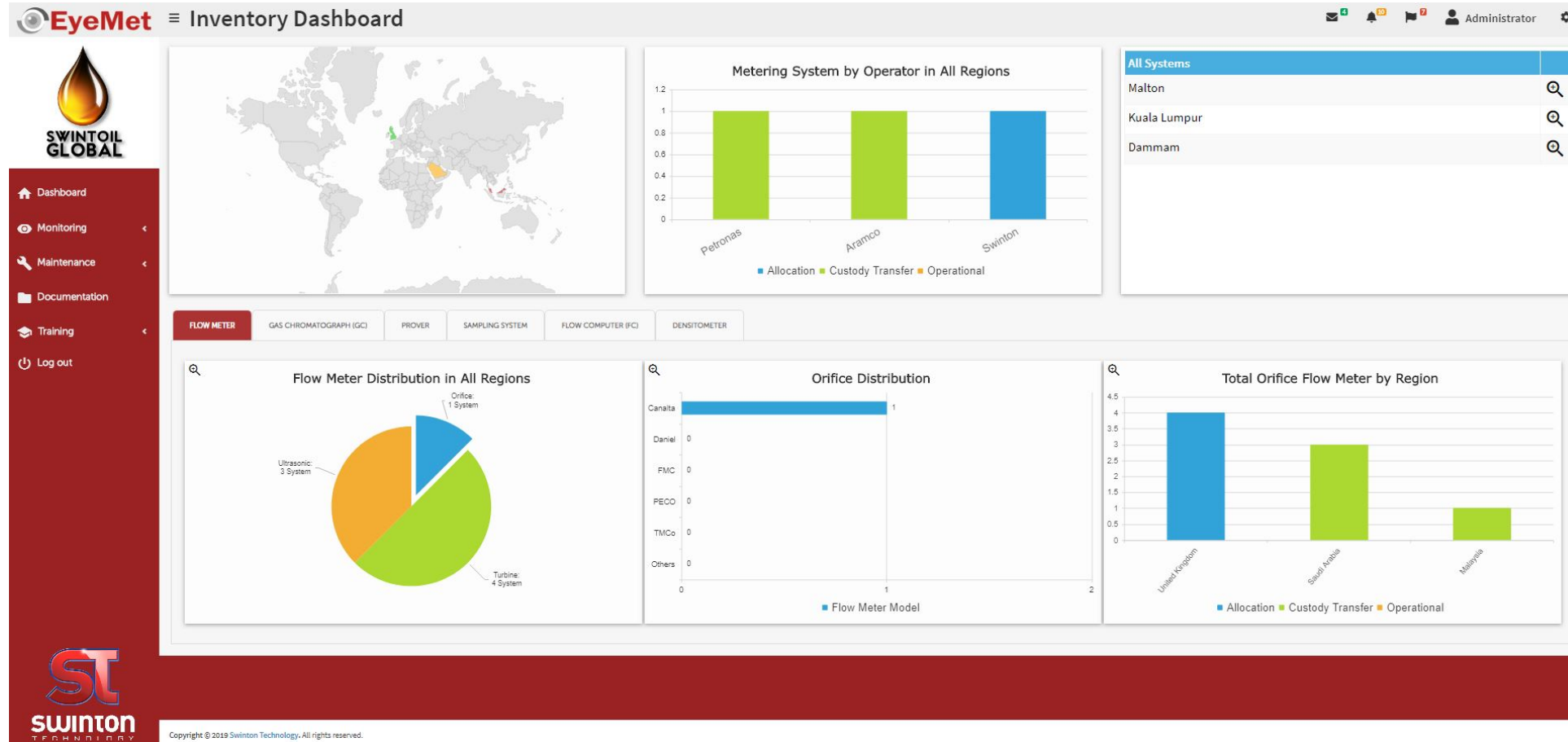
GLOBAL



REMOTE SITES







Instrumentation List

EyeMet Monitoring / Metering Systems

Administrator

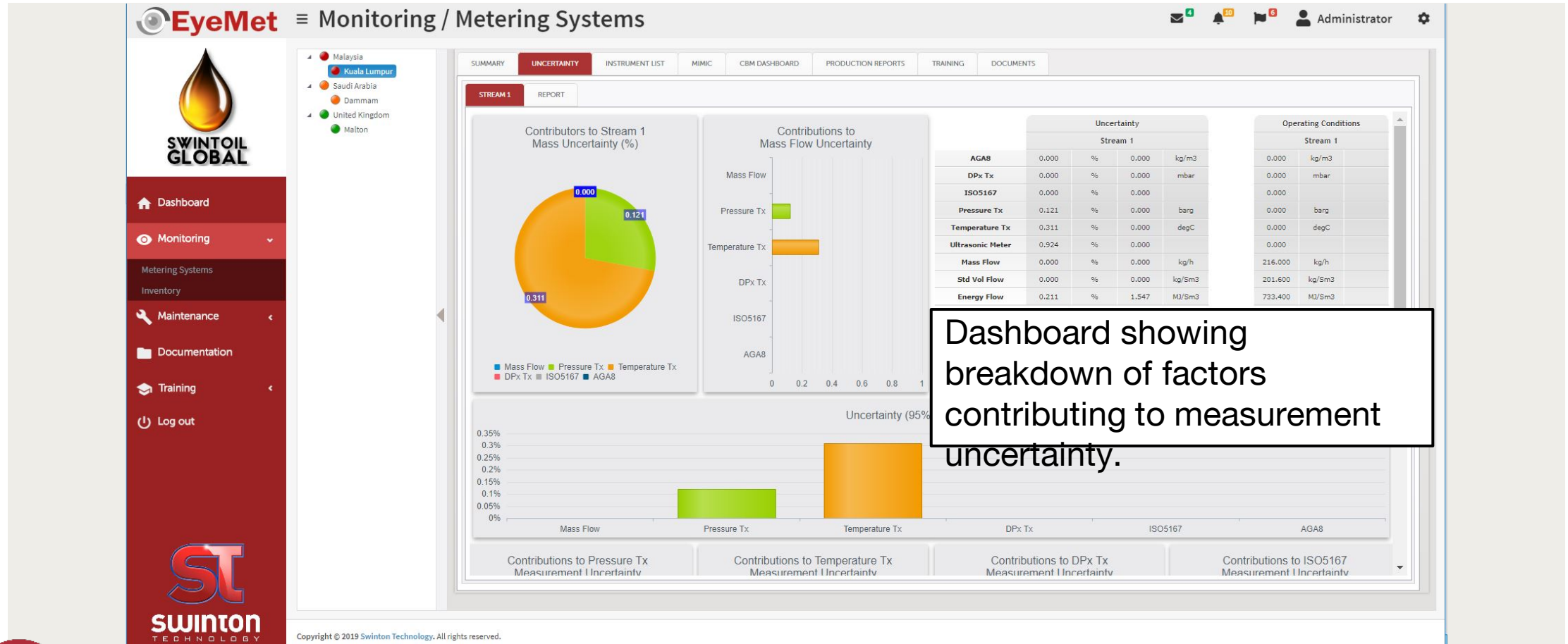
SWINTOIL GLOBAL

- Dashboard
- Monitoring
- Maintenance
- Documentation
- Training
- Log out

ST swinton TECHNOLOGY

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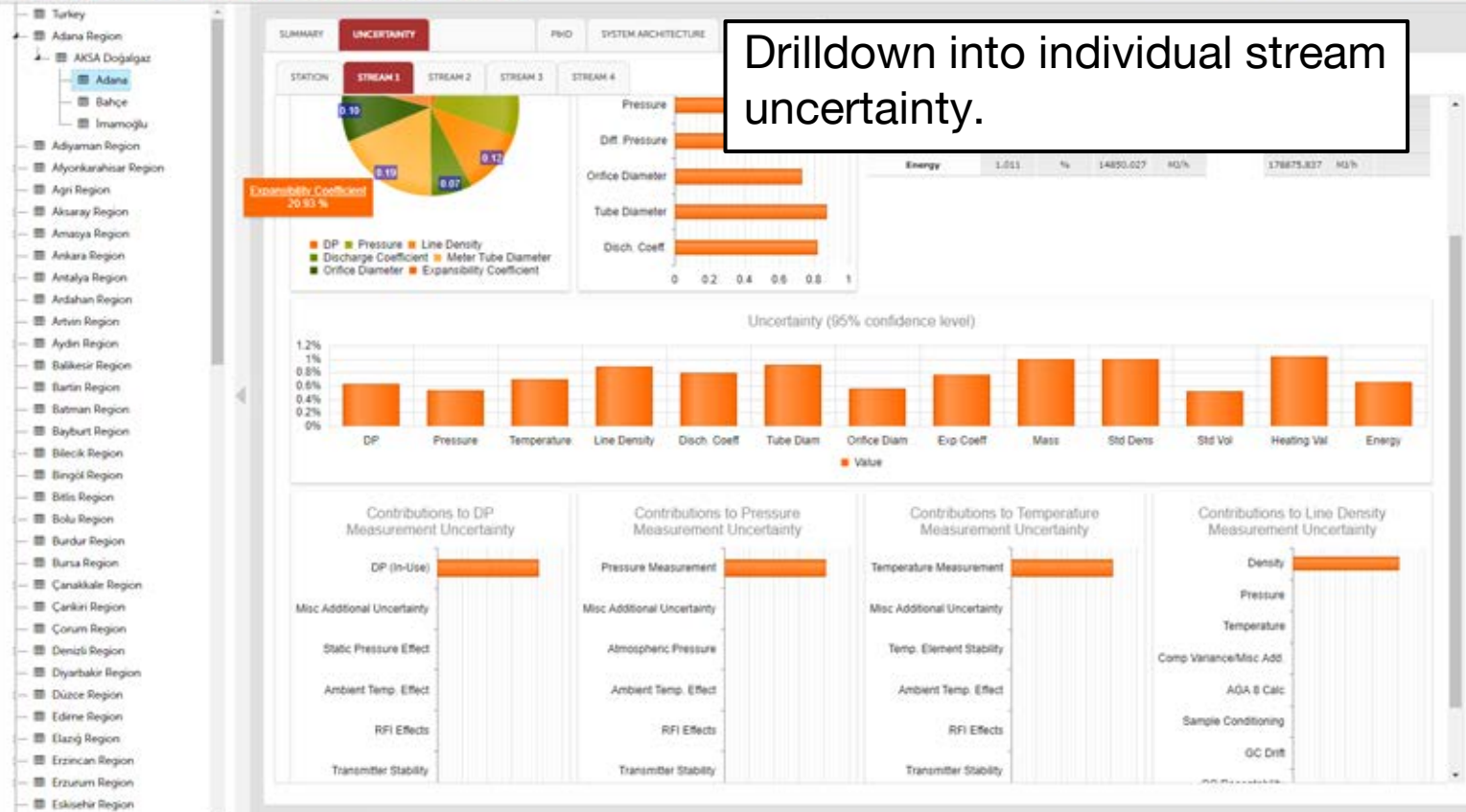
Interactive Map with health indication.
Click to zoom in.



Dashboard showing breakdown of factors contributing to measurement uncertainty.

EyeMet - Metering Systems

User: Administrator Auto-logout in 0 hrs 56 mins 53 secs





User: Administrator Auto-logout in 1 hrs 0 mins 51 secs

Prover Validation / Certification

Surveillance - Prover

Prover Report Prover Re-Certification Schedule Prover Historical

PACs	Metering Station	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
AKSA Doğalgaz	Adana	●	●	○	●	○	●	●	●	○	●	○	●
AKSA Doğalgaz	Bahçe	●	●	○	●	○	●	●	●	○	●	○	●

View instrument validation
schedules.



User: Administrator Auto-logout in 1 hrs 0 mins 21 secs

Prover Validation / Certification

Surveillance - Prover

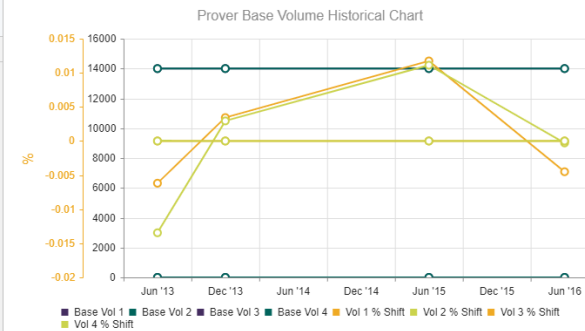
Prover Report

Prover Re-Certification Schedule

Prover Historical


Export to Excel Export to PDF

PAC ...	Metering System Name	Manufacturer	Vol 1	Vol 2	Vol 3	Vol 4	
Enerva Dogalgaz Dagitim	Iscehisar	PWC Industries	13,995.1377	13,997.8564	0.0000	0.0000	litre
Enerva Dogalgaz Dagitim	Şuhut	Daniel	0.0000	0.0000	0.0000	0.0000	litre
AKSA Dogalgaz Dagitim	Adana	Brooks	500.6320	501.6630	0.0000	0.0000	litre
AKSA Dogalgaz Dagitim	Imamoğlu	Oval	3,754.6500	3,754.9570	0.0000	0.0000	litre
AKSA Dogalgaz Dagitim	Bahçe	Skeltonhall	500.6320	501.6630	0.0000	0.0000	litre



View historical meter calibration results.

Re-Cert	Vol 1	Vol 2	Vol 3	Vol 4
	13,995.1377	13,997.8564	0.0000	0.0000
	13,996.2490	13,998.3086	0.0000	0.0000
	13,997.4111	13,999.4521	0.0000	0.0000
	13,994.9023	13,996.0127	0.0000	0.0000
	13,995.1377	13,997.8564	0.0000	0.0000



Dashboard

Monitoring

Maintenance

Dashboard

Validation Schedule

Validation Reports

Validation Manuals

Irregularity Report

Audit Assessment Report

Prover Validation


Documentation


Training

Compliance

Settings

Log out





Surveillance

Automated online updates and notification of metering activities, schedule and compliance

Monthly Schedule

Yearly Schedule

Contractor Compliance Index (CCI)

Region :

Adana

PACs :

Select Pacs...

Month :

March

Year :

2018

View Data

Export to PDF

System Name	Instrument	USM	Proving	Prover	OP	GC	FC
PACName: AKSA Doğalgaz							
Adana							
İmamoğlu							
Bahçe							

Preview Charts

Instruments Validation

USM Verification

Proving

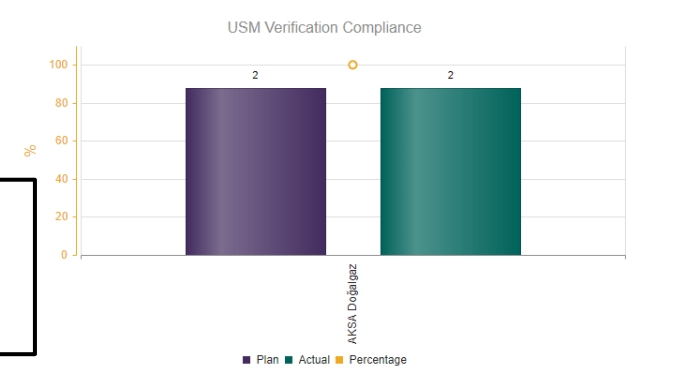
Prover Recertification

OP Inspection


GC Calibration

FC Calc-Integration

USM Verification Compliance








Monitor instrument maintenance/validation completion rates.


User: Administrator ⌚ Auto-logout in 1 hrs 0 mins 54 secs

Irregularity Report

+ Add New Report
📄 Export to Excel
📄 Export to PDF

Contributor	PAC	Report File	Report Date	Submitted Date	Approved File	Approved Date	Description	Status	
Administrator	ACG	flag_green.png,flag_green32.png	02/Jan/2017	07/Jan/2017	Login V2.gif	07/Jan/2017	Desc		<input type="button" value="Approve"/> <input type="button" value="Delete"/>
Administrator	ACG	Login V2.gif	01/Jan/2017	04/Jan/2017	n/a	n/a	Desc		<input type="button" value="Approve"/> <input type="button" value="Delete"/>
Administrator	ACG	arduino-board.svg	01/Apr/2017	04/Jan/2017	n/a	n/a	Desc		<input type="button" value="Approve"/> <input type="button" value="Delete"/>
Administrator	ACG	flag_red32.png	01/May/2017	05/Jan/2017	n/a	n/a	Desc		<input type="button" value="Approve"/> <input type="button" value="Delete"/>
Administrator	ACG	OilRig_Blue.png	05/Jan/2017	05/Jan/2017	n/a	n/a	Desc		<input type="button" value="Approve"/> <input type="button" value="Delete"/>






1 - 5 of 5 items

Document Library



Search:     

Showing 1 to 3 of 3 entries

ID	Type	Title	Description	Version	Filename	Document Date	Status	Uploaded By	Actions
1	System Overview	Adana Sys Oview	Adana Metering System Overview	1.20	CS Position 151001.doc	Aug 24 2018		Administrator	 
2	Instrument Manual	3051ST User Manual	Detail setup and maintenance guide fro Rosemount 3051ST pressure transmitter	1.01	manual-rosemount-3051s-series-pressure-transmitter-hart-protocol-en-75976.pdf	Aug 24 2018		Administrator	 
3	Calibration Cert	Calibration Certification	NEL Cal Cert June 16	N/A	AT 7835 Cal Cert.pdf	Aug 24 2018		Administrator	 

Show 10 entries

Previous 1 Next

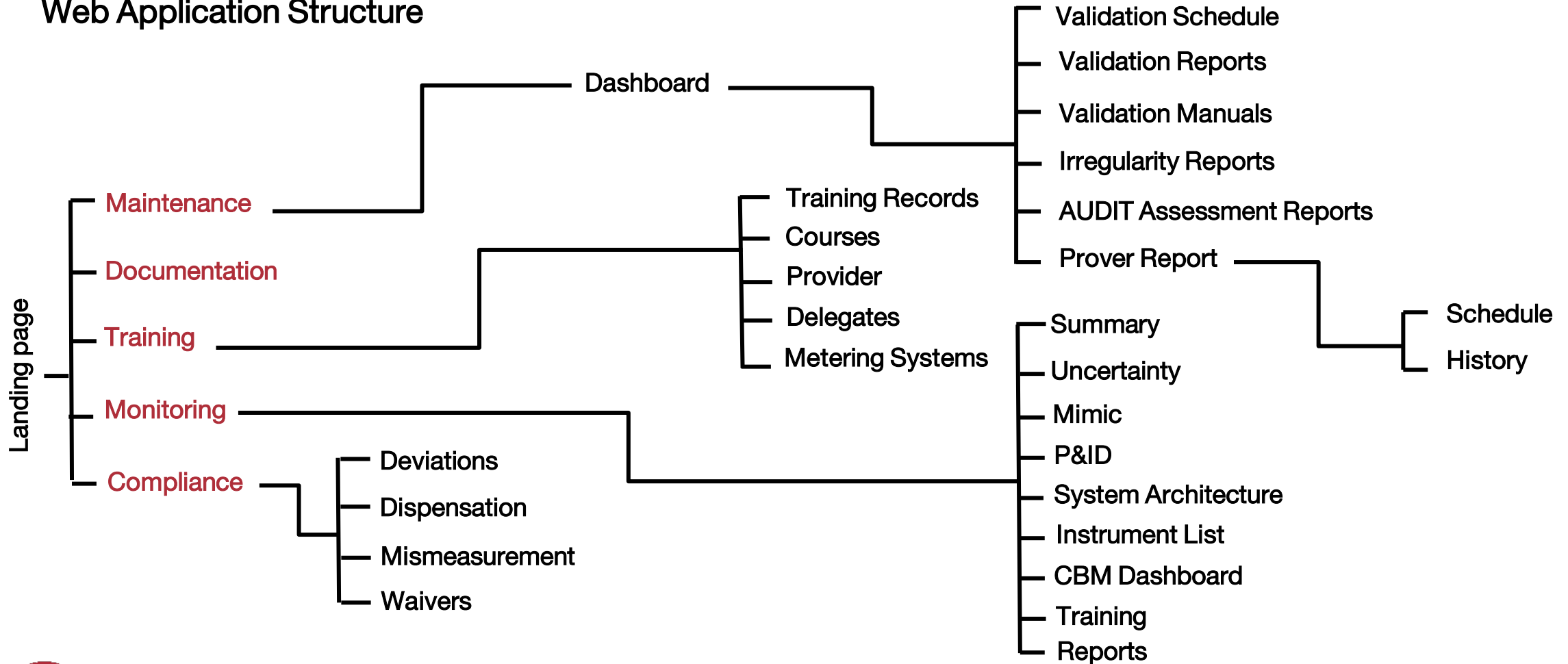
Store key site documentation online,
and easily accessible.

Features

- + Metering MIS (Management Information System)
- + Companywide Metering Overview / Dashboard
- + Live uncertainty
- + Modular
- + Asset Management
- + Predictive Maintenance
- + Documentation
- + CBM (Condition Based Monitoring)
- + Multi-level
 - + Local
 - + Administration
 - + Corporate
- + Made up of 4 layers:
 - + Whole Country (or Company)
 - + Province / Regions
 - + Individual Metering Stations
 - + Individual Meter Stream
- + Real-Time metering uncertainty calculations built in.
- + Mass balance calculations across pipeline systems
- + Centralise inventory of all components associated with each metering station.
- + Interactive map providing user with live status of each metering system.



Web Application Structure



Metering Systems + EyeMet



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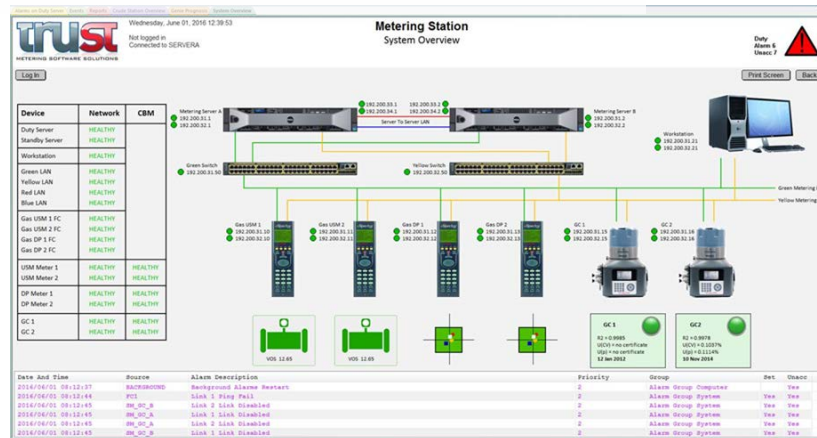
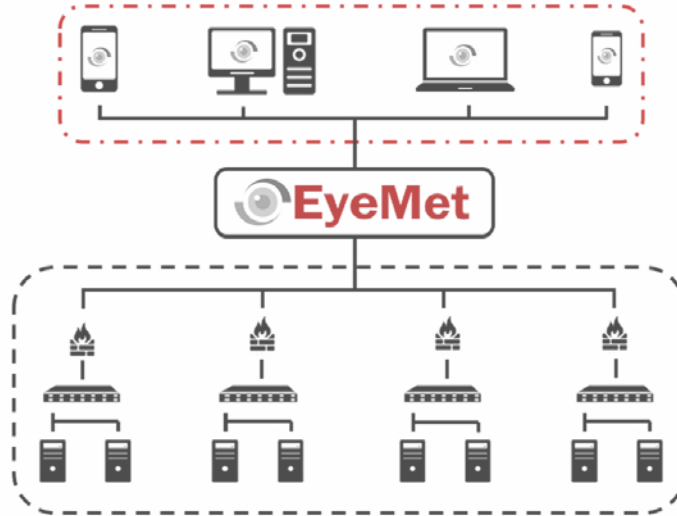
NETWORK
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FLOWCOMPUTER

--- GLOBAL

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THANK YOU