CUSTOMER PRESENTATION BRIEF

As presented at the 2015 EMEA Users Conference

SUMMARY

OUTOTEC®

INDUSTRY

Oil and Gas

BUSINESS VALUE

- Remote Monitoring
- Industrial Internet of Things (IIoT)
- Trend Analytics
- Standardization
- OT-IT Integration
- Process Diagnostics
- Predictive Analytics
- Sustainability
- Aftermarket Services

PI SYSTEM™ COMPONENTS

- PI Server™
  - Data Archive
  - Asset Framework (AF)
  - Asset Analytics
- PI DataLink™
- PI Cloud Connect™

Outotec Partners with OSIsoft to Deliver Performance and Lifecycle Solutions

With a strong commitment to the preservation of earth's natural resources, Outotec builds sustainable facilities and process management solutions for minerals and metal processing, water treatment, and energy production from biomass and waste. Recently, Outotec developed a new digital services platform that links operational data from customer sites with Outotec subject matter experts to deliver aftermarket services and lifecycle solutions. Kerry Sullivan, Outotec's MES Manager for the Mineral Processing Business, spoke about how OSIsoft enabled his company "to provide **remote services** in order to help people optimize the performance of [their] sites."

O'Sullivan began his presentation by indicating that their customers are looking to capitalize on today's technology. "Our customers are definitely interested in understanding what [IoT, IIoT and Big Data] can do to help to bring value." In particular, he added, "these corporate entities want to ensure they have full visibility on these remote sites, so they can better operate and maintain [them] to optimize their entire value chain."

For Outotec, O'Sullivan explained, the business challenge is that, "we have over 20,000 references sites worldwide. We are trying to develop lifecycle services for these customers" because their "key business challenges really are talent scarcity, the inability to have people on the site trying to do continuous improvement and to resolve issues." To meet this "growing need for remote services, Outotec is developing a new digital platform to enable low-cost data collection and analysis" that connects customers to Outotec engineers who have the expertise to resolve issues.

Outotec's Approach to a Digital Services Platform

Next, O'Sullivan outlined Outotec's approach to their services. He described, "remote troubleshooting – a customer raises [an] issue to us, and we investigate based on our data and analytical tools. We will also, using our predictive analytical models, define [longer-term solutions] to the customer based on these models." The services platform includes a "process analysis and troubleshooting tool that our operational support center uses to analyze data... which we collect in the PI System." Outotec also provides "reports and dashboards to their customers to ensure that they have full visibility... so that we can communicate together about issues that they have in the plant."

O'Sullivan used the example of a smelting furnace to illustrate the value of Outotec's services. "An out-of-control chemical reaction [can] cause foaming at the furnace. If it is caught early enough, the furnace is emptied and restarted. If it escalates, it can cause a serious safety risk with a potential explosive scenario. Typical savings with respect to [avoiding] just one instance of an escalated foaming scenario is **5.2 million Euros per annum**. The business case for these type of predictive analytics is very, very strong."

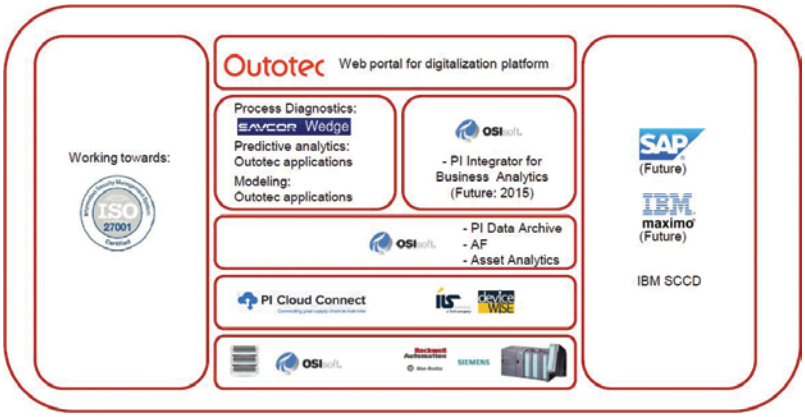
Outotec's Three Development Pillars

Outotec is "relying heavily on three pillars in developing this platform:" **information security, rapid deployment, and scalability.**

1. Information Security – O'Sullivan emphasized, "[security] is absolutely critical. We are working towards ISO 27001 to guarantee that we have all the procedures in place in order to secure data. We don't want to be a techie group in the background just developing analytics. We want to be involved with the people in the plant." Technically, "we get data from a local [PI System] or PLC DCS system, then we will store [it] in our OSIsoft platform".

2. Rapid Deployment – "Rapid deployment and standardization [are] at the core of our systems. AF elements will be standard [and] based on all of our equipment," O'Sullivan explained. "This will mean that there is a standardized naming convention for every tag, every piece of equipment and a standardized asset hierarchy within the AF structure. I couldn't stress the importance of this more," said O'Sullivan. "Developing standard AF templates based on this reference designation system will either make or break this solution in the long term."

3. Scalability – "The system is fully cloud-based. There is no physical hardware on any of our Outotec sites." O'Sullivan continued, "PI Cloud Connect and the ILS deviseWISE are the two cloud services that we will use to collect the data from the customer, depending on whether the customer has an OSIsoft Data Archive or... only a PLC or DCS system." With PI Cloud Connect, "we subscribe to the data as well as guaranteeing that there is no risk to the customer's data on their side." He concluded that, "with the cloud... in one hour we can change the whole landscape of our architecture."



How Outotec has transformed their business

Overall, OSIsoft has enabled Outotec to deliver "a portfolio of exciting new products that will open up new revenue streams and revolutionize the way we work," said O'Sullivan. "It is one of our top five strategic initiatives [proving] that our board of directors also believe in [it]." Through its Connected Services agreement with OSIsoft, Outotec can "**monetize knowledge** with respect to the equipment and business lines." The architecture and commercial agreement also lets them go "from a small system to a large system very quickly." That, in turn, has allowed Outotec to better align its service offerings to its customers' needs.

Finally, a new **positive feedback loop to product development** is dramatically improving the way Outotec works. "We're not developing and deploying," said O'Sullivan. "We are developing, deploying, learning, and modifying the development to ensure that generations of equipment are getting better."

"The OSIsoft platform, as part of our remote services, is enabling Outotec to deliver a portfolio of exciting new products that will open up new revenue streams and revolutionize the way that we work."

– Kerry O'Sullivan
MES Manager for the
Mineral Processing Business

O'Sullivan, Kevin. *Outotec's Digital Services Platform: How OSIsoft is Helping Transform Our Business*. OSIsoft.com. 13 Oct. 2015. Web. 27 December 2015. <http://www.osisoft.com/Templates/item-abstract.aspx?id=12792>.