Digitaalisuuden kehittäminen automaatiotuotteiden palveluliiketoiminnassa – Case Valmet

Teollinen Internet & Digitalisaatio -seminaari

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Valmet’s aim is to continuously create value by improving the quality, production, environmental aspects and cost efficiency of our customers’ processes…
Strong global presence close to our customers

130 locations in 33 countries

- Over 100 service centers
- 80 sales offices
- 34 production units
- 15 technology centers
Industrial automation systems are used, for example, in power generation, water management, pulp and paper handling.

Systems have long lifecycle and they need upgrades and other services (e.g. audit, environmental services, security).
Valmet systematises service processes

Before PROMES-project

- Incomplete InstalledBase management
- Manual lifecycle planning
- Old ways of working

PROMES-project

- Improved InstalledBase management
- Semi-automated lifecycle planning
- Systematic Upgrade and Audit processes
- Service/R&D collaboration systematised

After PROMES-project

- Digital customer service system
- IoT integrated to digital customer service system
- Complete InstalledBase coverage
Upgrade – service process

Upgrade Planning:
1. Identify upgrade needs
2. Identify installed system
3. Analyse the system/compose LC plan
4. Communicate/negotiate
Implementation & Follow-up:
Service staff
1. Agree, design and implement upgrades according to plans
2. Reevaluate upgrade needs

Lifecycle services:
Operator interface
Activity

- Windows XP security updates stop in 2014.
- I start by selecting the customer from the customer search engine.
- A customer-specific report list is generated.
- The Installed Base report is generated and I can analyse the situation of the customer concerning Windows XP.
- I select Life Cycle Report from the report list.
- A life cycle report for the next ten years is automatically generated based on life cycle information in the InstalledBase tool.

Combine technology life cycle information with InstalledBase report.
Benefits

- **Customer:**
  - Customer can prepare for a change (scheduling, budgeting). Schedule for upgrades => investment planning.
  - It is easier to justify gradual small changes than expensive big-bang change.
  - The reliability and availability improve.
  - Opportunity to optimal cost effective upgrade path.
  - No surprises. Understanding the risk areas of the system that need actions.

- **Valmet:**
  - Knowing the status of automation system through its lifecycle.
  - Opportunity to optimal cost effective upgrade path.
  - Security updates on-time.
  - Visualising what needs to be upgraded and when (transparency to upgrade opportunities) (possibility to justify upgrades for a customer).
  - Possibility to introduce new functionality flexible step by step.
  - Better service (and on time).
Dissemination with VTT

Valmet case:
- 2 workshop articles
- 1 journal article (+1 submitted)
- 1 conference article under writing
- ...

Publications

Building a Concept Solution for Upgrade Planning in the Automation Industry, OTM 2013, ISDE (Fourth International Workshop on Information Systems in Distributed Environment)

The Upgrade Planning Process in a Global Operational Environment, OTM 2014, ISDE (Fifth International Workshop on Information Systems in Distributed Environment)


Supporting the Upgrade Sales Planning Process with the Transparency of Information – a Case Study in Automation Industry, submitted to Journal of Industrial Engineering

Presentation in "Teollinen Internet & Digitalisaatio 2015" -seminar

Tackling the Digitalisation Challenge: How to Benefit from Digitalisation in Industrial Practice, writing ongoing, TBD

Research

Concept, mock-ups → Process, tool demo → Process, tools demo/pilots

InstalledBase → InstalledBase → InstalledBase

Customer Extranet

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Thank you for your attention