Capital Alliance with OSIsoft, LLC

April 5th, 2016
Mitsui & Co., IT & Communication Business Unit
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1-1. IoT trends

- The Internet of Things (IoT) is transforming business models.
- The conventional “product-sales model” will be transformed into a “service model” that generates value for customers, enabling them to achieve cost reduction and greater earnings by drawing on the data gathered from “things”.
- We are approaching a time when companies' competitiveness will be determined by data management know-how, and Mitsui, driven by IoT knowledge, will create new business and transform our business models.

Innovation with IoT: Transformation from “product-sales model” to “service model”

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<thead>
<tr>
<th>Business Model</th>
<th>Value for Customers</th>
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<tbody>
<tr>
<td>Customers</td>
<td>Value as Products</td>
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<td>Product</td>
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<td>Sensors</td>
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<td>Data</td>
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<tr>
<td>Customers</td>
<td>Value as “Things”</td>
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<tr>
<td>Product +</td>
<td>Availability</td>
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<td>Data-driven</td>
<td>Fuel Efficiency</td>
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<td>service</td>
<td>Productivity</td>
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<tr>
<td>Sensors</td>
<td>Increase</td>
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</tbody>
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Data management know-how will determine companies' competitiveness.
1-2. Mitsui's IoT Vision

- **Invest proactively**: ① in “Data Platform” applicable to industry-specific business. ② for establishing solutions responding to individual industrial needs.
- By leveraging our extensive business assets and neutrality as a *sogo shosha* (general trading company), we aim to realize “IoT for Customers”.
- **Provide services that contribute to users’ productivity improvement and creation of added value for customers through collaboration with partners.**

![Diagram showing Mitsui’s Key Strategic Domains](image)

- **Mitsui’s business assets and partners**

![Diagram showing Industry-specific Applications](image)

- **Data Platform** (Data Collection & Storage)
- **Industry-specific Applications** (Data Analysis)

- Operational data of each business assets
- Industry-specific needs for IoT

-Mitsui’s business assets and partners-
2-1. OSIsoft Overview

- **Name:** OSIsoft, LLC (Limited Liability Company in Delaware)
- **HQ:** San Leandro, California, USA
- **Founded:** 1980
- **CEO (Founder):** J. Patrick Kennedy
- **Location/Employees:** 21+ countries/1,200+ employees
- **Main Investors:** Founder, Kleiner Perkins Caufield Byers (VC), Technology Crossover Ventures (VC), Mitsui & Co., etc.

- **Business:**
  - Development/sales of the IoT data management software “PI System” for a variety of industries, such as utilities, oil & gas, and manufacturing
  - Global leader in data management technologies for industrial customers, M2M systems, and the Internet of Things

- **Revenue:** USD 300+ million
- **Investment Ratio:** 5.0%
2-2. OSIsoft Overview

- **Strength:**
  - OSIsoft has specialized in development/sales of the PI System since the 1980s and become a global leader in data management technologies for industrial customers, M2M systems, and the Internet of Things.
  - The strength of the PI System is data compatibility that enables collection of a huge variety of sensor-based data (compatible with 450+ data protocols)
  - Also, data-compression technology enabling storage of 10 years of msec interval data and high-quality customer support services

- **Track Record:**
  - Installed in 127 countries/2,200 companies/17,000 sites
    - 1,000+ power & utility companies (50-60% share of all installed capacities in the US)
    - 95% share of oil & gas companies ranked in the Fortune Global Top 40
    - 65% share of process-manufacturing companies ranked in the Fortune Global Top 500
  - Core industries: Utility, oil & gas, chemicals, mining, pharmaceutical, pulp & paper, etc.

OSIsoft is the best partner for Mitsui in the data platform business field.
2-3. IoT Data Management software “PI System”

- The PI System is a “Data Platform” that collects/stores/outputs sensor-based data of a huge variety of devices and visualizes the real-time data and simplifies the introduction of industry-specific applications.
- With increasing customer need for IoT and the spread of industry-specific applications, the value of the Data Platform should also improve.

<table>
<thead>
<tr>
<th>Industry-Specific Applications</th>
<th>Safety &amp; Security Improvement</th>
<th>Energy Efficiency Improvement</th>
<th>Production Process Optimization</th>
<th>Asset Health Improvement</th>
<th>Quality Optimization</th>
<th>Maintenance Efficiency Improvement</th>
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</table>

PI System
Collect, Historize, and Visualize a huge variety of data

- SMART MACHINES
- SMART DEVICES

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3-1. Strategy for Industry-Specific Applications

- **Enter Data Platform business** through a capital alliance with OSIsoft and support OSIsoft’s growth.
- **Grasp customer needs for IoT** and identify business opportunities through partnership with OSIsoft.
- **Develop industry-specific applications** through business/capital alliances with domestic and overseas IT companies and industrial customers.
### 3-2. Digital Transformation of Mitsui

- Proactively utilize the PI System and industry-specific applications in the Mitsui & Co. group
- Work to achieve improved efficiency of business asset operations and cost reduction, aiming at improvement of the profitability of existing business and business transformation

- Monitoring/Analysis of operational data
- Cost reduction/Productivity improvement

Mitsui’s business assets + PI System

Mitsui’s 15 Business Units

- Operational data of each business asset
- Need for IoT
360° business innovation.