SOCRADES: Web Services Based Shop Floor Integration

**Scenario**
Coupling ERP systems with shop floor devices
- DPWS-based integration
- High level composite services
- Enterprise control via web services
- Business process monitoring
- Cross-layer alerts
- Enterprise visualization
- Automatic workflow for alert resolution
- Timely information dissemination and visibility
- Better customer relationship management

**Architecture**

- **Devices**
  - Gripper offers services:
    - `getInfo`, `start`, `stop`, `failure`
  - SunSPOT offers services:
    - `Temperature`, `Battery status`

- **Middleware**
  - SAP xMII
    - Collects data from devices and provides it to higher level applications.
    - Enables the modelling of business rules at run time.
    - Offers a mid-level business view on the services provided by shop-floor devices.

- **Dashboard**
  - Offers a high-level monitoring of the data provided by shop-floor services.
  - Reacts to the triggering of business rules modelled in SAP xMII

**Demonstration**

- Enterprise Visualization Application
- DPWS Gateway
- SQL (MySQL)
- Preferred Communication Channel
- Alternative Communication Channel
- Gripper offers services:
  - `getInfo`, `start`, `stop`, `failure`
- SunSPOT offers services:
  - `Temperature`, `Battery status`

- SOCRADIES Middleware
- DB (MySQL)
- SOCRADIES Communications
- Enterprise View
- Temperature
- Stop

Contact:
Project Manager: Dr. Armando Walter Colombo
Schneider Electric GmbH
Tel: +49 6182 81-2269, Fax: +49 6182 81-2157
E-mail: armando.colombo@de.schneider-electric.com
Website: www.socrades.eu