Scaling configuration management

from single embedded device deployment to
fully customized multi-customer, multi-device software.

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What is it all about?

- Mass Customization
- Tracking
- Automatisation
Vendor vs. Customers

A Product of Geometry Inc.
Vendor vs. Customers
Vendor vs. Customers
Vendor vs. Customers
DEI — Device Enabling Interface
DEI – Device Enabling Interface

Application

DeviceManager Stubs

Network

DeviceManager

Logical Module

LM  LM  LM  LM

Module

Module  Module  Module  Module

Logical Port


Ports

Hardware/OS/Driver
Deployment – Case 1

Target
- Access Controller
- AEI
- DeviceManage
- DEI-J
- OS & Drivers
- Hardware

Netz

Skidata Server
- Application
- DB
Deployment – Case 2

Target 1
- DeviceManager
- DEI-J
- OS & Drivers
- Hardware

Target n
- DeviceManager
- DEI-J
- OS & Drivers
- Hardware

PC
- Access Controller
- AEI

LAN

Netz

Skidata Server
- Application
- DB
DEI + RMI
DEI + Hessian
MDM — Multi Device Management
MDM — Multi Device Management
A system diagram showing the integration of MDM with J9 JVM and DEI components. The diagram includes:

- A PC with an MDM component that reads an MDM.xml file.
- The MDM component starts, stops, and configures J9 JVM and DEI components.
- J9 JVM with OSGi and RMI layers, connected to DEI components.
- The system supports Win32/Linux environments.
- The x86 platform is highlighted with USB or TCP/IP connections to various devices.

The diagram illustrates the connectivity and configuration flow within the system.
SCM — Software Configuration Management
Typical Scenario

Development and Build System

Customer Specifics

Build and Publish

Debian Repository

Device PSM

Device PSM

Device PSM
Configuration Management

- SkiData
  - Customer 1
    - Installation 1
      - Location 1
        - Device 1
      - ... (repeated for Location 2, Location N)
    - ... (repeated for Installation 2, Installation N)
  - Customer 2
    - Installation N
      - Location N
        - Device N
      - ... (repeated for Location N+1, Location N+2)
  - ... (repeated for Customer 2, Customer N)

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Packaging

Compilation Description

Software Packaging System

Compilation

Compilation Repository

Software Package Repository

gather compilation description

build & publish

gather software packages
Questions ?