

// FNT IntegrationCenter

Datenabgleich mit externen Systemen und wie wir uns sonst noch das Leben einfacher machen



// Agenda

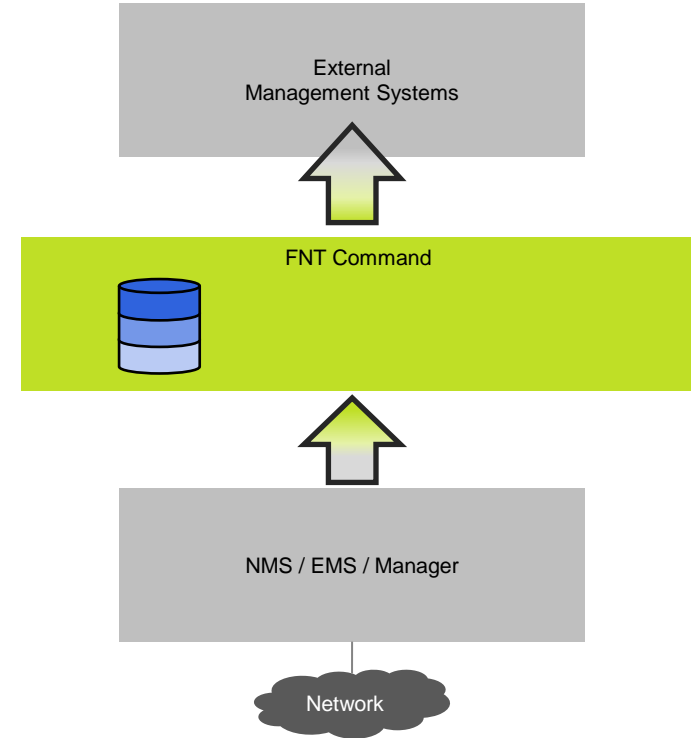
Partnerreferat FNT

Titel

FNT IntegrationCenter – Datenabgleich mit externen Systemen und wie wir uns sonst noch das Leben einfacher machen.

Thema

Herausforderungen und Lösungen am Beispiel des FNT IntegrationCenter und des Zusammenspiels mit der FNT Command Plattform und externen Systemen für Data Migration, Data Reconciliation, und Eventbasierte Schnittstellen.



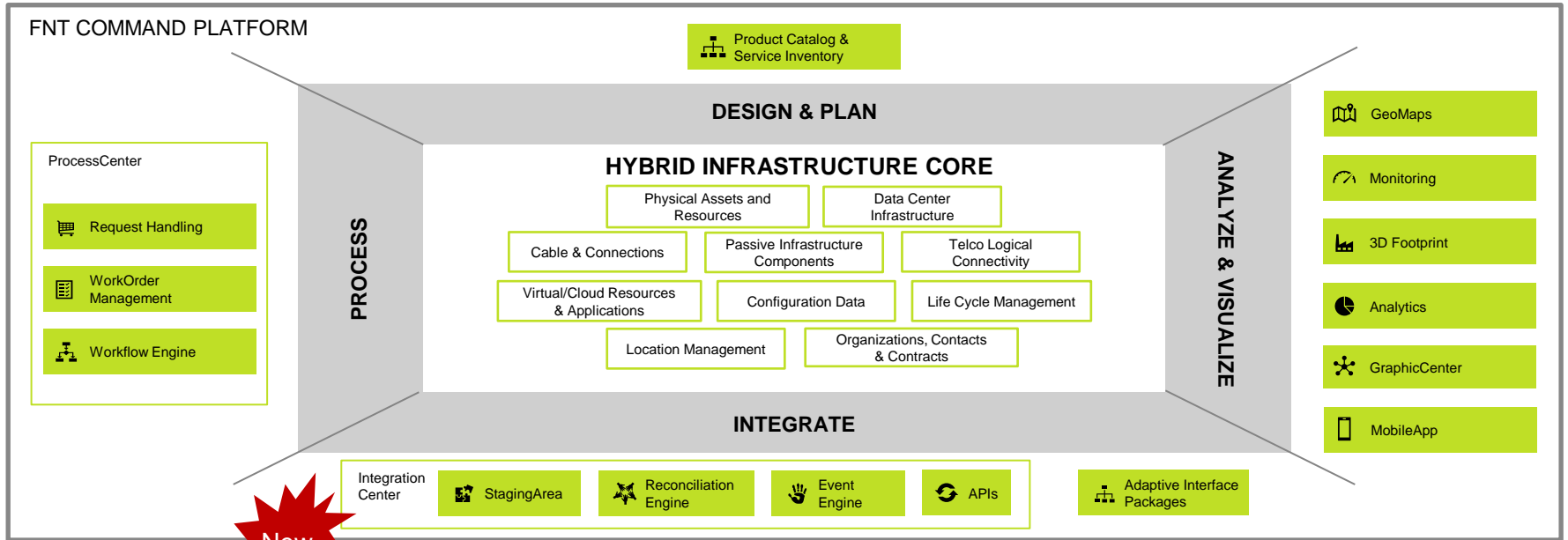
// FNT Software



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- **Leading provider of software solutions for hybrid resource management of**
 - **Telecommunication Networks**
 - **Data Centers**
 - **Enterprise - IT Infrastructures**
- founded in 1994, privately owned
- Headquarter Ellwangen
- Locations worldwide, > 300 employees
- **FNT's software is used worldwide by:**
 - > 25,000 users
 - > 500 customers
- **Integrated with > 800 external systems**
- Partnerships with large number of IT service providers and system integrators

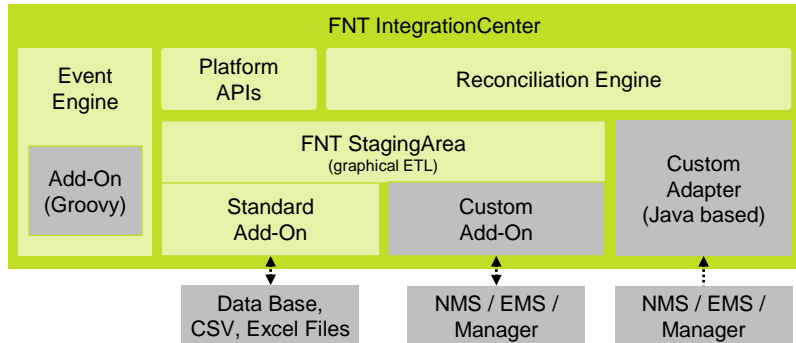
// FNT Hybrid Infrastructure Management



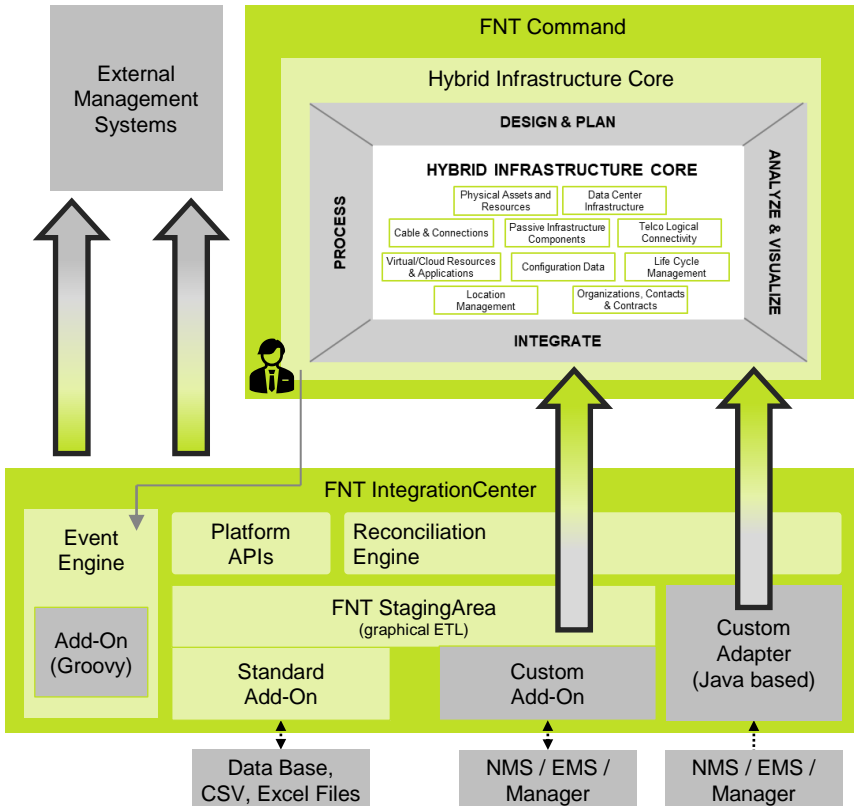
// FNT IntegrationCenter

FNT IntegrationCenter

- is a **Software Integration Framework** based on different functional blocks
- Project Implementation by Partners and Customers
 - Needs integration skills
 - Needs JAVA or Groovy Script know-how
- Documentation, Training & Support available
- Supports use cases for:
 - data base alignments
 - reconciliation
 - event handling



// FNT IntegrationCenter – Functional Blocks



Platform APIs:

Includes all APIs of the FNT Command Platform as e.g., REST API or Metaschema etc

FNT Staging Area

is the traditional graphical ETL tool of FNT and allows to **upload, transform and store data** via standard interfaces or via interface / transformation add-ons developed by partners or customers.

Reconciliation Engine

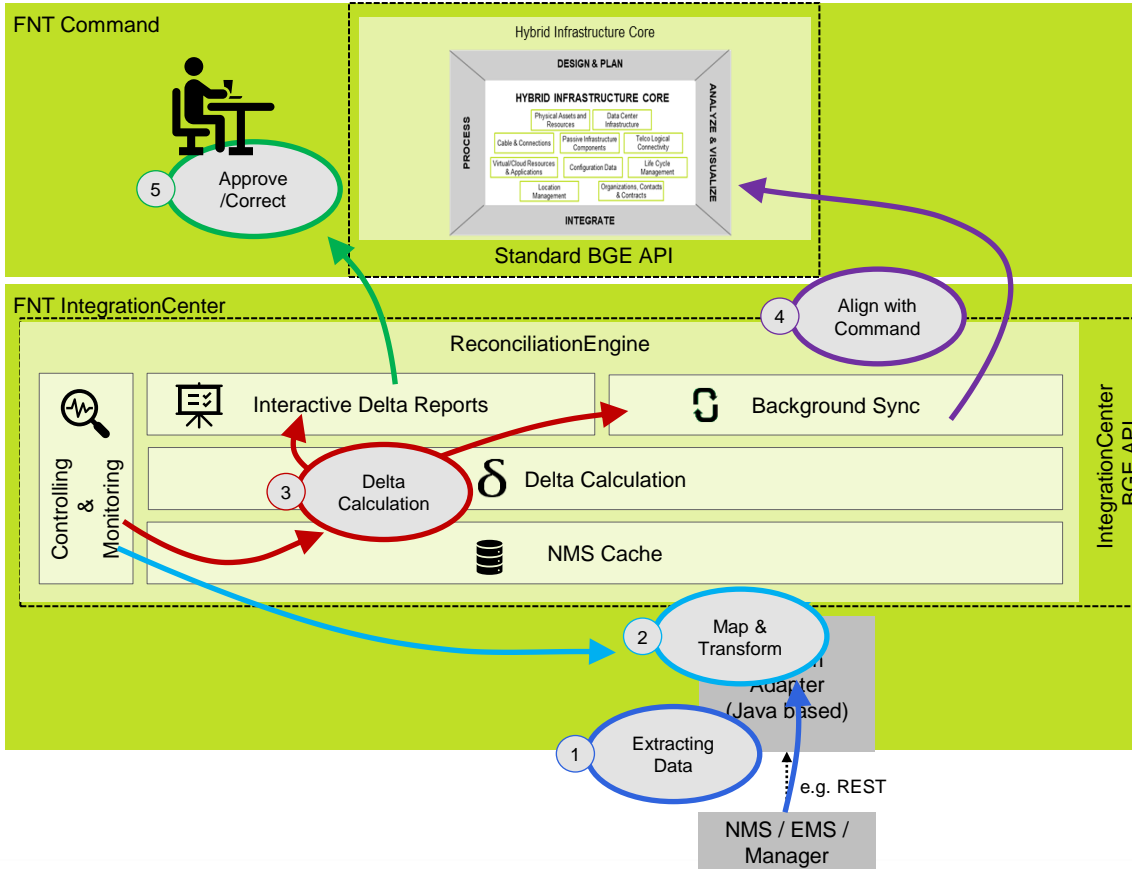
Ability to implement complex **reconciliation processes** including high performant delta calculation, alignment algorithms and interactive reports. Considering resource **documentation and planning** use cases

Event Engine (not yet released to customers)

allows to **catch user actions** in the FNT Command. Events can be **filtered and enriched** by Groovy Scripts with additional data from FNT Command and **send to an external system**.

Note: all functional blocks and FNT Command are integrated via interfaces and can be used in any combination

// Use Case Example: Data Reconciliation via Reconciliation Engine



Use Case:

Upload from data from NMS or Manager and reconciliation of the data with FNT Command data base

Steps:

1. Extracting data from external system
2. Map & Transform
3. Delta Calculation
4. Align with FNT Command data base
5. Approve / Correct

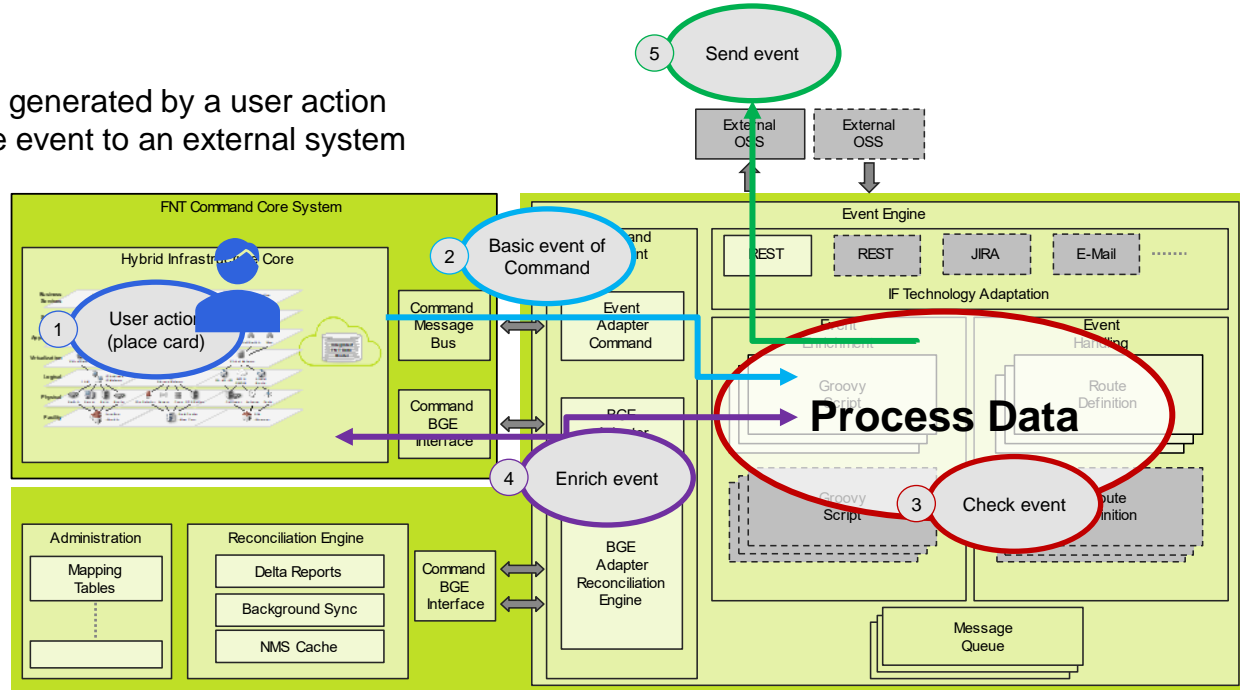
// Use Case Example: Event-based Updates via Event Engine

Use Case:

Programmable enrichment of events, generated by a user action in FNT Command and forwarding of the event to an external system

Steps:

1. User action for example, places card in a shelf
2. FNT Command generates basic event
3. Via Groovy Scripts forward conditions of the events can be checked
4. Event can be enriched with additional data from FNT Command
5. According routing definitions, the event will be forwarded e.g., to an external system

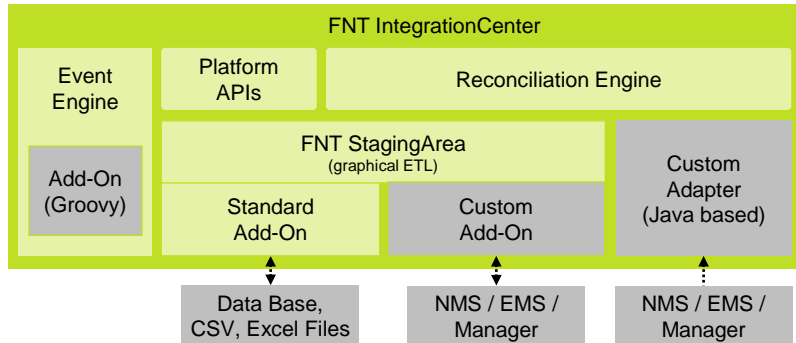


Please note, there are several other examples for e.g., alarm enrichment or event-based data reconciliation possible

// FNT IntegrationCenter vs Adaptive Interface Packages

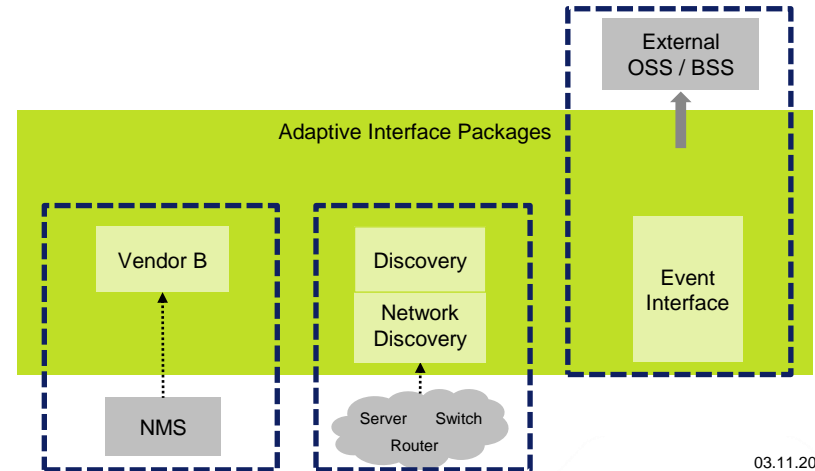
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FNT Adaptive Interface Packages

- **Software Package** ready to install
- Highly configurable Adapter for specific system
- Implemented by FNT
- Configured by Partners & Customers
- Documentation, Trainings available
- Scope extensions can be implemented by FNT Professional Services



// Event Interface

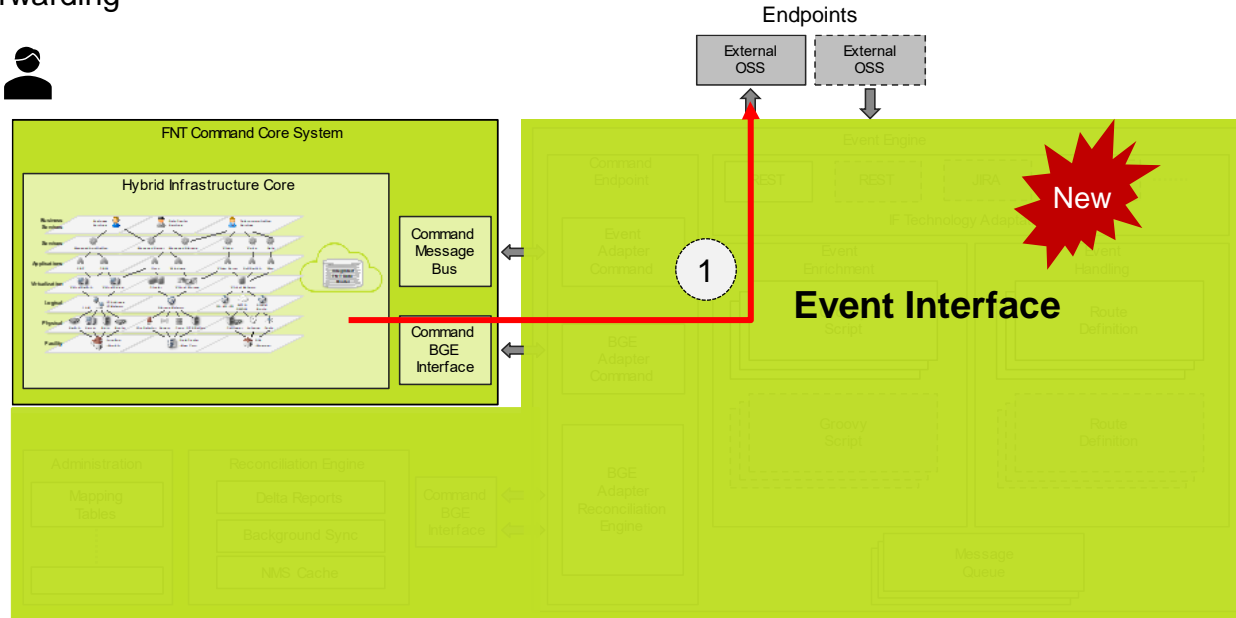
Use Case:

Configurable enrichment of events, generated by a user action in FNT Command and forwarding of the event to an external system



Steps:

1. User action for example, places card in a shelf
2. Enrichment of the event according configurations in a JSON file
3. Forwarding of the event to pre-configured endpoints



// Event Interface Configuration

Event Interface is highly configurable via JSON file:

- URL from Endpoints
- Authentication for Endpoints
- Event content
 - Event type
 - Entity types
 - Attribute

Example of a filter configuration

```
{
  "configType": "filter",
  "name": "exampleFilter1",
  "eventTypes": [
    "CREATE",
    "UPDATE"
  ],
  "entities": [
    {
      "name": "chassis",
      "attributes": [
        "hwRevision"
      ]
    },
    {
      "name": "cabinet"
    }
  ],
  "attributes": [
    "objectId",
    "visibleId",
    "ipAddress"
  ],
  "endpoints": [
    "endpointName1",
    "endpointName2"
  ]
}
```

