Planning for Holmes Development

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Status by the Release of Amsterdam

Integration

DCAE

- semi-automated

Policy

- control loop implementated
- GUI not integrated

CLAMP

- control loop implementated
- rule configruation is ongoing
- not flexible enough

MSB

- integrated

UUI

- integrated

A&AI

- integrated

Status by the Release of Amsterdam

Functionalities

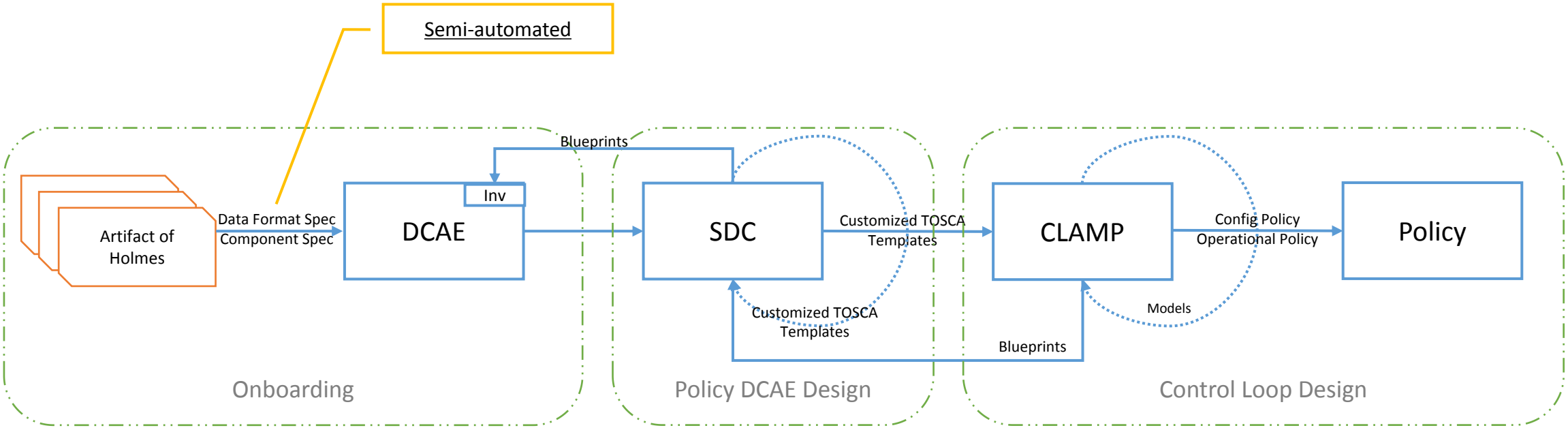
Correlation Analysis

- correlation analysis for VNF & VM implemented

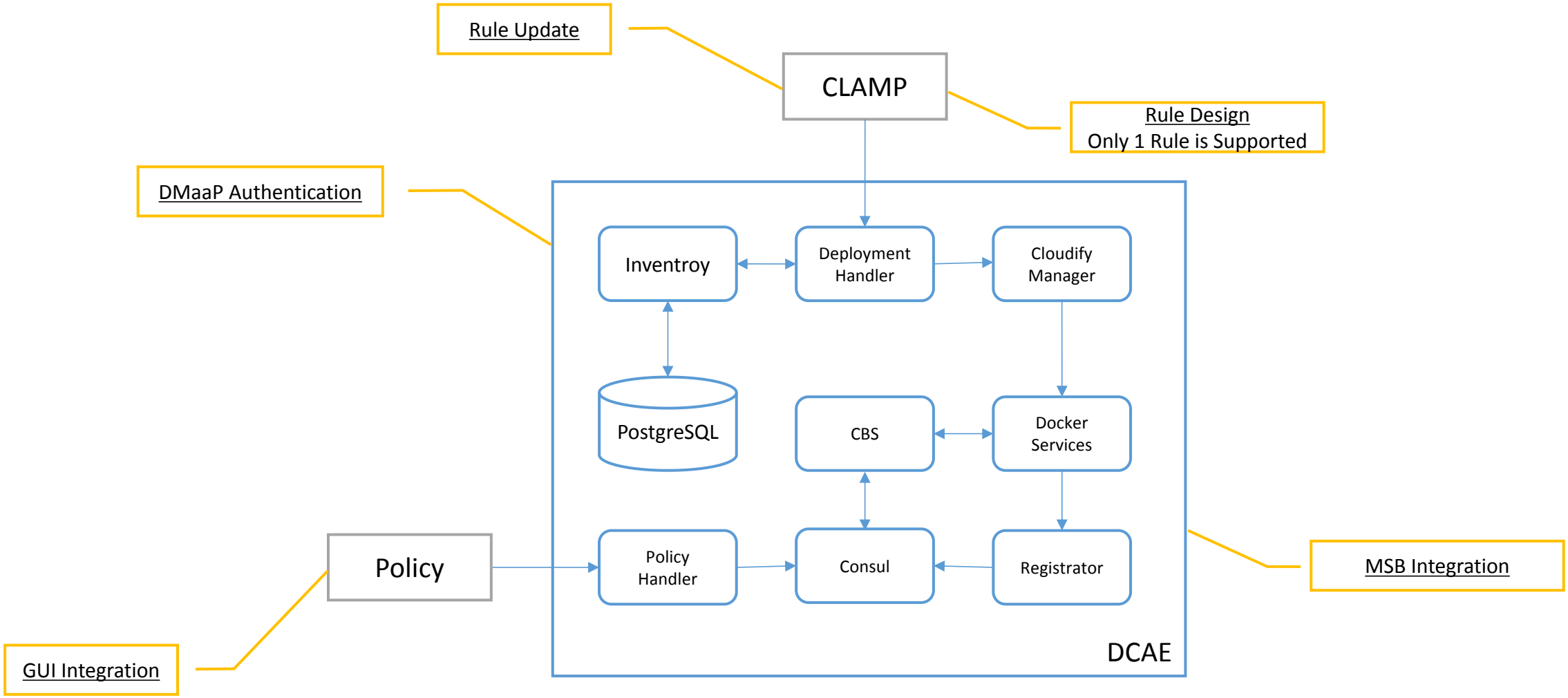
Supported Use Case

- vVoLTE

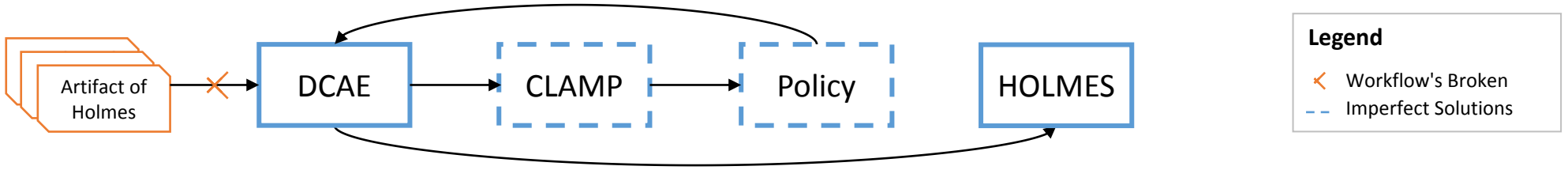
Status by the Release of Amsterdam



Status by the Release of Amsterdam



Status of the Amsterdam Release - Gaps



- Holmes is not onboarded into DCAE automatically.
- CLAMP does not support multiple rules editing or distribution for Holmes in R1.
- The rule design GUI of CLAMP (cockpit) is not user friendly and lacks flexibility.
- Integration of MSB and DCAE. If the integration is not implemented, how could Holmes communicate with other components? (Lusheng: Heat is adopted in R1, OOM solution for the future releases.)
- Request a testing environment/artifacts of DCAE.
- How to get the control loop name which is required by Policy for the implementation of a control loop.

Beijing Release - Functionality Enhancement

- Whether to integrate the GUI of Holmes into the Policy portal? How?
- The GUI integration with the UUI project.
- **How to remove a control loop related rules out of Holmes when the control loop is not needed any more?**
- To support more use cases besides VoLTE.

Overview of the Future of Holmes

A More Powerful & Intelligent Application

Introduce machine learning into Holmes.

- Manual composition of correlations rules? No!
  - Dig correlations out of a large number of history alarms using machine learning.
  - Convert the correlations into concrete rules automatically.
- Make Holmes a bussiness platform which provides some built-in machine learning algorithms.
  - Users could utilize the defaut algorithms for data analysis in an out-of-the-box manner.
- Make Holmes an extensable platform by providing a fexible way to add new components or algorithms as plugins.
  - New algorithms could be add into Holmes platform dynamically as plugins.

Overview of the Future of Holmes

A More Powerful & Intelligent Application

Introduce business intelligence into Holmes.

- Data mining
- Performance Analysis & Management
- Reporting

Overview of the Future of Holmes

An Application Supports Big Data Analysis

- Provide the functionalities to support big data based analysis, using DCAE (or other big data platform) as the data source.
- Dynamic scalability of the Holmes platform itself.

Thanks