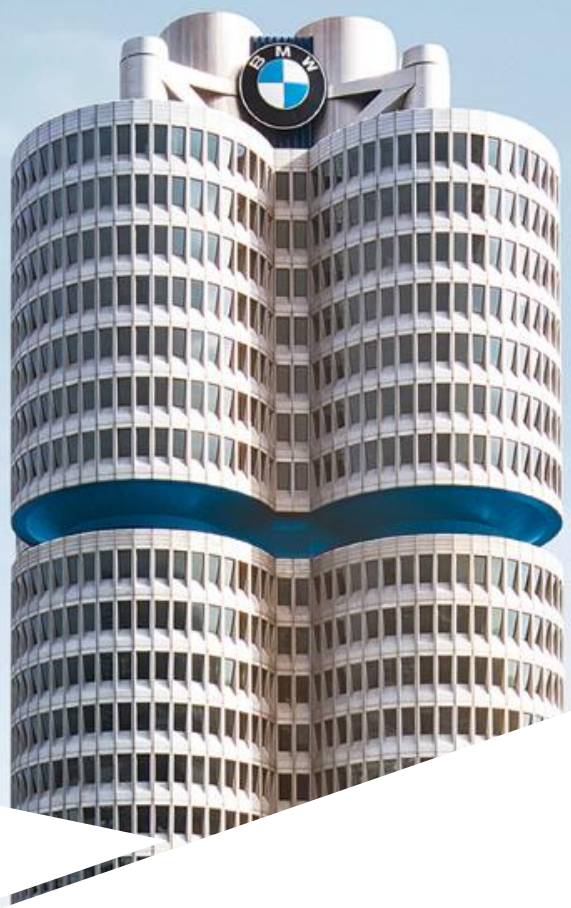
OPENMDM

FULL TEXT SEARCH



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BMW GROUP

THE NEXT 100 YEARS

Rolls-Royce Motor Cars Limited

INTRODUCTION

- ODS does not support full text searches.
  - openMDM decided to use Elastic Search to implement this feature.
- Some data sources (e.g. PAK cloud from M-BBM) provide full text search OOTB.
- Currently the openMDM **business** layer uses exactly **one** Elastic Search instance (for all connected ODS sources), but **each adapter** is called to execute a full text query.

Who is responsible for executing full text queries?

1. The openMDM business layer.
2. Each adapter implementing the openMDM API.

FULL TEXT SEARCH IN BUSINESS LAYER

“Feature of openMDM.”

PRO:

- Less infrastructure (simpler to operate)
- Slightly faster for ODS (one large index vs. many smaller ones)

CON:

- If full text search should support queries containing specific attributes, a (base) index data model needs to be agreed on.
- Full text search needs to be removed from the openMDM API. And a new service needs to be built for this feature.
- Access control follows afterwards and against the source of the result.
- Index needs to be updated when sources are added or removed.

FULL TEXT SEARCH IN ADAPTER

„Feature of each adapter.“

PRO:

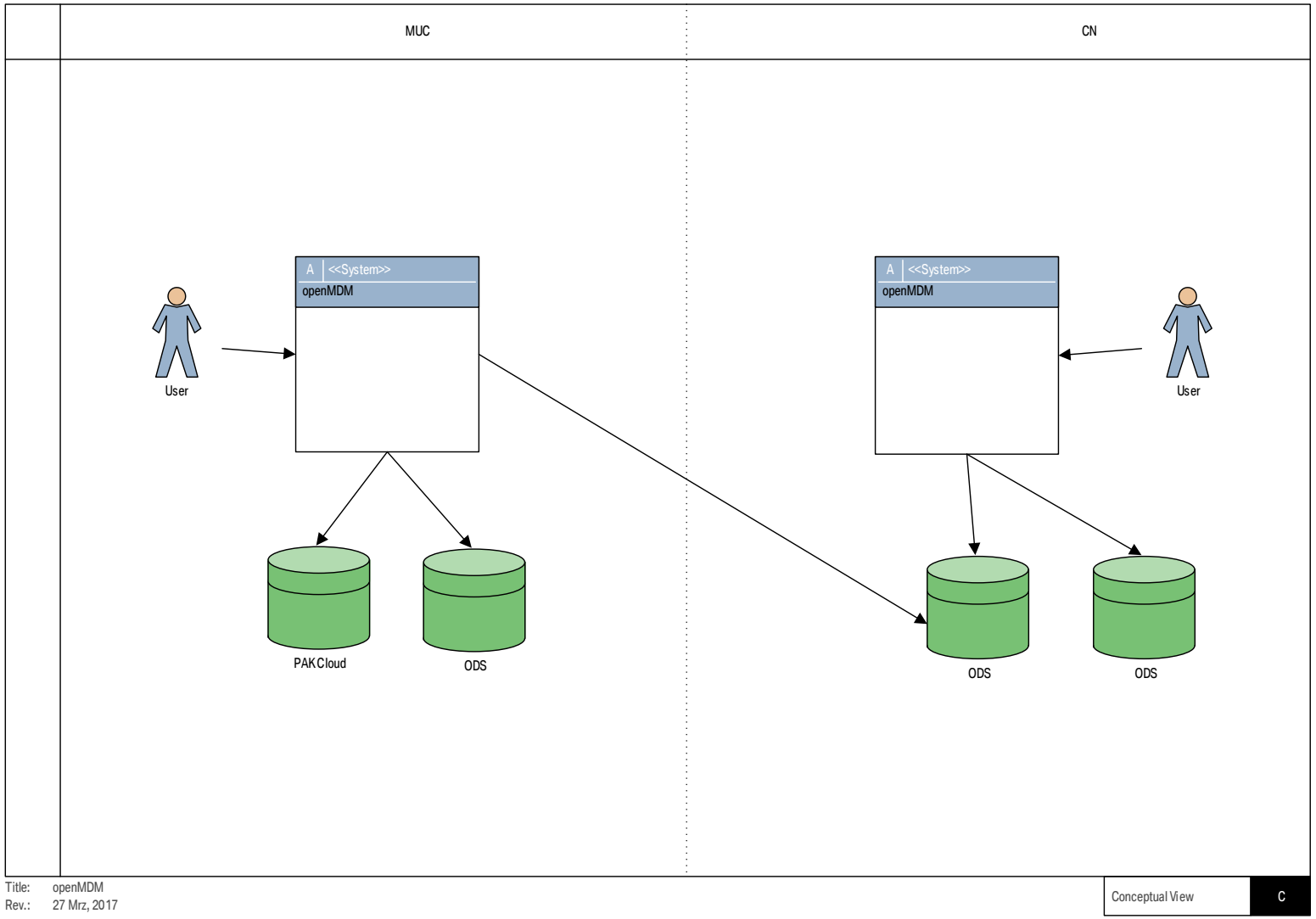
- Small index, which can be collocated near to the source.
- Some sources implement full text search OOTB – nothing to be done.
- Searches including attributes are feasible by mapping names in the adapter.
- Access Control is an internal feature – from the client’s point of view.
- Small code changes: Each (ODS) source needs its full text engine to be configured.
- Some sources may store their index in the same Elastic Search instance to ease operation.

CON:

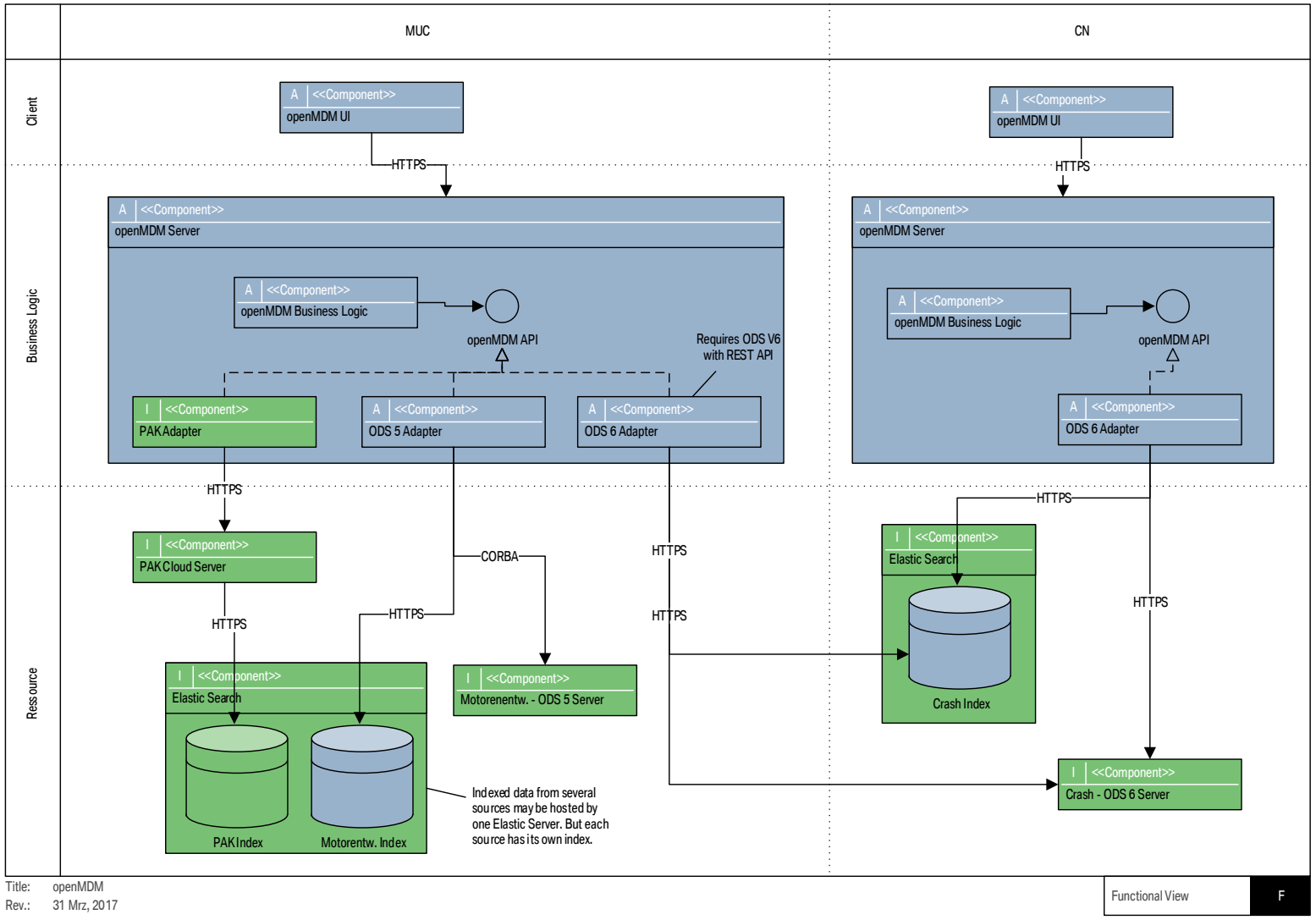
- None.

This is the recommended solution.

CONCEPTUAL VIEW



FUNCTIONAL VIEW



EXECUTION VIEW