Task ID: Physical-Design

Design Scenario

An IT service company builds business-to-business solutions, where heterogeneous software systems located in different locations are integrated with each other. The solution architect is working on a project, where several Customer Relationship Management (CRM) applications communicate with other software systems, which include legacy systems used in call centers, and banking systems (e.g. ATM). The CRM applications use both Microsoft and Oracle technologies. The solution architect is currently designing the integration layer, which would facilitate the communication between CRM apps and other software systems. The architect decided on Apache Camel and RabbitMQ as possible integration technologies. The selection of both technologies raises two architectural issues:

1) Selecting a mechanism for message channeling, translation and routing.
2) Establishing a deployment topology (physical architecture).

Non-functional requirements

- *Availability*: ATM machines need high availability with no down time.
- *Performance*: The integration layer should be prepared to receive 10,000 request/sec from the CRMs.

Constraints

The company has an official agreement with Oracle for Unix servers.

Search goal

The architect would like to search for possible information on *technology features, and components design* which would help him address the aforementioned concerns.

Search and determine the relevance and the types of architectural knowledge of the resulted web pages from Google, which could support the architect fulfilling his request.