Exercise 8 – Architecture II

Tasks:

1. Based on the reference architecture for text processing design a concrete system that translates spoken natural language queries in SQL queries. Draw a component diagram for your system. Annotate components with references to the components from the reference architecture

2. Based on the reference architecture for information systems design an information system for flight arrival and departure management/display. Draw a component diagram for your system. Annotate components with references to the components from the reference architecture.

3. Discuss with your fellow neighbors: What might go wrong if a company does not implement configuration management governance and processes? Collect at least 5 of these issues.

4. What might happen in a case where two developers work concurrently on three different components. What issues may arrise when integrating/merging their changes?

5. What issues may arrise when building a system on a build server in contrast to the development environment? What might happen when running tests in there two different environments?

Exam Example:

Figure 1 shows a view on OpenStack's architecture, a platform to manage virtualized resources. Figure 2 shows a view on an example distributed system.
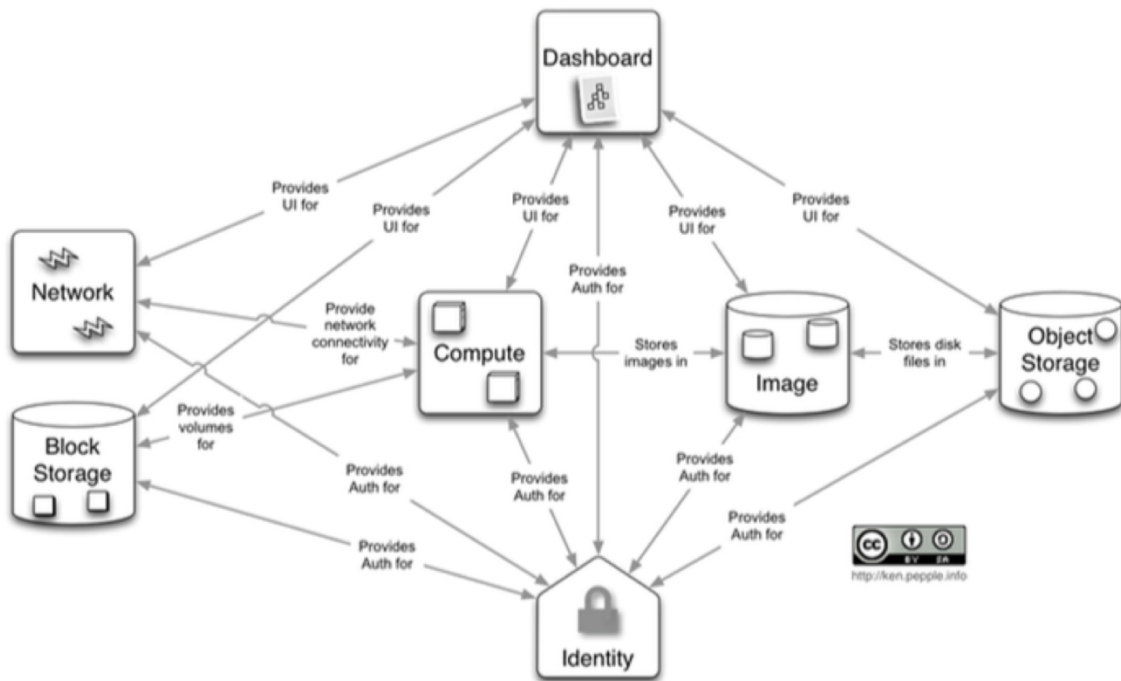

Abbildung 1: Architecture view of OpenStack ["Openstack-conceptual-arch-folsom" by Ken Pepple]
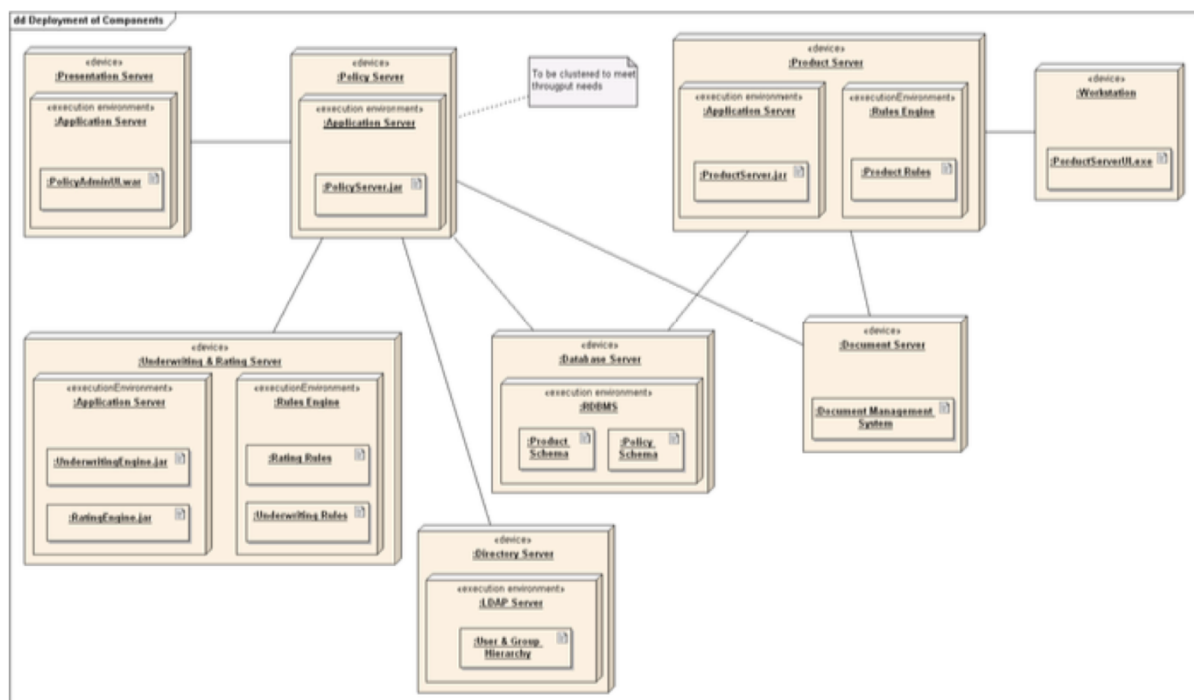

Abbildung 2: Architecture view of a distributed system [By Kishorekumar 62 via Wikimedia Commons]

Technische Universität Chemnitz, Institut für Informatik, Professur Softwaretechnik
Straße der Nationen 62, Böttcher Bau, B-Bau, B216B, D-09126 Chemnitz
Telefon: +49 (0) 371 / 531 – 39745, Internet: www.tu-chemnitz.de/informatik/ST/

For each of the two views work on the following sub tasks. Provide a very brief justification for each item you provide!

    a) Name the view type(s) covered by the given figures.

    b) Name stakeholders which might be interested in the respective view (at least 3 each).

    c) Name concerns relevant for those stakeholders (at least 3 each).