CS 612 - Software Architectures
Homework Assignment 2

The Call Center Customer Care (C4) Case Study presents an initial ("Level 1") architectural breakdown for the system used by a large telecommunications company. This system comprises several subsystems, one of which is C4 itself. Your assignment consists of the following steps:

- Provide a more detailed architectural breakdown for C4. In other words, "expand" the C4 box shown in Fig. 1 in the Case Study into an architecture. Make sure to specify the interactions between C4 and other subsystems. Although the Case Study focuses mainly on C4, all subsystems are described in some detail. You should use these descriptions to guide you in your selection of the C4 components needed to interact with other subsystems. You should use the techniques discussed in class on 1/26 and 1/28 to decompose C4: "steal" from the example architectures you saw in class; apply methods with which you are familiar and comfortable (e.g., OO); finally, use your intuition.
- Give a brief rationale for your architecture: why did you select particular components/connectors; whey are they interconnected in a given way, etc.
- Since C4 is a very large system with many different, possibly conflicting, requirements, your architecture may focus on a subset of those. To demonstrate this, select one of the key architectural challenges and requirements (listed in bulleted items on the last two pages of the Case Study) and discuss how your architecture supports it. Then, select another challenge/requirement and discuss how and why your architecture does *not* support it.
- Finally, describe a brief scenario (use case) and discuss how your architecture can be evolved to support it. For example, the Case Study discusses the possibility of two household members making (possibly conflicting) telephone service requests at the same time. How could your architecture be adapted to handle such a situation?[1]

It is, of course, difficult to decide on the exact degree of detail to be provided in a "Level 2" architecture, such as the one required for this assignment. Also, there is no such thing as the "correct" or "optimal" architecture. However, as a granularity guideline, your decomposition of C4 should consist of no less than 10 components.[2]

---

1. You may use this very scenario or another one of your own choosing.
2. This is only a guideline. There is nothing magical about this number, nor do I have a specific solution in mind.