

MOSES

Architecture Strand Report

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Implementation

All known problems (bugs) with the data analysis component of the MOSES portlet have been resolved.

Furthermore, the *Scenario* and *Mapping* portlets are now able to sort any displayed data by either ward name or data value.

Furthermore, the following additional analyses are available on the Mapping portlet (and hence rendered in map as well as tabular form):

- **PERCENTAGE OF PEOPLE WITH HEART/BLOOD PROBLEMS**
- **PERCENTAGE OF PEOPLE WITH DIABETES**
- **PERCENTAGE OF PEOPLE WITH CHEST PROBLEMS**
- **PERCENTAGE OF PEOPLE WITH GOOD OR EXCELLENT HEALTH**
- **PERCENTAGE WITH ONE OR MORE INPATIENT DAYS**
- **PERCENTAGE WITH ONE OR MORE VISITS TO GP**
- **PERCENTAGE WITH ONE OR MORE OUTPATIENT VISITS**
- **AVERAGE INPATIENT VISITS**
- **POPULATION IN GOOD OR EXCELLENT HEALTH**
- **POPULATION WITH LIMITING LONG-TERM ILLNESS**
- **POPULATION BETWEEN AGES OF 0 AND 15**
- **POPULATION BETWEEN AGES OF 16 AND 44**
- **POPULATION BETWEEN AGES OF 45 AND 64**
- **POPULATION OF AGES 65 AND OVER**
- **POPULATION OF WHITE ETHNICITY**
- **POPULATION OF BLACK ETHNICITY**
- **POPULATION OF ASIAN ETHNICITY**
- **POPULATION OF OTHER ETHNICITY**

The primary upcoming feature is the *archive* portlet. I'm reluctant to start this yet, as the code will become redundant as soon as Andy has finished a reasonably finalized version of his aggregation JAR. This in

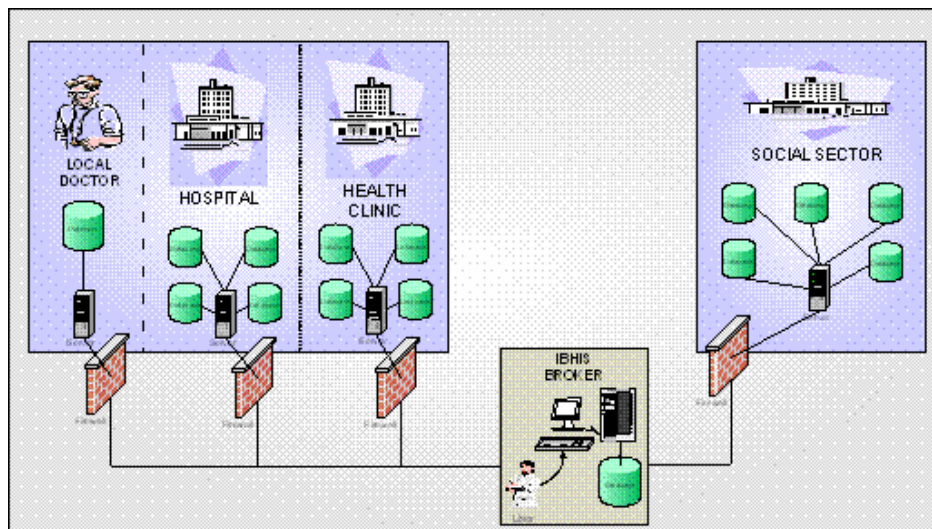
turn really requires the data formats used by Belinda and Andy to be finalized. I feel we're moving relatively quickly in solving this. With regards to the archive portlet, my current thinking is to split the existing portlets into two separate portlet groups; the *MOSES Demonstrator* and the *MOSES Browser*.

The first of these groups already exists in the form of the current MOSES demonstrator portlet suite; the second group will essentially consist of archive, charting, mapping and scenario portlets. This group of portlets will allow a user to load existing analyses and view them, but not save any new material or select any new areas for analysis.

Furthermore, more work is needed to adequately separate the presentation tier from the application logic tier within the current implementation. Once there is satisfactory separation, a MOSES Java application will be constructed in parallel with the portlet suite; this should ensure a smoother and most presentable demonstrator, whilst still retaining a web portal interface.

Architecture

From a computer science perspective, the architectural requirements of the MOSES project are very similar to those used in the IBHIS project – a information brokerage system that was used in a number of healthcare scenarios. The IBHIS project concluded two years ago.



The IBHIS architecture

In the forthcoming quarter, the intention is to identify the key similarities and differences between the MOSES and IBHIS projects, and adapt the already existing architecture to solve any new problems and challenges that are identified. This will be the basis for the theoretical contribution of the MOSES Architecture strand, with especial investigation into the security requirements of MOSES.

Publications

We feel we need to ramp up the level of publications produced by the MOSES project as a whole. Early targets include:

SOFTWARE PRACTICE AND EXPERIENCE JOURNAL
IEEE INTERNATIONAL CONFERENCE ON SERVICES COMPUTING (SCC 2007)
IEEE DEPENDABLE SYSTEMS AND NETWORKS (DSN 2008)

Andy and myself can also exploit our editorship of IEEE Distributed Systems Online to gain MOSES at least one further journal publication. At all times, I'm aiming for international level conferences and journals, not national ones.