2007: OWL-S Service Matchmakers

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S3 Organisation for 2007

- Initiative planned @ISWC 2006 conference, supported by DFKI SAB

- Open call for entries

  - Via SMR2 workshop CFPs and Web site

  - Via S3 Web site: http://wwwdfki.de/~klusch/s3/

  - Entry: OWL-S matchmaker binary + Implementation of plug-in interface of the testing environment (SME2 toolkit)

- Evaluated candidates

  - OWLS-iMatcher (U Zurich, CH) – non-logic based

  - OWLS-MX (DFKI, D) – hybrid

  - OWLSM (TU Berlin, D) – logic based

- Testing bases on OWL-S retrieval test collection OWLS-TC 2.2

  - 1,004 OWL-S 1.1 services (*not* randomly generated but handcrafted)

  - 29 queries, 23 ontologies referenced

Results

Run time

owls-imatcher: 655sec (11min)

owls-mx: avg 558 (9min)

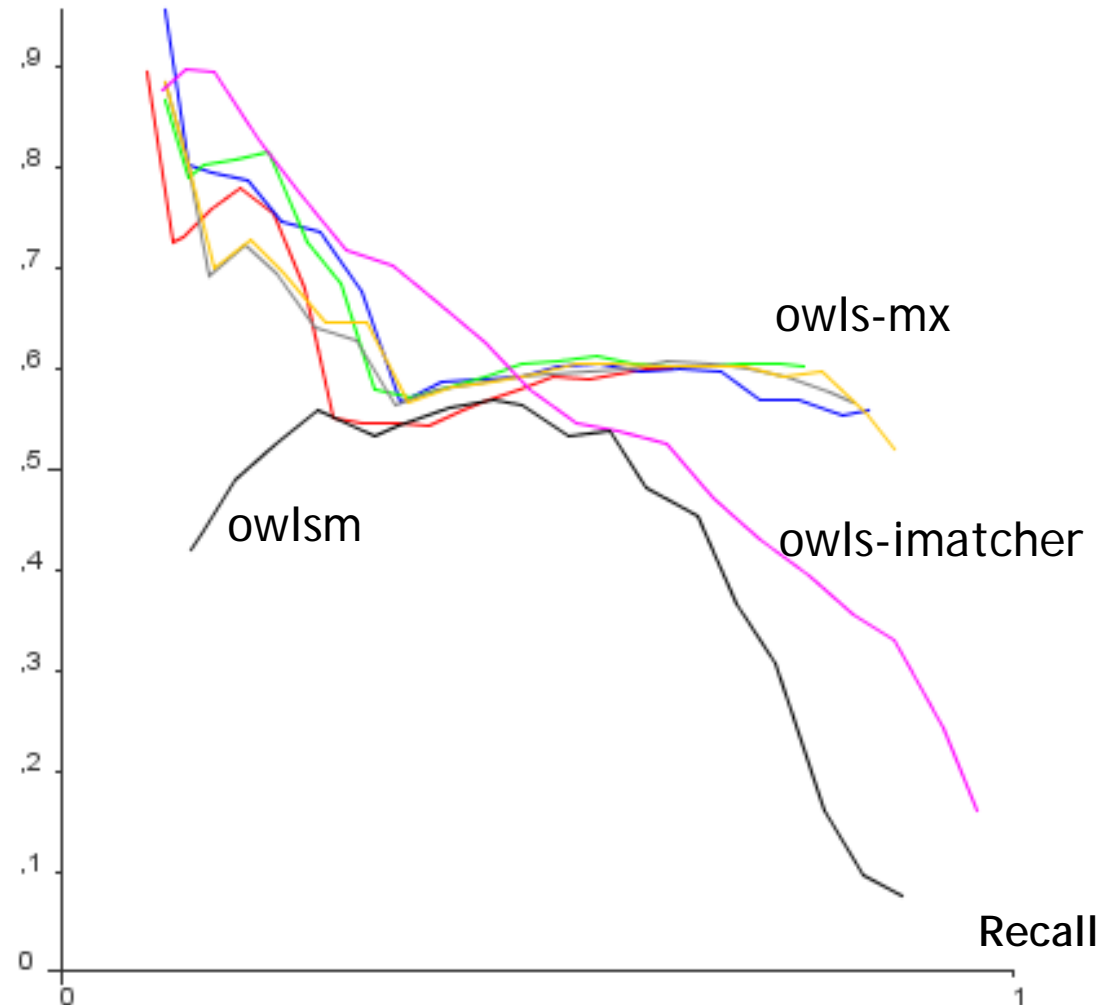> owls-m0: 973sec (17min)
> owls-m1: 402sec.
> owls-m2: 454sec.
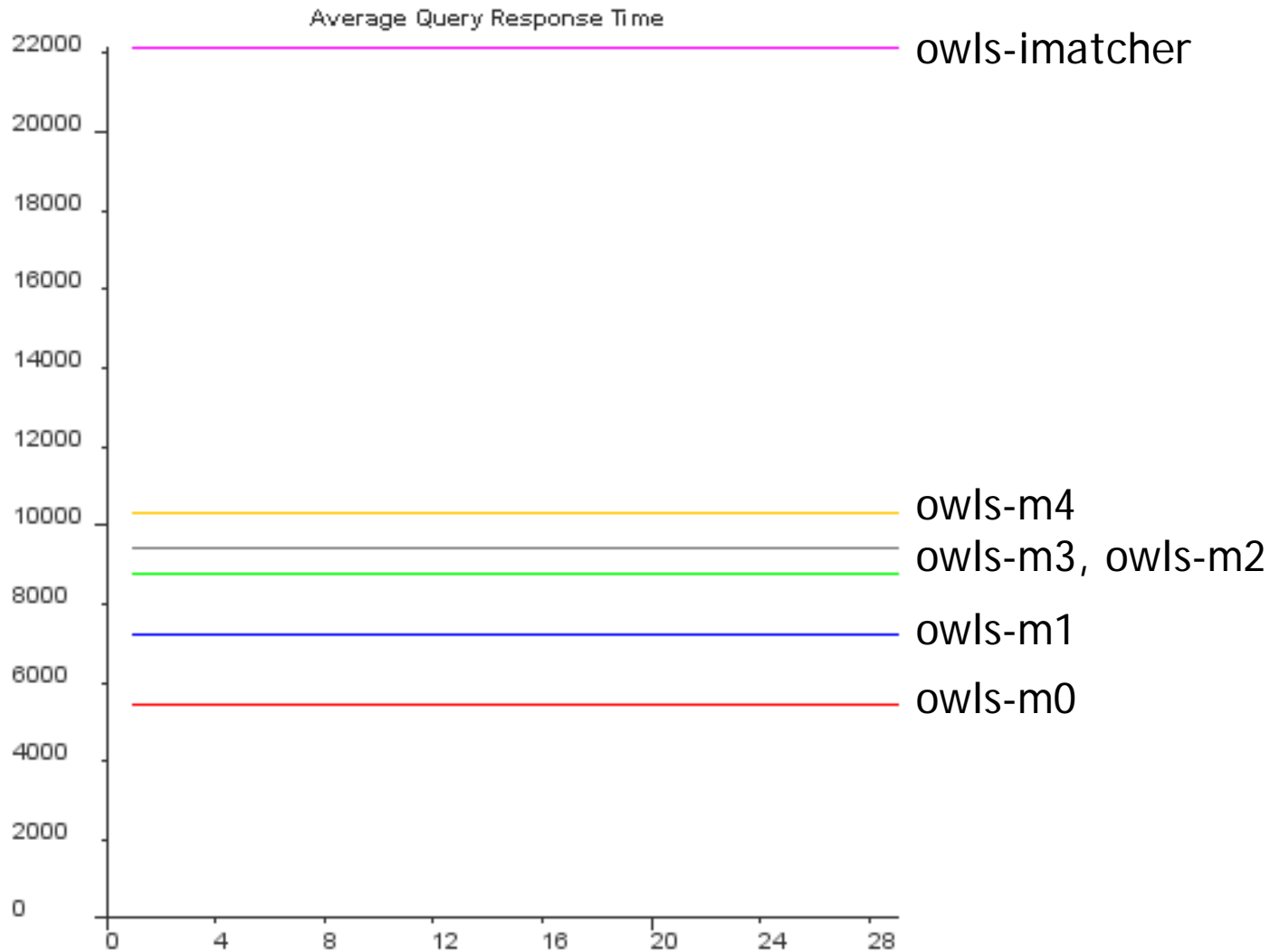> owls-m3: 468sec.
> owls-m4: 494sec.

owlsm: > 20hrs, n-d crash

for OWLS-TC 2.1 (577 services)

Recall/Precision

Precision — owls-mx, owls-imatcher, owlsm — Recall

Results (2)

Average Query Response Time

owls-imatcher

owls-m4

owls-m3, owls-m2

owls-m1

owls-m0

Discussion@S3

- **Results did strongly depend on test collection OWLS-TC2**

  - OWLS-TC2 is far from being in a "quasi-standard" form like TREC

  - Reported performance results are preliminary and indicating only

- **No upload of revised/extended OWLS-TC, or OWL-S matchmakers** by community @semwebcentral.org yet despite strong download numbers (OWLS-MX and OWLS-UDDI client ranked 5th, resp., 3rd).

- **Recent announcement of SAWSDL as standard by W3C**

  - Triggered work on refactoring OWL-S to SAWSDL (Martin & Paolucci, 07)

  - Major investments on OWL-S software not considered lost still

Outlook on S3 in 2008

- Targeted evaluation of **WSML** and SAWSDL matchmakers

- Requires service retrieval test collections for WSML and SAWSDL

  - Initial work on SAWSDL-TC 1.0 @DFKI ongoing

  - Initial work on WSML-TC1 @HPI, DFKI ongoing

  - TCs available for JOINT EFFORT at SWS-TC Wiki (upload/download)

    www-ags.dfki.uni-sb.de/swstc-wiki/index.php/Main_Page

  - *Ongoing*: DBMS (created by U Jena) to be linked with SWS-TC wiki

- **Open call for S3 entries**

    www.dfki.de/~klusch/s3/