



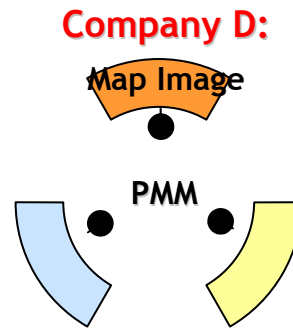
Università degli Studi di Milano– Bicocca
Dipartimento di Informatica, Sistemistica e Comunicazione
Laboratorio di Test e Analisi del Software



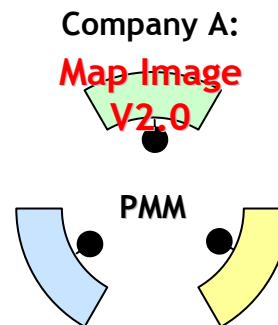
Designing Self-Adaptive Service-Oriented Applications

Davide Tosi, Giovanni Denaro, Mauro Pezzè
University of Milano-Bicocca

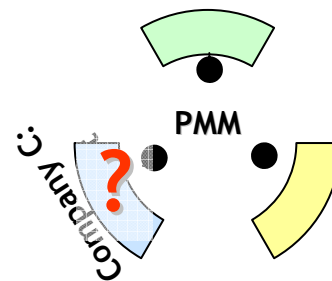
1. Dynamic service discovery mechanisms:



2. Evolvable third-party services:

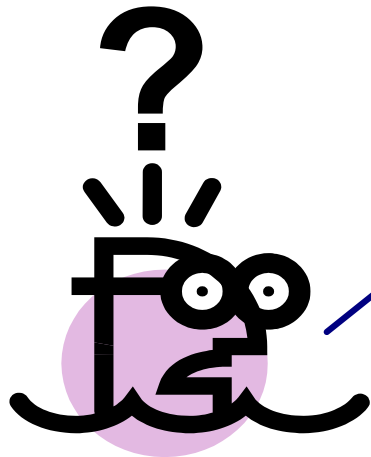


3. Weak service specification:

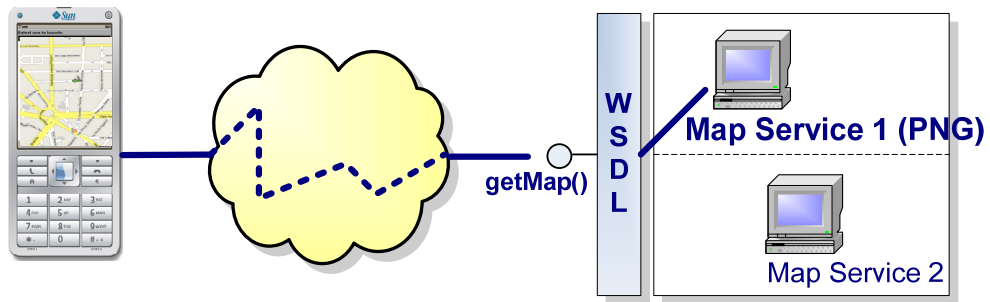


No control on the life-cycle of the integrated services

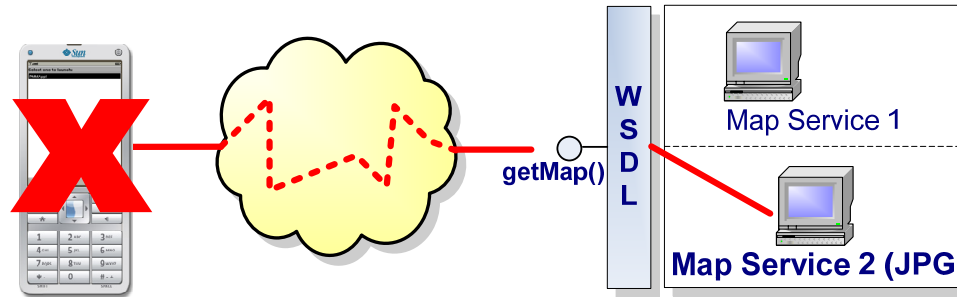




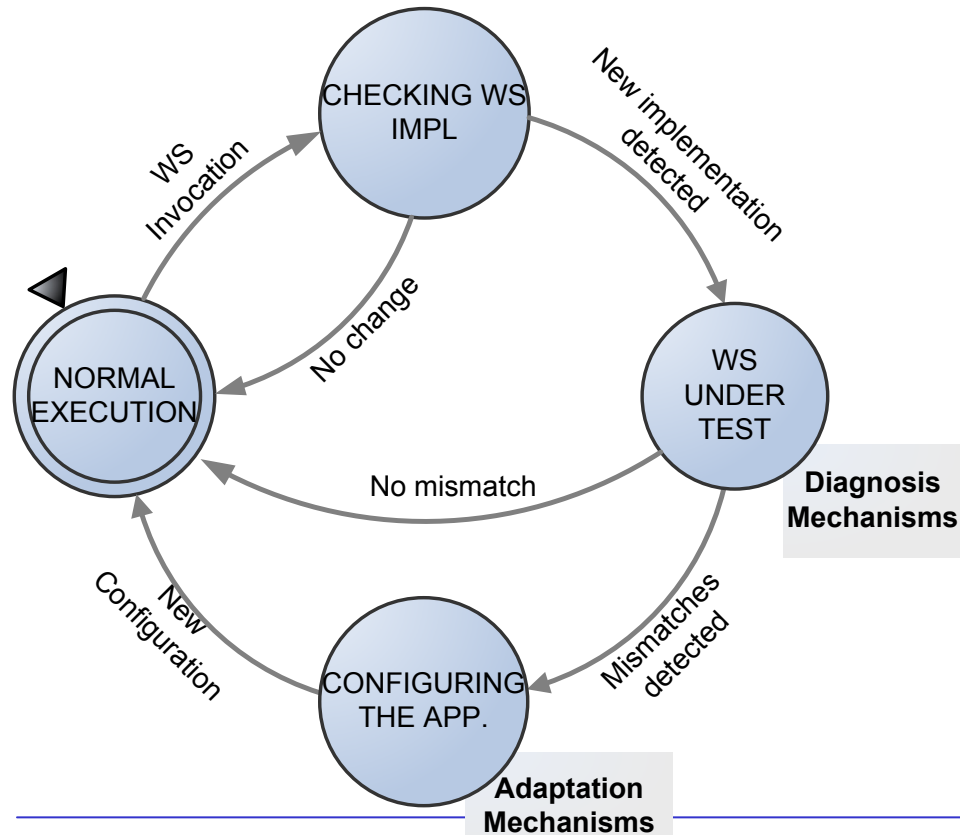
“ Why my SOA-application sometimes works...



... and sometimes does not? ”



- SHIWS extend SOA-applications with self-healing mechanisms that:
 - ▶ test the connected services at runtime
 - ▶ use the tested information to identify semantic mismatches
 - ▶ dynamically select adaptation/recovery components accordingly



WE DEFINED:

- A Design Methodology
- A Mismatch Taxonomy
- An Eclipse plugin

“ Now, my SHIWS SOA-based application always works...”

