

Load balancing in ESB based service platform

By: Nick Barendregt

July 5, 2012



Agenda

- Introduction
- Research Question
- Different techniques
- Load balancing
- Design
- Conclusion

Introduction

• GEANT

• ESB

• IaaS, PaaS, SaaS

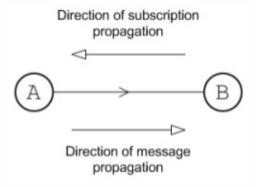


Research Question

Investigate the issues with the real time services operation and synchronization with the existing/proposed load balancing techniques.

Different techniques

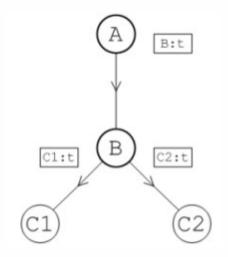
- Network Connections
- Subscriptions
- Filtering
 - Queue & topic
- Discovery Mechanisms
 - Agents
 - Dynamic discovery protocol
 - Fanout



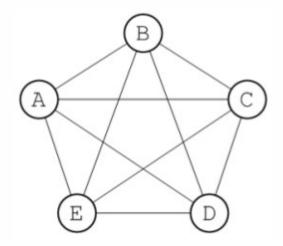
Single connection



Duplex connector



Conduit subscriptions



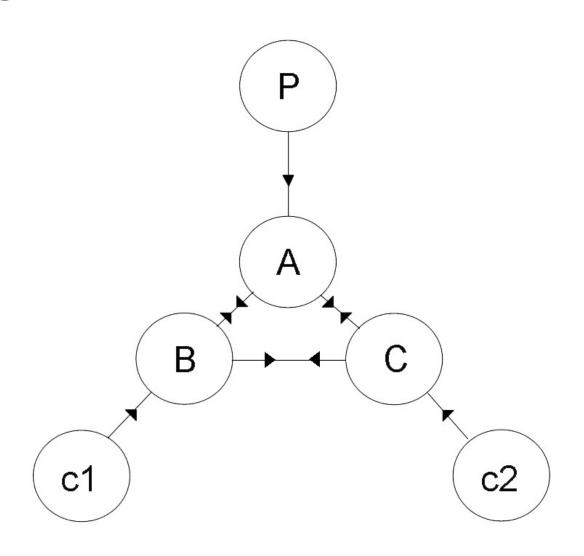
Full graph with discovery

Source: Fuse MQ Enterprise - Using Networks of Brokers - Rev 7.0 - Apr 2012

Load balancing

- Propagation
- Balancing consumer load
- Managing producer load
- Filtering
- Topology

Design



Conclusion

Dynamic load balancing

Topology

Configuration



Questions

