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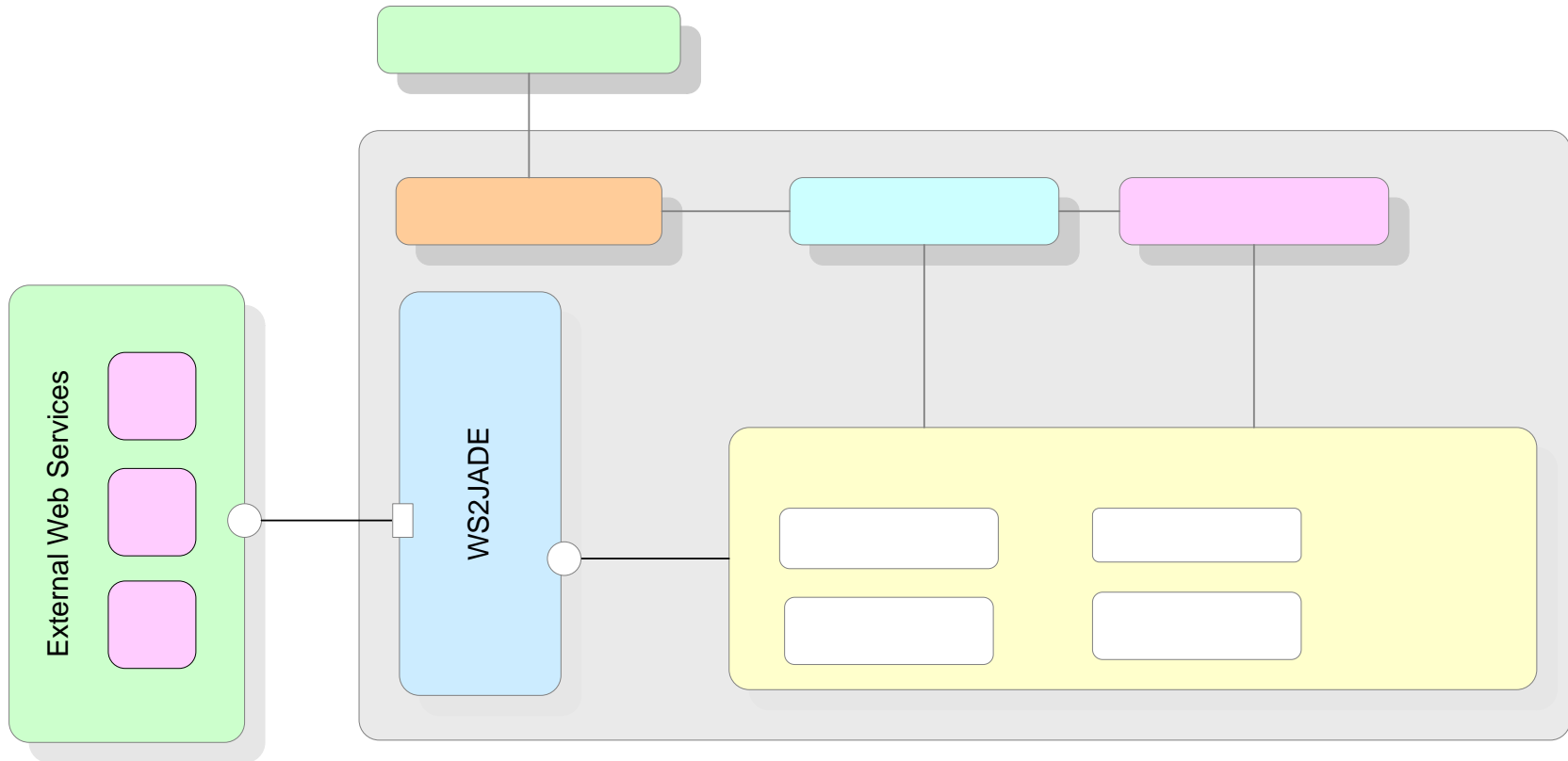


Application on Demand & Dynamic Supply Chain

Mohan Baruwal Chhetri

IAMAS, Swinburne University

ASAPM Reference Architecture



Negotiation – FIPA ICNP Protocol

Monitoring – WSDM (MUWS & MOWS) – Apache Muse 1.0

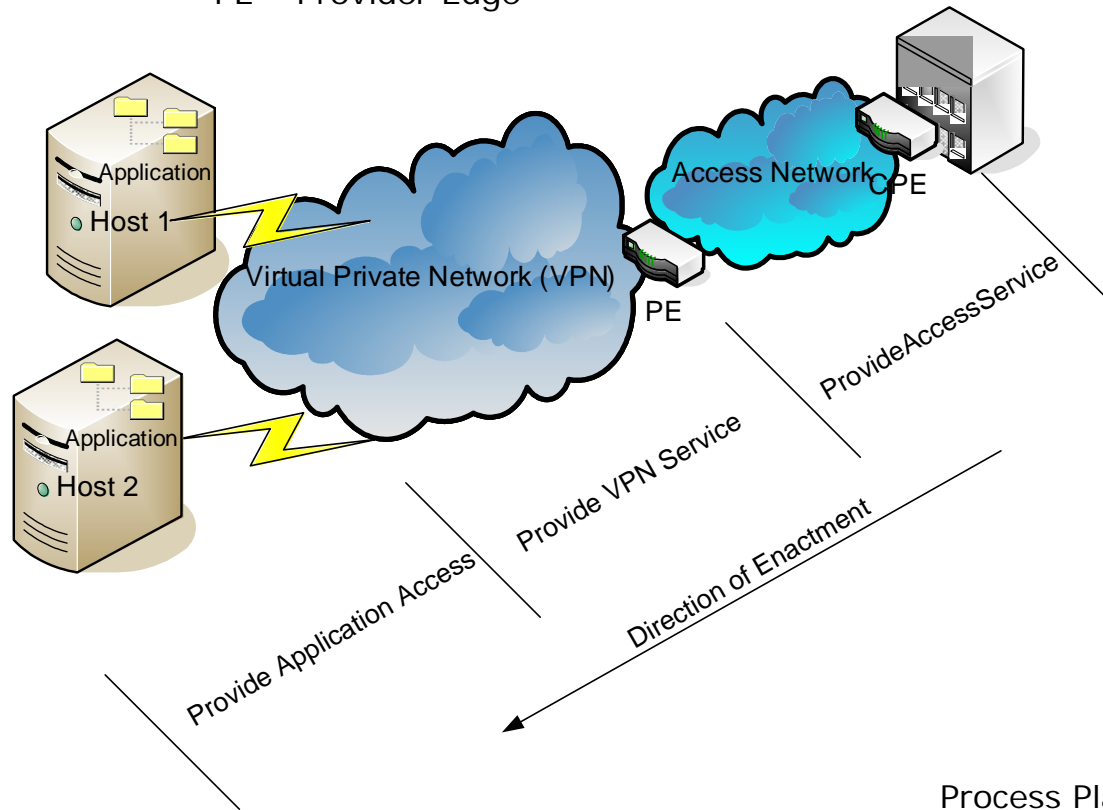
Application – Axis 2.0

Web Services/Agent Gateway – WS2JADE + JADE

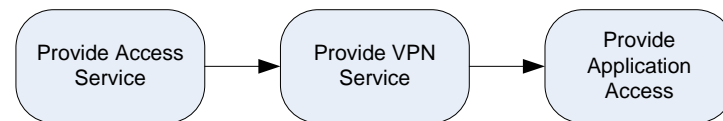
Application on Demand Scenario

CPE – Customer Premises Equipment

PE – Provider Edge



Process Plan

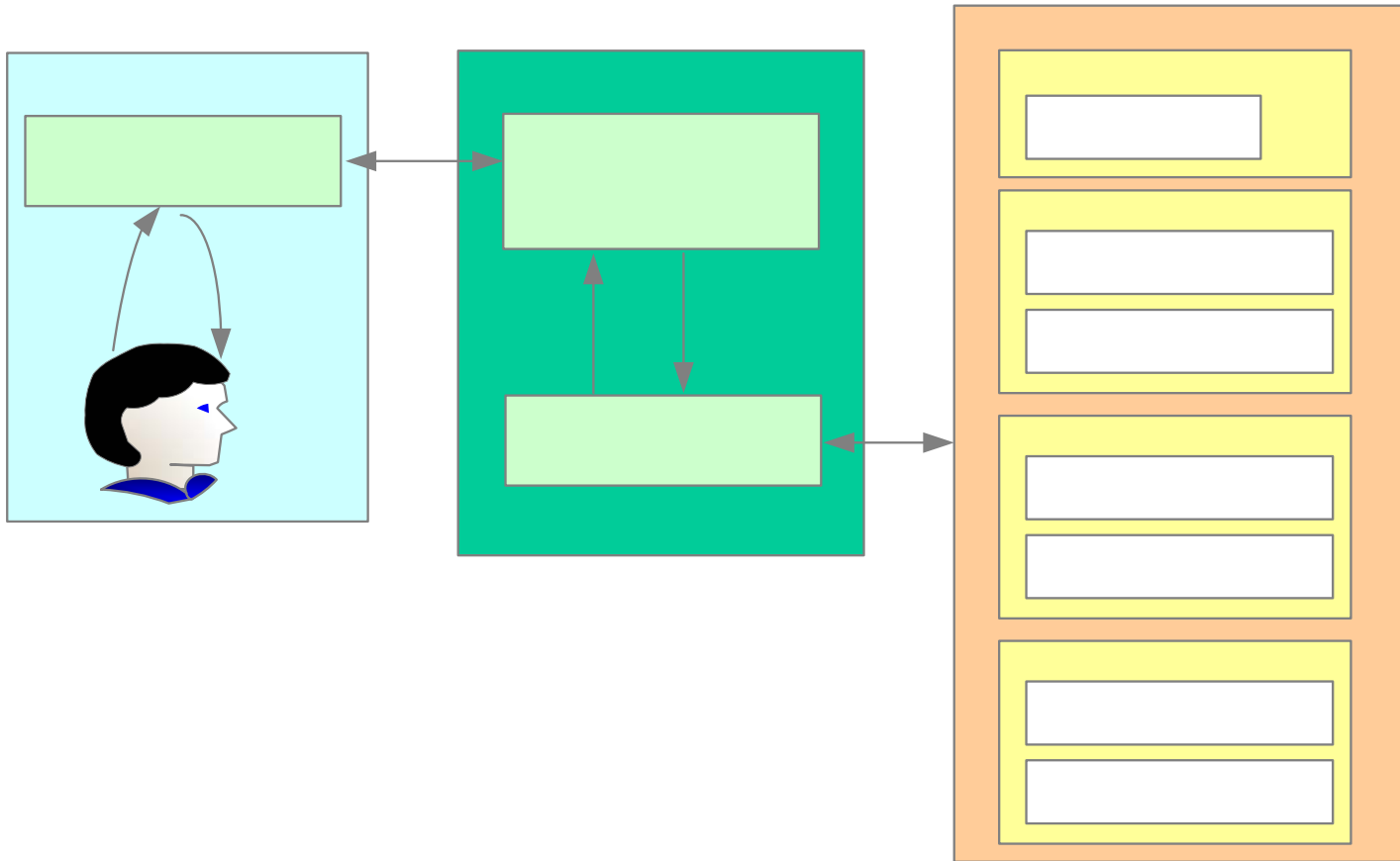


Application on Demand Scenario

■ Typical Run-through

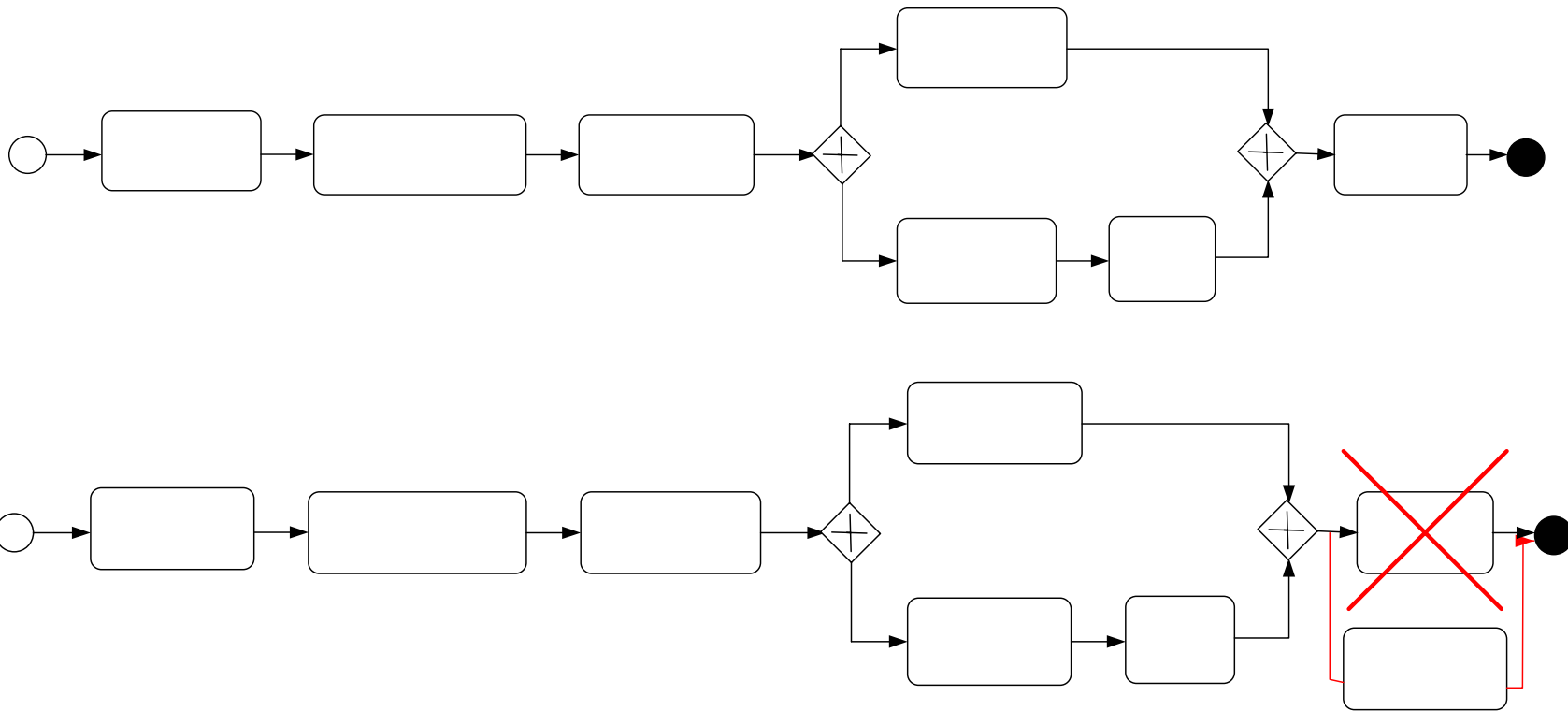
- User inputs request + QoS parameters
- DES generates service composition to satisfy user request
- DES passes service composition + list of prospective providers to ASAPM
- Negotiation Manager negotiates with all providers and comes up with best combination which satisfies global QoS
- SLA Manager contracts the selected providers
- Monitoring is setup
- Enactment Manager enacts the service composition
- User is provided access to remote application

Dynamic Supply Chain Scenario



Dynamic Supply Chain Scenario

■ **Request:** "Register domain abc.net.au for our customer John Citizen and provide him with 100 MB of webspace. The customer wants the domain (all services) to be ready in 150 TU and for a budgeted price of 40 TU



Dynamic Supply Chain Scenario

■ Typical Run-through

- User inputs request + QoS parameters
- DES generates service composition to satisfy user request
- DES passes service composition + list of prospective providers to ASAPM
- Negotiation Manager negotiates with all providers and comes up with best combination which satisfies global QoS
- SLA Manager contracts the selected providers
- Monitoring is setup
- Enactment Manager begins enactment of service composition
- During enactment, the service provider selected for CreditCardPayment service fails
- ASAPM dynamically replaces the failed service with another service provider from the negotiated results