



IBM Research GmbH

Saeumerstrasse 4
CH - 8803 Rüschlikon
Switzerland

Subject: Flexibility market – draft message flows

Version: 1.0

Date: May 2, 2013

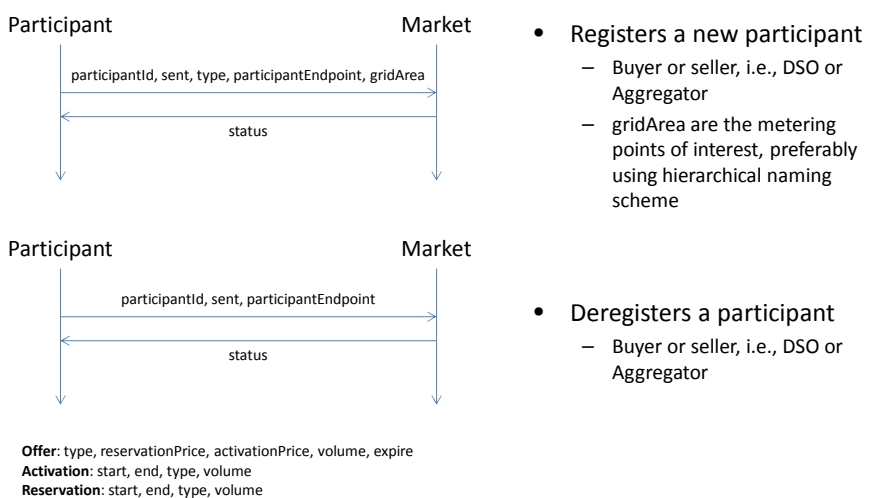
Authors: Olle Sundström

Subject: Draft specification of message flow for the flexibility market prototype

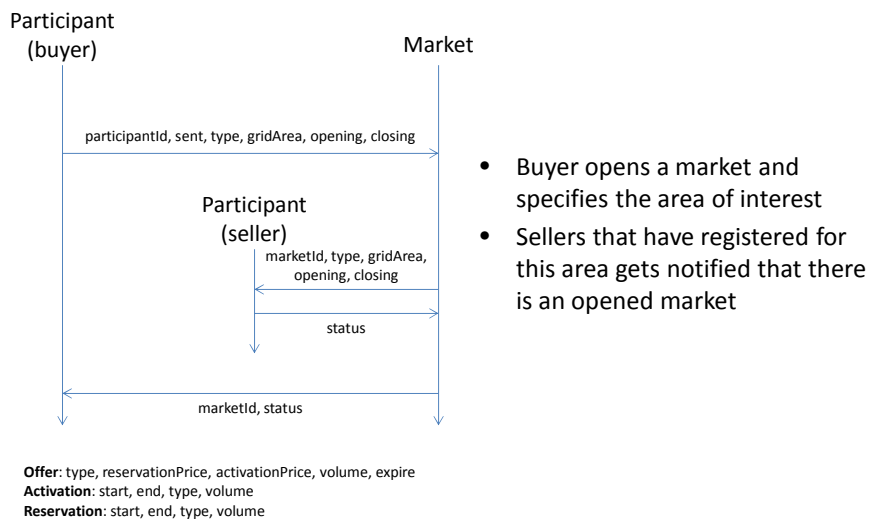
Flexibility market – draft message flows version 1.0

Olle Sundström
IBM Research – Zurich
2.5.2013

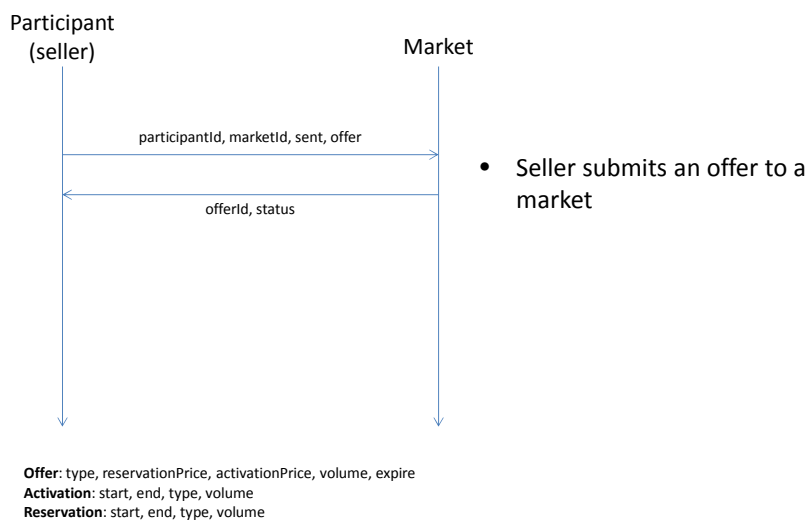
Register/deregister participant



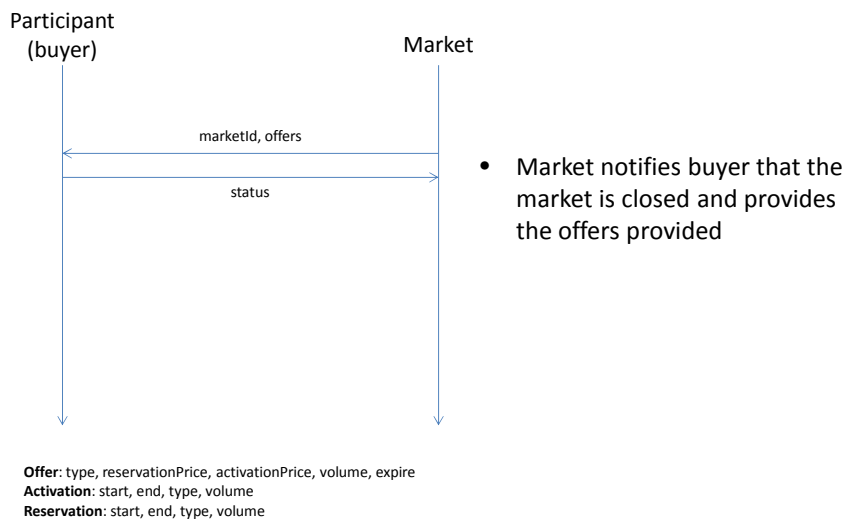
Open market, open market notification



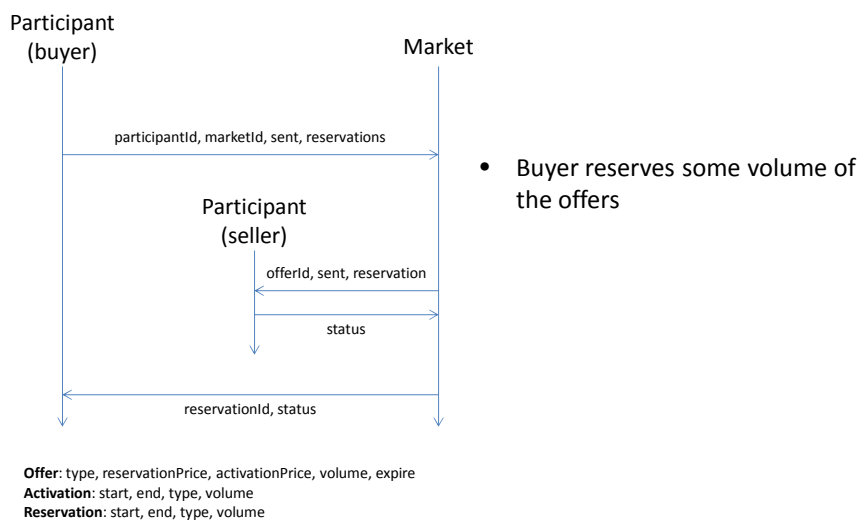
Place offer



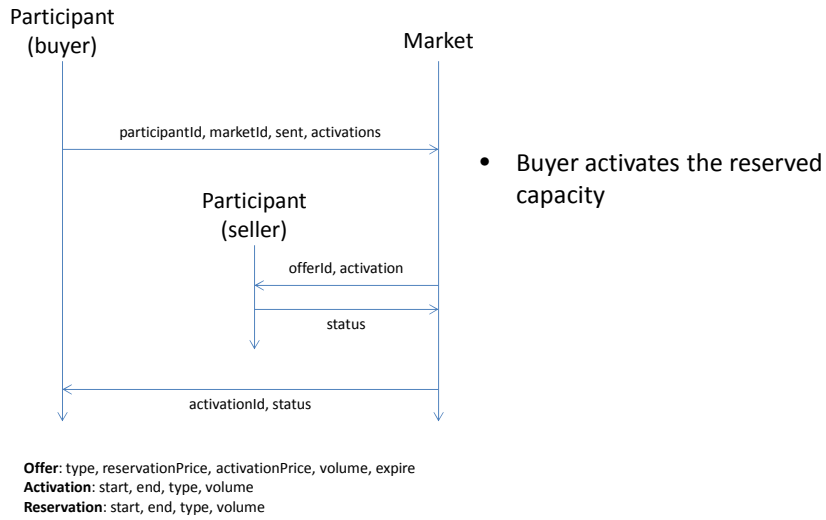
Close market notification



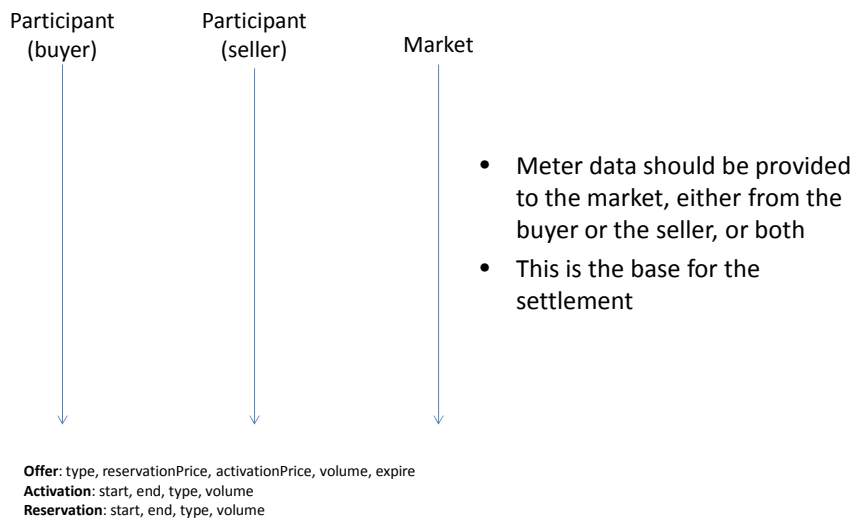
Reservation, reservation notification



Activation, activation notification



Metering



Settlement

Participant
(buyer)



Participant
(seller)



Market



- Meter data is used together with reservations and activations to clear a market once it is completed
- Imbalance costs are of particular interest

Offer: type, reservationPrice, activationPrice, volume, expire

Activation: start, end, type, volume

Reservation: start, end, type, volume

Messaging

- Event-based using Java Message Service (JMS)
 - Possible implementations are
 - ActiveMQ
 - WebsphereMQ
 - Integrated in Java Enterprise Edition (JEE)
 - Libraries for .NET
 - Apache NMS
 - WebsphereMQ .NET Client API