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UNIVERSITY OF
TECHNOLOGY

EIN's 3D-VO Negotiation System Case Study

James Lin

CIAMAS@Swinburne



Case Description



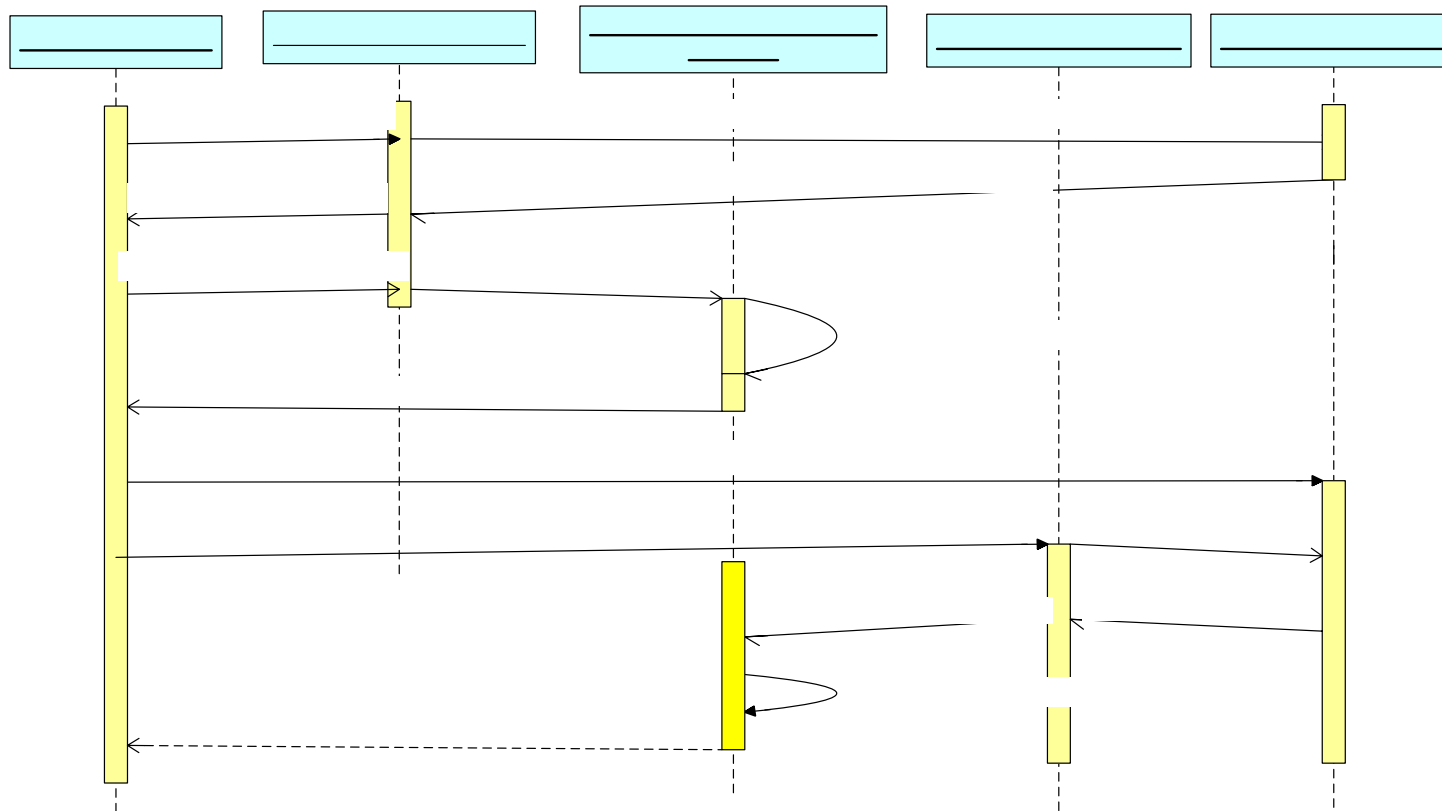
- Purpose:
 - System aims to affiliate 3D virtual environments together in order to form a larger 3D entertainment environment.
 - System should enable these 3D environments' owners (service providers) to share commissions on the resultant revenue generated.

Case Description (cont)



- Each 3D environment service provider will negotiate through the System, with other 3D environment service providers.
- The System will carry out Negotiation, SLA contract formation, and SLA Monitoring.
- In the event of service level agreement violation occurred, the System will inform end user, and replace the SLA violated service with a selected new service.

Sequence Diagram for normal situation



SLA Monitoring and Reputation Management



- There are two possible ways to do the SLA monitoring:
 1. Through DES: DES collects service execution state and intermediate SLA data. SLA monitoring and Reputation Management component will periodically query the Reputation Profile Server to carry out analysis and decision making process.
 2. Direct monitoring: The Apache Management Web Service will collect Service Execution Status data from Application Web Service. The data will be pushed to Monitoring agent.

Service Replacement



- Dynamically update service composition through XML object/file.
- Notify end user.
- Replace the old service provider with new service provider from the same service type group.