



IBM Software Group

Virtual Worlds Interoperability Use Cases

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Agenda

- Background
- Use Cases:
 - ▶ Instant Messaging
 - ▶ Teleport
 - ▶ 2D/3D Web Integration
 - ▶ Search
 - ▶ Object Transfer



Background

- Virtual Worlds == 3D Web
- 3D web (aka virtual worlds) should be an extension to the existing 2D web
- There is one web
 - ▶ With 2D and 3D components
- One big network is worth a lot more than lots of smaller ones
- Metcalfe's law
 - ▶ The value of a network grows with the square of the number of participants
 - ▶ Integrating the 3D web with the 2D web to make one web is key
- Browser will likely become the point of interaction for both the 2D and 3D web



Background

- Linking on the 3D web should work the same way as the 2D web
 - ▶ URI's should be used for all linkable resources
- The same URI should get you to the same resource wherever you are
 - ▶ Cell phone browser
 - ▶ Desktop browser
- We often talk about moving/searching/interacting between worlds
 - ▶ OK for technical discussion
 - ▶ But:
 - Users will move from location to location (could be intra/inter world)
 - If between worlds – should be irrelevant to user
 - Users will search the web
 - Results will be links on the web (both 2D and 3D)
 - Users will interact with other users – on the web



Background

- The use of the 3D web should be a natural extension to the use of the 2D web
- Reuse as many existing internet and web standards as possible
 - ▶ Extend existing standards when appropriate
 - ▶ Create new standards when necessary



Use Case: Instant Messaging

- User 1 is online and hosted by VW A
- User 2 is not online – on User 1's friends list
- User 1 is notified when User 2 comes online
 - ▶ User 2 could be online and hosted by VW B, on a mobile phone, or just on a chat engine
- User 1 initiates an IM exchange with User 2



Use Case: Teleport

- User 1 is online and hosted by VW A
- User 2 is online and hosted by VW B
- User 1 and User 2 are chatting via an IM interface
- User 1 offers a teleport to user 2 to join him in a location in VW A
- User 2 accepts the teleport and is transferred to a location near user 1
- Upon arriving in VW A, user 2 has the same identity, appearance, and inventory

Use Case: Search

- User is online and hosted by VW A and conducts a search for a particular make and model of a car
- Search returns a set of links that are to
 - ▶ 3D web in VW A
 - ▶ 3D web VW B
 - ▶ 3D web VW C
 - ▶ 2D site
- When clicking on the first three, users avatar is teleported to the new locations
 - ▶ Avatar, identity, and security credentials are transferred from one VW to another
 - ▶ Inventory remains the same, but is not necessarily transferred between them
- When clicking on the last link
 - ▶ 2D site displayed in embedded VW browser



Use Case: Object Transfer

- User 1 is online and hosted by VW A
- User 2 is online and hosted by VW B
- User 1 has user 2 on his friends list
- User 1 transfers an object in his inventory to user 2
 - ▶ Could be giving access by reference
 - ▶ Could be transferring a copy
 - ▶ Could be a move
- User 2 is offered to option to accept or decline the object transfer
- User 2 accepts and the object is now in user 2's inventory

