

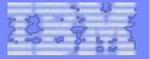


IBM Virtual Command Centers

## IBM 3D Datacenters and Applications

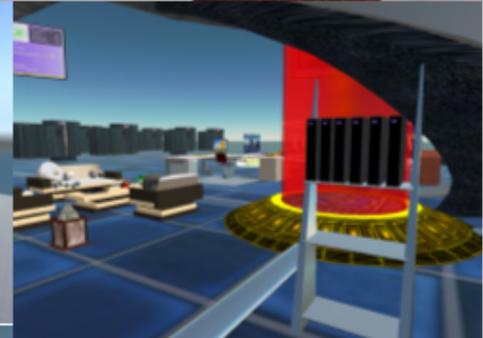
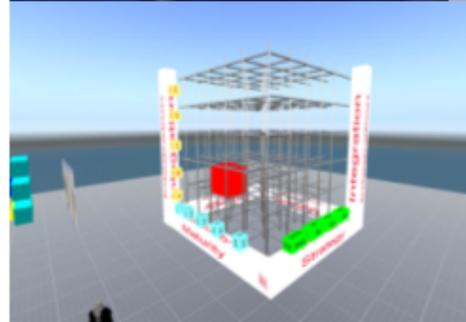
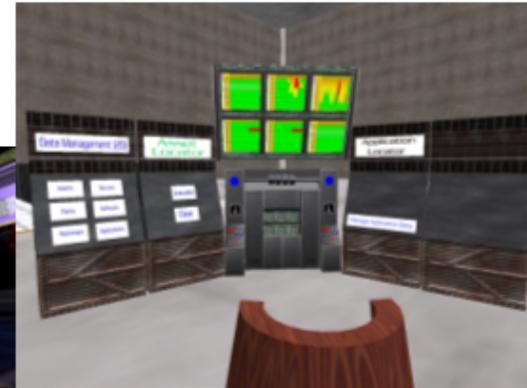
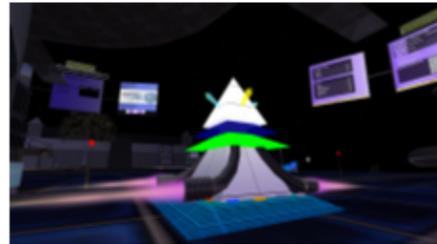
Michael J. Osias

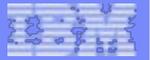




# Rise of the (3D) Machines

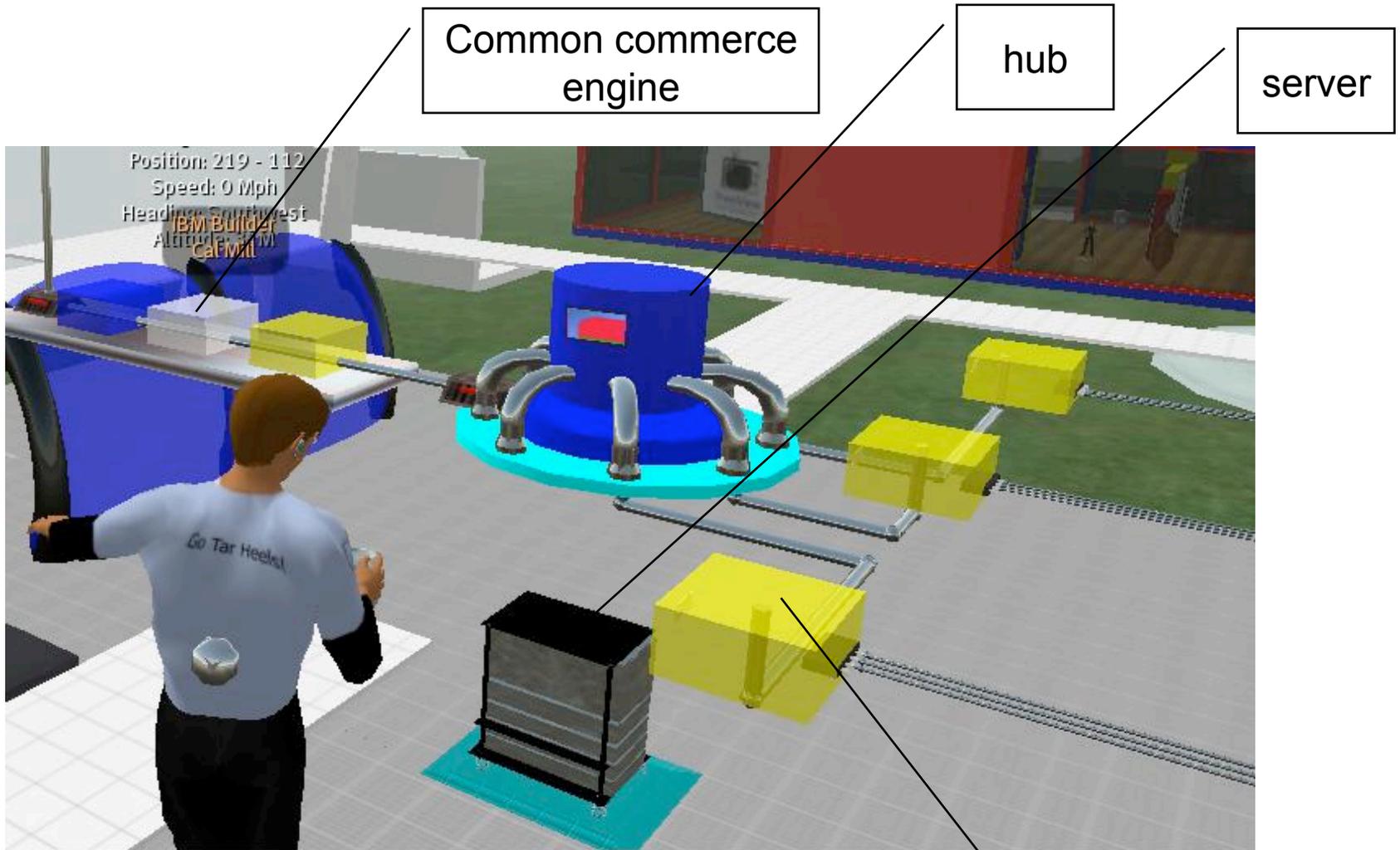
- Data driven 3D programs
  - ▶ Use common and sometimes new metaphors
  - ▶ Increase the density of information representation and functional capability, leverage spatial intelligence
  - ▶ Enhanced awareness and efficiency of communications
- Combine with Command Centers
  - ▶ New capabilities for enhanced situational awareness.



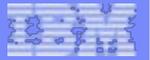


## Virtual Worlds and the IBM 3D Datacenter

- 3D Datacenters based in virtual worlds
  - ▶ Enhanced situational awareness
  - ▶ Integrate alerts and asset information
  - ▶ Shared collaborative environment for planning or troubleshooting
  - ▶ Launch in context web based tools for quick access to diverse toolsets
  - ▶ Leverage and extend underlying systems management architecture
  - ▶ Novel visualizations of workload, thermal, and other data
  - ▶ In-world '2D' reports from management systems



## Enterprise Architecture Command Center



## ■ Future Opportunities and Challenges

- ▶ Critical to understand VW are not visualizations, they are not simulations – they are parallel holographic universes.
- ▶ Technology barriers – Game engines and simulators require significant customization for integrated purpose built virtual worlds.
  - Includes core world features as well as enterprise integration
- ▶ Usage barriers – User workstation capability for high end graphics, proper design to ensure VW are usable, don't cause disorientation.
- ▶ Command, control, and operations centers are still the 'killer app'
  - Determine how to stimulate next cycle
  - Overcome technical challenges
  - Identity solid business cases