PC Cluster Based Services for Visualization on Demand

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The last decade has seen an explosion in the available number and variety of internet information services. Its common place to utilize web services for banking, travel, shopping, communication and entertainment, and furthermore from a single web portal. In this talk, I shall describe the necessary ingredients for internet visualization portals, for volumetric and time-varying volumetric scientific imaging and simulation data, as well as surface, volumetric data compression software infrastructure for providing viable interactive visualization services on demand. I shall also give details of a three tier portal architecture that we have developed (http://www.ices.utexas.edu/CCV/projects/VisPortal/), as well as a mix of browser based plugins and desktop visualization applications (VolRover, IVV:Interactive Volumetric Video) for the client side, and PC cluster based parallel isosurface and volume visualization for the server side.