Smart Separated Software Execution System for Software as a Service

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Abstract — In this paper, we propose a separated software execution system (SSES) for software as a service (SaaS). The main difference of the proposed SSES and virtual desktop solutions such as Citrix XenDesktop is that 3D rendering commands or graphic commands do not be executed at the server part but they are delivered to client via the Internet. This mechanism brings to reduces server’s overhead occurred from multi-users service on 3D rendering applications. In performance experiment, the proposed SSES gets a more stable frame rate than existing virtual desktop solutions on multiple clients. In particular, the SSES shows very high performance in term of frequent screen changes. Also, as another issue, we propose a smart mechanism that servicing software list is auto-updated by processing software usage data.

Keywords — software as a service, on-demand service software, cloud computing.