

Abstract: Reliable Multiple Screens in Instant Computing System

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Abstract

We have designed and implemented the instant computing system with a virtualization server and remote I/O (input/output) devices, such as tablet PC, smart phone, and speaker. User can make computing environment with any I/O device instantly with this system. The virtualization server can be located behind network and multiple users can work in computing with remote I/O devices nearby at any time. In some cases, such as education application, multiple screen devices should be connected with one VM to display same screen data. However, some ubiquitous screen devices do not support multicast protocol and some packet losses may occur in the network. So, we propose a reliable multiple screen system to share screen data even if screen devices and routers do not support multicast protocol and even if packet losses occur during multicast data transmission. According to the experimental results, the proposed system yields acceptance performance for overcoming the packet losses.

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