Design and Implementation of a Memory Safety Isolation Method Based on the Xen Cloud Environment

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Abstract : In view of the present cloud security problem has increasingly become one of the major obstacles hindering the development of the cloud computing, put forward a kind of memory based on Xen cloud environment security isolation technology implementation. And based on Xen virtual machine monitor system, analysis of the model of memory virtualization is implemented, using Xen memory virtualization system mechanism of super calls and grant table, based on the virtual machine manager internal implementation of access control module (ACM) to design the security isolation system memory. Experiments show that, the system can effectively isolate different customer domain OS between illegal access to memory data.