

An Efficient Architecture for Dynamic Customization and Provisioning of Virtual Appliance in Cloud Environment

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Abstract : Cloud computing is a business model which provides an easier management of computing resources. Cloud users can request virtual machine and install additional softwares and configure them if needed. However, user can also request virtual appliance which provides a better solution to deploy application in much faster time, as it is ready-built image of operating system with necessary softwares installed and configured. Large numbers of virtual appliances are available in different image format. User can download available appliances from public marketplace and start using it. However, information published about the virtual appliance differs from each providers leading to the difficulty in choosing required virtual appliance as it is composed of specific OS with standard software version. However, even if user choses the appliance from respective providers, user doesn't have any flexibility to choose their own set of softwares with required OS and application. In this paper, we propose a referenced architecture for dynamically customizing virtual appliance and provision them in an easier manner. We also add our experience in integrating our proposed architecture with public marketplace and Mi-Cloud, a cloud management software.

Keywords : cloud computing, marketplace, virtualization, virtual appliance

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