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**A Classification and Comparison Framework for Cloud Service Brokerage Architectures**

**Abstract:**

Cloud service brokerage and related management and marketplace concepts have been identified as key concerns for future cloud technology development and research. Cloud service management is an important building block of cloud architectures that can be extended to act as a broker service layer between consumers and providers, and even to form marketplace services. We present a 3-pronged classification and comparison framework for broker platforms and applications. A range of specific broker development concerns like architecture, programming and quality are investigated. Based on this framework, selected management, brokerage and marketplace solutions will be compared, not only to demonstrate the utility of the framework, but also to identify challenges and wider research objectives based on an identification of cloud broker architecture concerns and technical requirements for service brokerage solutions. Cloud architecture concerns such as commoditisation and federation of integrated, vertical cloud stacks emerge.

**Existing System:**

Several organisations active in the cloud technology area, such as Gartner, Forrester and NIST, have identified cloud service brokerage as an important business model, but also as an architectural challenge that needs to explore how to best construct broker applications on top of suitable platforms. A cloud service broker manages the use, performance and delivery of cloud services and negotiates relationships between cloud providers and cloud consumers. Cloud service management, an important building block of cloud architectures, can be extended to act as a brokerage layer between consumers and providers, and to even form marketplaces. Architecture, development and quality concerns are key enablers of any service brokerage solution that intermediates between different providers by integrating, aggregating and customising their individual services.

**Proposed System:**

Service description mechanisms discussed can serve to abstract, manipulate and compose cloud service offerings in an effort to commoditise the cloud. These description mechanisms serve two purposes: Firstly, to abstractly capture, present and manipulate cloud resources. Secondly, to serve as a starting point to link to configuration and other deployment concerns in federated clouds. Thus, commoditisation and federation emerge as challenges from our discussion.