

Towards a Government Public Cloud Model: The Case of South Africa

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Abstract

Worldwide governments are actively looking into cloud computing as a means of increasing efficiency of service delivery and reducing infrastructure costs. As a result of introducing cloud computing, interoperability issues arise and yet it is vital for e-government services to be efficiently achieved; this is also a challenge for the South African government. Systems providing e-services in different organizational units are usually incompatible; hence integration of different units is required. Interoperability therefore becomes one of the main issues for successful e-government development. In response, this project aims at developing a South African government-public cloud model that can be used to address the interoperability issues and further enable the government to benefit from other cloud computing advantages. However, modelling a multidimensional social problem as complex as the public cloud for a national government requires time, knowledge and experience from a wide range of specialization disciplines. This is therefore a long-term project consisting of three main phases. Phase 1 investigates international countries that are already using the public cloud for their government services and illustrates the design from a South African perspective. Phase 2 presents the design and the implementation plan of the SA public cloud. Phase 3 presents the monitoring and evaluation plan to assess the quality and impact of this work, against our action plan. This paper discusses Phase 1 of the project, which is the investigation and design of the public cloud. Cloud computing has been identified as a technology development tool that can be used to address this issue. It is therefore envisaged that a government public cloud will be developed by building a cloud business model to suit the case of South Africa. Key differentiating points between public and private cloud will be realized. The success of the South African public cloud relies on the cooperation of different stakeholders from government, private entities, and academics to citizens. The result of this phase will be used as an input into the second phase.