

# Custom-Made Cloud Enterprise Architecture for Small Medium and Micro Enterprises

Promise Mvelase, CSIR Meraka Institute, South Africa  
Nomusa Dlodlo, CSIR Meraka Institute, South Africa  
Quentin Williams, CSIR Meraka Institute, South Africa  
Matthew Adigun, University of Zululand, South Africa

## ABSTRACT

Small, Medium, and Micro enterprises (SMMEs) usually do not have adequate funds to acquire ICT infrastructure and often use cloud computing. In this paper, the authors discuss the implementation of virtual enterprises (VE) to enable SMMEs to respond quickly to customers' demands and market opportunities. The virtual enterprise model is based on the ability to create temporary co-operations and realize the value of a short term business opportunity that the partners cannot fully capture on their own. The model of virtual enterprise is made possible through virtualisation technology, which is a building block of cloud computing. To achieve a common goal, enterprises integrate resources, organisational models, and process models. Through the virtual business operating environment offered by cloud computing, the SMMEs are able to increase productivity and gain competitive advantage due to the cost benefit incurred. In this paper, the authors propose a virtual enterprise enabled cloud enterprise architecture based on the concept of virtual enterprise at both business and technology levels. The business level comprises of organisational models, process models, skills, and competences whereas the technology level comprises of IT resources.