

## Applies to:

SAP Research, Business Web, emerging economies, very small enterprises, VSEs, mobile technologies, cloud

## Summary

Mobile Business for Emerging Markets Supporting small shop owners in emerging economies with mobile technologies is one focus of SAP researchers. Using a collaborative cloud environment, their latest prototype aims to enable businessmen and -women in these regions to conduct their daily operations with partners anytime and anywhere from a mobile device.

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## Authors Bio

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Jan Eloff is currently appointed as the Research Director of SAP Meraka UTD (South Africa). In this role, his main focus is on conducting research for the creation of new software platforms for emerging economies. He is appointed as a Chief Researcher at the CSIR (Meraka) and as an Extraordinary Professor in Computer Science at the University of Pretoria.

Elmarie Venter is appointed as Researcher in SAP Research Pretoria. She is currently involved as project manager in a project to deliver business services in the cloud optimized for mobile phones as well as the development of a supporting mobile payments service component.

Elisabeth Doehne has worked in the News & Media area of SAP Research Communications as a student worker since August 2011. She contributes news stories and articles to the SAP Research Magazine and is co-responsible for the organizational alignment. Currently, she is a senior pursuing her BA degree at the University of Heidelberg in American Studies, Linguistics, and German.

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## Business in your pocket

*A small shop owner in a remote, rural community or urban settlement in South Africa is not a typical SAP customer, but that may soon change thanks to new mobile technologies.*

Traditional business software solutions often do not fully meet the needs of very small enterprises (VSEs) in emerging BRICS (Brazil, Russia, India, China, and South Africa) countries. Such solutions are simply too complex and expensive for small shops in these areas. However, GaRO, one of SAP Research IA&S Africa's flagship research projects originating from three previous projects, namely **Ganges** (from India), **Rustica**, and **Overture** (from South Africa), is addressing the needs of VSEs in the huge untapped markets of emerging economies, specifically the service and retail sectors in South Africa and India.

The exponential growth of mobile technologies in BRICS countries opens up the opportunities for mobile business service offerings. By developing a small "business web," SAP researchers from South Africa and Germany are realizing enterprise software that is truly mobile. By combining enterprise software accessible via the cloud through mobile technologies, you only need a mobile phone to start a "business in your pocket." GaRO is also part of SAP's larger Business Web initiative.



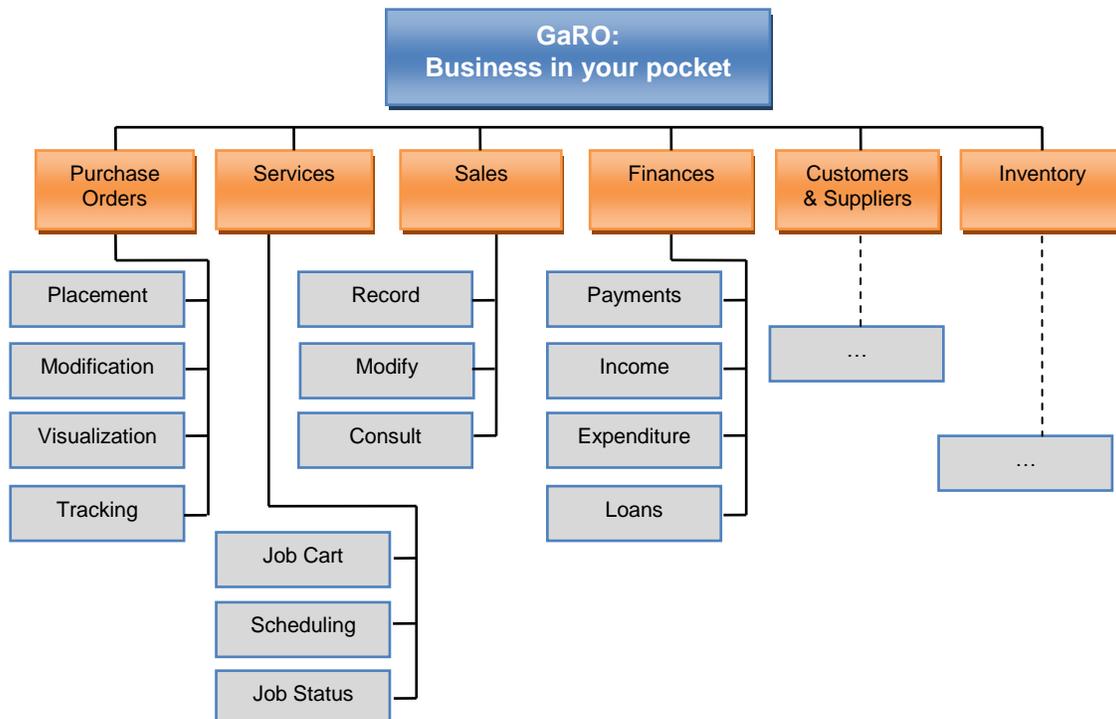
## Project Details

The GaRO prototype focuses on key services such as procurement, sales management, cash flow management, customer and supplier management. The goal is to ensure that these services are readily available and accessible to VSEs via a mobile device. Shop owners participating in the project pilot can access a supplier's product catalogue on their mobile phone, select goods and quantities, place an order with the supplier, and select a payment method. Suppliers (MetCash), mobile network operators (Vodacom), and one hundred small-scale independent retailers are also involved to monitor and evaluate the pilot the current application.

## Value Chain



## Extract Functional Decomposition

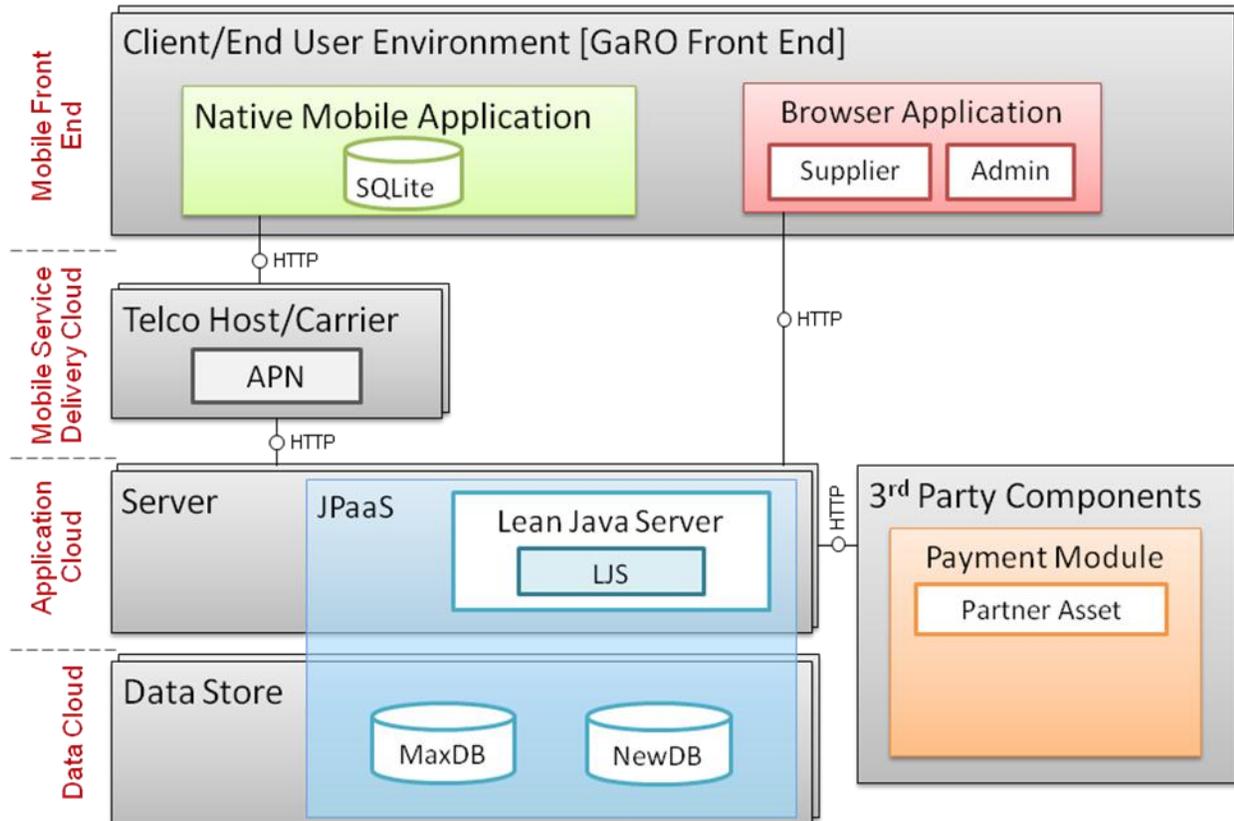


### The Impact of GaRO

The successful rollout of these business services can significantly contribute to SAP's objective of a billion customers. Key aspects of the proposed solution are:

- It is simple as it focuses only on the core business processes of VSEs that make them sustainable (simplicity).
- It is easy to use and available on mobile devices (mobile/smart phones, tablets, mobile point of sales systems, etc.) within a cloud environment (ease of use).
- It is expected to be relatively inexpensive, making it affordable to the VSEs (affordability).
- It is based on user requirements and needs in emerging countries (user centred design)

## GaRO Architecture



### Achievements and Prospects

The project was launched at the end of May 2011. The first phase took six weeks and consisted of:

1. Understanding potential customers' needs and developing an integrated business process model for the solution
2. Developing a technical architecture
3. Designing appropriate user centered UIs for the consumption of services on mobile devices
4. Developing a prototype
5. Identifying early adopters to form part of an ecosystem for piloting the solution. The second phase consists of the finalization of the prototype and pilot with participating suppliers, mobile network operators, and VSEs

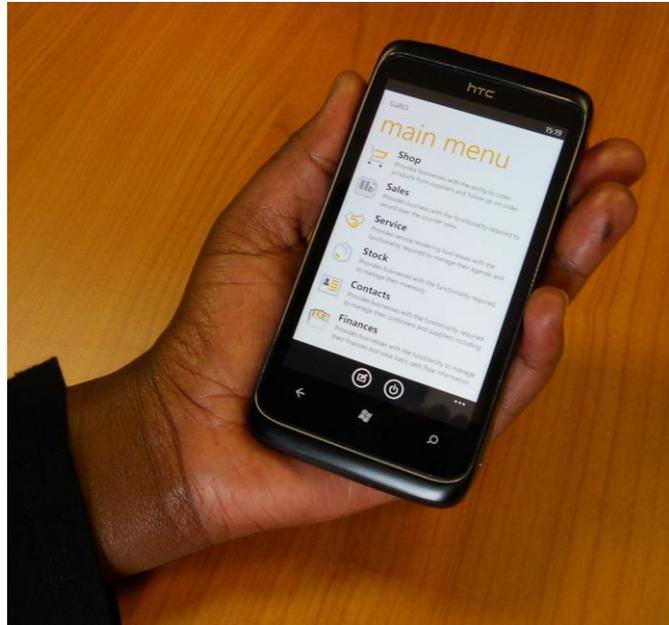
The customer pilot was kicked-off on November 1, 2011.

The solution will be further enhanced with the localization ability for supporting multiple languages, making the solution available in countries where English is not the business language. It is also anticipated that the prototype will facilitate business between VSEs and large organisations and SAP customers.

## Global Benefits

In South Africa, there is a potential market of 106,000 VSEs. Research from India reveals that 3.5 million VSEs are interested in using mobile business services. The hope is that millions of small businessmen and -women will soon be able to conduct their daily operations simply by picking up a mobile device. Typically, such small registered businesses are one to twenty persons purchasing goods and selling them to their local communities.

SAP will focus on making these applications affordable and easily accessible even to the smallest retailers, utility units, and family businesses. These vendors are the very backbone of their economies, and their profits will energize the markets of developing regions dramatically.



## Related Content

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