

Mission: urgent investment

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The Department of Defence admits its information communications infrastructure requires serious upgrades and replacements.

IT in the public defence arena in South Africa can be summed up as a state of under-investment. While the US Military, arguably one of the most advanced defence outfits in the world, grapples with whether or not to allow the use of Twitter and Facebook across the army (it has allowed it), South Africa's Department of Defence is dealing with what it euphemistically terms the need for "considerable investment" in information technology architecture.

In its annual report for 2009, it specifies the need for investment: "The information communications infrastructure requires serious upgrades and replacements while priority is given to information technology support to the flying environment."

It has been working with the State Information Technology Agency (Sita) over the past decade to get the department into shape.

The Department of Defence operates over 500 separate information systems, with over a fifth of those defined as "major". The department's IT acquisition plan makes for sombre reading. Its budget for the 2009-2010 financial year was R200 million, out of a baseline allocation for the department from Treasury of R28.6 billion.

The money was allocated roughly equally to management applications, functional applications, common applications and an integrated information and communication infrastructure.

It had requested an additional R500 million from Treasury for information and communication system renewal over the past three years, but did not receive any allocation for that purpose.

In line with the rest of government, it's rolling out the Integrated Financial Management System (IFMS). National Treasury says the IFMS project will "review and upgrade government's transverse information technology systems".

The objective is to enhance transverse – or general administrative – systems including financial management, human resource management, supply chain management (procurement) and related business intelligence.

Business process management outfit Oventions has been awarded a tender to implement service-oriented architecture at the department.

Private

Aside from the travails in the public sector, the country has a vibrant defence industry in the private sector.

Denel remains a sizeable outfit, and numerous weapon components are manufactured in the country. These companies are under the same pressures, from an ICT perspective, as any other industrial outfit.

The trend towards outsourcing certain functions is not as pronounced in the sector, because of the highly specialised processes.

Many argue that consistent research and development into new and highly specialised technologies is critical. Otto Schür, Denel's Group executive: Technical, maintains that "with the Defence Force typically sourcing these technologies from suppliers in the industry, companies in this sector need to effectively remain 'one step ahead' of the enemy.

“This ‘new’ approach to national security has seen the defence industry sector focusing even more on accuracy, as well as advancing and enabling high-end technology.”

There is also a trend towards the commercialisation of military technologies, enabling certain product offerings to add significant value to the local security industry, among others.

A natural mix

Defence and security are critical issues for African nations, but Africa still accounts for less than five percent of the market globally. Key drivers for the defence market in Africa for the last several years have been the need to modernise, as well as the need to secure oil and gas assets.

A few years back, the market in Africa was projected to grow six percent to seven percent yearly. The economic crisis caused the forecast to slow to 2.6 percent through 2013, according to Forecast International.

The major country markets, excluding South Africa, are “Algeria, Angola, Kenya, Morocco, and Nigeria,” says Shaun McDougall, International Military Markets analyst for Forecast International. The African market can be delineated between more and less advanced economies. This delineation also defines the focus in ICT opportunities.

More advanced economies are looking at intelligence gathering, ICT and data networks, and securing the networks, while the less advanced economies are focusing on basic voice and data capabilities to support command and control structures, indicates McDougall.

In either case, ICT plays an important element that weaves itself through the defence subsectors, including aircraft, warships, ordinance, missiles, vehicles and C4I. C4I stands for command, control, communications, computer, and intelligence. It’s obvious that ICT plays a significant role in the C4I space, but electronics are found in devices and equipment in all subsectors. As such, the development of ICT infrastructure is a strong contributor to the growth and potential of the defence market going forward.

According to McDougall, regional integration is another driver for ICT in defence. Even small countries are looking at how to improve command and control within the field, using communications. “Being able to participate fully in joint operations and interservice/ international training exercises is important,” says McDougall. For example, Nigeria opened its first advanced operations centre in Abuja in 2009. The centre allows officers to stay connected with soldiers deployed on domestic and international missions. Its capacity includes real-time video and data communications.

Another set of drivers, particularly in North Africa, is insurgency and border control. Due to this, some of Algeria’s focus is on intelligence, aircraft, and unmanned aerial vehicles (UAVs). “Aircraft and UAVs can include technology like smart weapons and advanced radar capabilities, definitively enabled by ICT,” says McDougall.

Nigeria is focused on managing the Niger Delta conflict.

Maritime defence systems are the key to protect the waterways and coast in the region. McDougall notes major vendors in the African defence market do not come from the African continent. Russia has a long history in sub-Saharan Africa (SSA). Today, many SSA countries are modernising ageing Russian defence systems. The United States defence industry is another major player. Europe is in the mix, with France’s defence industry working mostly the French-speaking countries.

China appears on the radar, but in niche markets, not major defence systems.

The need for defence, including ICT infrastructure, is there. But, African economies need to grow significantly overall to take on the funding requirements.

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