



## Walking the innovation journey with Davis & Shirtliff

WATER AND ENERGY SOLUTIONS PROVIDER DAVIS & SHIRTLIFF MARKED A MAJOR MILESTONE LAST YEAR, ITS 70TH ANNIVERSARY. THIS IS AN ACHIEVEMENT THAT IS NOT BUSINESS AS USUAL FOR ANY ORGANIZATION, ESPECIALLY ONE THAT HAS THE SAME FAMILY SHAREHOLDING AND ESSENTIALLY THE SAME MARKET FOCUS SINCE ITS FOUNDING.

**T**he company credits this success to its commercial focus, manageable ambition and, most importantly, living the values of quality, Integrity and 'Altiora Peto', a Latin phrase that translates to embracing continuous change.

The company has leveraged technology as a key enabler to drive its revenue and growth. Emphasis has been placed

on infrastructure investment and a fully integrated ICT network to manage its large product portfolio and spare parts stocks. The robust ICT infrastructure supports the over 500 staff with their day-to-day operations.

While speaking to Mr. Joab Mak'Ongul, Head of IT, at Davis & Shirtliff, to best understand how the company was making use of technology, it was apparent

that innovation was key in everything the company did. He told us that most of the innovations were customized in-house, making it easy for them to upgrade the systems whenever there was a need to.

To further explain his role as a head of IT, Mr. Mak'Ongul said, he was responsible for overseeing the IT function in the business which include software,

systems and IT infrastructure. "On the resource management side my prime focus is on innovations and systems," he added.

Mak'Ongul's vision as a the head of IT is mainly driven by sourcing and implementing solutions that support the growth of the business and achieve its stated objectives.

"We are very clear about the role of IT in the organization and its our belief that any business that runs without IT is doomed," Mak'Ongul said. "So we have to ensure we have IT Systems in place that drive us to the next level," he continued.

So how does Davis & Shirtliff use IT to enhance service delivery? Besides the entire Enterprise Resource Planning (ERP) which revolves around Finance Management, Supply, Service and Human Resource management, the company uses IT to manage the manufacturing and distribution side of the business. This is in line with their focus to deliver high quality products and delivered efficiently to their customers.

"We have a service division where we implement solutions that help us communicate effectively with our customers. A good example is our iDayliff and Service Management solutions. The

***SynchroTeam is a cloud based mobile workforce management solution we have deployed in our Service division for our technicians...***

solutions help us get first hand notification alerts on equipment at various remote sites and address issues our customers' equipment might be going through real time. Sometimes the customer gets updates real time and directly from the system, for instance a borehole failure," he added.

### IT communicating to the business' overall strategy

The Davis & Shirtliff Group mission and vision reports: "The Davis & Shirtliff aspires to become a World Class organization comparable in every way to the best international standards by demonstrating exceptional levels of corporate performance, professionalism and integrity and must set the example that an indigenous African organization can compete at the highest level in its selected field of activity."

To achieve this vision, Mr. Mak'Ongul is certain that IT has to play a significant role. "With a total of 57 branches across 8 countries, you cannot manage all

these branches manually. We have a management accounts reporting system that generates the required output information and sent to the target officers by the second day of the month. IT here plays a major role as it ensures the management gets the right reports accurately and on time, our customers are informed and our staff work efficiently."

The company has also adopted a shared services model most of the common business functions such as finance, supply chain management, manufacturing and human resource. For the business to run efficiently on this shared services model IT systems need to have high availability and dependable. "Our role is to make sure the business systems are available to enable our internal customers operate efficiently and facilitate growth," he continued.

### Some of the on-going projects

**Synchro Team:** Currently Davis & Shirtliff has implemented a workforce management system known as the SynchroTeam. The system helps monitor and manage the work assignment, movement and reporting of technicians.

"SynchroTeam is a cloud based mobile workforce management solution we have deployed in our service division for our technicians and is integrated with our core systems," explained Mr. Mak'Ongul.

He added that since its implementation the system has increased work order completion rate by 50% and reduced travel and overtime costs and more importantly the solution has improved the company's after-sales service levels and service contract management for customers.

The system also undercuts the manual initiation of jobs and tasks assignments on physical boards to a much more sophisticated Interactive Online Service Planning and Scheduling Management facility which is easily and securely accessible from anywhere at any time and through any device - mobile phone, tablet, iPad or PC.







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Features include a drag-and-Drop Job booking app, a map and GPS tracking which helps know where technicians are, Jobs allocation and monitoring feature, this helps lookup jobs done in the past and allocate jobs far into the future.

The system also has a mobile app and a Customer Relationship Management (CRM) that pulls all customer information from ERP in one place. The system is also customizable (APIs included) to help enhance the business processes and offers great support from the vendor.

“All of these are without breaking the bank – extremely affordable and very cost-effective through monthly subscription payments. This has become the *de facto* standard for our Field Service management,” added Mr. Mak’Ongul.

**iDAYLIFF:** This is a high specification internet-based system remote monitoring and control of equipment Internet of Things (IoT) solution that was de-

veloped in-house. The product is fitted with sensors which helps monitor the performance of Dayliff equipment real time from the site. If there is a problem it communicates to the service manager and service team and if customers have subscribed to it, it updates them as well.

It is available as an option with any DAYLIFF pump, generator, solar and water treatment installation and provides users with specific information regarding the operation of their equipment. The iDAYLIFF system is built on modern infrastructure to ensure reliability, speed and accuracy of information.

**Daily Report:** The Company also manages its accounts through what is referred to as a daily operations platform. The platform generates daily reports across all branches which are then automatically scheduled and sent to the Managers on a daily basis.

**Staff Appraisal:** For continuous review of staff performance and motivation aspects, the company has implemented a

simple but efficient in-house developed solution based on SharePoint platform which is accessed online by all staff and managers across the group.

### Some of Projects in the pipeline

The past twelve months have seen a huge rise in the deployment of cloud solutions in the region with most of the companies moving their office productivity tools and applications to the cloud. The drive has been mainly as a result of the cost savings on the subscription model that comes with most cloud deployments and the business-anywhere promise. Cloud and mobility are inseparably!

According to Mak’Ongul, this is a journey they are prepared to travel. “We are moving some of our systems to the cloud and are exploring a Hybrid Cloud model since not everything will move to the cloud in big bang,” he said. “Our approach is to implement cloud-based solutions in phases; Skype for Business application will be moved to cloud as it was initially implemented and hosted on premise. We use Skype for Business to enhance our staff collaboration through communication, training and meetings. We have successfully partnered with Microsoft to deploy Office 365 and moved all our emails to the cloud,” he continued.” The company has also deployed SharePoint to manage documents and automate processes and are currently reviewing our security systems with a view of upgrading the existing systems.

The cloud business model is what is Mak’Ongul considers to be most disruptive. “Cloud computing is exciting because of how it is done; we do not have to own a datacenter. Initially we had to buy a lot of datacenter equipment but due to the OPEX model now we are able to cut down on CAPEX. This lowers the technology acquisition costs and moves your investment to deployment of systems and applications,” concluded.

“The other exciting technology is IoT and how it helps us manage borehole pumping equipment from wherever they are and serving our customers better,” said Mak’Ongul. The company uses IoT to manage, bill and maintain borehole equipment leased to

customers. The company supplies the equipment but the equipment is not owned by the customer, so they pay on a monthly subscription. “With IoT, we can monitor the equipment and manage the data we get effectively. With this comes the system integration interfaces to ensure seamless linking to our core ERP and CRM applications and customer-facing digital business applications,” he continued.

“On digital transformation, E-commerce is another platform that we are investing in to ensure that we readily enhance and competitively serve our customers and collaborate with all stakeholders better. With the integration, though comes the security issues which must continuously be addressed and this still remains as one of my biggest challenge. The fact is that we have to keep on opening and checking the systems to integrate with MPESA, banks and suppli-



ers, both the data and systems security is critical at all ends” he added.

### Milestones:

“One is we never used to have virtualization, and now we are in a fully virtualized infrastructure. We used to have quite a number of physical boxes in our server room. We have established a highly efficient datacenter, having progressively upgraded and replaced equipment and currently running on Simplivity, which is a Hyper-convergence Solution,” he said, “We chose Simplivity because of its power and effectiveness; it is currently part of HPE. We have a primary data center and as well an offsite with real-time data and applications replication and backups. Since its installation we have had less downtime, a lot of saving because it reduces the physical devices we have at our datacenter.”

The company is named after its two founders. The Davis & Shirtliff History reports: “The company was founded in 1946 by EC (Eddie) Davis and FR (Dick) Shirtliff, Mr Davis having left the army with a gratuity which he spent buying a stake in a small plumbing business he had worked with as a contractor. Mr Shirtliff soon joined him and the initial expertise was provided by Italian ex-prisoners of war.

Notable early projects included the water supply for Karen Estates, the entire water supply infrastructure until the mid-60’s being installed by D&S. Also other estates supplies including Gigiri, Kitisuru, Kibagare, Rosslyn and later Runda were also D&S projects.

In the 50s the company added swimming pools as part of its activities, both residential and commercial, and many were built that are still in use today including Limuru Girls School, Loreto Convent, Kenya High School and the YMCA as well as many residential pools.

The company also installed water treatment plants at all the Kengen Tana River hydro power stations. In 1970 partner Dick Shirtliff retired and his shareholding was purchased by a long serving staff member, Devji Shingadia. He and Eddie Davis then ran the



Dick Shirtliff



Eddie Davis

company, retiring CEO Alec Davis joining in 1976.

Eddie Davis passed away in 1982 at the age of 79 and Alec then assumed his shareholding, in 1990 purchasing Shingadia’s shareholding as well. The ‘70s and ‘80s saw slow but steady growth as the country grappled with various economic and political problems, though there was a particular focus on building the pump business, notably Grundfos and Davey that were introduced in the mid-1960s.

Since the Millennium growth has greatly accelerated, revenue increasing many times to KShs 7Bn since then. Major initiatives have included a complete re-development of the Industrial Area

site and the expansion into adjacent plots, the opening of subsidiaries and associate companies in Rwanda and Zambia, Ethiopia and South Sudan.

The company has since introduced the Dayliff pump range as well as several new international suppliers including Lorentz, Kohler and DAB and a huge expansion of the product range. Staffing has also grown correspondingly and the group now employs over 500 permanent staff operating from 49 branches.

Current CEO for Davis & Shirtliff is David Gatende. The company is also fortunate that the third generation Davis, Edward and Henry, have joined the business as well. “



***“We started the cloud journey 2012 by migrating our emails and documents from local drives to the cloud through the use of Office 365 platform enhancing staff collaboration and productivity.”***



Other milestones pointed out included; upgrade of the company's Core ERP System, actually to Microsoft Dynamics NAV that has been upgraded twice in 2009 and in 2013 from earlier versions. The current system is web enabled, so it can be securely accessed online from anywhere.

“Deployment of CRM System which is also under Microsoft Dynamics. We



started the cloud journey 2012 by migrating our emails and documents from local drives to the cloud through the use of Office 365 platform enhancing staff collaboration and productivity. We have done a lot of value-add customizations on our share-point platform as well,” he added.

#### **Parting shot.....**

“The job of a CIO is quite challenging because traditionally, IT was more of a cost center so sometimes when you want to implement solutions, justifying the spending normally takes a lot of time to get through approval stages. The evaluation process has to be thorough on both the solution and costing proposals and comparisons. It may not be possible to feel the immediate benefits of proposed and required solutions. My advice is simple, persistence, be persistent when selling an idea to the board and let them see the benefit in it. Secondly, outsourcing is key to get the right solutions,” he concluded.

**M**r. Joab Mak'Ongul hails from Gem, Siaya County. He went to Mombasa High School for Physically Handicapped and later joined Egerton University and graduated in 1995, with second class upper honors in Science, Computer Science option. He has a background in software systems development.

His first job as a junior software developer was at Diamond Systems. He left to join Kenya Micro Computers where he worked till 1997. He later joined Carl Bro East Africa, IT division as a Software Developer. After the management buy-out of Carl Bro's IT business where it changed to AkiliAfrica, in 2000, he was later posted to Uganda in 2002 as a Projects Manager, where he worked until early 2009 having risen to Technical Manager role and also as a Country Director in acting capacity.

He joined Davis & Shirtliff in 2009 and this marks his 8th year at the organization. While in Uganda, he undertook an MBA degree course from Eastern and Southern African Management Institute (ESAMI) University and holds another Master Certificate in Leadership and Management from Michigan State University's Eli Broad College of Business Executive Education Program

During his free time, Mr. Mak'Ongul is a football fanatic. He is actually a die-hard Liverpool fan.

