



Cloud environment connects the entire agricultural supply chain from farmers, packhouses, to export and cold storage



Centralised data across all operations for reporting and management of packing, harvesting and even orchid management



Fully connected ROBO sites and a single view of the full business

Lona Group Modernises Agricultural Supply Chain with Cloud Approach

New hybrid cloud environment helps agricultural group to harness a single view of its business from the farm to the packhouse, cold storage to export

The Lona Group is a large-scale agricultural group engaged in the farming, packaging, cooling, export and supply of fresh produce and branded and healthy foods with its head office in Cape Town South Africa, and operations nationwide. Partnering with First Technology Western Cape, the Lona Group has transformed its technology environment with VMware vSAN, to put a cloud-centric infrastructure in place that significantly improved the visibility and management of its operations and remote sites.

Mobilising agriculture for digital

Lona has grown consistently both organically and through acquisitions and is one of the top five citrus exporters in South Africa. But growth resulted in disparity in its systems as acquisitions meant its IT infrastructure was stretched, reaching capacity and made up of a series of cobbled-together structures that resulted in a segmented environment.

“Our exponential growth meant our IT infrastructure could not support the business needs. But we knew there are no one-size-fits-all answer to our challenges as farms face connectivity issues, packing facilities need an on-premise server in the event of downtime and our export and cold storage businesses need to be always on. So the sun never sets on operations,” says John Gray, ICT Executive at Lona.

“We are not a small business but were operating with the mindset of one, so we had to change. Fortunately, we view IT as an enabler, so we set out to digitise, modernise and automate our environment.”

After an extensive evaluation of options, Lona looked to the cloud, but neither AWS nor Azure would give it the data sovereignty it required. It had also defined four non-



Established in 1996, the Lona Group has a national footprint that includes farms, fruit packing, a logistics division, and a fruit export business, spread out across the Eastern and Western Cape, KwaZulu Natal, Mpumalanga, and Limpopo. It exports fresh agricultural produce to more than 40 countries globally, has an FMCG business, provides finished consumer goods to the global market, and provides invaluable managing, mentoring, and financing to emerging farmers in South Africa. www.lona.co.za

INDUSTRY
Agriculture

HEADQUARTERS
Cape Town, South Africa

ABOUT THE PARTNER
First Technology Western Cape
www.firsttechnology.co.za

BUSINESS CHALLENGES
Ageing infrastructure
No centralised view of data
Connectivity issues in remote areas

VMWARE FOOTPRINT
VMware vSAN
VMware vSAN ROBO
VMware vSphere



negotiables, namely reliability, redundancy, security and sustainability, which the solution had to cover. So it turned to long-term IT partner First Technology Western Cape to assist it in setting up a private cloud on VMware vSAN linked to a Teraco data centre and connected through an SDWAN.

Seeding business growth

This hybrid cloud architecture runs entirely on a VMware vSAN software-defined storage environment. It is configured using the VMware vCenter Server Appliance, ensuring the group has complete management of the infrastructure nationwide. Given the connectivity challenges of the remote Packhouses, First Technology pioneered the development of a VMware vSphere Remote Office Branch Office (Robo) HCI solution.

After defining the platform, it would use, Lona also set out to template its HR, financial and production operations. A templated approach allows the business to roll out a standard technology framework to new companies it acquires so that security is never compromised, and consistency is maintained. It is also the easiest way to ensure that technology is always aligned to its business strategy.

“We started small with adding maybe 70 users to the environment, which quickly scaled to almost 300 users, and we haven’t even used 40% of the environment. We can now scale to 500 users, and we won’t even have to add any additional hardware or software. This wouldn’t have been possible without vSAN,” Rob Gunning, Group IT Manager at Lona.

“With the Covid19 Lockdown, we were able to migrate users, seamlessly, from working at the office to working from home. If we hadn’t made the shift to VMware when we did – I can honestly say our business would have closed, that is how old the systems we had, had gotten. We have had 100% uptime and not even maintenance has eroded it.”

Always on agriculture

Now that its systems are linked, Gunning says that it is reaping benefits of being able to centralise information management and reporting. Farm data as an example is now in the cloud and using Power BI it can get an up to the minute view, in dashboards, of all activities. On the packing side, its packhouses are also on a central database and management can see what bins have been received, what stock it has and what has been packed. The same is true for its cold store and export businesses.

“We have full visibility of our farms at an orchard level and can see what bins were harvested, the packhouse percentage of this harvest and align this to our targets. This is now all automated on our VMware platform. In the past, we could only retain one year’s data, but now we don’t have to hunt for data and can create visual year by year comparisons,” adds Gray.

“Ultimately, we want people to manage their business processes better. But you can only manage this process if you have the information and you only have the information if you have the platform, and that is where VMware has helped us.”

With a single view of the truth, the Lona team says people can no longer rely on excuses, which has given IT a reputational boost and has ultimately increased productivity across the group. Onboarding users is now done in seconds, and the complexity of managing remote sites has wholly dissipated with the ROBO environment. Security is now also much less of a concern to the business.

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JOHN GRAY
ICT EXECUTIVE, LONA

“I don’t know how we got to where we are as a business with a lack of technology. I used to joke that if you were good in Excel, you got a promotion. Now data is everything to us, and the system has enhanced our lives by helping us to timeously report on operational activity,” says Gray.

Lona is now literally able to compare oranges to oranges across its national footprint and national data. Down to a granular view

of which areas are producing a better product.

“Because IT touches every part of the business process, Lona understands the need to align IT with business needs. The need to have a common platform from the data centre to the farms, pack houses and cold stores is imperative, and this alignment must reduce complexity,” states Gerhard Horn, Datacentre Architect at First Technology, Western Cape.



“Yes, the users consume from the cloud, but they have systems like irrigation on the platform, and if there is an outage they can’t water. VMware was the perfect choice with vSAN running in the data centre and the VMware HCI Robo kits at its remote sites. This has resulted in a miniaturised onsite infrastructure with a ‘one network’ feeling and management capabilities,” adds Horn.

Looking ahead

The company is exploring tools to help streamline and automate its supply chain, helping to manage how the fruit is handled in the packhouse, to harvesting on the farm. By investing in technology at a farm level and gaining visibility of each yield, Lona foresees that it can significantly improve pack-out percentages on a harvest because it can immediately identify gaps in the process.

“We are looking to harnessing more IT to automate our farming further using radio and GPS tracking as well as geofencing. We are also considering the use of drone technology to help with crop estimates and harvest potential. Here you can set up fly zones over orchards, take these images and put them into Google Earth and analyse the images for farming viability. We are currently exploring a lot of these types of tools, especially because we now have a system to support it,” ends Gunning.