شركة المياه الوطنية
National Water Company

Objective
To unify business processes and centralise IT services through state of the art infrastructure and ensure high availability of critical systems

Approach
Issued RFP to enhance and expand the IT environment and researched suitable support contracts

IT Matters
- Supports 99.999 per cent system availability
- Delivers fourfold increase in processing speeds
- Reduces backup times from 18 hours to under one hour

Business Matters
- Unifies more than 150 processes across all business units
- Provides a scalable solution for future business growth
- Reduces energy costs and floor space

National Water Company protects Saudi water resources

HPE Datacenter Care ensures high availability of critical systems

Water is scarce in Saudi Arabia and safeguarding supplies is the responsibility of the National Water Company (NWC). NWC intends to improve performance of the entire organisation in line with the best practices in a reliable, and cost-efficient manner.

Challenge

Performance issues
Saudi Arabia is a desert kingdom with no permanent rivers or lakes and very little rainfall. Water is scarce and with the country's rapid growth, demand is increasing. The Kingdom of Saudi Arabia has embarked upon a strategic initiative to radically streamline, rationalise and improve its Kingdom-wide water and sanitation services and to efficiently manage and sustain the Kingdom's natural water resources. The National Water Company (NWC) was established as a government owned statutory company by a Royal Decree in early 2008.

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"With the HPE Datacenter Care support, we have the relief and peace of mind that Hewlett Packard Enterprise is always there. We can be assured HPE is watching and monitoring the systems and we have a single point of contact if things go wrong."

— Hakem Al Sagri, technical support senior manager, National Water Company, Saudi Arabia

With over 7,000 employees, NWC focuses on delivering high quality drinking water, providing households with water and waste water connections, preserving natural water resources and making the best use of Treated Sewage Effluent (TSE). Its work started in the major cities of Riyadh, Jeddah, Makkah and Taif, which represent 60 per cent of Saudi's water distribution network, and will soon include other cities. Eventually, it will provide Kingdom-wide services.

Riyadh's mega city is a good indicator of NWC's challenges. Its population has grown from less than 350,000 in 1975 to more than five million in 2013 and water consumption has increased from less than 127 million cubic metres a year in 1975 to more than 800 million in 2013. It depends on two main water supplies with 64 per cent coming from underground wells and 36 per cent from the desalination of seawater.

This is carried out by the Saudi Desalination Water Agency and the water is distributed by NWC. Attention is focused on making the best use of TSE where it's not necessary to use potable water. Water is also accessed from underground resources with wells up to 24,000 metres deep, then stored in surface reservoirs.

When NWC was established it decided to centralise IT and unify business processes that had been spread across various city silos before privatisation. It did this by establishing a main production data centre and a separate disaster recovery on green field sites in Riyadh with 20-plus systems supporting over 150 business processes.

As with any organisation, high availability of these business critical systems is vital to daily operations but maintaining reliable IT platforms is even more crucial for NWC because they support the water industry's core applications.

When originally setting up its new data centres, NWC had to equip them from scratch. It issued a Request for Proposal (RFP) to all vendors in the local and international markets and Hewlett Packard Enterprise was chosen to provide servers and storage. However, as the organisation grew it became evident that a refresh was needed. Processing power and storage capacity required major expansion, backup and restore times were slow and system management was minimal.

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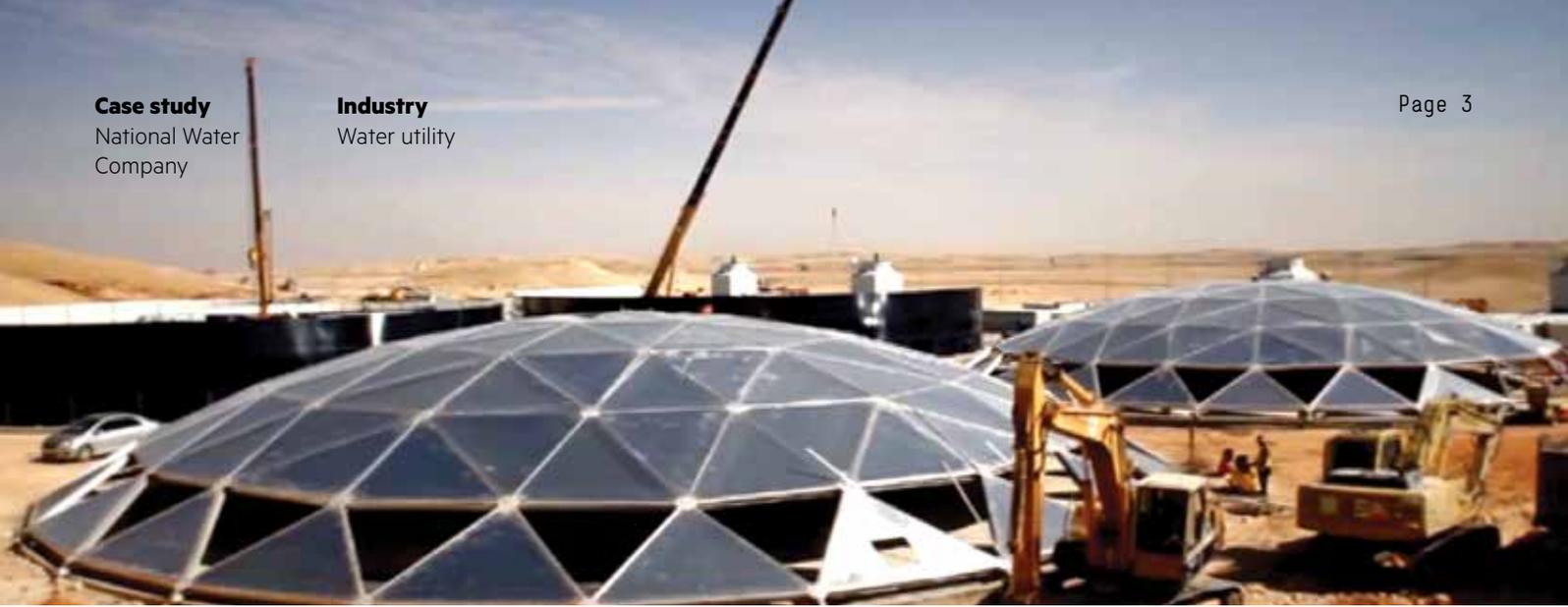
"One challenge was performance. For example, we have Oracle RAC with five core applications on it. We needed solutions that were quicker with better Input/Output (I/O)," explains NWC's technical support senior manager, Hakem Al Sagri. "We also had the HPE EVA storage which was good when we first started but faced heavier utilisation when we grew as a company and took on more resources and employees. We were suffering slightly from slow performance and issues around scalability and we didn't want to wait until the last minute when it would be too late. We had to think proactively."

Solution

Flexible support

After issuing the RFP for the expansion, NWC chose a converged solution that includes six HPE ProLiant BL650, eight HPE ProLiant BL660 and 52 HPE BL460 server blades along with various HPE ProLiant DL580 and DL380 servers. It also implemented HPE 3PAR StoreServ 7400 storage with a raw data capacity of 800Tb used with HPE StoreOnce Backup deduplication software. Virtualisation is achieved with Microsoft® Hyper-V.

"The decision to stay with HPE was a mix of several things," adds Al Sagri. "We saw 3PAR introduced at an HPE Discover event then HPE technical engineers came and showed us the specifications and features. Several discussion and workshops were held to find the best design that could last for a number of years. HPE was very supportive along with its local partner."

However, NWC needed a proactive and flexible support mechanism to protect the environment and ensure continuity of service.

"When you have expensive, mission critical systems you don't want to rely on just your own knowledge. You need to have experienced people to support you," says Al Sagri. "Although we have some good storage and system administrators and a very strong IT team, we needed a partner who could do health checks. We didn't want people who were reactive and would only visit when we had a problem. Solving a problem after two days would kill us because the business will not wait for us. We can't make an excuse because in the end we are responsible and accountable."

NWC chose an HPE Datacenter Care contract which provides environment-wide support tailored to meet the customer's specific requirements. Proactive services include an assigned account team and assigned account support manager, enhanced call handling, education, planning and assistance and rapid response to critical hardware and software incidents. Reactive services include six hour call to repair hardware support, 24x7 four hour response on hardware and two hour response on software.

Customer at a glance

Hardware

- HPE ProLiant BL650, BL660 & BL680 server blades

- HPE BL460 server blade

- HPE ProLiant DL980, 580 and 380 servers

- HPE 3PAR StoreServ 7400 storage

- HPE D2D, VTL, & TL

Software

- HPE IT Service Management (ITSM)

- HPE Application Performance Management (APM)

- HPE Application Lifecycle Management (ALM)

- HPE StoreOnce Backup

HPE services

- HPE Datacenter Care

"The speed of our new HPE servers and storage is four times what we had before, providing a level of performance that will easily support future growth as NWC services are rolled out to more cities."

— Hakem Al Sagri, technical support senior manager, National Water Company, Saudi Arabia

Benefits

Better performance

HPE Datacenter Care support gives NWC the knowledge that HPE is constantly watching and monitoring its systems and that there is a single point of contact and a dedicated team to turn to, enabling it to achieve in excess of 99.999 per cent system availability.

HPE worked in partnership with NWC to provide a tailored end-to-end support package, choosing the right level of hardware and software support for each device and the assigned account team provide a single point of accountability who are familiar with the NWC environment. NWC could choose the Proactive Services they required when and where they needed them and enhanced call handling ensures rapid response, regardless of the reactive support level.

"The flexibility of HPE Datacenter Care means that we can tailor the service to meet our exact needs and having HPE working with us also has educational value because it increases the experience of our own staff," says Al Sagri. "You always have a mentor with you, teaching you and helping you. If there is a problem our staff can learn how to fix it. It's like having a big brother who can give you knowledge, experience and guidance."

The expansion of NWC's HPE environment has maximised compute and storage capacity and performance and by supporting virtualisation it has reduced energy costs and floor space.

"The actual speed of the new HPE storage and the servers is four times what we had before.

"Processing power is much faster and the RAM is much better. With deduplication, using HPE StoreOnce is also much quicker. A full backup used to take 12 to 18 hours. Now we can do it in less than one hour."

As NWC expands into more cities and its responsibilities increase, it now has the infrastructure to sustain that business growth and a level of support that helps keep water flowing for the people of Saudi Arabia.

Learn more at
hpe.com/services/datacentercare

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