vmware

Championing IT-OT convergence for utilities

Utilities businesses today face unrivalled market conditions. While it's a time of huge growth in demand and usage, there are also many challenges: from the ability to manage supply chain fluctuations, to securing critical infrastructure, and improving business productivity. VMware helps utilities organisations to keep the lights on—working with them to digitise operations, so they can better manage their increasing data volumes, and the challenges this creates.

It's a time of great change for utilities

Fundamental changes in the global energy mix, with **80–90% of generation expected to be renewable** by 2050[i]

Greater focus on sustainability, with **64 countries pledging or legislating achieving net zero** in the coming decades[i]

Increasing political and regulatory risks, e.g., the UK government enabling **unlimited fines for environmental pollution**

And this is creating a host of business challenges

- More power outages due to extreme weather
- Shift to renewables, with less predictability in supply
- Energy supply and supply chain volatility
- Increase in cyber-attacks targeting critical infrastructure
- Greater regulatory and compliance requirements
- Technology skills and talent shortages

It's why utilities businesses today—particularly those with aging networks and legacy infrastructure—are recognising the need for new digital infrastructure to deliver modern, resilient and responsive operations.

In 2022, cyberattacks targeting critical infrastructure jumped from comprising 20% of all nation-state attacks detected, to 40%.[ii]

How do we help?

VMware provides utilities businesses with a platform for virtualisation, edge computing, connectivity, and security, across both IT and OT domains—as well as modern workforce management for teams working anywhere, from the office to the field. We also provide a platform for modern apps to deliver information and intelligence, wherever and whenever it's needed.

We help organisations to:

Modernise the entire electricity network, delivering visibility and real-time data for distributed assets—and enabling modern technologies like digital automation and AI.

Create modern apps, to deliver timely critical information to the people who need it, whether it's engineers in the field or customers.

Maximise resilience and uptime, securely connecting together distributed assets, equipment, sensors and data systems together behind a single pane of glass.

Deliver high-performance, low-latency computing at the edge, enabling real-time applications and data-intensive processes with built-in security and scalability.

Make workforces more productive and engaged, by delivering any app, on any device—even rugged devices designed for field workers—in a digitally innovative workspace.

Deliver on sustainability promises, moving workloads to less impactful locations, and using a single platform to reducing infrastructure footprints.

Renewable generation is projected to reach 80–90% of the global energy mix by 2050.[i]

Making the right choice

We're uniquely positioned to help utilities businesses.

We make it easier to move workloads where they need to be—to make them more responsive, closer to source, or more energy efficient, which reduces carbon footprint.

We enable businesses to make the most of data from multiple devices, to innovate and keep on top of sovereignty and compliance.

We provide a secure platform you can trust, across IT and OT, as these realms converge, from center to edge.

We provide consistent operations, delivering more predictable costs and savings.

We reduce risk and ensure compliance across the organisation and the supply chain.

We provide the tools, skills, and methodology to help utilities rapidly develop and deploy modern data apps where they're needed.

Global build-out rates for solar and wind grew by a factor of five and eight respectively in 2022.[i]

Electricity utilities we're already helping

UK Power Networks Delivering your electricity

UKPN wants to transform its grid into an intelligent, environmentally clean power system, so it can safely release more capacity and connect more renewable sources. We're supporting this through our software-defined systems, enabling centralised control of distributed assets, including power stations.

DUKE ENERGY.

Duke Energy wanted a new way to manage its power network data, so that it could deliver better customer service. With VMware Tanzu, we enabled the Duke team to aggregate data from all it sources, including customer reports and grid information, and integrate tools like VR and AI, to deliver insights and info direct to customers in near-real-time.

For more information on our work with utilities, visit our website here or email the VMware team on uk_energyutilities@vmware.com.

i. https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2022
ii. https://blogs.microsoft.com/on-the-issues/2022/11/04/microsoft-digital-defense-report-2022-ukraine/