



nexustek

ENERGY · OIL & GAS · UTILITIES · 2026

The Future of Energy & Utilities Operations

How organizations modernize IT without risking reliability — a practical guide for energy, oil and gas, and utility operators.



THE LANDSCAPE

The IT environment has to keep up.

Connected field operations. Smart grid technology.
Real-time analytics. Increasing cybersecurity threats.



2,336

Cyberattacks per week targeting this sector in 2026

CHECK POINT RESEARCH, 2026



\$4.83M

Average cost of an energy sector cyberattack

IBM, 2025



\$121B

Cost of U.S. power outages in 2024

OAK RIDGE, 2026



90%

Of energy executives cite cyber as their top concern

GOODMAN MANSSON, 2025

The average time to identify a breach in this sector is **181 days**. Nearly six months of exposure before anyone knows there's a problem.

IBM COST OF A DATA BREACH REPORT, 2025

40% of organizations risk missing AI value entirely because legacy infrastructure makes modernization impossible before it starts.

IDC, 2025

“Mid-market operators carry the complexity of large enterprises without enterprise IT staffing. The right managed services partner closes that gap — without requiring operators to build the capability internally.”

Key Challenges

These challenges don't exist in isolation. **They compound.** Legacy infrastructure expands the attack surface. Workforce gaps leave monitoring uncovered. Regulatory requirements layer on top of everything else.

01	IT/OT integration and legacy infrastructure SCADA systems on 20–40-year lifecycles were never designed for modern cloud connectivity. The gap widens every year modernization is deferred.	CLOUD · IT OPS
02	Cybersecurity of critical infrastructure Legacy OT systems can't be easily patched or rebooted. The IT layer around them has to compensate — continuously.	CYBERSECURITY
03	Grid digitization and smart infrastructure Smart meters, DERs, and EV charging are creating a distributed computing environment at scale. Managing millions of endpoints while keeping reliability intact is a live challenge today.	CLOUD · DATA + AI
04	Data explosion and real-time analytics Grid telemetry and IoT data volumes exceed what siloed, batch-based systems can handle — limiting operational insight and blocking AI readiness.	DATA + AI
05	Workforce and skills shortage Often one IT generalist managing multiple sites. Specialist roles — cloud, security, data — aren't available at mid-market compensation levels.	COMPLETE IT
06	Decarbonization and the energy transition Forecasting intermittent renewables and supporting energy trading require AI platforms built on data infrastructure most operators are still assembling.	DATA + AI
07	Regulatory and compliance complexity NERC CIP, TSA directives, FERC, state PUC — supporting auditability across all of them simultaneously is, at its core, an architecture problem.	CYBERSECURITY
08	M&A, divestiture, and rapid IT standup Spin-offs and acquisitions don't wait. A complete, independent IT environment has to be operational in 30–90 days, with nothing to build from.	COMPLETE IT

REGULATORY CONTEXT

NERC CIP and TSA Pipeline Security Directives have moved from voluntary guidance to mandatory enforcement — creating specific, immediate demand for IT security controls.

NERC CIP
ELECTRIC UTILITIES

- Universal MFA for all remote access, including previously exempt low-impact systems
- Encryption of real-time operational data over public networks
- Internal Network Security Monitoring (INSM) inside the perimeter
- Supply chain and third-party access subject to formal risk management

NEXUSTEK'S ROLE

Implement and manage the IT controls these frameworks require — MFA, encrypted architecture, monitoring, incident response, vendor access controls, and disaster recovery.

TSA Pipeline Security Directives
OIL & GAS / PIPELINES

- Annual Cybersecurity Assessment Plan (CAP) submitted to TSA for approval
- Comprehensive OT assessment every three years, 100% coverage
- Annual incident response testing against documented SIRP objectives
- Proactive Cybersecurity Risk Management programs required



A REAL EXAMPLE

Vault Pressure Control — 60 days, from nothing.

A corporate divestiture. No IT infrastructure. Oilfield and office environments. One deadline.

A real example of what managed IT looks like under pressure.

When Vault Pressure Control separated from Baker Hughes, they needed a fully independent IT environment covering corporate offices and active oilfield locations — operational before the separation date. NexusTek delivered it in 60 days, from nothing.



THE SITUATION

- Corporate spin-off requiring entirely independent IT, built from scratch
- Offices and active oilfield locations to be covered simultaneously
- 60-day hard deadline. Zero legacy infrastructure. No internal IT team.
- Field operations couldn't wait — no margin for delay

WHAT NEXUSTEK DELIVERED

- ✓ Full IT assessment and infrastructure design from day one
- ✓ Hybrid cloud environment and modern networking across all sites
- ✓ VoIP deployment and complete Microsoft 365 migration
- ✓ Custom cybersecurity program: MFA, encrypted architecture, phishing protection, employee training
- ✓ Ongoing Complete IT Services with dedicated engineer and Virtual CIO

DELIVERED ON TIME. ZERO SERVICE DISRUPTION.

WHY THIS MATTERS

The Vault Pressure Control engagement illustrates what NexusTek delivers under real operational pressure — multi-site deployment, full-stack delivery, and cybersecurity stood up in parallel with infrastructure, not sequentially after it.

If your organization is navigating a divestiture, acquisition, or has outgrown its current IT model, the Vault case study is the most directly relevant reference available.

[READ THE FULL CASE STUDY AT NEXUSTEK.COM](https://www.nexustek.com)

Not a proposal. A completed project — on deadline, across two environments.

The energy sector doesn't have tolerance for theoretical capability. Operators need to know a partner has done this before — in environments like theirs — and delivered. That's what the Vault engagement provides.



WHAT WE DO

Four pillars. One partner. Nothing left uncovered.

Managed IT and cybersecurity unified through NexusOps — our AI-powered delivery platform.


[The Landscape](#)

[A Real Example](#)

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Cloud
Private, hybrid, & public



Data + AI
Platforms & analytics



IT Operations
Managed IT & vCIO



Cybersecurity
MDR, SOC, & response

01
DO MORE WITH CLOUD
Cloud

Private, hybrid, and public cloud environments connecting office, field, and remote locations. Sensitive workloads stay on NexusTek's SSAE 18 Tier 4/5 private cloud. Everything else scales on Azure or Google Cloud — one contract, no architecture gaps.

100% cloud migration success rate · 99.9% uptime SLA on NexusTek Private Cloud

02
LEAD THE AI ERA
Data + AI

Data platforms, governance frameworks, and analytics environments built for operational AI — predictive maintenance, production forecasting, grid optimization. The data foundation comes first. NexusTek builds it, clearing the technical debt that blocks AI adoption.

IDC: legacy infrastructure is the primary blocker to AI adoption in this sector

03
OPERATIONAL EXCELLENCE
IT Operations

Proactive monitoring, patch management, help desk, and remote device management through NexusOps. Virtual CIO (vCIO) services available for organizations needing senior IT strategy without a full-time hire — closing the gap between complexity and internal capacity.

98% client satisfaction · ~6-year average client relationship · 1,200+ clients served

04
PROTECT WHAT MATTERS
Cybersecurity

MDR, 24/7 SOC monitoring, AI-powered email security, MFA, endpoint protection, and incident response planning. A security program is a team — actively monitoring, responding, and improving. NexusTek covers the IT/OT boundary without touching operational systems.

Vault Pressure Control: full security program stood up in 60 days post-divestiture



Who we serve

Four sub-segments. Different buyers, different regulatory exposures, different conversations that open the door.



Electric & Gas Utilities

Regional co-ops · Municipal utilities · IOUs

Challenge: Compliance obligations now extend to co-ops and municipal utilities, often without the IT resources to match.

NexusTek: Managed IT and cybersecurity supporting NERC CIP readiness and operational continuity.

"How many hours of unplanned downtime last year? What's your incident response plan when a substation loses connectivity?"

MANAGED IT

CYBERSECURITY

NERC CIP



Oil & Gas

Independents · Midstream operators · Oilfield services

Challenge: Remote workforces, large footprints, TSA directives, and M&A create IT gaps on timelines that don't accommodate slow responses.

NexusTek: MDR, rapid IT standup, and modernization programs keeping field operations running securely.

"Are your remote sites and field crew devices managed and monitored? What would ransomware cost in downtime?"

MDR

MODERNIZATION

TSA READY



Energy Services & Field Services

Equipment providers · EPC contractors · Pressure control

Challenge: Growth-stage companies and spin-offs that have outgrown break-fix IT but can't yet justify building an internal function.

NexusTek: Complete IT Services — help desk, infrastructure, security, and vCIO from day one.

"Do you have a dedicated IT team? Who manages infrastructure when something breaks at a field location after hours?"

COMPLETE IT

vCIO

RAPID DEPLOYMENT



Renewables & Clean Energy

Solar · Wind · Battery storage · EV charging networks

Challenge: Distributed IoT-heavy fleets that expand the attack surface with every new asset, plus AI ambitions requiring data infrastructure still being built.

NexusTek: Cloud and data platforms enabling forecasting and AI, alongside cybersecurity scaled to distributed environments.

"How are you managing cybersecurity across your distributed fleet? Do you have a data strategy supporting your forecasting initiatives?"

CLOUD

DATA + AI

CYBERSECURITY



WHY NEXUSTEK

Enterprise IT outcomes. Without the enterprise overhead.

The managed IT and cybersecurity partner for operators
that need to run reliably and securely.

[The Landscape](#)

[A Real Example](#)

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WHY NEXUSTEK



Right-sized for mid-market

Enterprise-level capability without enterprise overhead or contract complexity. Built for organizations with infrastructure burdens larger than their IT headcount.



60-day deployments, proven

Hybrid cloud, VoIP, MFA, email security, and full data migration — built and operational in 60 days post-divestiture. A completed project, not a capability claim.



100% cloud migration success

Every cloud migration NexusTek has completed ran without service disruption. In a sector where downtime has direct operational consequences, that's the baseline expectation.



Cybersecurity built for this sector

SOC and MDR designed around IT/OT boundary threats. One vendor, full coverage, no gaps between the tools and the team actively watching them.



Multi-site and field ready

Delivered across office, field, and remote energy environments — including the Vault Pressure Control engagement spanning corporate offices and active oilfield sites simultaneously.



Strategic IT leadership available

Virtual CIO (vCIO) services provide senior IT strategy without a full-time hire — filling a real gap in planning, vendor management, and board-level reporting.

99.9%

Uptime SLA, Private cloud

100%

Cloud migration success

98%

Client satisfaction

1,200+

Clients served

~30 yr

IT services experience

Prepare for the future of energy & utilities operations.

Start with a no-cost IT and Security Assessment. Map your environment, identify risk exposure, and build a modernization roadmap. No pitch. No obligation.

[REQUEST YOUR ASSESSMENT](#)

WHAT THE ASSESSMENT COVERS

A focused discovery conversation to map your current environment, identify the gaps creating the most operational and security risk, and prioritize next steps by impact — not by product category.

The output is a clear picture of where you stand and what the right sequence of next steps looks like. Useful regardless of whether you engage NexusTek further.

Also available: Cloud Readiness Assessment, Cybersecurity Risk Review, and Complete IT Services Evaluation.

nexustek.com/energy →

