FLINT
Empowering Through Experience

CASE STUDY

NEOM

Hyperscale Data Center Consulting

Designing the digital foundation for a city that runs on AI - from an empty site upward.

CLIENT
NEOM, Kingdom of Saudi Arabia

SECTOR
Smart City / Hyper-scale Infrastructure

SERVICE
End-to-End Data Center Consulting

THE AMBITION

NEOM is being built as one of the world's most advanced smart cities — a Vision 2030 flagship driven by AI, IoT and autonomous systems. A vision on that scale demands hyper-scale-grade digital infrastructure underneath it: multi-cloud operations, high-density computing and massive data throughput, delivered to Tier III–IV international standards and aligned with NEOM's sustainability and smart-city objectives.

THE NEED

Flint was engaged as NEOM's end-to-end data centre consulting partner — providing technical planning, architectural validation and strategic advisory across every stage, from greenfield feasibility through to commissioning. The brief spanned site feasibility, modular scalability, energy efficiency, and the operational readiness to run at national scale for the long term.

FROM FEASIBILITY TO COMMISSIONING

Concept and strategy came first — environmental, geotechnical and utility assessments to define optimal site conditions, baseline power density, redundancy and the parameters for modular expansion.

Architecture and design followed — detailed design frameworks and functional specifications aligned to Uptime Institute Tier III–IV and TIA-942, built on a deliberately vendor-neutral, multi-vendor model so power, cooling and network layers stay interoperable and scalable. Vendor evaluation and proof-of-concept sessions kept the design neutral and sustainability-aligned.

Then implementation and operational readiness — engineering design review, constructability assessment, QA/QC oversight and commissioning support, with Flint acting as NEOM's extended technology office to carry the project from blueprint to build and hold it to its redundancy and PUE benchmarks.

WHAT IT SET UP

NEOM now has a world-class hyperscale blueprint — modular, multi-zone-redundant, and vendor-independent for long-term flexibility and cost efficiency. Aligned to global best practice for uptime, security and energy optimization, it is a foundation ready to host AI workloads, cloud-native services and national-scale applications, and it sets new regional benchmarks in hyperscale design.

AI-DRIVEN MANAGED SERVICES

As NEOM's infrastructure goes live, Flint's AI-powered Managed Services are designed to operate it at hyperscale — using machine intelligence to monitor distributed systems, reduce downtime and keep day-to-day operations efficient across a smart city built on AI itself.

Al Rashid Center, 4th Floor King Saud Road, Al Murabba Riyadh 12612, Saudi Arabia

www.flint-international.me