Charting Pathways
towards Next Generation
Data Centers

Building the Future of Sustainable Digital Infrastructure Today

Technavious powers global organizations on the path of Digital Supremacy by offering unparalleled expertise and execution in Data center Design, Engineering, Construction and Operations.

In 2023, Technavious achieved Certificate Body status for TIA-942 standard, adding certification and compliance capabilities to our engineering portfolio. Today, Technavious is one of few global companies that enable our customers with full-lifecycle services and end-to-end DC solutions.

System Integration

Design, Architecture & Localization

Engineering & Construction - MEPFN

Test & Commission

Operation & Maintenance

Your partner in data infrastructure creation

Data is projected to grow at >30% CAGR over next 5 – 10 years, creating a huge demand for data infrastructure to support both retail and enterprise next-gen use cases.

Investors and Infrastructure creators understand this massive demand but lack access to a reliable technology partner who can help unlock this opportunity.

Technavious understands that Data Center investments can offer **safe, stable and promising returns** to stakeholders, but need to comply against strict benchmarks on compliance, performance, reliability and agility.

Our expertise in DC advisory, design, engineering, project management, localization, commissioning, certification and subsequent O&M ensure that your assets meet your business goals while optimizing your energy, cost and sustainability footprint.
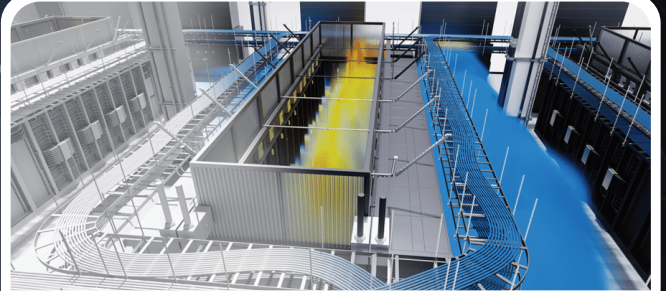
Strategic Planning

Site Selection | Technical Due Diligence | | Threat Vulnerability & Risk Assessment

Pre-Certified DC Design

TIA-942 | IGBC | Design Peer Review | Value Engineering | Advisory Services

Engineering & Construction

Civil | MEPF | Network | Project Management | Liaison | Localization

Operations & Support

Compliance & Certification | O&M Automation | Assurance Services

Monetization & Repurposing

Site Upgradation | Capacity Enhancement | PUE Optimization | Monetization Support

Your Premium Partner for Enabling AI-Ready Infrastructure

In today's rapidly evolving digital landscape, the demands of Artificial Intelligence (AI) and Deep Learning Models are reshaping Data Center needs across industries. Legacy data centers & traditional private cloud solutions often fall short of providing the high-performance, scalable, and sustainable infrastructure needed to operate AI workloads.

Transforming your AI Aspirations into Reality

At Technavious, we offer a holistic AI Infrastructure Strategy that converts your AI requirements into a future-proof yet cost-effective design and engineering outcome. Partnering with Technavious means:

- Staying ahead of the AI transformation curve with future-ready solutions.
- Leveraging sustainable, scalable, and efficient designs.
- Ensuring compliance with evolving industry standards and certifications.
- Access to a team of experts dedicated to empowering your workforce and operational efficiency.

AI Infrastructure Considerations	Project Management	Workforce Management	Vendor Management
Data vs Compute	Planning	**AI Infrastructure**	Certification
Analysis vs Inference		High-Performance Networking Solutions / AI-Optimized Storage Solutions	
CPU vs GPU/TPU	Design	Scalable and Modular Infrastructure / Advanced Cooling Systems	Operational Efficiency
Rack Power Density	Capacity Management	Modernize Legacy Infrastructure / Sustainability and Energy Efficiency	OpEx & Risk Management

Salient Features of Our Solution:

Industry Expert Level Design and Planning

1. Design and End-to-end planning from site selection to operational deployment

Legacy Infrastructure Retrofittin

1. Comprehensive assessments for AI compatibility.
2. Phased upgrades to minimize disruption while maximizing impact.

Scalable & Modular Infrastructure *

1. High-density designs that support over 50 kW+ per rack.
2. Modular architecture for seamless upgrades and adaptability
3. Future-proof solutions for long-term innovation including quantum computing.

Advanced Cooling Solutions *

1. Direct-to-chip and immersion cooling systems designed for AI's thermal challenges.
2. Hybrid cooling for cost-efficiency and dynamic optimization powered by predictive analytics.
3. Partnerships with leading OEMs for next-gen thermal management.

High-Performance Networking

1. Low-latency, high-speed Ethernet fabrics tailored for AI applications.
2. Cutting-edge inter-data center connectivity leveraging coherent optics and dark fiber.
3. Edge-to-cloud integrations for seamless hybrid AI models.

AI-Optimized Storage *

1. Scalable, high-throughput storage solutions for massive datasets.
2. Advanced data lifecycle tools to maximize efficiency and performance.

Sustainability & Energy Efficiency

1. Integration of renewable energy sources such as solar and wind.
2. Energy-efficient hardware and cooling systems to minimize carbon footprints and operational costs.

Workforce Empowerment & Certification

1. Upskilling your teams through tailored AI infrastructure training programs.
2. Collaborations with academic institutions to foster AI-specific education.
3. Comprehensive certification services for sustainable, vendor specific AI-ready systems.

Call to Action

Modernize your data center with Technavious and unlock the potential of AI-driven innovation. Contact us today to learn how we can future-proof your infrastructure and position your organization for success in the AI era.

with industry leading OEM partners

Edge Data Centers: Powering the Future of AI and Enterprise Computing

The New Era of Edge Computing and AI Operations

The artificial intelligence revolution is no longer confined to innovation labs. It is reshaping how enterprises, across every industry, operate. As organizations rush to deploy AI and machine learning models into production, a critical challenge emerges: how to efficiently scale these operations at the edge while maintaining compute performance and controlling costs.

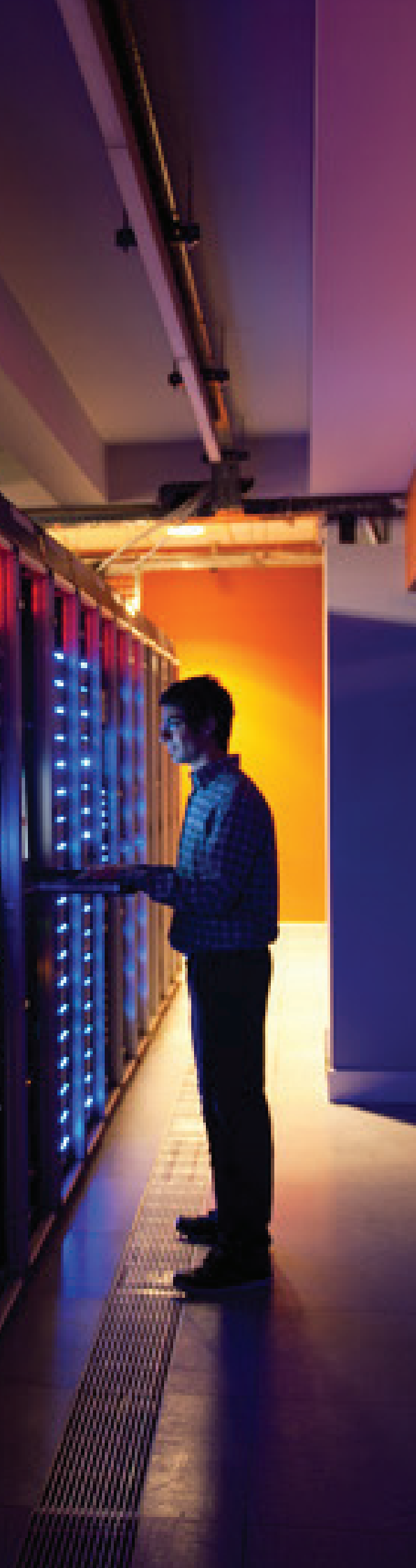## Why Traditional Cloud Solutions Fall Short

While major cloud providers might seem like the natural choice for AI infrastructure, they present significant challenges:

- Business models designed for traditional cloud computing,
  not optimized for AI/ML workloads
- Rigid, expensive solutions that force vendor lock-in
- Higher operational costs
- Limited customization options
- Restricted technology choices
- Inflexible infrastructure configurations for enterprises outside the top 1%
- Inefficient bolt-on solutions for MLOps and LLMOps workflows

Introducing Technavious Edge Data Centers: Purpose-Built for Modern AI Operations

Technavious differentiates itself through end-to-end integration of edge data center development. We handle everything in-house – from site assessment to commissioning, including all MEPFN services and certifications. This integrated approach enables cost-effective design and construction, setting us apart from competitors who rely on multiple vendors. Our facilities meet Rated 3 TIA 942 DC standards from the start, allowing early client onboarding. By controlling the entire process, we deliver faster, more affordable deployments without compromising reliability

Salient Features

- 99.99% availability
- TIA 942 Rated facilities
- Minimal latency for real-time applications
- Optimized for GPU-based AI workloads
- Comprehensive support for private 5G networks

Lowest TCO Solution

- Safe, Stable and Secure Investment
- Value engineered to exceed client requirements
  while meeting budget constraints
- Superior ROI compared to hyperscale solutions
- Efficient 200kW – 1MW modular design
- Reduced operational costs through optimized design

Future-Ready Architecture

- Capable of supporting CPU and GPU workloads
- Support of advanced cooling technologies like
  Direct-to-Chip Liquid Cooling (DCLC) and immersion cooling
- Modular and highly scalable allows lower Day 0 capex

Transform Your AI Operations Today

The race to operationalize AI is on, and the right infrastructure partner can make all the difference. Technavious brings the expertise, experience, and integrated capabilities needed to turn your AI ambitions into reality.
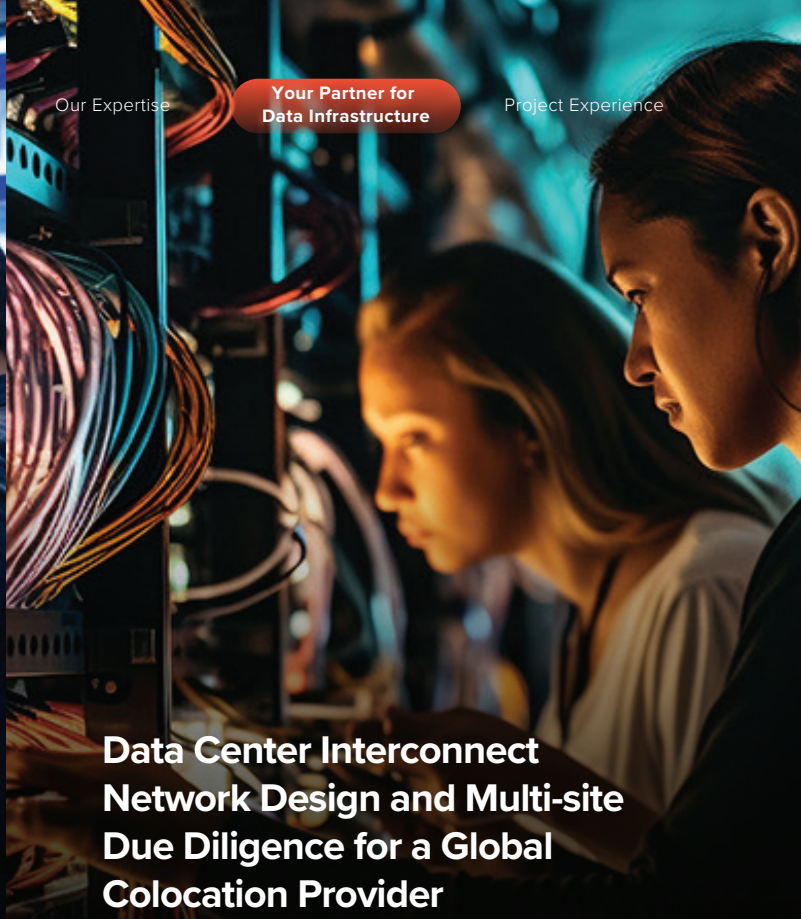
Contact **Technavious** today to begin your journey toward building a resilient, efficient, and profitable edge infrastructure optimized for AI operations.

Full-Service Engineering Support for setting up a 5Mw Colocation data center at Pune, India

Design, engineering, project management, localization, commissioning and TIA-942 certification of a 5Mw co-location DC within an enterprise campus.
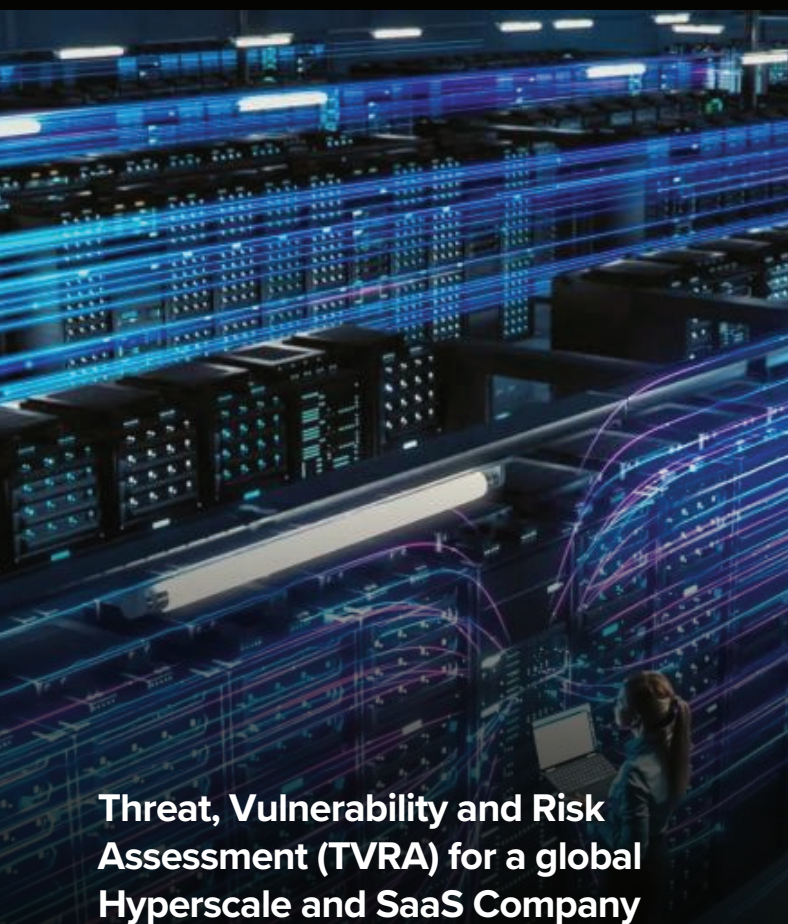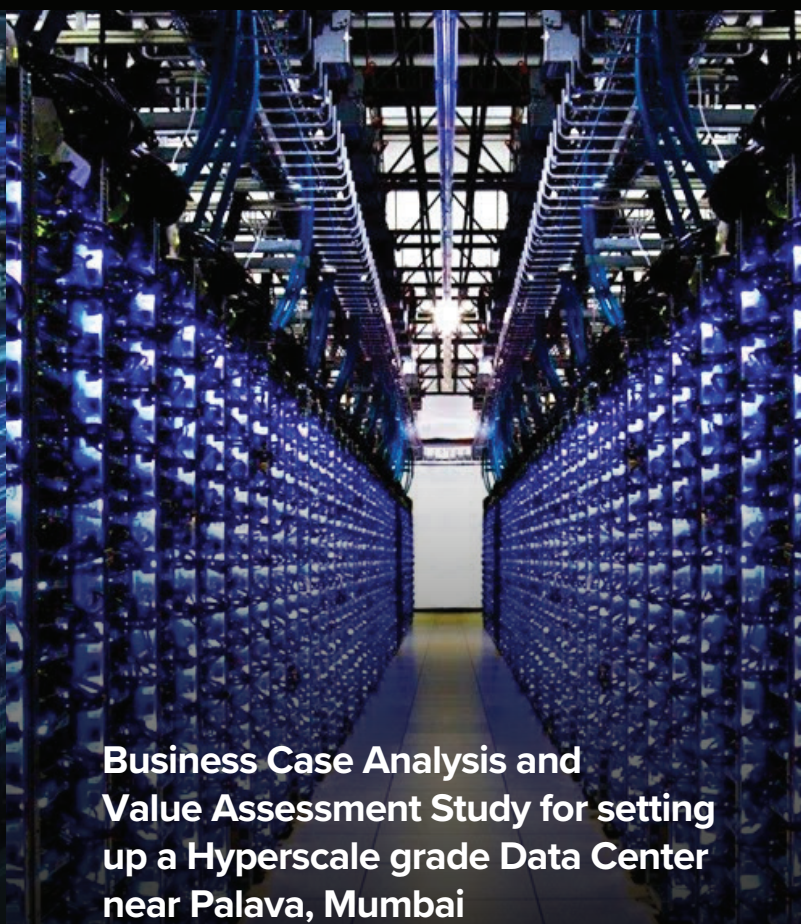
Data Center Interconnect Network Design and Multi-site Due Diligence for a Global Colocation Provider

50+ locations assessed across India including Jaipur, Bangalore, Hyderabad, Chennai, Delhi, Ahmedabad, Pune and many others.

Threat, Vulnerability and Risk Assessment (TVRA) for a global Hyperscale and SaaS Company

Conducted strategic planning and risk assessment for construction of a 44Mw Hyperscale grade DC in Hyderabad, India

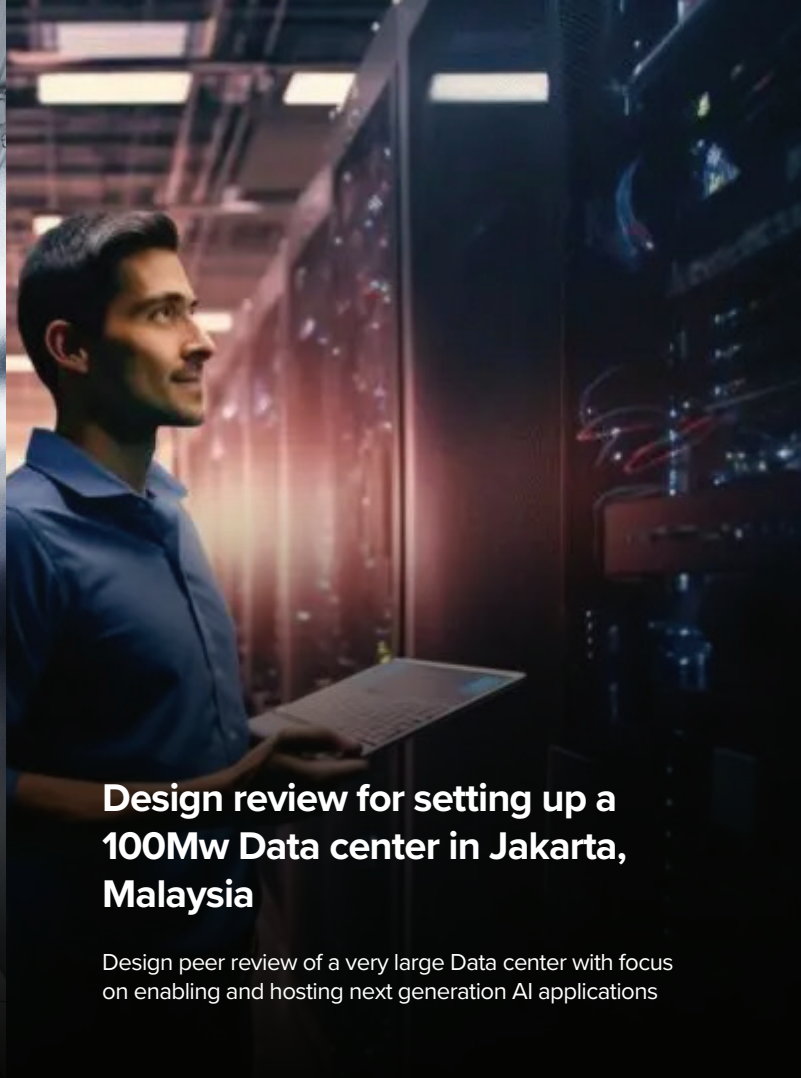## Business Case Analysis and Value Assessment Study for setting up a Hyperscale grade Data Center near Palava, Mumbai

Conducted site assessment and network performance analysis for potential land deal for setting up a Large Data Center for public cloud services

Data Center O&M enhancement of a leading Indian Bank to reduce service outages.

Data Center health check and O&M operations enhancement to improve asset performance and upgrade delivery capability of multiple inhouse-DC sites

Design review for setting up a 100Mw Data center in Jakarta, Malaysia

Design peer review of a very large Data center with focus on enabling and hosting next generation AI applications

TVRA, Assurance and Certification of Asia's leading Co-lo and Hybrid Clous Solution provider

8 DC campuses assessed across Indonesia, Singapore and Hongkong for TIA 942C, ISO 45001, ISO 45001 and ISO 14001 assurance and certification

Structured cabling support at one of India's most respected Co-lo service provider

Operations support and structured cabling for client onboarding at a 10.8MW DC site in Noida, India

Who we are

Trusted by Industry Leaders:
Prestigious Global Client Portfolio

AEFC — LIMITED | Partner in your future

VueNow

AECOM

SUDLOWS — working at the core of your business

Microsoft

AiNET

Princeton DG

BSE — EXPERIENCE THE NEW

SGS

BDx

YOTTA

sify

ips mehtalia — KNOWLEDGE, SKILL & PASSION

indus TOWERS

viettel — Theo cách của bạn

CapitaLand

STTelemedia Global Data Centres

DIGITAL CONNEXION — A Brookfield, Jio and Digital Realty Company

NTT DaTa

Texas

Dubai

Mumbai

Chennai

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Technology enablers for 5G & Data Centers

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