Next-Gen

Data Center

Transforming Infrastructure

n network
techlab
Adding Values to Work

Sustainable & Smart

Data Centers for a

Greener Future

ISO 27001:2013

Certified Company

A Legacy of Innovation

Pioneering Technological Excellence Since 1996
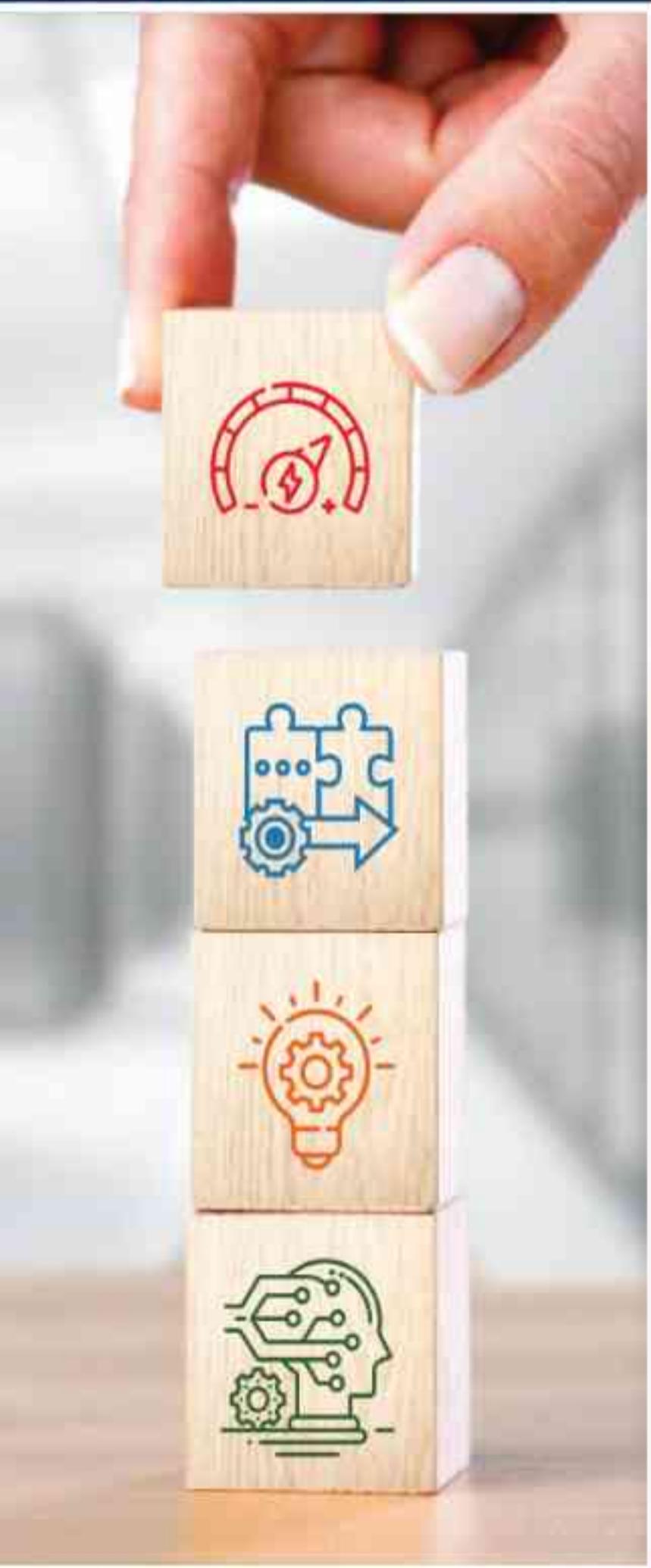
Since 1996, Network Techlab has been at the forefront of technological change, delivering advanced IT infra structure and data centre solutions both in India and internationally. With operations in 14 major Indian cities and a global presence in Singapore and Dubai, we have built enduring partnerships with over 7,500 customers.

Backed by an ISO 27001:2013 certification & a team of more than 650 dedicated experts, we ensure that every solution we deliver meets the highest quality, security, and efficiency standards. Our commitment to innovation and excellence drives us to develop comprehensive, future-ready technology solutions that empower businesses to thrive in an ever evolving digital landscape.

30+ Years in Business	**100+** Data Centers Implemented
650+ Professional Staff	**5000+** Happy Clients

Our Experts

"Every great innovation begins with a strong foundation - embrace the data center journey as the cornerstone of transformation, powering limitless possibilities."

Haresh Gada
Founding Director - Network Techlab India Limited

"Empowering digital transformation with reliable, secure, and scalable data center infrastructure where seamless access meets sustainability and operational excellence."

Rajendra Gawad
Director - Technical Sales

"AI Data Centre Solutions are revolutionizing data management delivering unparalleled efficiency, robust security, and scalable innovation for tomorrow's digital landscape."

Vipul Parmar
Vice President - Artificial Intelligence Edge Solution

The Data Center Journey

From on-premise server rooms to cloud-integrated, AI-driven facilities, the journey of data centers has evolved rapidly. Once limited by space and power, today's data centers offer scalability, security, and sustainability. Advancing from traditional setups to edge computing and green energy solutions, they now power the digital world with efficiency and innovation.

Our Approach to Delivering Excellence

Delivering excellence in data centers requires a strategic approach combining innovation, reliability, and sustainability. From precision engineering to advanced security and energy-efficient solutions, every element is optimized for peak performance. Proactive monitoring, seamless scalability, & client-centric solutions ensure resilience, efficiency, and future-ready infrastructure to meet evolving business demands.

"Every great innovation begins with a strong foundation - embrace the data center journey as the cornerstone of transformation, powering limitless possibilities."

Smart, Scalable & Sustainable: The Future Trends in Data Centers

Data centers are becoming more advanced every day, given the need to accommodate high-performing computing needs, sustainability concerns, and matters of security. Below are the primary trends forming today's modern data centers:

Sustainability & Green Data Centers

With increasing energy prices & environmental issues, data centers are embracing energy-efficient technologies such as liquid cooling, renewable energy integration, & AI-based power optimization. Carbon-neutral & green data center designs are gaining importance.

AI & Automation in Data Centers

Artificial Intelligence (AI) and automation are revolutionizing data center operations by optimizing workload allocation, predictive maintenance, and real-time monitoring. AI-based analytics assist in minimizing downtime and enhancing overall efficiency.


Edge Computing & Decentralization

With the demand for low-latency applications increasing, companies are moving towards edge computing. This minimizes the time for data transmission by processing data near the source, enhancing response times for IoT, 5G, and AI applications.

Improved Security & Zero Trust Architecture

Cybersecurity is a serious issue, resulting in the implementation of Zero Trust security paradigms. Multi-layered security architectures, biometric authentication, AI-driven threat detection, and real-time encryption are becoming de facto standards.
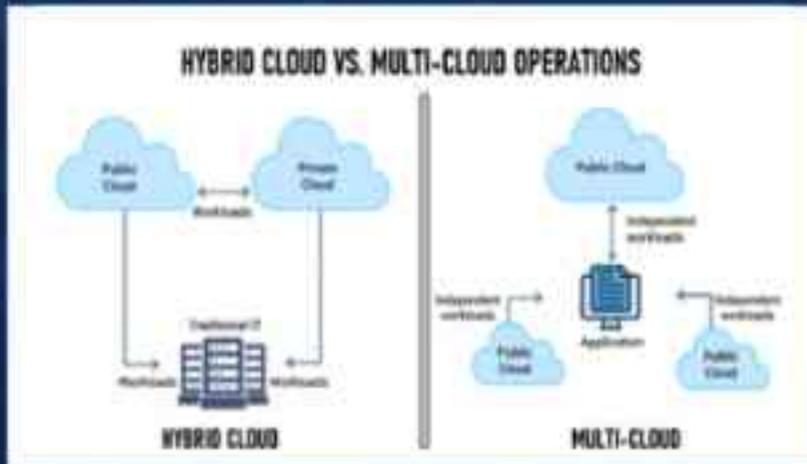
Hybrid & Multi-Cloud Strategies

Hybrid and multi-cloud platforms are being utilized more and more by companies to achieve improved scalability, flexibility, and cost savings. It enables organizations to balance workloads on public, private, and on-premise data centers.

High-Density Rack Designs & Liquid Cooling

To support increasing demands for computational power, data centers are shifting toward high-density racks. Sophisticated cooling mechanisms, including liquid cooling and immersion cooling, enhance heat management efficiently and boost performance.

5G & Data Center Connectivity

5G deployment is improving data center connectivity, providing quicker data processing and reduced latency. This evolution is vital to industries that function on real-time data, e.g., smart cities, self-driving cars, and AI technologies.

Modular & Prefabricated Data Centers

Organizations are investing in prefabricated and modular data centers to minimize deployment times and enhance scalability. Quick installation, improved energy efficiency, and cost reduction are some of the solutions provided by these offerings

At Network Techlab India Limited, we remain ahead of the curve by offering innovative, scalable, and secure data center solutions that meet your business requirements.

AI
Driven Futuristic Data Centers

In today's digital economy, enterprises are embracing innovative solutions to efficiently manage & transfer large volumes of data. It is anticipated that AI Based Next Generation Data Centres will change the paradigm of data management, streamlining processes in the management of data, increasing security levels, cutting costs and promoting green economy principles.

Transforming Operations with AI

Smarter Data Processing & Storage

Energy Efficiency & Sustainability

Self-Healing & Optimized Networks

Security Redefined by AI

AI-driven data centers are the future of enterprise IT infrastructure. By leveraging the power of artificial intelligence, these data centers offer unmatched efficiency, security, and scalability, all while fostering sustainability. As businesses continue to grow and generate data, AI-powered data centers will be essential in driving innovation, improving performance, & meeting the demands of a data-driven world.

Transforming Data Centers for a **Greener Tommorrow**

At Network Techlab (India) Limited, we are committed to building eco friendly, energy efficient, & sustainable data center solutions that minimize environmental impact while maximizing operational efficiency.

Our expertise in IT Infrastructure, Data Center Technology, Operational Technology, & Smart Automation enables businesses to achieve their sustainability goals with innovative, future-ready solutions. With our innovative, energy-efficient, & sustainable solutions, Network Techlab is driving the transition toward a greener and more responsible digital future.

Let's work together to build an ecofriendly, high performance data center that supports both business growth & environmental well being

Powering the Future with Green Technology

Energy Efficient Data Centers

High Efficiency Power & Cooling Solutions - Deployment of advanced precision cooling systems, liquid cooling, & airflow optimization to reduce energy consumption.
UPS & Battery Optimization - Implementation of high efficiency UPS systems and Lithium-ion batteries to reduce power wastage.

Renewable Energy Integration

Solar Powered Data Centers - Integration of solar panels and hybrid power solutions for sustainable energy consumption.
Power Quality Management - Use of advanced power management & smart grid technologies to optimize energy usage.

Eco-Friendly IT Infrastructure

Refurbished & Circular IT Solutions - Integration of solar panels & hybrid power solutions for sustainable energy consumption.
E-Waste Recycling & Responsible Disposal - Use of advanced power management & smart grid technologies to optimize energy usage.

Smart Automation & Sustainability Monitoring

AI-Driven Energy Management - Utilizing AI & IoT powered sensors for real-time energy monitoring & optimization.
Green Data Center Design - Implementing modular & sustainable designs to reduce carbon footprints.

Simplify Your Branch IT with

Smart Data Center Solutions

In fast-evolving digital landscape, businesses require a robust, scalable, and energy-efficient data center to handle increasing IT demands. Network Techlab India provides cutting-edge Smart Data Center Solutions, integrating power, cooling, security, & monitoring into a seamless, intelligent infrastructure

Why Choose a Smart Data Center?

Higher Efficiency	Scalability	Enhanced Security	Rapid Deployment	24/7 Monitoring

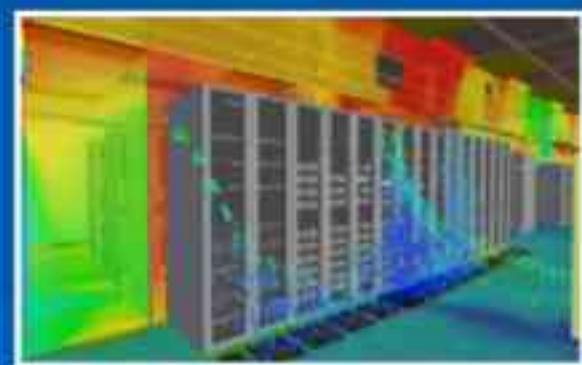## Key Features & Benefits :

Integrated Infrastructure

A single-vendor solution combining power, cooling, security, and networking in a compact, modular design

Energy-Efficient Thermal Management

Innovative cooling with precision in-rack DX cooling (3.5 kW – 7 kW per rack), hot/cold aisle containment, and AI-driven airflow control for reduced power consumption

Smart Power Distribution

Rack-mounted UPS, PDUs, and electrical panels ensure an uninterrupte power supply, reducing downtime

Advanced Fire & Safety Solutions

Equipped with NOVEC 1230 firesuppression, smoke detectors, and emergency abort switches to prevent damage

Seamless Monitoring & Management

Remote Data Center Infrastructure Management (DCIM) with real-time tracking, predictive maintenance, and access contro for improved efficiency

Plug & Play, Modular Design

Easy installation with factory-fitted, pre-tested solutions, ensuring quick deployment and minimal disruption

Industries We Serve :

IT & Data Centers

Banking & Finance

Healthcare & Pharmaceuticals

Manufacturing & Logistics

Government & Smart Cities

From IT & Data Centers to Smart Cities, we deliver cutting-edge solutions that drive efficiency, security, and innovation.

Reliable. Scalable. Future-Ready.

Customization and Solutions that Fit

The transformation begins as we develop an end-to-end solution tailored to their unique requirements. A conventional data center simply wouldn't suffice, so we provide an Edge Data Center setup that balances performance, energy efficiency, and security while remaining scalable for future growth. With our solution, everything - from raised floors and racks to intelligent monitoring and structured cabling is seamlessly integrated into the infrastructure.

As the installation progresses, we frequently check in with the client, ensuring their needs are met and that they feel confident in their new system.

We also bring in state-of-the-art monitoring systems that track every critical parameter, from temperature and humidity to fire systems and security. With our Data Center Infrastructure Management (DCIM) solutions, we ensure the client has full control over their operations, ensuring optimal performance and a secure environment.

Building Sustainable & AI Ready Data Center

Power and Cooling Optimization for Data Centers

1. Advanced Liquid Cooling Technology

Traditional air-cooling methods often struggle with high energy consumption and inefficiencies, especially for high-density racks. We introduce Advanced Liquid Cooling, up to 3000 times more efficient than traditional air cooling systems. This solution ensures your data center stays cool while meeting rising demands, enhancing both perfomance and sustainability.

Direct-to-Chip Liquid Cooling:

This innovative system cools your servers at the chip level, ensuring efficient heat dissipation without compromising on performance.

Rear-Door Heat Exchangers:

Integrated into the rear doors of server racks, these exchangers remove heat directly from the source, optimizing cooling without the need for excessive energy consumption.

2. Sustainable Power Management

Our power management solutions focus on reducing energy consumption and increasing operational efficiency. We provide sustainable energy alternatives and integrate them with your existing infrastructure, ensuring your data center remains eco-friendly while handling the growing power needs of modern IT systems.

Energy-Efficient UPS Solutions:

Reduce operational costs while improving reliability with the latest energy-saving UPS systems.

Smart Power Distribution:

Intelligent power distribution units (PDUs) monitor power usage and optimize energy efficiency across your data center, reducing wastage and ensuring sustainable energy consumption.

Cooling Solution Reduces Data Center Carbon Footprint

HIGH EMISSIONS

CO₂

LOW EMISSIONS

• Cost Reduction & Environmental Impact

By adopting our power and cooling solutions, you will not only save on operational costs but also minimize your data center's environmental footprint. Our systems are designed to deliver exceptional performance while aligning with your sustainability goals

• Transparent Implementation and Ongoing Support

Our team works closely with yours throughout the entire implementation process, ensuring seamless integration of our cooling and power solutions. We provide training on maintaining the new infrastructure, as well as ongoing support to ensure long-term success.

Lower Carbon Footprint:

With advanced liquid cooling and energy-efficient power management, we help you reduce your data center's environmental impact, making it greener and more sustainable.

DATA CENTER MAINTENANCE

The Challenges of
Conventional
Data Centers

In today's rapidly evolving digital landscape, traditional data centers are facing significant challenges that hinder efficiency, scalability, and sustainability. Here are some key limitations of conventional data centers

1. High Energy Consumption

Conventional data centers often rely on outdated power and cooling systems, leading to excessive energy usage and escalating operational costs.

2. Environmental Impact

High carbon emissions and inefficient energy usage contribute to environmental degradation, making sustainability a growing concern.

3. Limited Scalability

Traditional infrastructures are rigid & lack flexibility, making it challenging to scale up operations to meet growing business demands.

4. Security Risks

Legacy systems are often more vulnerable to cyber threats, posing significant risks to sensitive data and business continuity.

The Advantages of
Edge
Data Centers

An edge data center is typically defined as a smaller, decentralized facility strategically located closer to the end users and devices it serves. Edge data centers play a key role in delivering infrastructure at optimal locations, enhancing user experiences & accelerating business insights

1. Reduced latency:

By shortening the distance data travels, edge data centers significantly cut down latency, ensuring faster response times and seamless, real-time, personalized interactions.

2. Improved data transfer efficiency:

Localized processing enhances data transfer speeds and optimizes bandwidth, critical for latency-sensitive applications such as streaming, gaming and IoT.

3. Scalability:

You can deploy edge data centers incrementally, allowing you to scale your infrastructure based on demand without massive upfront investments.

4. Enhanced reliability:

Localized facilities provide redundancy & backup for critical data and services, enhancing overall system reliability.

Containment Solutions

Cold & Hot Aisle Airflow Management

Data centre containment strategies can greatly improve the efficiency of traditional data center cooling systems with appropriate design.

- We design & built customisable robust and high quality containment solution.

- The sleek look and fee best in class materials and energy efficient architecture

- Moreover, it would enable them to standardise and quickly scale across new sites, using a methodology that delivers increased security performance, and sustainability

- This is a pivotal approach, and has informed the design construction and development of its third climate positive data center.

Precision Air Conditioning Unit (CRAC)
Cold Aisle
Hot Aisles
Hot Aisles
Perforated Tiles
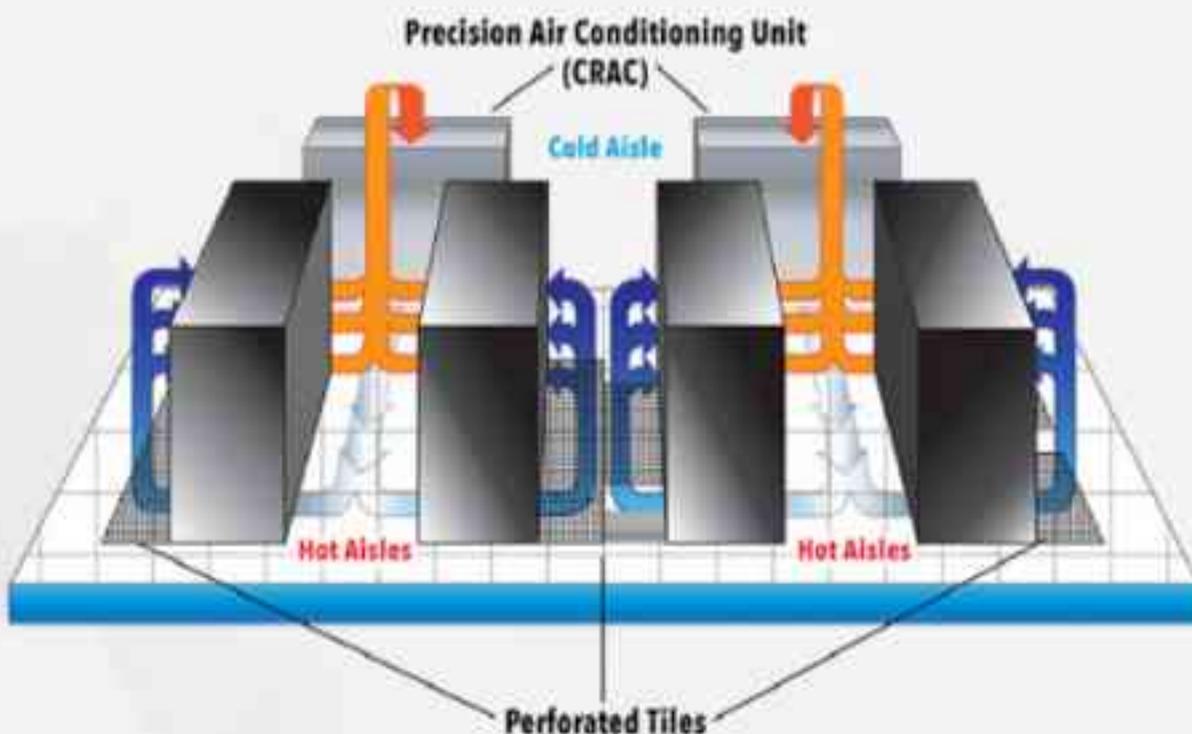
Integrated
Data Center
Solutions

PHASE 01

Infrastructure & Design

Turnkey Data Center Build :
From conceptualization to commissioning, we deliver modular, scalable, and high-availability infrastructure.

Precision Cooling & Thermal Management :
Advanced cooling technologies to reduce power consumption and enhance efficiency.

Rack & Enclosure Solutions :
Customized racks with optimal airflow, security, & cable management for enhanced efficiency

PHASE 02

Power & Energy Management

High Efficiency UPS & Power Backup :
Reliable UPS, inverters, lithium-ion batteries, & DC power systems to ensure uninterrupted operations.

Energy Monitoring & Smart Grids :
Advanced cooling technologies to reduce power consumption and enhance efficiency.

Surge Protection & Power Quality Solutions :
Customized racks with optimal airflow, security, & cable management for enhanced efficiency.

PHASE 03

Automation & Smart Technologies

DCIM (Data Center Infrastructure Management) :
Intelligent monitoring and automation for improved operational efficiency.

IoT Enabled Smart Controls :
Real time environmental monitoring for temperature, humidity, and energy efficiency.

Remote Infrastructure Management :
24/7 monitoring, maintenance, and proactive issue resolution.

PHASE 04

Security & Compliance

High-Efficiency UPS & Power Backup :
Biometric access controls, CCTV surveillance, and AI driven security protocols.

Energy Monitoring & Smart Grids :
Gas-based fire suppression and automated failover systems to ensure business continuity.

Surge Protection & Power Quality Solutions :
Solutions designed to meet ISO, TIA 942, LEED, and other global standards.

Monitoring and Control
at your finger tips

Take control of your data centre with cutting-edge monitoring solutions, designed to provide unparalleled visibility, control, and security. Optimize performance, reduce downtime, and ensure seamless operations all from the palm of your hand.

Benefits of Monitoring Solutions

Real-Time Insights :

Gain immediate visibility into your data center's performance.

Predictive Analytics :

Detect and address potential issues before they disrupt operations.

Enhanced Security :

Protect critical infrastructure with cutting-edge security protocols.

Energy Optimization :

Lower operational costs while supporting sustainability goals.

Scalability :

Adapt to growing business needs with flexible, scalable solutions.

Safety & Security First:
Ensuring Unmatched Protection for Your Data Center

The Data Center is the backbone of business operations, safeguarding vital data and ensuring seamless functionality. At Network Techlab, we prioritize the security of your infrastructure with advanced safety and security solutions, protecting your data centre from threats and delivering uninterrupted performance with peace of mind.

Key Features of Our Data Center Safety & Security Solutions :

> **Advanced Fire Detection and Suppression Systems**

Early fire detection using multi-sensor technology.
Reliable suppression systems with gas, water mist, or foam-based agents.

> **24/7 Surveillance and Access Control**

High-definition IP cameras for complete visibility.
Biometric access control to prevent unauthorized entry.
Audit trail and real-time monitoring to track access logs.

> **Cybersecurity Integration**

Robust firewall and intrusion detection systems.
Network monitoring for real-time threat identification and response

Your Data Center, Your Fortress

A safe and secure data center means uninterrupted business operations, compliance with regulations, and protection of your most valuable asset—your data. Whether it's physical threats or digital vulnerabilities, we've got you covered.

Data Center
White Space Services

White Space in a data centre refers to the area where IT equipment is housed, including server racks, storage units, and network infrastructure. we specialize in optimizing and managing white space to ensure maximum efficiency, scalability, and reliability.

1. Design and Layout Optimization

Effective design is the foundation of a well-functioning data centre. Our team ensures every inch of your white space is utilized to its maximum potential.

Customized Rack Layouts:

Hot and Cold Aisle Containment:

2. Infrastructure Deployment

Deploying robust and scalable infrastructure is key to reliable data centre performance.

Installation of Racks and Cabinets

Cable Management Systems

Integration of Power Distribution Units (PDUs)

Cooling Systems

3. Capacity Planning

Planning for current and future needs ensures your data centre is prepared to scale as your business grows.

Real-Time Monitoring

Future-Proof Designs

Data Center
Grey Space Services

The Grey Space in a data centre refers to the non-IT areas housing critical infrastructure required to support the operation of white space. This includes systems for power, cooling, & networking that ensure the reliability and efficiency of the IT environment.

1. Power Infrastructure

The uninterrupted operation of a data centre depends on a robust power infrastructure. We offer :

Uninterruptible Power Supply (UPS)

Power Distribution Units (PDUs)

Battery Systems

Electrical Switchgear

2. Cooling Solutions

Cooling is essential to maintain the temperature and humidity required for optimal equipment performance. Our solutions include:

Precision Air Conditioning

HVAC Systems

Cold and Hot Aisle Containment

Airflow Management

3. Fire Detection and Suppression

Safety is paramount, and early detection of fire hazards can save valuable assets.
Our services include:

Fire Detection Systems

Suppression Systems

Integrated Alarms

Data Center
Grey Space Services

4. Networking and Cabling Infrastructure

Safety is paramount, and early detection of fire hazards can save valuable assets.
Our services include:

Structured Cabling

Network Equipment
Housing

Cable Management
Systems

Why Choose Us for Grey Space Services?

End-to-End Expertise

From design to
deployment and
maintenance

Customized Solutions

Tailored to meet
your specific
data centre needs

Reliability and Scalability

Ensuring your grey space
grows with your
business demands

Grey Space vs. White Space

- White space in data center refers to the area where IT equipment are placed.
- Whereas Grey space in the data centers is the area where back-end infrastructure is located.
- The balance of grey space versus white space is important for data center profitability.
- The goal is to minimize grey space while maximizing white space.

Beyond the Grey Space and White Space

Comprehensive Civil and Electrical Works

Turnkey civil and electrical works that go beyond the conventional boundaries of grey space (infrastructure setup) and white space (usable IT space).

Our expertise ensures seamless integration of functionality, durability, and aesthetic appeal to meet your infrastructure needs.

Civil Works

Construction & Renovation
From structural builds to remodeling, we deliver robust and innovative solutions tailored to your specifications.

Flooring Solutions
Epoxy, anti-static, and raised flooring designed for data centres, industrial setups, and offices.

Partitioning & False Ceilings
Custom-built for optimized space utilization and acoustic balance.

Painting & Finishing
High-quality materials and skilled execution for a polished look.

Electrical Works

Power Distribution

Efficient devices and methods that are needed to make things work should be planned and provided during installation.

UPS & Backup Power Systems

To provide seamless functionality for critical areas and applications.

Lighting Solutions

Clever and energy-saving lights fit for all purposes.

Earthing & Cabling

Cutting-edge earthing systems and structured cabling for practical security.

Benefits of Data Center Civil & Electrical Works

Civil Works

- Cost Saving
- Scalability and Flexibility
- Reliability
- Security
- Rapid Deployment
- Underground Data Centers
- Energy Efficiency
- Strategic Location

Electrical Works

- Power Reliability
- Power Efficiency
- Power Distribution
- Surge Protection
- Monitoring and Control
- Future-Proofing
- Energy & Cost Saving
- Cybersecurity

Mission Impossible: Data Center Deployment

The Blueprint

Our ambitious project included four major deliverables:

Data Center Building

Transformer Building

DG (Diesel Generator) Building

Electrical Panel

Integration & Testing Phase

Stage 1 : Transformer Design

Stage 2 : DG Design

Stage 3 : Building The Data Center

Stage 4 : Panel Testing

Awards and Accolades

Data Centre Champion Award from Indian Express for our outstanding innovation in data centre maintenance and service strategies

Ministry of Defence Award for successfully designing and implementing a prestigious, critical Data Centre project at Mazgoan Dock Ltd

Recognized as the Best Infrastructure Installation of the Year by Vertiv

Honored with the Appreciation Award from the Institution of Engineers India