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in 4sight-technologies-pvt-ltd



# Leading Company



## WELCOME TO 4SIGHT

Our expertise covers a wide range of services, including Architectural, Electrical, Mechanical, Network, Safety, and Security Engineering—all in one place! Trust us to handle all your engineering consulting needs under one roof. Experience the convenience of our comprehensive offerings.

## WHO ARE WE?

Foresight is a vendor-neutral engineering consulting organization with experienced critical infrastructure, data center, and MEP engineers. We have been transforming landscapes in Pakistan, the Middle East, and Africa since 2007 by designing and optimizing data center infrastructure and operations for high availability, efficiency, and reliability.

Foresight Technologies provides vendor-neutral consulting services, extensive regional experience, a highly skilled team, strategic partnerships, and tailored solutions to help customers achieve optimal performance and resilience for the data center infrastructure.

Years of Excellence

YOUR DEDICATED DATA CENTER PARTNER, FROM PLANNING TO CERTIFICATION



To provide world-class consulting services for data centers, MEP, and critical infrastructure that enable our customers to reduce the risk of costly downtime, maximize their investments, and boost availability, performance, efficiency, and reliability to succeed.

#### OUR VALUES & CULTURE

Principles of respect, honesty, passion, creativity and excellance in teamwork are fundamental to our work culture.

### SOCIAL RESPONSIBILITY

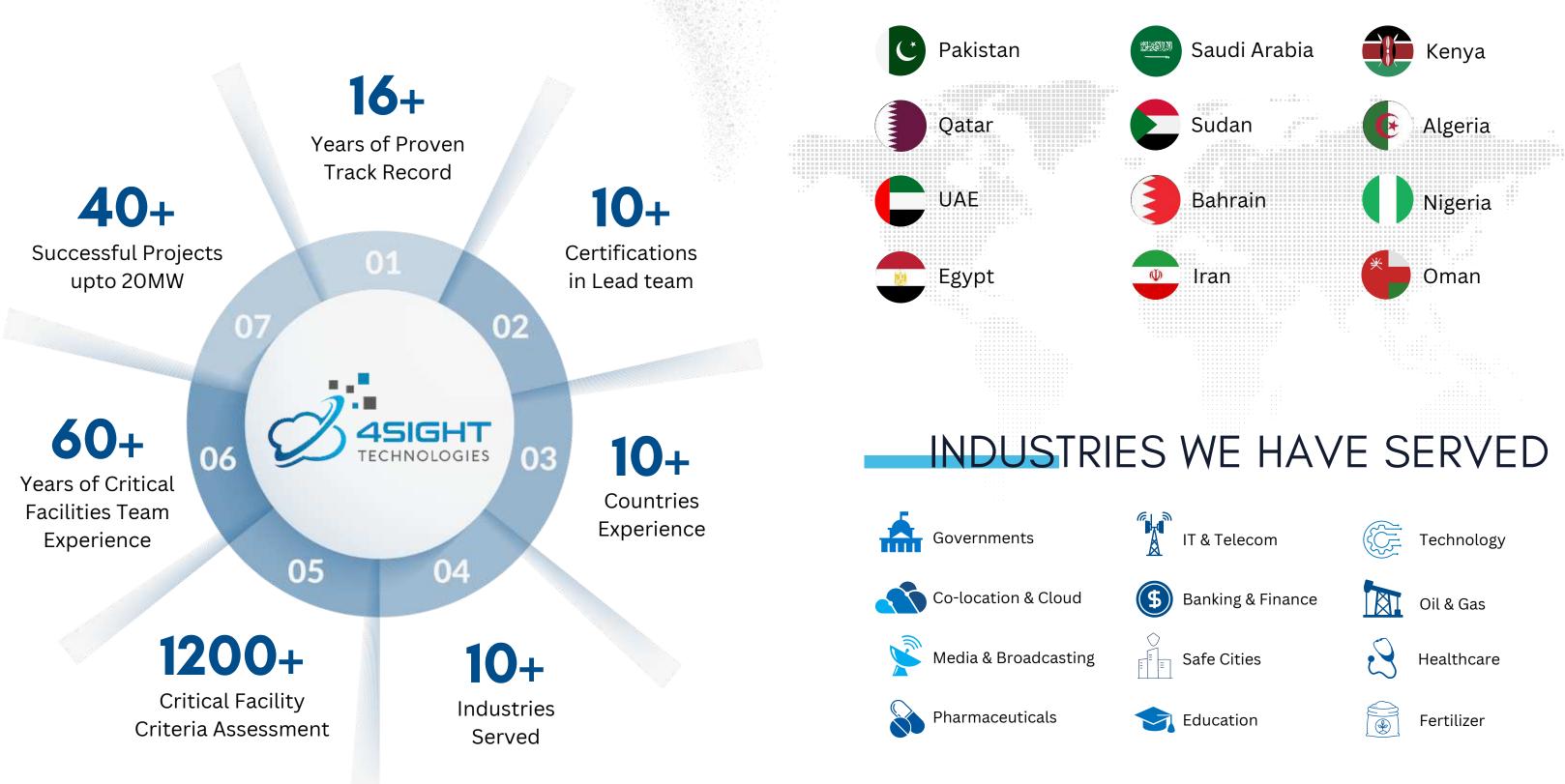
We help our customers design, develop, and operate economically, socially, and ecologically friendly data centers that serve their business objectives. Beyond social obligation, it underpins growth, economic benefit, and operational efficiency.

#### CONFIDENTIALITY

Foresight Technologies prioritizes confidentiality and privacy to ensure the protection of customer information. We collect and utilize information within the scope of our business objectives and legal requirements. We employ measures to safeguard customers' information from misuse, loss, unauthorized disclosure, duplication, or alteration. Your confidential information will only be used with your consent for communication purposes.



## SOME SALIENT FEATURES





## SUCCESFUL PROJECTS IN







































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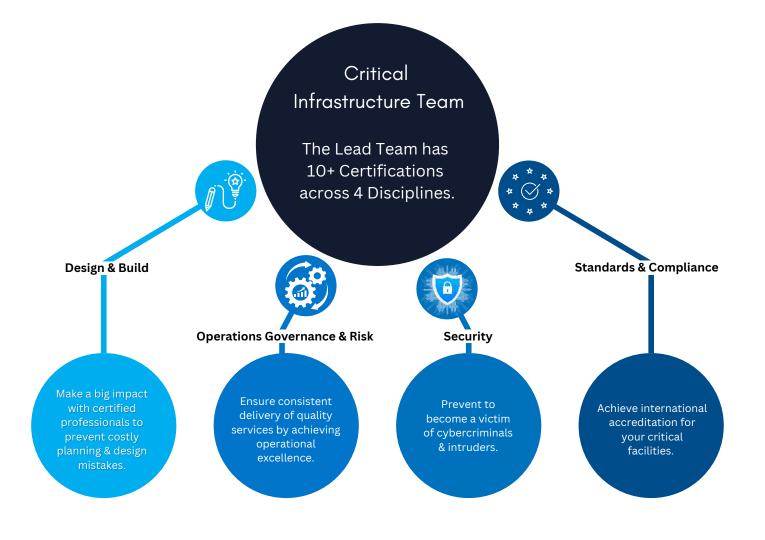


#### وزارة التراث والسياحة **Ministry of Heritage and Tourism**

# OUR TEAM

## **GG** Bringing You Globa Data Center Knowledge Locally

Our globally accredited in-house design team has the engineering insight to meet customer objectives while staying current on industry trends. We take pride in our team's international accreditation in data centers and MEP disciplines, reinforcing our position as the industry leader.



# SERVICES

Critical Infrastructure

## The Dynamics of Mission-Critical Facilities Are Significantly Different From Other Facilities 55

Foresight: Improve the Security, Resilience, and Sustainability of Your Critical Infrastructure.

Foresight is a leading provider of critical infrastructure consulting services. We help organizations of all sizes improve their critical infrastructure's security, resilience, and sustainability. Our team of experienced consultants profoundly understands the critical infrastructure industry. We are committed to providing our customers with the best possible service.

#### CRITICAL INFRASTRUCTURE KEY CHALLENGES:

- The increasing complexity of critical infrastructure systems.

WE CAN HELP YOU:

- Assess the risks to your critical infrastructure.
- Develop plans to mitigate those risks.
- Provide training and education to your employees.



#### BENEFITS OF WORKING WITH FORESIGHT

- critical infrastructure sector.
- best possible service and support.
- Value: We offer our services at a competitive price.



The growing demand for sustainability and environmental protection.

Improve the security and resilience of your critical infrastructure.

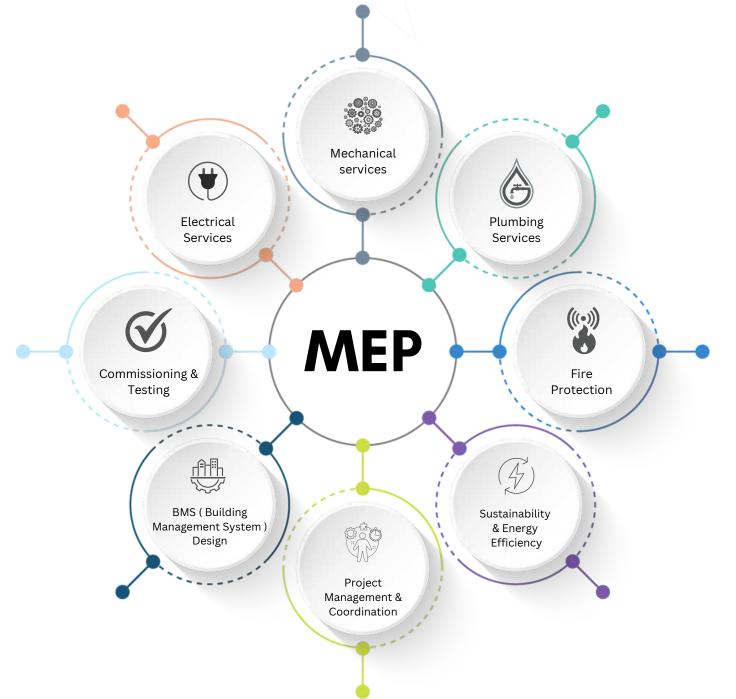
**Expertise:** We have a team of experienced consultants who deeply understand the

Commitment to excellence: We are committed to providing our customers with the

Flexibility: We offer services to meet the specific needs of our customers.

# MEP **6 A Holistic Approach,** Redefining Critical Infrastructure Design **9**

We specialize in MEP (Mechanical, Electrical, and Plumbing) consulting services focusing on the design and offering expert advice for building systems based on the specific needs of our customers.









#### MECHANICAL SERVICES:

- Heating, Ventilation, and Air Conditioning (HVAC) system design and analysis.
- Energy modeling and efficiency studies.
- Indoor air quality assessments.
- Plumbing and fire protection system design.
- Building automation and controls system design.

#### ELECTRICAL SERVICES:

- Power distribution system design and analysis.
- Lighting design and analysis.
- Electrical load calculations.
- Emergency power systems (generators, UPS) design.
- Grounding and lightning protection design.



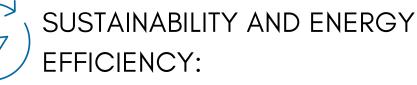
#### PLUMBING SERVICES:

- Plumbing system design, including water supply and drainage systems.
- Domestic water distribution and storage design.
- Sanitary and stormwater drainage design.
- Plumbing fixtures and equipment selection.
- Water efficiency and conservation strategies.



Fire detection, alarm, and voice evacuation system design.

- Fire suppression system design (sprinklers, gas suppression).
- Smoke control system design.
- Fire pump and water storage design.
- Fire code compliance and analysis.



- certification assistance.
- Energy audits and retro-commissioning.
- Renewable energy system integration.
- Energy management and optimization strategies.
- Life cycle cost analysis.





- MEP systems commissioning and testing supervision.
- Verification of system performance and functionality.
- Troubleshooting and diagnostic services.
- System balancing and optimization.
- Performance validation and documentation.



- Construction document review and coordination.
- Budgeting and cost estimation.
- Construction administration and site supervision.
- Quality control and project closure documentation.



- Critical MEP Systems.
- complete MEP Systems.



EED (Leadership in Energy and Environmental Design) consulting and

#### PROJECT MANAGEMENT AND COORDINATION:

MEP coordination with architects, structural engineers, and other stakeholders.

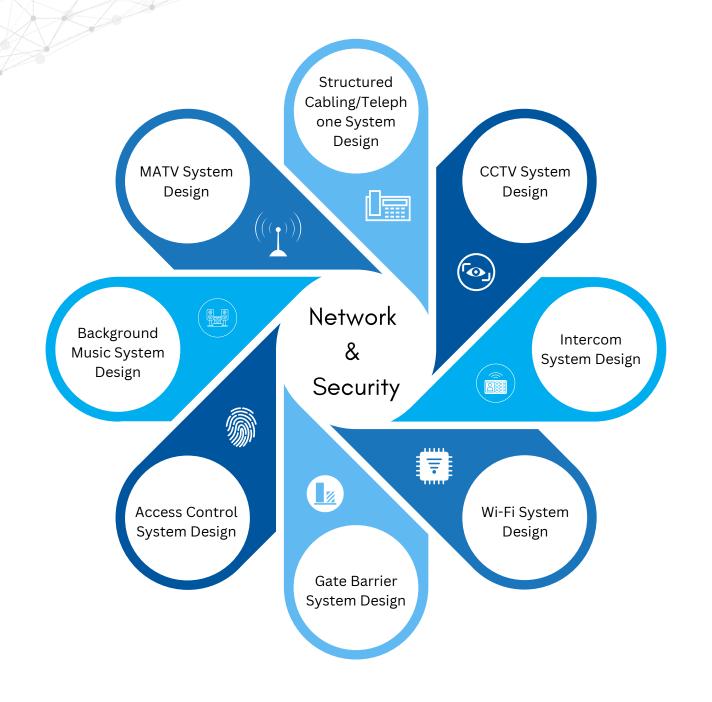
#### BMS ( BUILDING MANAGEMENT SYSTEM ) DESIGN:

• Designing an efficient system for Monitoring OR Monitoring & Control of the

• Designing an efficient system for Monitoring OR Monitoring & Controlling the

### Network & Security

We specialize in network and physical security consulting services, focusing on the design and offering expert advice based on the specific needs of our customers.



 $\bigcirc$ 

- support voice and data communication.
- optic).
- Protocol).
- maintenance.
- infrastructure design.

#### CCTV SYSTEM DESIGN:

- tailored to the project's needs.
- surveillance coverage.

- CCTV system.

#### STRUCTURED CABLING/TELEPHONE SYSTEM DESIGN:

4SIGHT **TECHNOLOGIES** 

Designing the layout and specifications for structured cabling infrastructure to

Determining the project's appropriate cabling components (copper or fiber)

Developing the system architecture and integration requirements for telephone systems, such as PBX (Private Branch Exchange) and VoIP (Voice over Internet

Providing cable management and labeling guidelines for efficient installation and

Conducting testing, certification, and documentation of the cabling

Designing a comprehensive closed-circuit television (CCTV) surveillance system

Determining the optimal camera types, lenses, and recording devices for

Developing placement and coverage plans to ensure effective monitoring.

Specifying integration requirements with monitoring stations, video

management software, and access control systems.

Providing recommendations for testing, calibration, and maintenance of the

#### MATV SYSTEM DESIGN:

- 🛑 Designing a Master Antenna Television (MATV) system for distributing television signals within a building or complex.
- Selecting and specifying appropriate antennas for optimal signal reception.
- 🔵 Developing the distribution network design, including cable types (coaxial or fiber optic) and signal amplification equipment.
- Specifying integration requirements with TV displays, set-top boxes, and related equipment.
- 🛑 Providing design guidelines for testing, signal quality analysis, and troubleshooting of the MATV system.



#### **INTERCOM SYSTEM DESIGN:**

- Designing an intercom communication system for voice communication within a building or facility.
- Specifying appropriate intercom stations, considering wired or wireless options.
- Determining integration requirements with door entry systems and access control.
- Developing communication channel programming and call routing plans.
- Providing design recommendations for testing, configuration, and user training related to the intercom system.



### GATE BARRIER SYSTEM DESIGN:

- Designing a gate barrier system for vehicle access control.
- security requirements.
- license plate recognition systems.
- maintenance of the gate barrier system.



- quality requirements.
- systems.
- maintenance of the background music system.

positioning.



#### ACCESS CONTROL SYSTEM DESIGN:

- Designing an access control system to manage secure entry and exit points.
- Specifying access control devices like card readers, biometric scanners, and keypads.
- Developing integration plans with electronic locks, turnstiles, or gates.
- Creating access control software configurations and user management guidelines.
- Provide design recommendations for testing, validation, and ongoing maintenance of access control systems.



Specifying the appropriate barrier types (boom gates, bollards, etc.) based on

Developing integration plans with access control systems, ticketing systems, or

Defining entry/exit rules and traffic management configurations.

Providing design recommendations for testing, safety checks, and ongoing

#### BACKGROUND MUSIC SYSTEM DESIGN:

Designing a background music system for ambient audio distribution. Specifying audio sources, amplifiers, and speakers based on space and audio

Developing zoning and volume control plans for different areas or zones. Defining integration requirements with central audio control and scheduling

Providing design guidelines for testing, audio quality optimization, and ongoing

WI-FI SYSTEM DESIGN:

Designing a Wi-Fi system to provide wireless network coverage. Conducting a site survey and analysis to determine optimal access point

Specifying the appropriate access points, antennas, and network switches.

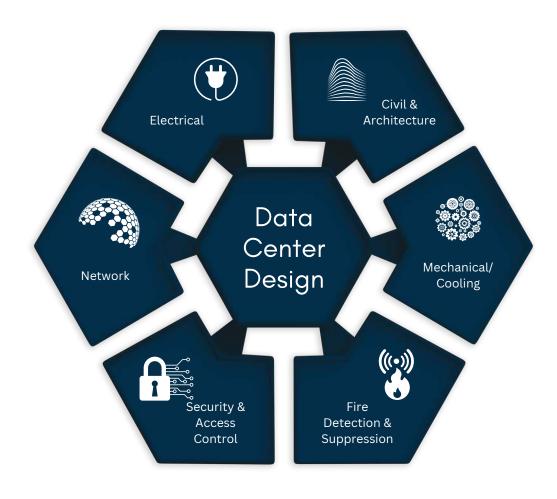
## Data Center Design

# Protect Your Data Center From Costly Design Mistakes

Foresight Technologies provides data center planning and designing services to meet high availability, efficiency, reliability, and scalability demands.

Our design philosophy aligns with international standards like TIA-942, EN-50600, SS-507, ISO-22237, and industry best practices. Our qualified professionals bring value to digital data centers, optimizing costs while enhancing performance and efficiency.

We analyze the current state and recommend optimal models to facilitate seamless transitions from aging infrastructure silos to next-generation data center service delivery and meet future growth requirements.







#### **CIVIL & ARCHITECTURE**

The architectural requirements of the data center for components, systems, and spaces are assessed based on international standards and best practices regarding the hi-availability requirements of the customer. We ensure that all architectural specifications are compliant with the design intent.



#### MECHANICAL/COOLING

Mechanical/cooling is another very critical area of a data center. No cooling means no ICT. We assess the cooling requirements of the data center for adequate capacity, redundancy, concurrent maintainability, and fault tolerance based on international standards and best practices meeting the hi-availability requirements of the customer.



#### ELECTRICAL

The electrical requirements of the data center for capacity, redundancy, diversity, concurrent maintainability, and fault tolerance are assessed based on international standards and best practices about the hi-availability requirements of the customer.



### NETWORK

Network cabling is essential for data center availability, efficiency, and performance. Foresight Technologies possesses Certified Network Cabling Design Professionals (CNCDP) who are well-versed in standard-based network cabling practices. By prioritizing proper network cabling, customers can mitigate the risks of costly downtime, difficult patching, delayed fault detection and obstructed rack cooling.





Foresight Technologies provides physical security design and advisory services to secure data centers, zones, buildings, and spaces. Barriers, alarms, detecting systems, and surveillance are all design considerations.

Foresight Technologies provides up-to-date, standards-based physical security design and advisory services to ensure data center security and operations meet international standards and best practices.



#### FIRE DETECTION & SUPPRESSION

Foresight Technologies provides standard-compliant fire detection and suppression designs for data centers. Our consulting expertise ensures effective and economical solutions that meet international standards and local codes.

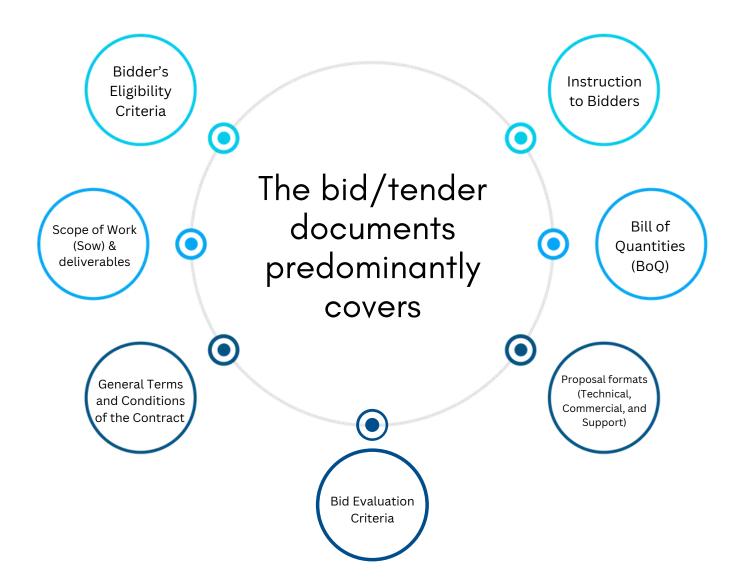
We also advise comprehensive tests to verify the functionality of fire systems, including smoke detection, concentration, integrity, and flow. Trust us to enhance your data center's fire safety and have peace of mind.



## Bid Process Management

# 66 Transparent & Successful Bid Management ??

We are an independent consulting firm with no affiliation with any builders of data centers, construction firms, or equipment manufacturers. We act in the best interests of our customers and offer impartial, objective advice. We carefully build criteria to evaluate bids using a fair and transparent methodology.



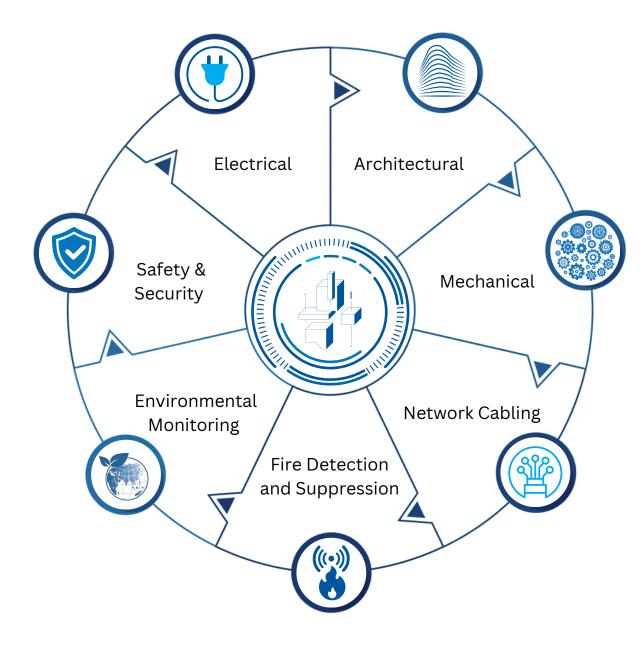






#### Technical Specifications

Once the project's design phase is complete, the bid process management phase starts. This phase includes the preparation of tender documents for the Data Center project. The technical specifications predominantly cover the following areas for the design specifications.





#### Tender Drawings

The contractor's scope of work is depicted in the tender drawings. Drawings submitted as part of a tender are not the foundation for fabrication or construction. Based on the precise proposals made by the contractors, Tender Drawings must be amended and augmented with further detail.

The tender documents, which are based on the standard and rating level, include but are not limited to the following drawings:







#### Bill of Quantities (BoQ)

Foresight Technologies prepares a bill of quantities (BoQ) as part of the tender documents. It provides project-specific quantities of the items of work indicated on the drawings and specifications document.

The BoQ is created by cost consultants based on the completed design and project specifications. It is an integral part of the tender process and helps to ensure the best possible price is obtained for the project.

Project Compliance Assurance & Management

# **66** Prevent Costly Fit-out Mistakes Before it's Too Late



#### **Bid Evaluation**

We possess the tools to perform bid evaluation exercises and assist customers in selecting the most appropriate vendor for Data Center implementation after a transparent bidding process.

#### In the bid evaluation exercise, the following key areas are examined:

- Proposed Solution.
- Bidder's Organization Capabilities.
- Data Center build Experience and reference sites.
- Maintenance & Support Offered.
- Value Added offerings (if any).
- Commercial evaluation.

#### The Technical and commercial evaluation consists of the following:

- Development of the vendor grading mechanism for evaluation purposes.
- Assessment of the solution best suited for the customer.
- Preparation of final bid evaluation report and recommendations.

Foresight Technologies provides project/compliance assurance services, ensuring the project is completed according to the plan and design intent.

We participate in planned implementation review meetings with the customer and the implementation partner to track the project's progress and confirm the installation of different data center components. Any flaw is promptly identified for fixing to prevent non-conformity.

We are proud of our ability to offer proactive strategies, reduce risks, and find ways to improve data center implementation. Trust us to help you get a facility for the future, meeting business needs and continued success.







#### Materials & Fit-Out Inspection

Materials and fit-out inspections provide details, procedures, technical requirements, and health, safety, and environmental requirements defined by applicable standards, best practices, and guidelines to assist fit-out contractors in effectively planning all fit-out activities and meeting materials specifications.

Fit-out contractors must follow the guidelines to ensure that all materials and structures are fit for purpose and meet the customer's requirements.



#### As-Built Drawings

The concept design/preliminary engineering process involves analyzing alternative design concepts and selecting the preferred design configuration for the project deliverables. After preliminary engineering, the scope baseline is established, and the drawings and specifications define and quantify the project scope.

The implementation partner will provide the as-built drawings at the end of construction, which will be validated by our team and will help in planning any enhancement or modification to the data center facility.

#### Testing & Commissioning

We also oversee and testify at acceptance testing to ensure the data center project meets all requirements. The project is carried out according to the design specifications and the customer's needs. The most important parts of the project assurance and compliance validation phase are here.

- Technology Partners.
- sure it's being done right.
- project objectives.
- operations.





Help the customer's team talk with their people and with the vendors, as well as give advice and clear things up to the Implementing organization or

Review the status and progress of the project's implementation and make

Tell the customer how to fix the problem and avoid it happening again. Ensure the implementation partners' strategies align with the Data Center

Supervision of the installation and testing of the infrastructure. Help the customer's team with acceptance testing that needs to be done before the Data Center can be used. Acceptance testing and commissioning will include finishing the preparations for the Data Center site, supplying and installing the necessary parts, and getting the Data Center ready for live

#### **CERTIFICATION READINESS ASSESSMENT**

# Ensure Facility Readiness to Achieve Global Certification 77

Upon completion of the new Data Center, a high-level validation might be required to ensure that it has been built according to the applicable standards and international best practices. Regrettably, some contractors and suppliers might be guilty of neglect regarding quality and compliance due to economic or time pressure, lack of attention, or in extreme cases, poor workmanship.

Foresight provides on-site assessment services for newly completed and existing facilities. Often standards such as ANSI/TIA-942 and SS507 are applied as the basis for these assessments. This activity ensures that the site is ready for audit & certification by an accredited certification body.





## **Risk** Assessment & Optimization

# Discover Hidden Risks & Prevent Costly Downtime 77

The objective of the risk assessment service is to evaluate the current state of the implementation of the data center and its parameters that may affect its performance and availability. Customers acquire assessment services to;

- Investigate the risk factors that can impact Data Center availability and lead to system degradation or breakdown.
- Proactively prevent potential risks to avoid unplanned costly downtime.
- Evaluate the power layout, from MV/LV transformer to rack level, to ensure efficiency and reliability.
- Assess the effectiveness of the cooling infrastructure to maintain optimal temperatures.
- Evaluate fire suppression and safety measures to ensure the highest level of protection.
- Assess EMF risks for both humans and ICT infrastructure.
- Proactively implement suggested enhancements and improvements tailored to their specific needs.
- Get valuable information to help them prioritize and plan improvements for maximum benefits.

At Foresight Technologies, we investigate, prevent, and evaluate critical aspects of the Data Center to minimize risks, optimize performance, and create a secure and efficient environment. Our proactive approach ensures you avoid potential issues while unlocking opportunities to enhance Data Center's performance, reliability, and overall success.



#### DATA CENTER OPERATIONS STANDARD

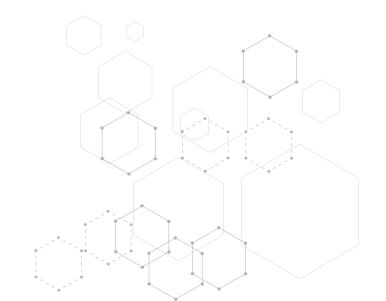
# Ensure Consistent Delivery of Quality Services 77

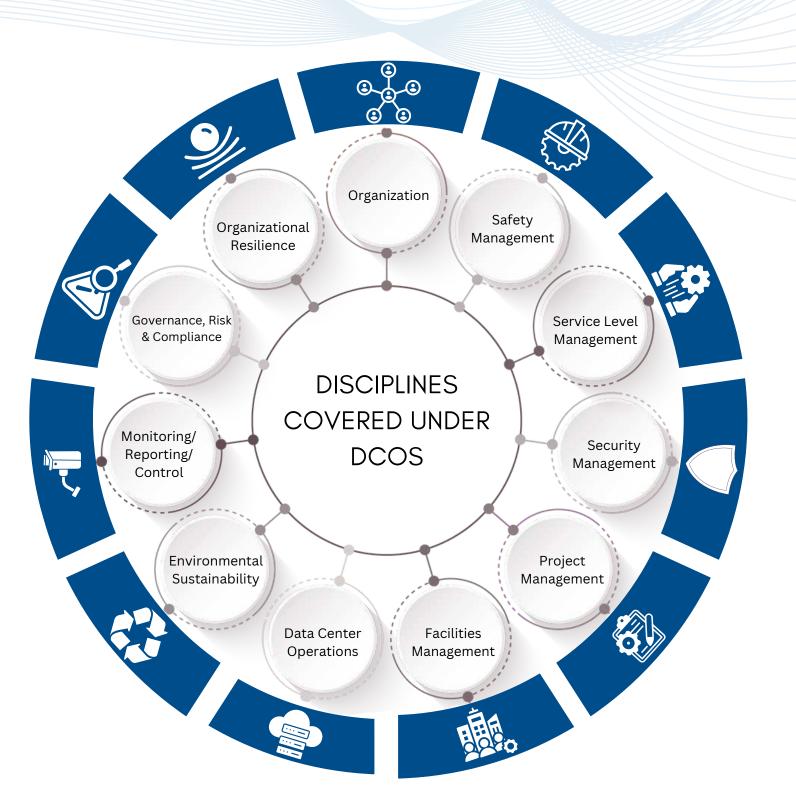
Foresight Technologies offers operations and maintenance consulting services for data centers based on the international standard known as DCOS (Data Center Operations Standard).

DCOS provides a standardized approach to service delivery, ensuring a managed and coordinated approach to data center operations and maintenance. By implementing DCOS, organizations can protect their data center investments and deliver high-quality services consistently.

DCOS is the industry's first norm for data center operations and maintenance, offering well-defined programs and a high standard of service.

It ensures the data center's efficient and reliable functioning, safeguarding the organization's investment and enhancing service delivery.







## AUDIT & CERTIFICATION

# Achieve World-Class Design & Facility Certifications

Through our partner, EPI, we provide thorough assessment conformity audit and certifications services to the standard's requirements involving over 1,200 criteria in 9 disciplines. The audit verifies that the customer's mission-critical infrastructure aligns with international standards and business requirements.



#### Design & Audit Standards

Materials and fit-out inspections provide details, procedures, technical requirements, and health, safety, and environmental requirements defined by applicable standards, best practices, and guidelines to assist fit-out contractors in effectively planning all fit-out activities and meeting materials specifications.

Fit-out contractors must follow the guidelines to ensure that all materials and structures are fit for purpose and meet the customer's requirements.







### **SECURITY** SOLUTIONS





#### Multi-Factor Authentication

Cybercriminals assault enterprises in the fast-changing digital world. Data breaches can cause financial losses, reputation damage, and expensive legal disputes. That's why you need a solid multi-factor authentication (MFA) system.

Foresight understands the importance of protecting your assets. Our MFA solution is simple and powerful. We provide a variety of MFA alternatives from top solution providers:

By implementing the MFA solution, you can shield your business from ever-present cyber threats. Allow us to highlight some of the key benefits you can enjoy:



- **Enhanced Security:** MFA reinforces your systems by demanding two or more pieces of evidence to verify users' identities. This formidable barrier makes it significantly more challenging for cybercriminals to gain unauthorized access to your valuable data.
- **Reduced Risk of Data Breaches:** The aftermath of a data breach can be catastrophic for any organization. Aside from the staggering financial implications, your reputation can suffer irreparable damage, making it difficult to regain trust and attract new customers. MFA is a powerful deterrent against data breaches, making it harder for cybercriminals to compromise sensitive information.



Improved User Experience: MFA bolsters security and enhances the user experience. Forget the hassle of remembering multiple passwords. With MFA, users only need to recall one password while conveniently generating the required one-time code on their smartphones or other devices. Say goodbye to passwordrelated frustrations and embrace a smoother login process.



If you're searching for a secure and user-friendly multi-factor authentication solution, look no further than Foresight. Contact us today, and let us assist you in fortifying your business against the ever-growing threats posed by cybercriminals. With Foresight's MFA solution, you can safeguard your company with ease.





TRAINING



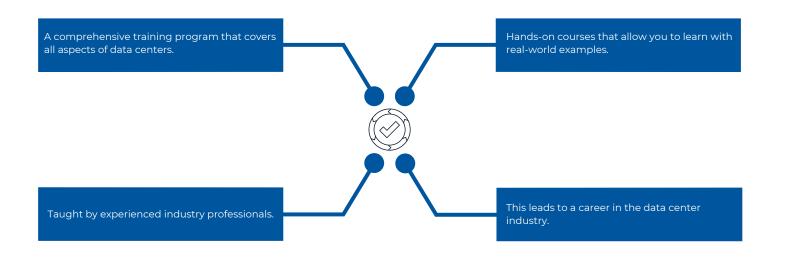
#### Data Center Training

The EPI Data Center Training Framework is a comprehensive training program that covers all aspects of the data center, from Design to Standards & Compliance.

It is taught by experienced industry professionals who can share their realworld knowledge and expertise. The courses are hands-on so that students can learn from the unique training content and the trainer's experience in the field.

If you're looking for a career in data center management, the EPI Data Center Training Framework is the best place to start. It will give you the skills and knowledge you need to succeed in this growing field.

#### Benefits of the EPI Data Center Training Framework©

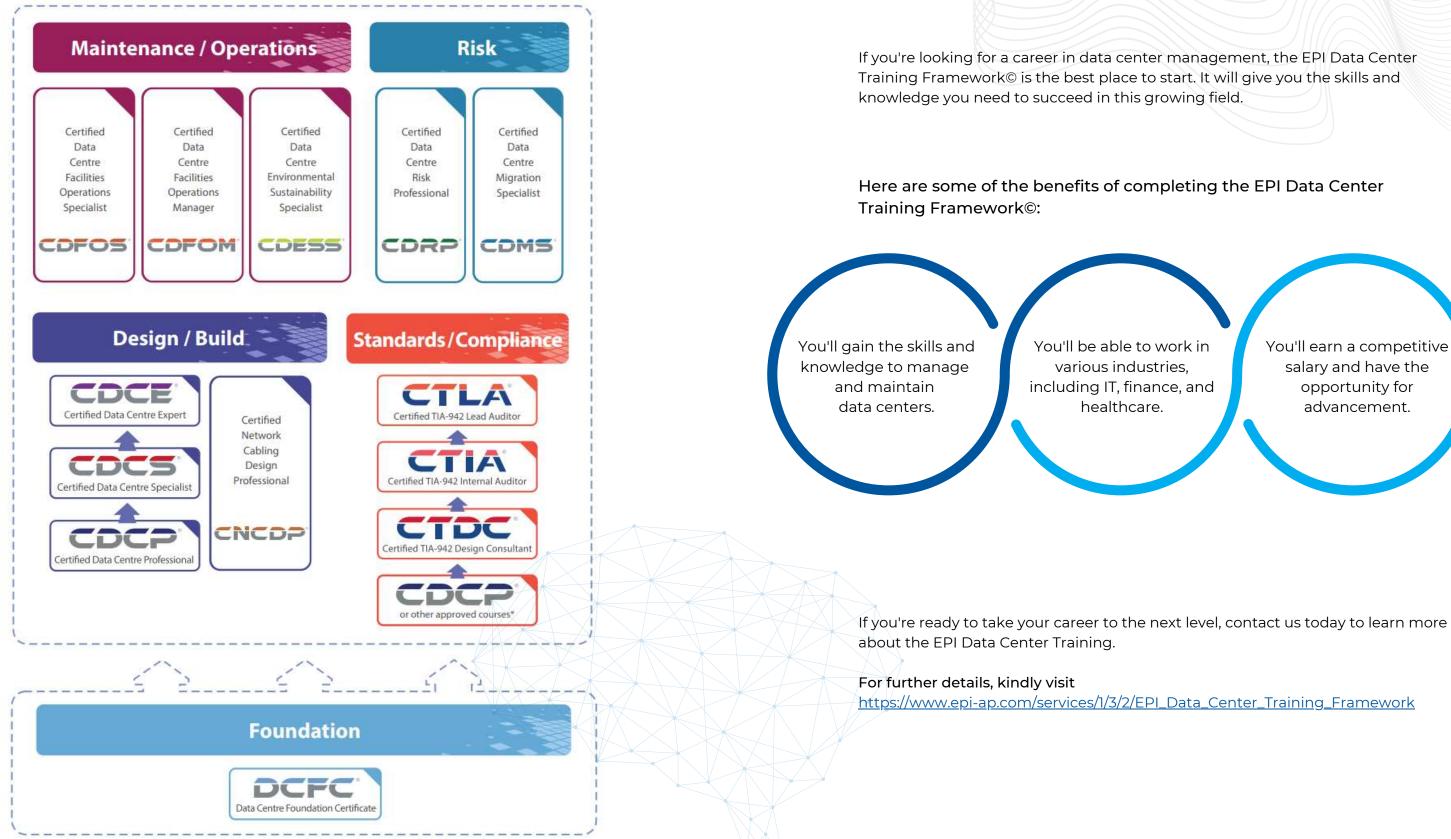


# Global Data Center Professionals



## EPI Data Centre Training Framework©

Course curriculum for data centre professionals:





You'll earn a competitive salary and have the opportunity for advancement.



T Training

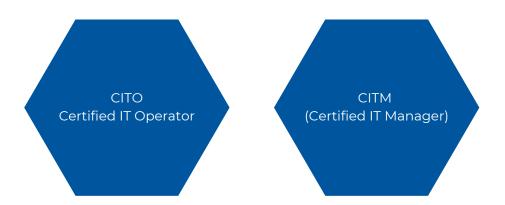
#### EPI IT Training Framework©

Course curriculum for IT professionals:

# **66** Achieve **European** e-Competence Framework Aligned Training

For IT professionals to stay updated and relevant in this fast-paced and constantly evolving sector, the EPI IT Training Framework is the world's first and only vendor-neutral competency-based IT Training Framework. The European e-Competence Framework (e-CF) is the first and only IT Training Framework aligned with it.

The EPI IT Training Framework provides two levels of professional paths:



An IT expert who meets the prerequisite for years of experience can join the track at any level.





For further details, kindly visit: https://www.epi-ap.com/services/1/14/15/EPI\_IT\_Management\_Training\_Framework



## **Governance / Operations**

#### PARTNERS



Our Valued Partners



www.ftsafe.com



www.epi-ap.com

