



PRIME INFOSERV LLP

Data Center Offerings

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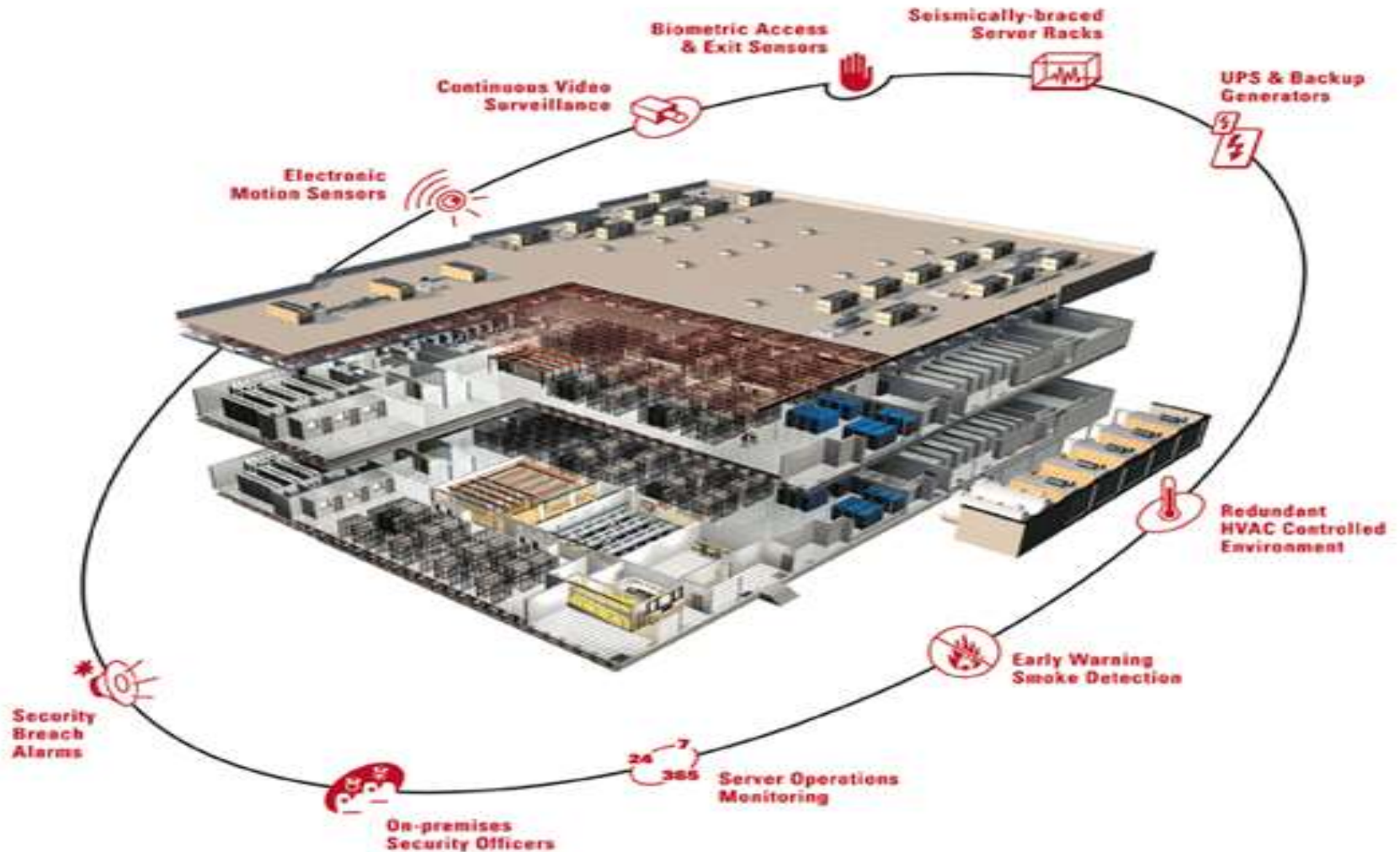
- **Why** is a Data Center required?
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Why is a Data Center required?

Why is a Data Center required?

- Enterprises run 24x7 multiple Business critical applications.
- Customers today spend 40% of the budget in buying efficient, powerful and high available hardware and software to ensure smooth running of business critical applications
- Such hardware and software need special environment or an operating environment which also needs to be available 24x7
- Datacenters provide a secured, scalable 24x7 operating environment
- Clients have a choice of either building their own datacenters or hosting the applications at service providers data centers.
- Highly sensitive , important applications are hosted in clients' own datacenters

What is a Data Center?



Components of a Data Center

Components of a Data Center

- **Security**
Zone based security system
- **Fire**
Integrated Building Management System for early detection of Smoke/Fire suppression and security of DC
- **Power**
Clean, uninterrupted power for IT Assets
- **Temperature and Humidity Control**
HVAC - Precision air conditioning to maintain temperature and humidity across the Server Farm
- **Flooring**
Anti Static, Heavy Load Carrying Raised Floor for Server Farm

Components of a Data Center

contd..

- **Data Cabling**
Structured Data Cabling with High Speed Secured LAN
- **Connectivity**
Presence of Telco's
- **Redundancy**
Built at all levels
- **Operations**
24x7 operations
- **Processes**
End to end, measurable

DC-Tier Classification

Data Center - Tier Classification

Tier Requirements

	Tier I	Tier II	Tier III	Tier IV
Number Of Delivery Paths	Only 1	Only 1	1 Active 1 Passive	2 Active
Redundancy	N	N + 1	N + 1	S + S or 2 (N + 1)
Compartmentalization	No	No	No	Yes
Concurrently Maintainable	No	No	Yes	Yes
Fault Tolerance To Worst Event	None	None	None	Yes

SOURCE: UPTIME INSTITUTE

Classification of Data Centers

The levels of Data Centers are classified based on the redundancy that is built in the sub system. These Levels are detailed below as per **Uptime Institute**

Tier I architecture

Number of Delivery Path is one and Redundancy is only Need (N) based. Compartmentalization, Concurrent Maintainability and Fault Tolerance to Worst Events are not built in.

Tier II architecture

Number of Delivery Path is one and the Redundancy is Need+1. Compartmentalization, Concurrent Maintainability and Fault Tolerance to Worst Events are not built in.

For Tier III architecture

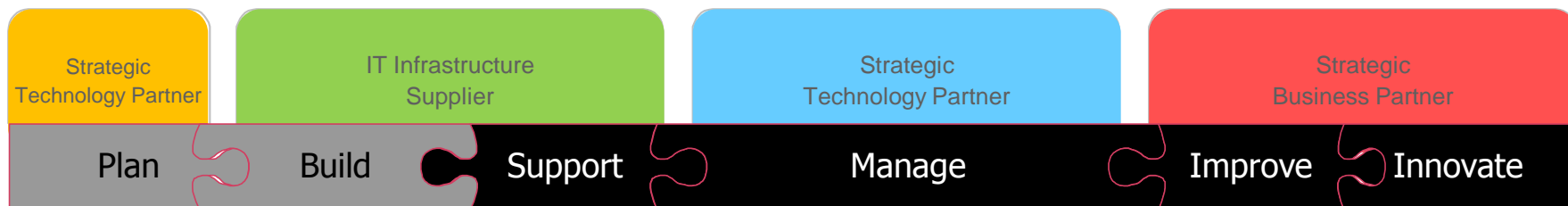
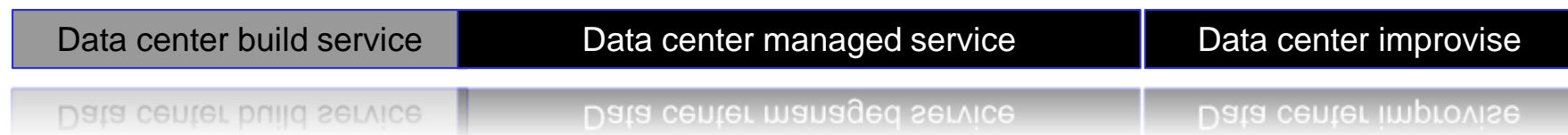
Two Delivery Paths with one Active and other Passive. Redundancy is Need+1 with Concurrent Maintainability built in. Compartmentalization and Fault Tolerance to Worst Events are not build in.

Tier IV architecture

Two Active Delivery Paths and Redundancy build in at 2(Need+1). Compartmentalization, Concurrent Maintainability and Fault Tolerance to known Worst Events are all built in.

Data Center-Life Cycle Services

Data Center Life Cycle Services



Identify Business Benefits

- ❖ Consult
- ❖ Design

Implement Technology

- ❖ Procure
- ❖ Integrate
- ❖ Deploy

Break Fix and Monitoring

- ❖ Maintain
- ❖ Monitor

Full Lifecycle Support of Infrastructure and Systems

- ❖ Service Delivery
- ❖ Services Support

Strategy and Evolution

- ❖ IT Alignment
- ❖ Service Benchmarking

Commercialization of New Ideas

- ❖ Breakthrough use of Technology

Justify Technology Investment

Manage Project Risk

To Reduce Costs

To Maximize ROI

To Add Value

Innovation

Data Center Life Cycle Services Framework

Sify's Life Cycle Service Framework can be divided into following services:

- **Data Center Build Service**

This includes plan and build phase

- It identifies business benefits to justify investment. Carry out design.
- Implement and integrate the solution by managing project risks, delivery.

- **Data Center Manage Service**

This includes support and manage phase

- Maintain and monitor the infrastructure as per SLA .
- Full Lifecycle Support of Infrastructure & Systems by the way of service delivery/support to maximizes the return of investment.

- **Data Center Improve Service**

This include improve and innovate phase

- Plan strategy for IT alignment & service benchmarking to add value.
- Innovate by using new ideas through breakthrough of technology.

Prime's DC Offering

Prime's DC Offering

The DC offering primarily caters to Non-IT infrastructure requirements of a Data Center with an option of IT infrastructure.

Prime offers Design-Build-Manage-Transfer model, to help the customer set up their Data Center operations either on a consultancy mode or on a turnkey basis.

The service addresses the requirement of building Level 3/Level 4 Data Centers for Enterprise, Service Provider.

Prime's DC Offering- Delivery Options

The Data Center service can be delivered in the following way

- End to End and or Turnkey basis
Design, Supply, Integrate and Transfer (Handover) to the client for managing it.
- End to End and or Turnkey basis
Design, Supply, Integrate and Manage it for a agreed period.
- Design Service for building the Data Center
Without the supply of components
- Design Service for building the Data Center
Without the supply of components but including Project Management.
- Design and Implement Services only

Data Center Build Service

Scope of Data Center Building Service

1. The design starts off with understanding of business requirements , site selection for the proposed DC to Designing the layout of the DC , developing BOM for various Non-IT infrastructure like BMS, UPS, DG Set, Raised Floor, Interiors, Air Conditioning, Electrical Subsystem.
2. Detailed RFP is released to select vendors. Post submission , evaluate vendors, issues contracts/PO to select vendors.
3. Carry out end to end project management for supply, implementation, integration , UAT, training and documentation.
4. Handover operational DC to Client. Sign off the project.
5. The service has two phases – **plan** and **build**.

Data Center Support and Managed Service

Scope of DC Support & Manage Service

- The service covers support and manage phase of the life cycle.
- All the SLA/OLA are defined with vendors, internal clients with clear scope, responsibility matrix and escalation matrix.
- A mock is proposed to ensure that loose ends are identified in advance .
- A strong review mechanism, coupled with documentation kick starts this service.
- Periodic updates, corrective actions are part of the ongoing Manage phase.

Data Center Improvise Service

Scope of DC Improve Service

- It covers the improve and innovate phases of life cycle.
- **Understand the Pain Areas** of the customer / identify areas of improvement.
- Finalize the **Scope of Engagement** for the service.
- Develop **Project Plan** for the engagement.
- Conduct **Assessment** of Network, Power, Environment, Security, Operational Facilities as per the scope.

Scope of DC Improvise Service

contd..

- Develop **GAP Report** based on industry standards / best practices.
- **Recommendations** for improvement.
- **Documentation.**
- Optionally – **Project Manage** the implementation of “Recommendations”

Data Center Migration Service

Scope of DC Migration Service

- **Objective** of the service
Transition of IT Assets from a steady state environment / existing DC to a new or shared DC
- Develop **Inventory** of IT Assets (before migration)
- Develop and **finalize** the time lines for migration
- Plan the **Resource requirements**, packaging and transportation requirements
- Plan the “**Co-existence**” (migration stage) requirements

Scope of DC Migration Service

contd..

- Develop overall project, **Risk Plan**
- Conduct **mock** for critical , non-standard IT Asset's migration
- Project **Kick-Off**
- **Execution** with **review** and corrective actions
- Documentation