



## Data Centers are becoming an integral piece in larger organizations' operations.

However, too often it has become synonymous with "server room", which is the wrong way to think about it. Data Centers are key to the data flow, application performance and user efficiency within an organization. It is key to ensure that the Data Center is doing all it can!

Data Centers not only revolve around the obvious parts of Servers and Storage, but a true Data Center architecture or assessment will involve looking at other key elements like the Electrical Systems therein, the Architectural and Structural Elements of the location, the Mechanical and HVAC Systems of the data center, as well as the Communications Infrastructure.

Those areas deal with the status quo. Assessments should also look at Capacity Planning and Growth Planning, and the ever-present Disaster Recovery and COOP assessments to assure constant reliability and availability.

Data centers are the key to leveraging information technology assets to maximize the strategic value of a computer network. For small organizations, data centers have often grown in a piecemeal manner, resulting in a situation where processors and storage devices are underutilized, available communications capacity is wasted, collaboration and knowledge sharing is limited, maintenance demands are excessive, scaling or reconfiguring is expensive, protection is patchy, nominally minor modifications turn into major challenges, and complete recovery from catastrophic failure is almost undoable.



*Cages housing customer equipment inside an Equinix data center.*

### Data Center Assessments provide owners with two key benefits:

- ❑ They provide a clearer picture of their data center's Capacity, Reliability, and Vulnerabilities.
- ❑ An assessment is an important early step in developing a road map for future growth, upgrades, and expansion.

Assessments can focus on a specific technical feature or system, or may be broader in scope to encompass the full array of critical and non-critical systems that support the IT enterprise, including copper and fiber communications, and network/storage infrastructure. Assessments are often initiated in response to some event such as power or cooling shortfalls or system failures, or by anticipated conditions such as a new computing initiative, or change in management. The best plans are proactive rather than reactive.

NDC's engineering staff tailors each assessment to the client's specific needs and budget. While we use a consistent approach for all of our clients, the focus will vary depending on the specific set of circumstances that exist for your organization.

An assessment can identify capacity shortfalls and gaps in what was thought to be a robust redundant power or cooling topology. These gaps represent vulnerabilities that erode both reliability and availability, putting the facility at risk of unplanned outages. Gaps are identified through a combination of physical verification/observation and document review.

Assessments provide a data center owner/manager with a benchmark document that can be

**Cage: 4RLJ8**  
**DUNS: 169242760**  
**GSA: GS35F0322U Schedule 70**

**SBA-certified 8(a)**  
**Minority Woman-Owned**  
**SDB**

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used as the departure point for mitigating vulnerabilities, improving reliability and availability, and long term planning.

We are aligned with multiple vendors from a server and storage perspective as well as the underlying networking infrastructure and virtualization points of view. The use of multi-vendor experts, allows us to bring the best solutions to bear for your specific situation, rather than tying you down to one particular vendor, or forcing you to decide whose marketing you prefer! We offer Consulting through a “purely scientific” methodology.

