



## IT Consulting for Data Center Facilities Efficiency

**Increase data center capacity while improving reliability, reducing costs, and saving energy**

### Meeting your data center challenges

Today's data centers are challenged to keep up with explosive data growth, with newer, denser computing solutions pushing the limits of available budgets, power/cooling and space. This can result in downtime, the inability to meet the needs of the business, comply with environmental policies, or mitigate the risk of disasters.

Optimizing your present facility can help you reclaim capacity and reduce operating costs. A project of this scope requires an in-depth knowledge of both IT demand, as well as the power & cooling constraints and potential of your facilities. Coordination of people, processes and rapidly changing technologies, and close alignment to the business goals is critical. This can be costly, complicated, and time consuming for your IT and facilities staff to execute.

### Dell can help

Dell IT Consulting services uses a proven process to help you extend the life of your data center.

- **Skilled resources**, solution architects, leading edge tools for capacity planning, energy management, etc.
- **Broad and deep data center expertise** with success in many large data center projects.
- **State of the art tools and experts**, no guessing. Results are based on actual data collected and recommendations are tailored for the needs of your specific environment.
- **End-to-end technology provider** for your hardware, software, and solutions including virtualization, cloud, and storage consolidation.

### Realize the benefits

Dell consultants can provide the level of assistance you require to get the job done. We help:

- **Delay or Avoid Costly Data Center Construction.** Optimizing and consolidating your data center real estate can increase compute density, reduce utility costs, and improve utilization and efficiencies of your systems. The goal is to deliver a highly available, secure, flexible data center structure as a foundation for your mission critical applications.
- **Leverage Current Investments.** Save time and money by refitting when possible, optimizing power & cooling utilization, and leveraging modular, scalable solutions. Green design elements are included when they add value, and energy is saved by improving active monitoring and reporting.
- **Accelerate Time to Value.** Dell provides specific recommendations and timelines based on tiered level analysis and a projected ROI. Our technology requirements analysis can be used as the building blocks to create an agile, scalable data center to meet your current and future requirements.
- **Match Your Technical and Business Requirements.** Suggestions are based on a high-level review of your unique business requirements, Dell Services uses an operational maturity model and rules engine to assess and provide recommendations.

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Dell IT Consulting offers users a standard delivery for all of our data center services.



Service	Description
<b>Facility Optimization</b>	<ul style="list-style-type: none"> <li>Assess IT demand trends and space, power, and cooling capacity</li> <li>Recommend a cost effective balance of capacity, reliability, and efficiency</li> <li>Use virtual facility modeling for “what if” scenarios for data center configuration</li> </ul>
<b>Site Selection</b>	<ul style="list-style-type: none"> <li>Compare options for build vs. buy as well as co-location providers</li> <li>Determine key criteria including: environmental efficiency (e.g., free cooling), utility &amp; infrastructure reliability, expandability, costs (real estate, staff/ energy), and disaster risk</li> <li>Rank options according to criteria and further analyze best options</li> <li>Consider IT capacity and future growth throughout site consideration process</li> </ul>
<b>Energy Management</b>	<ul style="list-style-type: none"> <li>Identify system capabilities, and note deficiencies. Recommendations are made for improvements for power and cooling, data cabling, and floor plan/space utilization as well as providing high-level architectural guidance</li> <li>Perform Computational Fluid Dynamics (CFD) thermal analysis as needed to provide a visual display of temperature and airflow</li> <li>Measure Green Grid PUE and DCIE metrics to be measured to help identify the best placement of racks, hot/cold aisles, and vents to meet the specific needs of your organization</li> </ul>

For more information about any of our service offerings, please contact your Dell representative or visit [dell.com/services](http://dell.com/services).

