



# Data Center Assessments

What you can't see can make all the difference.

Assessments of existing data centers uncover opportunities for operational excellence by measuring and testing existing infrastructure. The assessment first identifies any potential gaps keeping you from reaching your desired state and then outlines the solutions.

Black & Veatch makes the invisible invaluable by providing specialized design, engineering and infrastructure assessments for data centers that helps our clients build resilient, sustainable facilities.

## Assessing Data Centers and Technology Manufacturing Facilities

Today's data centers must continuously adapt to ever-evolving business and IT priorities. Increased data demand is driving density up and impacting power usage and thermal output. Comprehensive assessments of current data center environments apply critical systems and infrastructure expertise to help fully understand a facility's performance. With the latest in CFD analysis and digital twin software, Black & Veatch can assess and model the data center and connecting IT infrastructure to optimize IT, cooling, electrical and space requirements.

By reviewing a data center's current capability including space, connectivity, capacity, power and cooling systems, we deliver the information you need to make informed decisions to build a roadmap for infrastructure improvements and future IT investments.

## Full Life Cycle Assessment Process

Completing a Data Center Assessment empowers our clients with relevant information on the current state of their facilities and an evaluation of potential risks and improvement options.

Our expertise includes:

- Stakeholder interviews to capture goals and initiatives
- Current infrastructure assessment
- Capability and capacity relating to space, power and cooling systems
- System reliability and maintainability
- Identifying short- and long-term deficiencies
- Effect of owner identified IT growth on facility infrastructure
- Consideration of Best Practices to improve efficiency and operations
- Evaluation of options and recommended solutions
- Prioritization and schedule of expenditures

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	Phase 0 Initiation	Phase 1 Desktop Review	Phase 2 On-Site Verification	Phase 3 Transition to Design
<b>Deliverable</b>	Hourly consulting	Written report and meeting to discuss findings	Written report and meeting to discuss findings	RFP for design phase
<b>Questions Answered</b>	Preliminary considerations about where to start	Redundancy verification Capacity verification Reliability level	Discrepancies between what is installed vs. drawings Level of upkeep (operations evaluation) Physical condition of equipment (equipment condition and installation quality) Areas in need of knowledge transfer	Consulting to develop scope for design phase based on findings from Phase 2 RFP development
<b>Client provided information</b>	Questions or concerns that need hourly consulting	As-built drawings Asset list (date of install) CapEx plan Reno or upgrade plans Preventative maintenance logs Call with facility operators (ideally via video)	Time to interview facility operators (ideally 1-2 hours with senior level operators) Access to facility for verification Photographs of equipment	Design requirements input
<b>Solution parameters</b>	Hourly consultation only	Findings are based on existing documents	Findings are based on site access (may be limited)	RFP is dependent on client input
<b>Typical schedule</b>	As requested	2-4 weeks after receipt of documents	3-6 weeks after receipt of documents	2-4 weeks dependent on client involvement