

bigbyte.cc



**DATA CENTER
BUILD VS. BUY**

bigbyte.cc Corp
PO Box 81200
Albuquerque NM 87198
505.255.5422 Office
505.255.2946 Facsimile
www.bigbyte.cc



DATA CENTER—BUILD VS. BUY

When considering col locating your data center, first you must understand your technical needs and requirements. Successful col location requires planning and due diligence.¹ This is accomplished via synthesizing current as well as future facility requirements, which also encompass audit requirements, security, redundancy, and server profiles.

Gathering this critical data ensures that you are able to contract with a facility that meets your requirements and delivers the services you need to support the growth of your organization.

DETERMINING YOUR TRUE COST OF OWNERSHIP (TCO)

A data center is one of the most expensive pieces of any organization. It is vital to everyday operations from maintaining your Virtual Private Network (VPN) to data storage and backup. Costs typically affect multiple departments from IT / Networking to Facilities and Building Management.

Colocating within a data center may offer efficiency in your resiliency process by offering a turn key location for your equipment, redundant of power and environmental systems and lowered costs for power and cooling due to the shared cost of all clients.

Building a custom location may also provide the proper location for your equipment and help to support staff productivity and department growth.

“Other significant costs must also be included, such as architectural and engineering fees, interest during the construction phase, land, inert gas fire suppression costs, IT build-out costs for racks, cabling, internal routers and switches, point-of-presence connections, external networking and communications fees, electricity costs, security costs, and operations and maintenance costs for both IT and facilities.”²

Defining the total cost of owning your own data center “on premise” versus maintaining your infrastructure “off premise” is crucial to moving your IT plans forward. Approaching the design of this equation will permit the most logical decision for your organization to buy (*lease*) or build data center facilities.

¹ <http://www.infotech.com/research/storyboard-develop-a-co-location-strategy>

² UPTIME INSTITUTE White Paper: *A Simple Model for Determining True Total Cost of Ownership for Data Centers*
Available through uptimeinstitute.com

bigbyte.cc Corp
PO Box 81200
Albuquerque NM 87198
505.255.5422 Office
505.255.2946 Facsimile
www.bigbyte.cc



DATA CENTER—BUILD VS. BUY

THE BUILD — INDEPENDENT CONSTRUCTION

Customer has to address and manage many factors that add to the overall timeline of the project's execution. Included below are some of the logical benchmarks that an organization should address prior to beginning the construction phase of a project.

INFRASTRUCTURE

- Design to permit standards
- Design to industry standards
- Design to environmental standards
- Design to audit standards
- Construction execution
- Construction change orders
- Construction commissioning
- PUE and DCIE continuous measurements



CONNECTIVITY

- Locate fiber providers within proximity of build location
- Negotiate fiber builds to site (primary and redundant/diverse pathways)
- Negotiate access to high levels of bandwidth for current need as well as growth
- Negotiations of additional fiber builds for diversity with additional providers

OPERATIONS

- Develop and Implement Metrics for Success
- Develop and define industry audit standards/requirements
- Balance labor and focus between day to day operations and the design build
- Balance imperative IT needs, regular duties and standard definitions
- Maintain budget for operational infrastructure as well as construction budgets
- Maintain audit standards for operations and construction
- Labor + materials = \$\$\$

ABILITY TO SCALE

- Support the growth of the company
- Create and maintain flexibility to support IT growth or consolidation
- Continue the permitting and contracting process for upgrades or decommissioning
- Maintain engineering standards for the transformation of business
- Define standards for growing or shrinking footprints between facilities and IT staff

BUSINESS CONTINUITY

- Define business needs to match compliance and fiscal needs.
- Locate an off-site facility for redundant HR and IT systems.
- Contract to connect the two systems (primary and secondary) via connectivity and programming

bigbyte.cc Corp
 PO Box 81200
 Albuquerque NM 87198
 505.255.5422 Office
 505.255.2946 Facsimile
 www.bigbyte.cc

DATA CENTER—BUY VS. BUILD



THE BUY – “OFF PREMISE” COLOCATION FACILITY

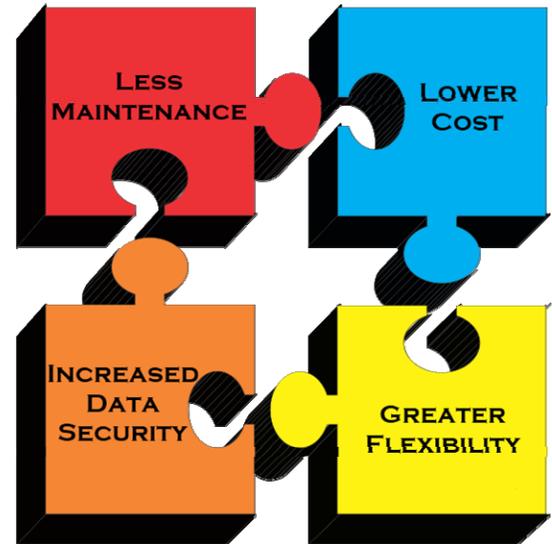
Choosing to co-locate at a data center facility off-site ensures your equipment and data are in the most reliable, secure type of facility and eliminates the need to build out.

INFRASTRUCTURE

- Existing infrastructure, ready for move-in
- Existing Raised Floors
- Existing Redundant Power
- Existing Fire Protection
- Existing Cooling & Environmental Systems
- Alleviates construction contracting concerns
- Allows time to be allocated to other critical items
- Regulatory Compliance to meet your needs

CONNECTIVITY

- A Carrier Owned facility offers:
 - One service provider for your interconnectivity
- A Privately Held facility may be carrier neutral
 - Retain your current contract *or*
 - Select your preferred provider from multiple offerings
 - Multiple Fiber Vendors
 - Connectivity Diversity = Optimal Traffic Routing & Lower Access Costs



ABILITY TO SCALE

- Grow or shrink your footprint pursuant to lease terms
 - Support the growth of the company
 - Create and maintain flexibility to support IT growth or consolidation
 - Contract or cancel Power Provisioning & Connectivity upgrades as business changes
- Facilitate Business Continuity Solutions between premises
 - Define standards for growing or shrinking footprints between facilities & IT staff

IS BUSINESS CONTINUITY OFFERED BY YOUR PROVIDER?

- Define business needs to match compliance and fiscal needs.
- Utilize Colocation Provider’s Business Continuity Testing & Consulting
- Utilize Colocation Provider’s On-site Training Facilities & Meeting Spaces

bigbyte.cc Corp
 PO Box 81200
 Albuquerque NM 87198
 505.255.5422 Office
 505.255.2946 Facsimile
 www.bigbyte.cc



DATA CENTER—BUY VS. BUILD

THE BENEFITS OF OUTSOURCING ARE GREAT... YOUR CONCERNS

For many organizations the thought of outsourcing their data center brings two main concerns:

1. SECURITY AND PRIVACY

Enterprise level data centers offer a level of security and privacy to meet state and national standards based on the industries we serve. (Healthcare, Financial, Government, etc...)

SECURITY — INDEPENDENT CONSTRUCTION (BUILD)

- All data security falls solely on the customer.
- Including staffing, surveillance systems, access points and audit trails.



SECURITY — COLOCATION FACILITY (BUY)

- 24x7 Uniformed security, full video surveillance.
- Badged access and biometric security to all areas within the building.
- Physical access is monitored and audit reports can be provided upon request.

2. PHYSICAL SEPARATION FROM SERVERS

Physically touching your equipment is often not required to implement changes, such as program installation, maintenance or back-ups.

You will have to manage more than just your servers should you choose to have a data center space within your own facility, from electrical installations and cabling to the high maintenance climate controlling systems that keep your IT equipment functioning.

ON-SITE SUPPORT — INDEPENDENT CONSTRUCTION (BUILD)

- Provide your own staffing
- Provide system maintenance for the location
- Pay on-going operating costs

ON-SITE SUPPORT — COLOCATION FACILITY (BUY)

- On site electricians
- On site maintenance engineers
- On site system engineers
- 7 x 24 x 365 security personnel



bigbyte.cc Corp
PO Box 81200
Albuquerque NM 87198
505.255.5422 Office
505.255.2946 Facsimile
www.bigbyte.cc



DATA CENTER—BUY VS. BUILD

STAFF CONCERNS

Another common concern for organizations' system administrators... *their job security.*

Though many data centers in the marketing place are only offering managed services as their entry level service, **bigbyte.cc** data center offers basic co-location services (redundant, climate controlled, secure technical space) that suits small to mid-sized organization's needs.

An organization may purchase power, rack space, and connectivity while all the administration of equipment is done by you or your chosen vendors.



BIGBYTE.CC DATA CENTER:

bigbyte.cc offers the highest level of availability and security offered in the state of New Mexico. Our data center and network infrastructure resiliency help to assure our customers uninterrupted access to their information.

It is our mission to be the Southwest's premiere provider of business continuity, disaster recovery and collocation services.

- N+1 INFRASTRUCTURE
- CARRIER NEUTRAL
- SCALABLE SPACE
- TEIR 3 COMPLIANT
- BUSINESS CONTINUITY SOLUTIONS
- 24/7 SECURITY
- AUDIT COMPLIANT LOGGING
- ON-SITE SUPPORT

We focus on building long-term customer relationships to produce maximum value across a wide range of complementary services. Flexibility is the foundation of our commitment to customer satisfaction. We make ourselves readily available and involve the customer in all facets of the implementation process. We build a truly customized solution based upon our customers requirements.

Our objective is to provide fully compliant services at "best value" pricing.

Our customer's needs define our objectives and performance standards.

Our performance is measured by responsiveness in satisfying these needs.

Success is measured by satisfying our customer's needs – any time, every time

bigbyte.cc Corp
PO Box 81200
Albuquerque NM 87198
505.255.5422 Office
505.255.2946 Facsimile
www.bigbyte.cc



DATA CENTER—BUY VS. BUILD

OUR BUSINESS *IS*
KEEPING YOU IN BUSINESS ...

feel

Please
free to call or
email us with your questions, request for quote or for a site survey!

info@bigbyte.cc

505.255.5422

RESOURCES:

InfoTech.com—*Storyboard: Develop a Co-location Strategy*

<http://www.infotech.com/research/storyboard-develop-a-co-location-strategy>

Uptime Institute—*White Paper: A Simple Model for Determining True Total Cost of Ownership for Data Centers* Available via uptimeinstitute.com

*Membership required.

APC TCO Calculator Software Application—Developed and maintained by the Availability Science Center of APC2. The TCO Calculator was set up to use average costs for capital equipment, installation, engineering, and operating costs. The results presented reflect values based on industry and site averages. www.apcc.com/tools/isx/tco

BIGBYTE.CC DATA CENTER RESOURCES:

For more FREE whitepapers go here: <https://www.bigbyte.cc/page/whitepapers>

For more about bigbyte.cc's offerings visit us online: <https://bigbyte.cc>

Follow us on LinkedIn: www.linkedin.com/company/bigbyte-cc-corp

For more helpful links visit our website: <https://www.bigbyte.cc/page/resources>

bigbyte.cc Corp
PO Box 81200
Albuquerque NM 87198
505.255.5422 Office
505.255.2946 Facsimile
www.bigbyte.cc