



Data Center Comparison Check List

AiNET Beltsville, MD, Certified SAS 70 Type II, TIA-942 Tier IV Data Center

AiNET's owned and operated Beltsville, MD data center is one of the world's few certified SAS 70 Type II, TIA-942 Tier IV facilities. Available for colocation and wholesale options, this purpose-built, 42,000 sq.ft. data center features outstanding power density supporting the latest Cloud designs, unrivaled cooling protection and virtually unlimited connectivity. This highly-secure facility also features 24x7 staffing by network and systems administrative personnel, who can provide expert staffing services as needed. The entire service delivery is protected by an industry-leading SLA covering 100% of services procured from AiNET in a single agreement.

In the comparison checklist highlighting major decision criteria, AiNET's Beltsville, MD facility is Data Center 1.

POWER	1	2
<ul style="list-style-type: none"> • 200% utility power redundancy (2N) <i>Main power delivered via multiple diverse feeds from separate substations.</i> 	✓	
<ul style="list-style-type: none"> • >25 KW/cabinet power density <i>High power density support allows more efficient use of the most advanced systems.</i> 	✓	
<ul style="list-style-type: none"> • 100% independent A, B and C power path configurations <i>Each power feed path features its own UPS, battery set, transformers, circuit breakers and branch circuits such that individual power feed paths have no common element or single point of failure.</i> 	✓	
<ul style="list-style-type: none"> • 200% generator redundancy (2N) <i>Multiple generator redundancy assures continued protection during any electrical event.</i> 	✓	
<ul style="list-style-type: none"> • 300% power system redundancy (3N) <i>Multiple diverse UPS, battery, power distribution and branch circuit feeders (3-way).</i> 	✓	
<ul style="list-style-type: none"> • 100% power protection from all subtle, undetectable failure mechanisms <i>Only patented Critical Power Protection Supervisor technology can protect a data center from a range of nearly undetectable power problems – which lead to actual power outages.</i> 	✓	
<ul style="list-style-type: none"> • 3-year replacement interval for all batteries (improved UPS reliability) <i>Batteries age unpredictably. Going beyond battery management systems, a rigorous replacement schedule is the only way to ensure essential performance.</i> 	✓	
<ul style="list-style-type: none"> • Annual Infrared scans of all power systems to enhance predictive maintenance 	✓	
<ul style="list-style-type: none"> • 7-day, on-site storage of stabilized generator diesel fuel 	✓	

Additional Comment on Power: AiNET owns, operates and services an on-premise electrical substation and the main transformers. Frequent critical service checks, on a more regular basis than the power company would perform, assure continued operations.

COOLING	1	2
<ul style="list-style-type: none"> • Hot row/cold row segregation <i>Higher cooling density and lower cooling costs through improved air flows.</i> 	✓	
<ul style="list-style-type: none"> • Raised-floor plenum <i>Higher cooling density and lower PUE than on-slab/open floor.</i> 	✓	
<ul style="list-style-type: none"> • 300% chiller redundancy (3N) <i>For reliability and maintainability on this critical subsystem for TIA-942 Tier IV designation.</i> 	✓	
<ul style="list-style-type: none"> • 200% chilled-water loop redundancy (2N) with maintenance bypasses <i>For reliability and maintainability on this critical subsystem for TIA-942 Tier IV designation.</i> 	✓	
<ul style="list-style-type: none"> • 100% system bypass capability <i>All cooling elements – water loops, chillers, CRACs, cooling towers, etc. – comprise a single, switchable system whose elements can be cross-connected/switched in and out of service for serviceability without interruption, for continual operations.</i> 	✓	



Data Center Comparison Checklist

<ul style="list-style-type: none"> Certainty of water supply, a critical cooling component <i>Assured on-site, gravity-fed reservoir; on-site well; 1 hour water delivery contract with SLA.</i> 	✓	
---	---	--

CONNECTIVITY	1	2
<ul style="list-style-type: none"> Carrier-neutral facility, multiple major carriers available 	✓	
<ul style="list-style-type: none"> Multiple, diverse, concrete-encased fiber entrances to building 	✓	
<ul style="list-style-type: none"> Data center provider-owned “zero” manholes at property line for ease-of-interconnection 	✓	
<ul style="list-style-type: none"> Ultra-high quality Internet blend of several Tier 1 carriers available <i>Quality ensured via carrier blend, Cisco Optimized Edge Routing, and use of carrier’s MEDs.</i> 	✓	
<ul style="list-style-type: none"> Connectivity reliability enhanced via redundant, diverse connectivity <i>Via multiple carrier hotels in multiple geographic areas simultaneously.</i> 	✓	
<ul style="list-style-type: none"> 100% SLA on all elements of data center provider-supplied connectivity <i>Datacenters are only as good as their connectivity, 100% SLA guaranteed.</i> 	✓	
<ul style="list-style-type: none"> Inter-building cross connections available to regional carrier hotels for access to 100’s of carriers 	✓	

Additional Comment on Connectivity: AiNET owns and operates a redundant, DWDM network with more than a Terabit/s of capacity that links its data center(s) with major carrier hotels in the region. This network is designed with full BellCore/Telecordia physical path separation and completely redundant elements. The diversity, redundancy and capacity afforded by this network enhance the quality of AiNET’s connectivity services and its industry-unique, 100% SLA covering all service elements procured from AiNET.

SITE and STRUCTURE	1	2
<ul style="list-style-type: none"> Purpose-built data center with 6” concrete walls on a monolithic 2’ thick concrete pad 	✓	
<ul style="list-style-type: none"> Integrated bollard (vehicle ramming/intrusion) protection 	✓	
<ul style="list-style-type: none"> Situated above 500 year flood plain (FEMA HMP) 	✓	
<ul style="list-style-type: none"> Restricted vehicle access around facility 	✓	
<ul style="list-style-type: none"> High-security fencing protection of exterior systems 	✓	
<ul style="list-style-type: none"> Access controlled, isolated shipping/receiving and freight inspection facilities 	✓	
<ul style="list-style-type: none"> Facility wholly owned (building and land) by Provider <i>Owner-provider can render modifications as needed and offer long term contracts and assurance.</i> 	✓	
<ul style="list-style-type: none"> Fire suppression by non-aqueous HALON 1301 <i>HALON 1301 is the recognized gold standard in fire extinguishing systems.</i> 	✓	
<ul style="list-style-type: none"> No water or pipes above the datacenter floor <i>Reduces risk of water intrusion.</i> 	✓	

SECURITY CERTIFICATIONS					
CERTIFICATION	1	2	CERTIFICATION	1	2
<ul style="list-style-type: none"> SAS 70 Type II (not just audited) 	✓		<ul style="list-style-type: none"> EHNAC 	✓	
<ul style="list-style-type: none"> DCID 6/9 	✓		<ul style="list-style-type: none"> HIPAA 	✓	
<ul style="list-style-type: none"> ICD 705.2/705.3 	✓		<ul style="list-style-type: none"> PCI - DSS 	✓	
<ul style="list-style-type: none"> FISMA 	✓		<ul style="list-style-type: none"> Sarbanes-Oxley 	✓	
<ul style="list-style-type: none"> NIST Cloud 	✓		<ul style="list-style-type: none"> TIA-942 Tier IV 	✓	
<ul style="list-style-type: none"> DIACAP 	✓		<ul style="list-style-type: none"> FIPS-140 	✓	



Data Center Comparison Checklist

SECURE OPERATIONS	1	2
• 24x7 on-site security staffing	✓	
• Building interior, grounds and perimeter digitally recorded by visual and infrared cameras	✓	
• Entrance via reinforced, bulletproof, biometrically-secured, double mantrap	✓	
• Sophisticated, real-time monitoring (1,400 times daily) of data flows and network connections for problem detection and resolution.	✓	
• Building Management System monitored by secure, on- and off-campus NOCs	✓	
• One hour SLA on refuel/resupply of all critical utilities <i>Continuous performance beyond 7-day onsite storage.</i>	✓	

EXPERT & PROFESSIONAL SERVICES	1	2
• 24x7 on site staffing of certified network and systems administrative personnel	✓	
• Courtesy reboots and hands/eyes services	✓	
• Remote hands and smart hands available 24x7	✓	
• Expertly-managed, high-quality, blended Internet access	✓	
• Storage-as-a-service high performance SAN for pay-as-you-go primary/backup services	✓	
• IaaS, PaaS, EaaS, & SaaS Cloud compliant services available <i>Cloud Solution partners include Carahsoft, Citrix, Eucalyptus, IBM, Microsoft, Paragon, Teradata, and VMWare</i>	✓	
• DR/COOP Solutions including office space, meeting facilities, overnight housing and parking	✓	

BUSINESS OPERATIONS	1	2
• Guaranteed PUE year-round <i>For same meter readings, same price point with no seasonal variation, no fuel exposure.</i>	✓	
• 100% SLA embraces all service elements purchased from Provider <i>Includes data center and connectivity with monetary penalties.</i>	✓	
• Predictable pricing on multiyear contracts of any term	✓	
• Profitable privately-held Provider responding solely to customer needs <i>No dependence on public or private equity markets to fund operations.</i>	✓	

* * * * *

In the increasingly regulated datacenter operations environment, all aspects of reliability need to be considered and addressed: business strength, contractual guarantees, purpose-built facilities, limitless connectivity, and state-of-the-art industry certifications for current and future needs.

For more information please visit the AiNET website at www.ai.net or contact us at 301-931-6574 or sales@ai.net.