Industry Application Guide

Questionnaires for Micro Data Center Design

Lets Simply IT.

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What is Micro Data Center

Micro Data Center, a self-contained converged IT and facilities solution that incorporates compute, network, storage, power, cooling, security and unified management control, has become an answer to this challenge in that they are easily installed, self-contained, scalable and remotely managed, to provide customers a ideal solution for distributed local IT and edge computing applications.

Easy Deployment

Pre-manufactured and fully tested means that no on-site engineering needed to activate the product. Within one day, you can deploy the IT equipments and quickly power on your business.

Easy Management

Design once and deploy anywhere. By this standardized architecture and remote monitoring access platform, you can gain control of these critical assets, reduce risks and operational costs, and improving service levels.

Easy Expansion

A stand alone full function solution. You can plan and invest your IT assets step by step while your business grows. Buy small and scale to big. Invest only when necessary.

Micro Data Centers are the turnkey solution for enterprise and SMB clients. Small enough to deploy anywhere, sturdy enough to support enterprise-class racks gear independent of building cooling with built-in power, physical and encrypted access control. The standardized modules make it flexible to integrate and pre-test everything in a factory environment, forming from half cabinet to multiple cabinets, and quickly delivered with the all-in-one portability.

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Questionnaires for Micro Data Center Design

General Information		
Item	**Content**	**Notes**
Project Name		
Customer Information		
Design Capacity of IT Load		KW
Future Expansion Plan		Capacity Expansion
Tire Level of Construction		Tier Ⅰ - Tier Ⅳ or (N, N+X, 2N)
Type of Micro Data Center		Indoor or Outdoor

Level	Tier I	Tier II	Tier III	Tier IV
Availability	99.671%	99.741%	99.982%	99.995%
explanation	Basic Capacity	Redundant Components	Concurrent Maintainable	Fault Tolerant

Reference 1 - Uptime Tire Level

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Questionnaires for Micro Data Center Design

Site Environment		
Item	**Content**	**Notes**
Site Size		L*W*H (mm)，It's better to provide drawings
Base Strength		kg/m^2
Earthquake Resistance		The seismic level of the MDC
Site Altitude		Derating design is required when >1000m
Air Environment		Does the air contain sulfide or high salt and high humidity?
IP Proof Level		Outdoor MDCs should consider waterproof measures
Noise Requirement		Is it installed in an area where people are active? Noise limit?
Handling Space		Is there enough space for moving equipment?

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Power System		
Item	**Content**	**Notes**
Power Supply Type		Voltage, current, frequency, phase
Input Power Quantity		1,2 or 1 + gen-set
Power Protection Equipment		UPS? DC? UPS + DC? Determine the respective capacity when mixing
Battery Backup Time		mins
Gen-set Backup Time		Hour
Cabinet Design Power Density		kW/Rack
Type of PDU		Number and specifications of output sockets
Distribution Type		Conventional power distribution or smart busbars?
Surge Protection Level		kA
Protective Earthing		Special requirements for earthing system

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Cooling System		
Item	**Content**	**Notes**
Type of cooling		Air cooling, water cooling, chilled water or double cold source
Is there an air condenser installation location?		Installation location description
Whether to use an integrated air cooling without a condenser		Can be selected without a condenser installation location
Pipeline distance from condenser to indoor unit		
Height difference between condenser and indoor unit		
Cryogenic component		Need to be configured when the temperature is <-15°C (5°F)
Do you need forced drainage?		Can't rely on gravity drainage
Do you need humidification?		Perennial high humidity area without humidification

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Cabinets and Shelters		
Item	**Content**	**Notes**
Cabinet Size		W*D*H
Number of Cabinets		based on design power density, IT load, and redundancy
Cabinet Protection Level		IP level
Dimension for the Shelters(container)?		ISO container or special designed container
Cabinet Color		Standard black, other colors?
Lighting in Cabinet		Do you need an in-cabinet lighting system?
Cabinet Door Lock		mechanical lock or electric lock
Cable Tray		Cabling requirements
Cabinet Casters and Support Feet		Do you need it?

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Security System & Monitoring System		
Item	**Content**	**Notes**
Equipments to be Managed		UPS, air cooling, power distribution etc.
Temperature & humidity sensors		Qty
Smoke Sensors		Qty
Remote Monitoring		Do you need? Centralized monitoring? Web? APP?
Centralized Monitoring Protocol Type		SNMP? TCP/IP? MODBUS-TCP?
Alarm Notification Type		SMS? E-mail? Audible and visual alarm?
Video Surveillance Requirement		Need, request? (number of video channels, storage period)
Access Control Requirement		Need, request? (Access identification type)
Cabinet Door Status Sensor		Is it needed?

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Fire System		
Item	**Content**	**Notes**
Types of Fire Protection Gas		FM200 or others ?
Early Detection		Very Early Warning Smoke Detection
Fire Pipe System?		
Fire Linkage		Do you need fire protection linkage? linked content

Special requirements and supplementary instructions

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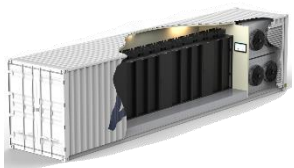
Attom Micro Data Center Solution

Attom Technology is dedicated to design and deliver the Micro Modular Data Center Product Platform, with the No.1 Flexible and Versatile options, to simplify Edge Data Centers deployment and management.

Indoor Cabinet Type

Indoor Row Type

Outdoor Cabinet Type



Outdoor Container Type

- Enterprise/Cloudlet/On-premise infrastructure
- Remote/Branch office environments
- Smart Retail
- Finance & banking sector
- Warehouse/Logistics Hubs
- Oil/Gas/Mining
- National and Local Government
- Small and medium enterprises
- Network rooms
- Office communication rooms
- Smart manufacturing
- Process automation in harsh environments
- Military
- Government/Education
- IAAS (Infrastructure as a service) component

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