

Data Center Site Survey Checklist

A practical field checklist for assessing an existing or proposed data center / IT room before design, installation, migration, upgrade, or handover.

Customer / Organization		Survey Date	
Site / Building		City / Location	
Surveyed By		Customer Contact	
Project / Reference		Survey Type	

Use this checklist to capture site facts and evidence. Approved scope, customer requirements, project standards, safety rules, manufacturer guidance, and local regulations take precedence. Mark N/A where a check does not apply; do not guess.

SURVEY OBJECTIVES

☐ New data center / IT room	☐ Expansion / upgrade
☐ Rack or cabinet installation	☐ Network / server deployment
☐ Structured cabling / fiber	☐ Power / UPS / PDU review
☐ Cooling / environmental review	☐ Migration / relocation
☐ DCIM / documentation baseline	☐ Handover / acceptance review

PRE-SURVEY DOCUMENTS AND ACCESS

☐ Approved scope / BOQ available	☐ Latest floor plan / layout available
☐ Single-line power diagram available	☐ Rack elevation / equipment list available
☐ Network / cabling drawings available	☐ Access approval / permit confirmed
☐ Restricted areas identified	☐ Photography permission confirmed
☐ Site safety induction completed	☐ Required escorts / keys / badges arranged

Item	Status / Existing Condition	Evidence / Reference
Room use and operational status		
Main constraints / risks observed		
Planned work window / outage limits		
Dependencies / third-party interfaces		

01 - ROOM, LAYOUT AND PHYSICAL ENVIRONMENT

Space and Infrastructure Survey

☐ Room dimensions measured / verified

☐ Raised floor present and height recorded

☐ Rack rows / hot-cold aisle orientation recorded

☐ Doors / corridors / lift route measured

☐ Water sources / drain lines identified

☐ Dust / construction activity observed

☐ Ceiling height recorded

☐ Floor loading information available

☐ Clearances and maintenance access checked

☐ Equipment delivery route photographed

☐ Windows / external exposure identified

☐ Housekeeping and storage condition recorded

Measurement / Item	Existing	Required / Planned	Remarks
Room L x W x H			
Raised floor height			
Door clear opening W x H			
Largest delivery route restriction			
Available rack positions			
Spare floor / expansion area			

RACK AND CABINET INVENTORY

Rack ID	Size / U	W x D	Occupied U	Free U	Power Feed	Network / Role	Condition

Record rack IDs exactly as found on site. If labels are missing or inconsistent, note the issue for correction rather than creating an unapproved naming scheme during the survey.

Power, UPS and PDU Survey

☐ Utility / building source identified
☐ Generator / backup source confirmed where applicable
☐ Rack A/B feeds identified
☐ Available spare outlets / breakers recorded
☐ Voltage / phase information recorded from approved source
☐ Emergency power-off arrangement identified if present

☐ UPS source and redundancy arrangement recorded
☐ Distribution boards / breakers identified
☐ PDU type and outlet types recorded
☐ Equipment plug types checked
☐ Earthing / bonding arrangement observed
☐ Power labels and circuit references photographed

Rack / Load	Feed A Source	Feed B Source	PDU / Outlet	Breaker / Rating	Observed Load	Spare Capacity	Remarks

GROUNDING / BONDING

Check	Status	Evidence / Measurement	Action
Main grounding / bonding point identified			
Rack bonding present			
Cable tray / metallic pathway bonding observed			
Ground labels / conductor condition acceptable			

Do not infer electrical capacity from appearance alone. Use approved electrical records and qualified electrical measurements where required.

Environmental Readiness

☐ Cooling system type identified	☐ Active cooling units / capacity references recorded
☐ Supply / return airflow direction observed	☐ Hot spots or blocked airflow observed
☐ Temperature / humidity monitoring present	☐ Leak detection present where applicable
☐ Fire detection devices identified	☐ Fire suppression system identified where applicable
☐ Extinguishers / emergency equipment locations noted	☐ Room penetrations / fire stopping condition checked
☐ Lighting condition adequate	☐ Environmental alarms / BMS integration identified

Item	Location / ID	Status	Reading / Reference	Remarks
Cooling unit 1				
Cooling unit 2				
Temperature / humidity sensor				
Leak detection				
Fire detection / suppression				
BMS / environmental monitoring				

AIRFLOW OBSERVATIONS

Rack / Area	Front / Intake Condition	Rear / Exhaust Condition	Blanking / Sealing	Issue / Action

Passive Infrastructure Survey

☐ Main cable pathways identified

☐ Copper and fiber routes recorded

☐ Pathway penetrations and fire stopping checked

☐ Patch panels / fiber panels inventoried

☐ Copper category and termination type recorded

☐ Labeling convention reviewed

☐ Tray / ladder / basket capacity observed

☐ Power / data separation checked

☐ Backbone entry / meet-me point identified

☐ Fiber connector / cassette / adapter types recorded

☐ Spare ports / fibers / cores recorded

☐ Existing cable management condition photographed

From	To	Medium	Qty / Cores	Panel / Port	Route	Spare	Remarks

PATCH PANEL / FIBER PANEL INVENTORY

Rack	Panel ID	Type	Capacity	Used	Free	Connector / Category	Remarks

For any existing link that will be reused, capture both endpoints, identifiers, media type, route, and test/verification requirement. Avoid relying on visual tracing alone when records are available.

Active Infrastructure and Operations

☐ Core / distribution / access devices inventoried

☐ Management network availability recorded

☐ Uplink media and speeds recorded from approved config

☐ Firewall / security interfaces relevant to scope identified

☐ IP addressing / VLAN information requested

☐ Remote support / vendor access constraints recorded

☐ Server / storage devices relevant to scope inventoried

☐ Console / OOB access method identified

☐ Available switch / device ports recorded

☐ CCTV coverage / access-control constraints noted

☐ Monitoring / NMS / DCIM tools identified

☐ Change / maintenance process confirmed

Device / System	Make / Model	Rack / U	Mgmt / OOB	Uplink / Media	Power A/B	Relevant Notes

DCIM / ASSET AND DOCUMENTATION BASELINE

☐ Rack inventory exists

☐ Port / cable records exist

☐ Rack elevations exist

☐ Floor / pathway drawings exist

☐ Asset tags / serials are traceable

☐ Device inventory exists

☐ IPAM / VLAN records exist

☐ Power mapping exists

☐ As-built drawings exist

☐ Backup / export of current records available

Survey Closeout

REQUIRED PHOTO RECORD

Photo Ref	Subject / Area	Required View / Detail	Captured	Notes
P01	Room overview	Entry / full room / rack rows	☐	
P02	Rack fronts	Each rack / cabinet identification	☐	
P03	Rack rears	Power, cabling and airflow	☐	
P04	Power	DB / UPS / PDU / circuit labels	☐	
P05	Cooling	Cooling units / airflow / sensors	☐	
P06	Pathways	Tray / ladder / penetrations / entries	☐	
P07	Panels	Copper / fiber panels and labels	☐	
P08	Constraints	Access, space, damage, risk or obstruction	☐	

OPEN ITEMS / RISKS / ACTIONS

No.	Observation / Gap	Impact / Risk	Required Action	Owner	Target Date	Status
1						
2						
3						
4						
5						
6						
7						
8						

SURVEY COMPLETION

- ☐ Measurements reviewed
 - ☐ Rack / device inventory checked
 - ☐ Cabling / pathway information checked
 - ☐ Customer clarifications listed
 - ☐ Photos indexed
 - ☐ Power information checked
 - ☐ Open items recorded
 - ☐ Sensitive information removed from public copy

Surveyor Name / Signature 	Date
Customer / Site Representative 	Date

This checklist records observed site conditions and available information; it is not, by itself, a design approval, electrical certification, safety certification, or final acceptance record.