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Instructions

The Data Center page contains information on all data centers previously reported by your Department and/or Agency.

Views are available to quickly list Open data centers, Closed data centers, Overdue data centers, and Schedule Closings.

To assist agencies in quickly identifying missing or potentially invalid data, several calculated fields have been provided. Calculated fields are marked with an asterisk (*) and do not require any input.

To ensure the data we have in our database is accurate and up to date, please:

- 1. Verify the data in all fields are accurate.
- 2. Update the Record Validity field, if necessary, with one of the following selections
 - a. Select "Invalid Record" if the facility was misclassified as a data center, server room, or closet.
 - b. Select "Duplicate Record" if the facility is a duplicate entry of another data center.
 - c. Select "Future Facility" when adding a data center that is not currently operational.
- 3. When a Closing Stage is set to "Closed", all fields in the CLOSED DATA CENTER INFORMATION section are required.
- 4. Do not enter zero or blank out values for data center records that are removing equipment or closed.

FACILITY INFORMATION

Data Center Name

Enter the name of your agency's data center. Duplicate data center name within the same component are not allowed.

Component Name

Select a Component for the data center. If you are not reporting components, select the top level Agency/Dept. name. If the component does not exist, assign the top level Agency/Dept. name; and contact the FDCCI PMO to add additional components.

Parent Agency

Calculated Field: Displays the top level Agency or Department of the Component Name selected.

Office

<u>Optional Field</u>: Enter the office, business line, or sub-bureau. This field is for internal tracking purposes only. Data from this field will not be reported or factored in the TCO Model.

Street Address

Enter the physical address of the data center.

Street Address2

Enter the suite, room, or building number. In some cases the field may contain amplifying information about the facility.

City

State

Zip Code

Country

Record Validity

<u>Drop down</u>: Invalid Facility, Added Facility, Duplicate record, Future Facility. Invalid facility is defined as a facility that was inaccurately classified as a Data Center, Server room or closet. Future Facility is defined as a facility scheduled to open in the future. Include as much information as possible. Records marked as Invalid Facility or Duplicate Record are ignored.

Data Center Status*

Calculated Field: Describes the data center as Open, Closed, or Closing. No input required.

Data Center Tier

<u>Drop Down</u>: Tier 1, Tier 2, Tier 3, Tier 4, Server Room/Closet, Other Room/Lab, Unknown, Public Cloud Provider

Ownership Type

<u>Drop down:</u> Agency Owned, GSA Owned, Lease and retrofit, Turnkey lease, Government Collocation, Non-Government Collocation, Outsourcing to other agency, Outsourcing to contractor, Public Cloud Provider

Gross Floor Area (SqFt)

This is what is commonly referred to as white space or raised floor space. Please indicate the total sq. ft. available for IT equipment. Do not include office space, mechanical rooms or storage areas. Minimum is 8 (equivalent to 1 rack). Report the entire floor area of the data center if you are providing to other agencies or operate a stand-alone data center only for your agency. Report only the portion of floor area used if you are sharing space (Collocation or Outsourcing)

Floor Area Classification*

<u>Calculated field:</u> Based on the gross sq.ft. entered. This field shows how record will be classified. No input required.

Annual Cost per SqFt

Please indicate the Cost per sq.ft. per year paid for the facility. Maximum is \$2,000.

Electricity Is Included in Cost

Select this option if Electricity is included in the lease cost.

Provider Name

If using a non-agency (commercial) provider facility, please indicate the name of the provider.

FTE

Defined as government and contracted personnel associated with the operations and maintenance of the Data Center at or below the operating system level. If the responsibilities are a fraction of a person or several people's time, estimate the hours per year attributed to data center operations and divide by 2080 (workable hours per year).

FTE Cost

Average annual cost paid for IT personnel (government and contractor) associated with Data Center Operations. (Fully Loaded)

Provides Services to Other Agencies

Select this option if the data center is providing services to other agencies that are not part of the same Cabinet level Department. Other agency data is not required if the facility is not owned by the agency. Include contracted or Cloud providers.

% of Services paid by Other Agencies

Enter the total percentage of services paid for by an agency outside the department. Do not include co-location of multiple components within a single agency. *Required if Provides Services to Other Agencies is selected.*

List of Agencies Serviced

To ensure continuity, provide the names of the agencies hosted in each facility. *Required if Provides Services to Other Agencies is selected.*

MULTI-TENANCY: PROVIDER INFORMATION

Collocation Provider

Indicate if this data center is providing space or services to other government entities.

<u>Drop down:</u> Yes, No. Field is dependent on Ownership Type. *Only select Agency Owned, GSA Owned, Lease and Retrofit, Turnkey Lease as the Ownership Type*.

Collocation Provider Type

Drop down: Agency Only, Government Wide. Field is dependent on Collocation Provider. Select Agency Only if the data center is providing space and/or service to components within its Department/Agency only.

MULTI-TENACNY: CUSTOMER INFORMATION

Only complete this section if you are sharing space with another government data center (ownership type is Collocation or Outsourcing).

Agency Only Provider

Use this field to select a data center provider within your top-level agency/department or component.

Government Wide Provider

Use this field to select a data center provider outside your top-level agency / department.

NB: You cannot select a value in both provider fields.

CONSOLIDATION EFFORT

Marked for Closing

Select this option if your agency is closing the data center. This field controls the Closing Stage, Closing Fiscal Year, and Closing Quarter fields.

Closing Stage

<u>Drop down:</u> Inventory, Application Mapping, Migration Planning, Migration Execution, Equipment Removal, Closed. If there are several phases being worked in parallel, select only the highest Closing Stage that has been completed. If Marked for Closing is not selected, Considering is the only option.

Closing Fiscal Year

<u>Drop down:</u> 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019. This field will not allow input unless Marked for Closing is selected.

Closing Quarter

<u>Drop down:</u> Q1, Q2, Q3, Q4. If the quarter is unknown, select Q4. This field will not allow input unless Marked for Closing is selected.

Overdue Status*

<u>Calculated Field:</u> Indicates whether the data center has closed on schedule. A green flag indicated that the data center is consolidating and the target closing date has not been reached. A red flag indicates the target closing date has passed but the data center remains open. No input required.

Closing Completeness*

<u>Calculated Field:</u> Shows the percentage of completeness based on the closing stage. No input required.

CLOSED DATA CENTER INFORMATION

Real Property Disposition

<u>Drop down:</u> Dispose at close, Dispose at later date, Repurpose. *Only required if the data center is closed.*

Real Property Disposition Date

<u>Drop down:</u> Please indicate the year of property disposition. Values include 2011/Q1 – 2019/Q4. <u>Only required if the data center is closed.</u>

Floor Area Eliminated or Repurposed

Enter the total floor area (in sq.ft) eliminated or repurposed as a result of this data center closing. Only required if the data center is closed.

Total De-commissioned Servers

Enter the total number of servers de-commission from this closed data center. *Only required if the data center is closed.*

Total Servers Moved to Other Data Centers

Enter the total number of servers removed from this closed data center and relocated to another facility. *Only required if the data center is closed.*

Overall FTE Reduction

Enter the total FTE reduction as a result of this data center closing. *Only required if the data center is closed.*

ENERGY

Electricity is Metered

Please indicate if the facility has metering capability.

Total Power Capacity (kW)

Enter the total power capability of the data center, usually measured at the main breakers.

Total I.T. Power Capacity (kW)

Enter the total power available to the white / raised floor space. This can often equal to the UPS and / or Generator Set rating.

Average Electricity Usage (kWh)

Enter the total power consumed by the data center per hour. This includes power consumed by the white space and auxiliary equipment.

Average I.T. Electricity Usage (kWh)

Enter the total power consumed by the IT equipment. This is typically measured at the UPS / PDU.

Cost per kWh

If known, provide the cost per KWh. If unknown, leave blank. Maximum cost is \$0.50.

Watts per Sq.Ft.*

<u>Calculated field</u> - provided as a means to quickly validate the data entered. Values for commercial office space can be as low as 7W per sq.ft. while high capacity purpose built data centers can exceed 250. Field changes color when required data is incomplete. Data is not stored in database. No input required.

Power Usage Effectiveness (PUE)*

<u>Calculated field</u> - Calculation provides a rough estimate of the facilities PUE. Average values are typically around 2.0. Values can be between 1.4 for highly efficient data centers and more than 3.5 for inefficient. Field changes color when required data is incomplete. Data is not stored in database. No input required.

HARDWARE

Total IBM Mainframes

Enter the number of IBM mainframe systems. Only input your portion regardless if you are a provider, customer, or neither.

Total Other Mainframes

Enter the number of non-IBM mainframe systems. Only input your portion regardless if you are a provider, customer, or neither.

Total Windows Servers

Enter the number of servers with Windows based OS loaded directly on the server. If using blade servers with one OS per blade, each blade should be counted as one server. Do not include Hyper-V hosts. Only input your portion regardless if you are a provider, customer, or neither.

Total Unix Servers

Enter the number of servers with Unix based OS loaded directly on the server. If using blade servers with one OS per blade, each blade should be counted as one server. Do not include Virtualization hosts. Only input your portion regardless if you are a provider, customer, or neither.

Total Linux Servers

Enter the number of servers with Linux based OS loaded directly on the server. If using blade servers with one OS per blade, each blade should be counted as one server. Do not include Virtualization hosts. Only input your portion regardless if you are a provider, customer, or neither.

Total HPC Cluster Nodes

Enter the total number of HPC (High Performance Computing) Cluster Nodes. Do not include HPC Cluster Nodes as Virtual Hosts. Only input your portion regardless if you are a provider, customer, or neither.

Other Servers

Enter the total number of servers that cannot be classified in one of the above categories. Only input your portion regardless if you are a provider, customer, or neither.

Total Server Count *

<u>Calculated field</u> - Includes all physical servers being reported for the facility. This count includes the physical VM hosts. Data is not stored in database. No input required.

Rack Count

Enter the total number of racks that are in the data center. Please include racks used for backup, storage, network and wiring gear. Only input your portion regardless if you are a provider, customer, or neither.

Sq. Ft. per Rack*

<u>Calculated field</u> - Based on total sq.ft. and number of racks being reported. According to APC White Paper #144, the average rack consumes 28 sq.ft. Values can be below 28 sq.ft., but are rarely found outside high capacity, purpose built facilities. Data is not stored in database. No input required.

VIRTUALIZATION

Total Virtual Host

Enter the total number of physical servers dedicated to providing a virtualization layer to guest operating systems. Do not include HPC Cluster Nodes. Only input your portion regardless if you are a provider, customer, or neither.

Total Virtual OS

Enter the total virtualized operating systems residing on virtual hosts. Only input your portion regardless if you are a provider, customer, or neither.

Total OS Count

<u>Calculated field</u> - shows total operating systems (physical and virtual) currently being reported for the facility. VM host operating systems are not included. Data is not stored in database. No input required.

NETWORK STORAGE

Total Storage (TB)

Enter the total Network storage available. Please do not include drive space in servers. Only input your portion regardless if you are a provider, customer, or neither.

Used Storage (TB)

Enter the total Network storage used. Only input your portion regardless if you are a provider, customer, or neither.

Storage Utilization*

<u>Calculated field</u> - Shows percentage of network storage currently used. Data is not stored in database. No input required.