

**Office of the Chief Information Officer  
Enterprise Policy**

**Policy Number:** CIO-059

**Effective Date:** 06/01/2014  
**Reviewed Date:** 08/12/2016  
**Revision Date:** 08/12/2016

**Policy Statement:** The purpose of this policy is to describe the responsibilities and procedures to be followed when equipment is installed or removed at the Commonwealth Data Centers.

**Policy Maintenance:** The Infrastructure Support Branch (ISB) within the Office of Infrastructure Services (OIS) is responsible for maintaining and updating this policy. Agencies may choose to add to this policy, in order to enforce more restrictive internal policies as appropriate and necessary. Therefore, staff members are to refer to their agency's related policy, which may have additional information or clarification of this enterprise policy.

**Authority:** [KRS 42.726](#) authorizes the Commonwealth Office of Technology (COT) to develop policies that support and promote the effective application of information technology within the executive branch of state government, as well information technology directions, standards, and necessary management processes to assure full compliance with those policies.

**Applicability:** This policy is to be adhered to by all staff, including employees, contractors, consultants, temporaries, volunteers, vendors and other workers that wish to install, remove, operate or maintain Information Technology resources located in the Commonwealth Data Centers (Cold Harbor & the Alternate Data Center) or other facilities maintained by COT.

**Responsibility for Compliance:** Agencies and staff outlined above in 'Applicability' are expected to understand and follow these guidelines. Each agency is responsible for assuring that staff under its authority have been made aware of the provisions of this policy, that compliance is expected, and that intentional disregard for this policy may result in disciplinary action up to and including dismissal. It is each Executive Cabinet's responsibility to enforce and manage the application of this policy.

**Review Cycle:** This policy will be reviewed at least every two years.

**Policy:** This policy describes the responsibilities and procedures to be followed when installing or removing equipment at the Commonwealth Data Centers. The IT infrastructure supported by COT is expanding and continuously becoming more complex. The Commonwealth Office of Technology is tasked with maintaining infrastructure stability and reliability for the Commonwealth of Kentucky. The purpose of the Equipment Installation and Removal policy is to ensure all changes to the infrastructure at the data centers are reviewed and implemented in a rational and predictable manner in order to increase efficiency, minimize the impact of change related incidents upon service quality, and consequently improve day-to-day operations of the organization.

To ensure that the equipment installed in the facilities are provided with:

- stable network environment
- proper cooling,
- reliable electrical service,
- use of approved infrastructure materials,
- up-to-date asset information, and

- security;

the following will procedures will be followed:

All requests for equipment installation and removal must have a change ticket associated with it. **No equipment will be installed in or removed from the data center without prior approval on a change ticket.** Every request must have a COT-F059 Commonwealth Data Center Equipment Installation/Removal Request Form.

### **Equipment Installation Process:**

#### **A. Project Start-Up With COT Infrastructure Support Branch (ISB)**

A project start-up meeting will be held with the requestor and the ISB. The intention of this meeting is to confirm project objectives, review size, weight, electrical, networking and storage needs. The requestor will provide the ISB enough information to set a floor location; the ISB is to inform the requestor what information will be required on the COT-F059.

**B. Physical Location Determined, Equipment Ordered** The electrical capacity and network availability in the data center varies by location. The ISB will review electrical, weight, cooling, and network connection requirements of the equipment to determine the best solution for the data center to support the requested devices. Due to weight, cooling and electrical requirements, requests for equipment to be located in specific areas may not be accommodated and ISB will recommend other solutions.

At this point ISB can approve the APR (Asset Provisioning Request) if required and if there is enough information to ensure the CDC/ADC can support this request.

#### **C. Requestor Works With Network Operations and Storage Team for Port Assignments**

The Network Operations and Storage Branch will provide port information to the requestor. The requestor is responsible to provide all ports including the NICs of the device being installed. ISB requires the entire cable path. Other required connection info will be supplied as needed by the requestor. All of this information is to be included on the COT-F059.

#### **D. Ticket Creation**

Requestor will complete the COT-F059 then email The Commonwealth Service Desk (CSD) CommonwealthServiceDesk@ky.gov the completed COT-F059 and request Change ticket be created. The approvers shall be at a minimum, the branch manager of the branch requesting the work and the branch manager of the COT Infrastructure Support branch. Once the submitted COT-F059 is verified to be complete and correct ISB will approve Change Ticket.

#### **E. Material Order**

It is important to note that the ISB branch does not stock and is not responsible to supply required patch cables or electrical cords for the installation.

All required racking items which can include but are not limited to: the actual rack, cable (including but not limited to: fiber trunks and jumpers, all copper, electric cords), cabinet power distribution units (CDUs), and other infrastructure items must be approved and quoted by ISB. The ISB will provide a quotation to requestor who will then be responsible for the proper ordering of the provided quote/s.

## **F. Electrical Activity**

The ISB shall be the only group making electrical connections or disconnections.

When electrical circuits install are required ISB opens a FM Works request with Finance Facilities Management. Finance Facilities works with vendors to obtain quotes and manages installation of the required electrical circuits. Typical lead times for installation of circuits are 15 working days from the date the work has been approved through the required management. In some instances where large quantities of circuits are requested the lead times may be extended. Expedited installations may be accommodated in emergency situations.

120 Volt Normal Electric is provided for crash cart, diagnostic/testing tools and other non IT devices to be plugged into. These circuits are provided for general usage and are not on the protected enterprise electric grid. The outlets are identified on the CDC drawings that are affixed to the emergency cable racks and with labels at the physical location of the circuits on the floors. Extension cords are supplied in the emergency racks that can be used and once work is completed they need to be neatly coiled up then returned back to the emergency rack.

## **G. Infrastructure Cabling Activity**

The ISB shall be the only group making cable connections for copper and fiber to ensure integrity of the cable path. The OIS Emergency Cable Plan, OIS-092, covers emergency cable procedures and is the only authority allowing cable activity outside of the ISB.

Typical Lead times for installation of copper cables and fiber jumpers are as follows:

- 1-6 cables: 1 business day.
- 7-12 cables: 3 business days.

When fiber-optic cabling is required, the ISB will utilize existing dark fibers where possible. Both single-mode and multimode fiber-optic cables are available in the data center. When new fiber-optic trunks are required, 4-6 weeks lead time will be required from time the order is placed with the vendor.

Notes:

1. All fiber trunks are special order and are not in stock at vendor's location.
2. All lead times begin when the ISB accepts the task and is contingent on ISB having materials in their possession.
3. In the case of large cable counts or expedited requests, ISB may contract the COT Edge Network Operations Branch or outside contractor(s).
4. Fiber and copper network cables must be plenum grade for use in CDC.

## **H. Equipment Installation**

The ISB will receive the equipment either from the agency, vendor, COT personnel or COT Asset Management staff and place it in the appropriate location within the data center. In cases where the vendor is required or contracted to place the equipment on the floor the ISB will assist and/or direct the installation. Once equipment has been released to ISB, lead time required for installation is the following:

- 1-4 of each server, switch or other rackable device: 1 business day.

- Equipment Cabinet / Rack: 2 business days.

Once the equipment is racked/placed in the data center the ISB will connect all jumpers and patch cords according to the COT-F059. The ISB will plug power cords into the equipment and into the proper CDUs. If there are connections that cannot be made by the ISB due to technical or contractual agreements, the ISB will be present during all connecting of cables and power cords. ISB is available during normal ISB duty hours which are 0630-1800 EST Monday-Friday for standard Change tasks. Emergency situations are managed by COT Incident Management process.

Equipment installation requests for the ADC must have a Change Ticket task created by the CSD (along with a completed COT-F059), task(s) assigned and accepted by the ISB no later than 1200 on Monday. It is the responsibility of the requestor to ensure, and confirm to the ISB, that all equipment and materials are on-site at the ADC no later than 1500 on Tuesday. The ISB will then begin the installation at the ADC on Wednesday.

If the installation is for a POC (Proof of Concept) or is loaned equipment and the shipping boxes and packing materials need to be retained, the requestor must include this requirement in the change request ticket. Otherwise all packing and shipping materials will be disposed of at the time of installation.

Note: All lead times begin when the ISB accepts the task and is contingent on having equipment and all required install materials released to ISB.

Note: In order to comply with the Commonwealth's Division of State Risk & Insurance Services, all equipment delivered to the Commonwealth Data Center for installation on the 3<sup>rd</sup> and 4<sup>th</sup> floors shall be unboxed at the loading dock. No cardboard or other packing materials will be allowed on the equipment floors. In instances where small packages of parts (screws, nuts, bolts, etc.) pertaining to the installation are required, the packages may be taken on the floors. The packages cannot be stored on the floors and must be removed when the technicians leave.

## **I. Project Closeout**

When all equipment has been racked/placed, in the data center, all required patch cables installed, and electrical connections have been made, the ISB will update the appropriate systems with the required information for Asset Management tracking purposes. The ISB will properly complete the Journal Note and add other items (photos, work file scans, etc., as/if needed) prior to closing the task.

### **Equipment Removal:**

A start-up meeting will be held with ISB and requestor at the equipment being removed. Requestor will identify equipment and place a COT Equipment Removal sticker on the front of the equipment with the required information. Stickers will be supplied by the ISB. The requestor is responsible for all disposal and security paperwork in accordance with COT Security requirements.

The requestor will complete the COT-F059 Commonwealth Data Center Equipment Installation/Removal Request Form, attach the form to an email requesting a Change Ticket be created, and send the email to the Commonwealth Service Desk (CSD) at CommonwealthServiceDesk@ky.gov. The approvers shall be, at a minimum, the requestor's Branch Manager and the Manager of the COT Infrastructure Support Branch.

Once the submitted COT-F059 is verified to be complete and correct, the ISB will approve the Change Ticket.

ISB has no SLA set for removals unless there is a business need.

Once equipment has been removed the ISB will send an email to the requestor that includes the location of the equipment. The ISB will properly complete a Journal Note and add other items (if needed) prior to closing the task.

### **Floor Space Only Customers:**

Floor space customers housing equipment in the CDC under agreement with COT management are bound to this policy with very few differences in material ordering and physically installing equipment as follows:

Floor space customers are not required to have ISB do their cable patching inside their leased area, but will need to install them according to COT standards, and are subject to inspection and acceptance by the ISB. Any cables that leave the leased area will need to be worked by the ISB in accordance to this policy.

Floor space customers are responsible for racking their own equipment and maintaining their own electrical redundancy. Floor space customers can plug their own equipment power cords into the equipment and to the CDUs as part of an approved change ticket. Only the ISB can plug CDUs into the main power grid. The ISB will inspect the electric load and the floor space customers will need to work with the ISB to correct any discrepancies found that could affect the enterprise electric grid. The ISB is available to assist and direct with cable paths and electrical concerns during normal ISB duty hours which are 0630-1800 EST Monday-Friday for standard Change tasks. Emergency situations are managed by the COT Incident Management process.

The ISB can provide material quotes for floor space customers, if requested, to ensure materials meet the standards set by codes, Industry standards and COT Enterprise Standards. If customers bring in their own cables they must be inspected and accepted by the ISB and must meet COT Enterprise Standards.

Floor space customer's installations are subject to the ISB inspection and acceptance.

### **References:**

COT-F059 Commonwealth Data Center Equipment Installation/Removal Request Form

<https://gotsource.ky.gov/docushare/dsweb/Get/Document-391077/>

OIS-092 CDC Emergency Cable Plan

<https://gotsource.ky.gov/docushare/dsweb/Get/Document-393461/>

Enterprise Architecture and Kentucky Information Technology Standards(KITS)

<http://technology.ky.gov/Governance/Pages/KITS.aspx>

Commonwealth Service Desk:

[CommonwealthServiceDesk@ky.gov](mailto:CommonwealthServiceDesk@ky.gov)

**\*END\***