aHardware Installation Guide

The Operations Team must follow the steps below

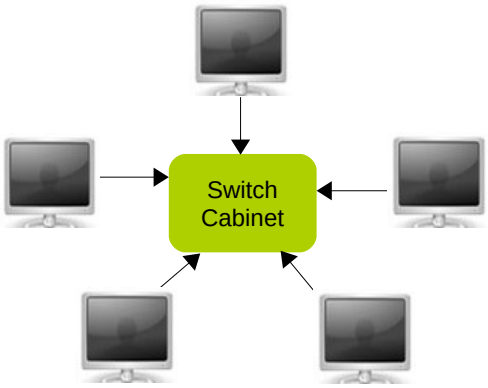
PRE-INSTALLATION:

1. Technical Reconnaissance (scope site layout & choose cabinet locations)
2. Plan the project (time-line, project lead, components needed, etc)
3. Start a hardware requisition
4. Order materials/components
5. Reconcile procurement of materials with project needs
6. Modify exiting hardware:
    - Add holes for fans & wires
    - Add block board to all cabinets covering the entire interior back wall of the cabinet

HOW TO CHOOSE CABINET LOCATIONS:

1. Pick a central location for the Switchboard:

- Distance between cabinet & workstations **should not be** > 100m
- If distance between any 2 points exceed 100m = add another switchboard cabinet



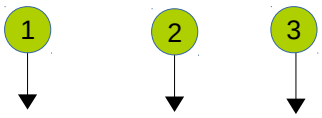
2. Choose a central location for the Server Cabinet:

- Needs to be in a well ventilated room, at least 1 window
- Room needs to be secure: windows with bars and door with locks

3. Choose a well ventilated area for the Power cabinet:

- Location should be close to ECSOM distribution board & safe from theft and weather conditions
- For J2's, if greater than 10 workstations = + 1 Power Cabinet (a full back up system with 4 batteries)

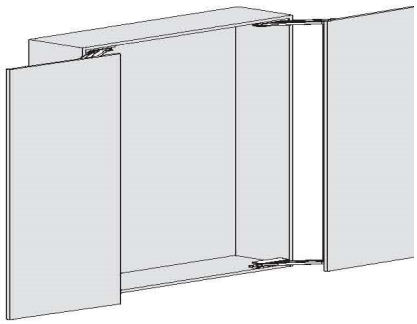
CABINET DESIGNS:



Standard Design = 3 cabinets. Switchboard **+** Server **+** Power

Alternative Design = 2 cabinets. (Switchboard **+** Server**) +** Power

CABINET LAYOUT



Correct

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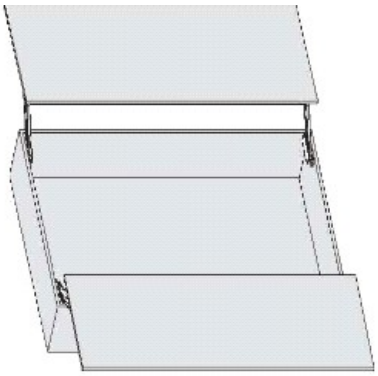
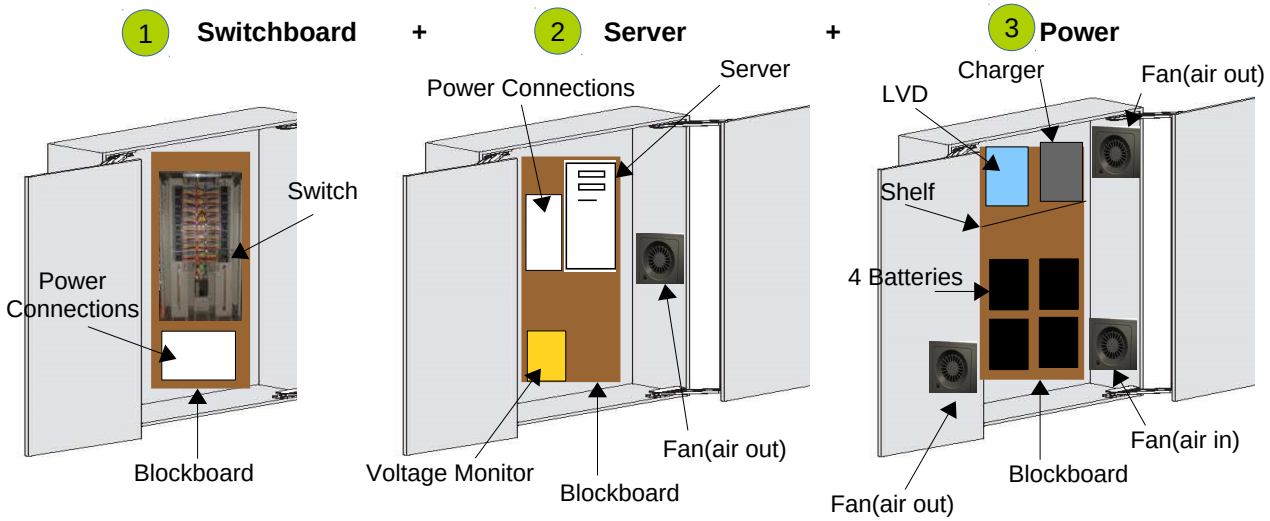


Incorrect

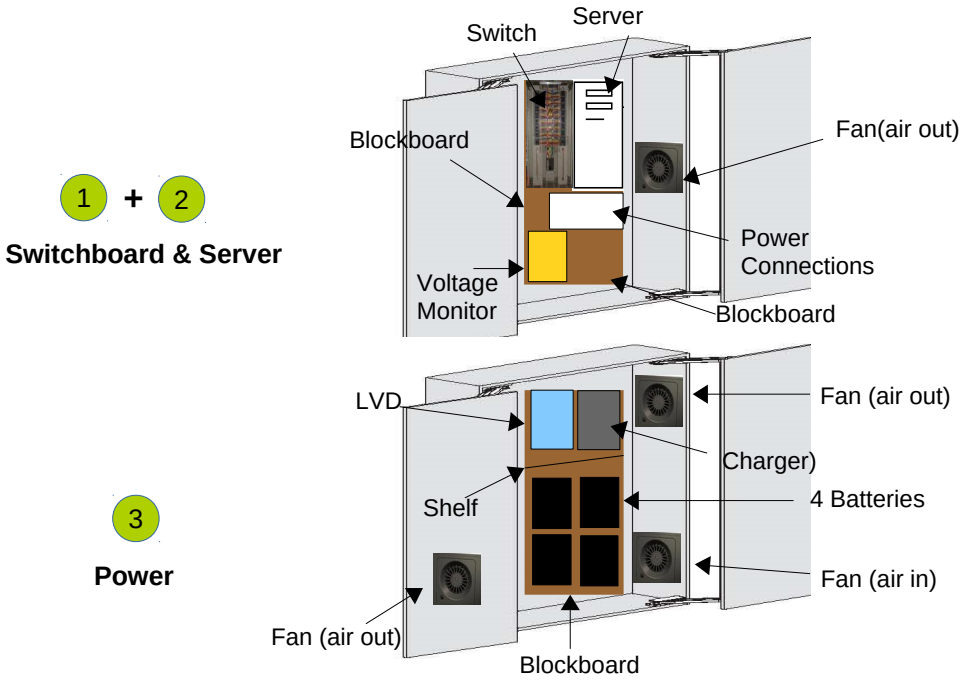
STANDARD DESIGN

All cabinets in different rooms: see below



ALTERNATIVE DESIGN

Server & Switchboard in the same cabinet stacked vertically on top of the Power Cabinet: see below



DAY OF INSTALLATION

Should be done prior to Back Data Entry by Support & Deployment Team

Alternative Back Data Entry:The Support & Deployment Team connects touch-screens to a local server and ESCOM electricity, with a working hospital generator or Baobab generator, then migrate data later.

PRIOR TO DEPARTURE:

Use the “Hardware Check-list” to confirm you have all materials needed to bring to the site.

DAY 1: RUN WIRES & PIPES

1. Install PVC pipe for power connections (power cables for 48 volts inside)
2. Install PVC trunking (plastic covering) for Ethernet cables (connected to data socket)
3. Terminate Ethernet cables
4. Install data sockets (run cables to switchboard)

DAY 2: INSTALL CABINETS

1. Install Server cabinet
2. Install Switchboard cabinet
3. Install Power back up cabinet

DAY 3: TEST

1. Test Connectivity- use a laptop to test Ethernet connection to the site server (i.e. “ping” server IP addresses). Test point of care at each ward. Unsuccessful response = “host unreachable”

2. Test Power Connections with volt multimeter to make sure 48 volts are coming from each power socket that is connected to the four batteries in the power cabinet.

3. Install a data cable link (covered with PVC trunking) from the Baobab system to the HMIS system (i.e. their switchboard or computer in the HMIS office if the site does not have a network)

4. Test connectivity between Baobab system & HMIS office (i.e. “ping” server IP address)

5. If site has internet, configure Baobab server on site to access Baobab HQ server (“Cottonwood”)

SECURITY & SAFETY: FINAL CHECK

1. All cabinets must have a padlock
2. All rooms must be locked
3. Label keys: 1 set of with HMIS Officer & 1 set at Baobab HQ in Operations Department key cabinet
4. Every room with a power cabinet needs to have a fire extinguisher

Should not take more than 1 business week (5 days)

ENTER SUPPORT & DEPLOYMENT TEAM
Install Touch-screens
Run & Test Baobab module

OPERATIONS HARDWARE CHECKLIST

CHECK LIST FOR NEW SITE HW INSTALLATION

TOOLS/ MATERIALS REQUIRED	QTY	CHECK
Keys for server room & cabinets		
110V AC Transformer		
2.5mm earth wire		
48V cooling fan		
Babble level		
Bag of cement		
Batteries		
Battery Charger		
Battery charger for drill machine		
Battery terminals		
Blockboard		
Builder's knife		
Circuit Breaker		
Computer server		
Draw wire		
Drill bits (concrete, steel, wood bits)		
Drill machines (both electric & battery power)		
Electric hacksaw		
File		
Fish tape		
Hacksaw		
Hammer		
Hydrolic cutting machine		
Insulation tape		
Key for drill chunk		
Ladders		
LVD		
Multimeter		
Network Switch		
Padlocks for cabinets		
Plain bend		
Pliers		
Power Extension cord		
PVC coupling		
PVC Nipples		
PVC pipes (25mm,110mm,20mm)		
PVC pipes (25mm,110mm,20mm)		
PVC saddles		
PVC trunking		
RJ45 connectors		
RJ45 Crimping tool		
Router if necessary		
Screw drivers		
Screws, Nut & bolts		
Side Cutters		
Soldering station, Solder wire		
SW Mounting Bracket		
Spanners		
Speakon connectors		
Spring bender		
Surge protector		
Tape measure		
Torch		
Twin surface switch		
USB-Serial adapter		
Voltage monitor		
Water pipe		
Work Suit		