

A) Installation Guidelines (For Circuits provided by HKT)

1. Network Equipment

The following new network equipment will be provided and installed by HKT for the SDNet/2:

- For dual circuits, there will be 1 fibre termination box[#], 2 routers, and 1 or 2 LAN switches (depending on number of trading devices on the segment).
- For single circuit, there will be 1 fibre termination box[#], 1 router. It is applicable for BSS testing circuit.

Notes: HKT may make use of the existing fibre termination box if available.

Below are the pictures of the router, LAN switches and Fibre termination box.

Fibre Termination Box



Note: HKT may make use of the existing fibre termination box if available

Access Router (Single)

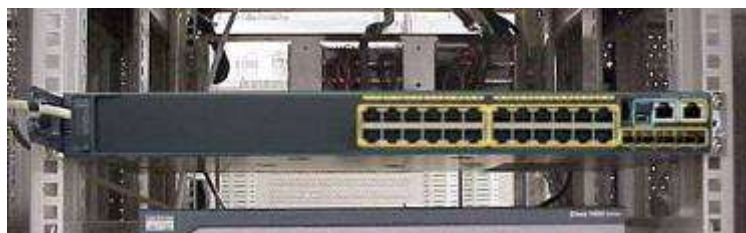


Access Routers (Dual)



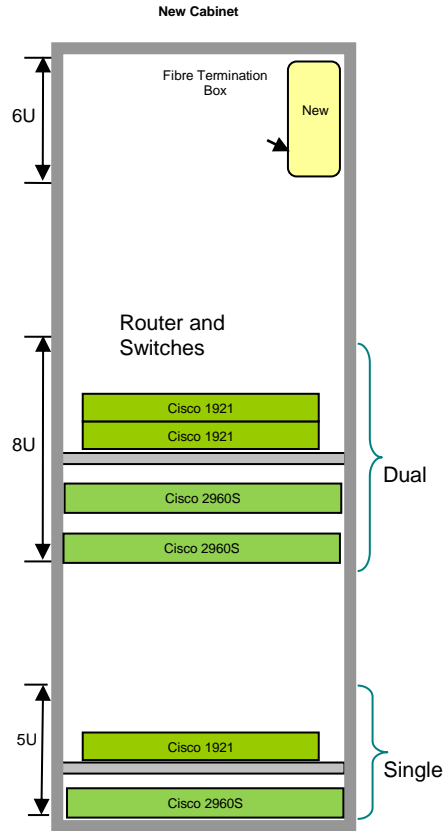
*Note: The routers provided are desktop version
(Back mounted type is not supported)*

HKT Provided LAN Switch



2. Accommodation Requirements

EPs should provide sufficient accommodation to house the equipment as follows.



Remarks:

Cisco 1921	: New Router
Cisco 2960S	: New Switch

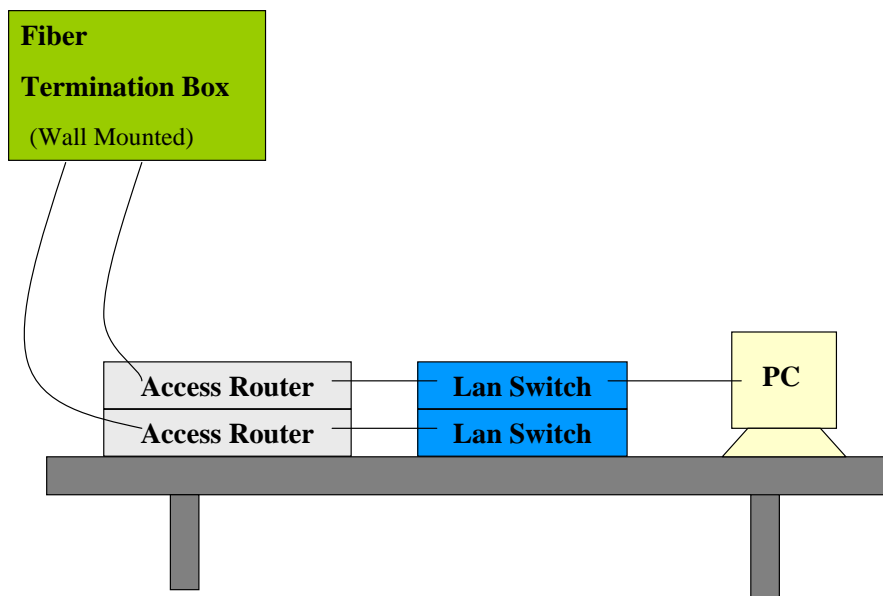
Note: HKT will make use of the existing fibre termination box if spare fibre is available or otherwise install new fibre termination box.

3. Space Requirements

Please refer to the following table for the space requirement of different network packages:

Network Packages	Access Router and LAN Switch	Fibre Termination Box	Total Rack Space	Trays
1. Single Circuit	3U (5.5"/134mm)	6U (11.5"/ 267mm)	9U	1
2. Dual Circuits	6U (11.5"/ 267mm)	6U (11.5"/ 267mm)	12U	1

If Cabinet is not available, the space requirement for the network equipment is as follows:

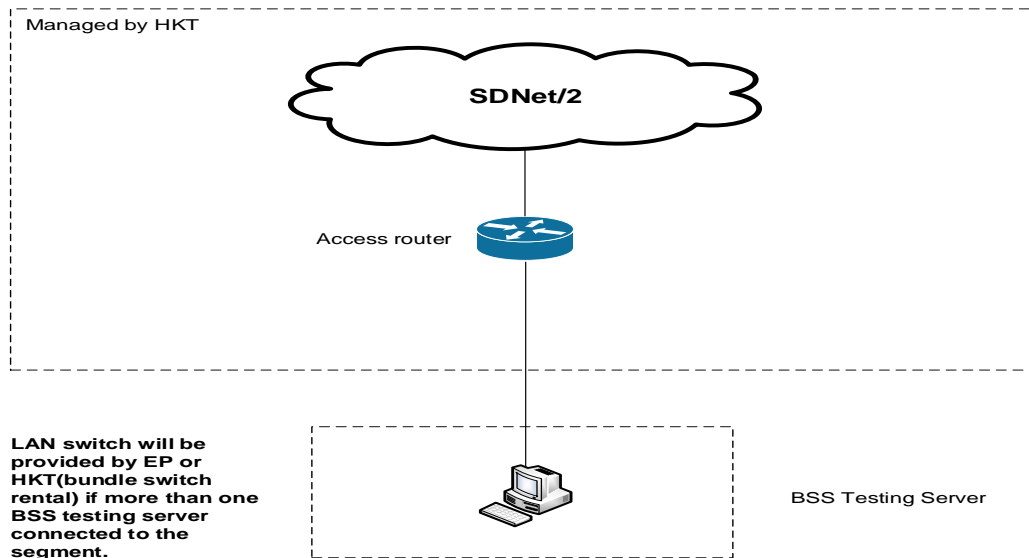


Equipment Type	Width	Depth	Height
Fibre Termination Box	5.5" (140mm)	3" (77mm)	9.5" (242mm)
Access Router (Cisco 1921)	13.5" (343mm)	10.8" (275mm)	1.9" (49mm)
Lan Switch (Cisco 2960S)	17.5" (445mm)	11.8" (300 mm)	1.75" (45mm)

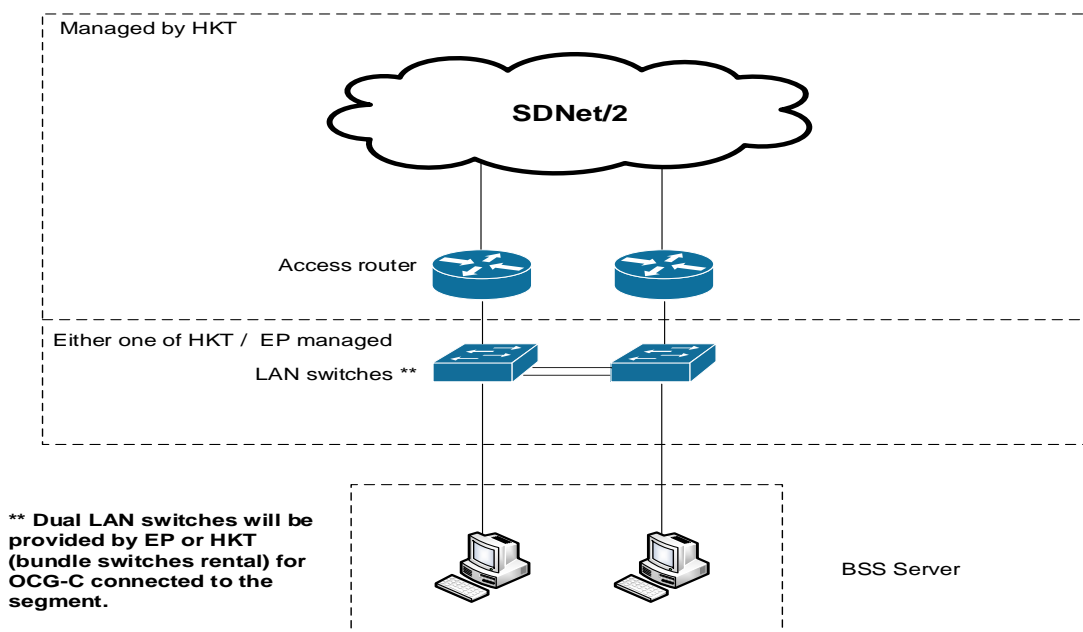
4. LAN Set-up Arrangement

The following diagrams show the typical LAN set-up for different network packages:

- **Typical LAN Set-up for Single Circuit**



- **Typical LAN Set-up for Dual Circuits**



5. AC Power Supplies

AC power supplies (220V) with standard 13A sockets should be provided by the EPs, before HKT pays visit for circuit installations. They should be adjacent to the new equipment to be installed, and distance from power sockets to the equipment should be less than 2 meters. Stable AC power supplies is required (UPS is recommended).

- For dual circuits: 4 power points are required with dual switches and 3 power points are required with single switch
- For single circuit: 2 power points are required with switch and 1 power point is required for without switch.

One additional temporary power point is also required for circuit commissioning test use.

6. Important Notes and Precaution for Circuit Installation

- Secure accommodation should be provided to house the new equipment. The location should be adjacent to the existing equipment to facilitate circuit cut-over (migration).
- Do not bend the fibre cables and patching cords (yellow in colour).
- Stable AC power supply is required (UPS is recommended).
- For Dual Circuits, separate (dual) AC power feeds and fuses are recommended.
- Environmental conditions: air-conditioned with ventilation is required
- For fibre pre-wiring works at EP sites, HKT will make use of the cabling facilities provided by the EP as far as possible. If it is not feasible, HKT will provide basic facilities for cable fixing such as flexible conduit or protection along the route. In case relocation of the provided facilities is required in future, HKT will consider charging the EP the costs required for such alternation.

B) Installation Guidelines (For Circuits provided by HKBNES)

1. Network Equipment

The following new network equipment will be provided and installed by HKBNES for the SDNet/2:

- For dual circuits, there will be 1 fibre termination box, 2 Routers and 1 or 2 LAN switches (depending on number of trading devices on the segment).
- For single circuit, there will be 1 fibre termination box, 1 router. It is applicable for BSS testing circuit.

Access Router



Note: The routers provided are desktop version (rack-mounted type is not supported).

HKBNES-provided LAN switch



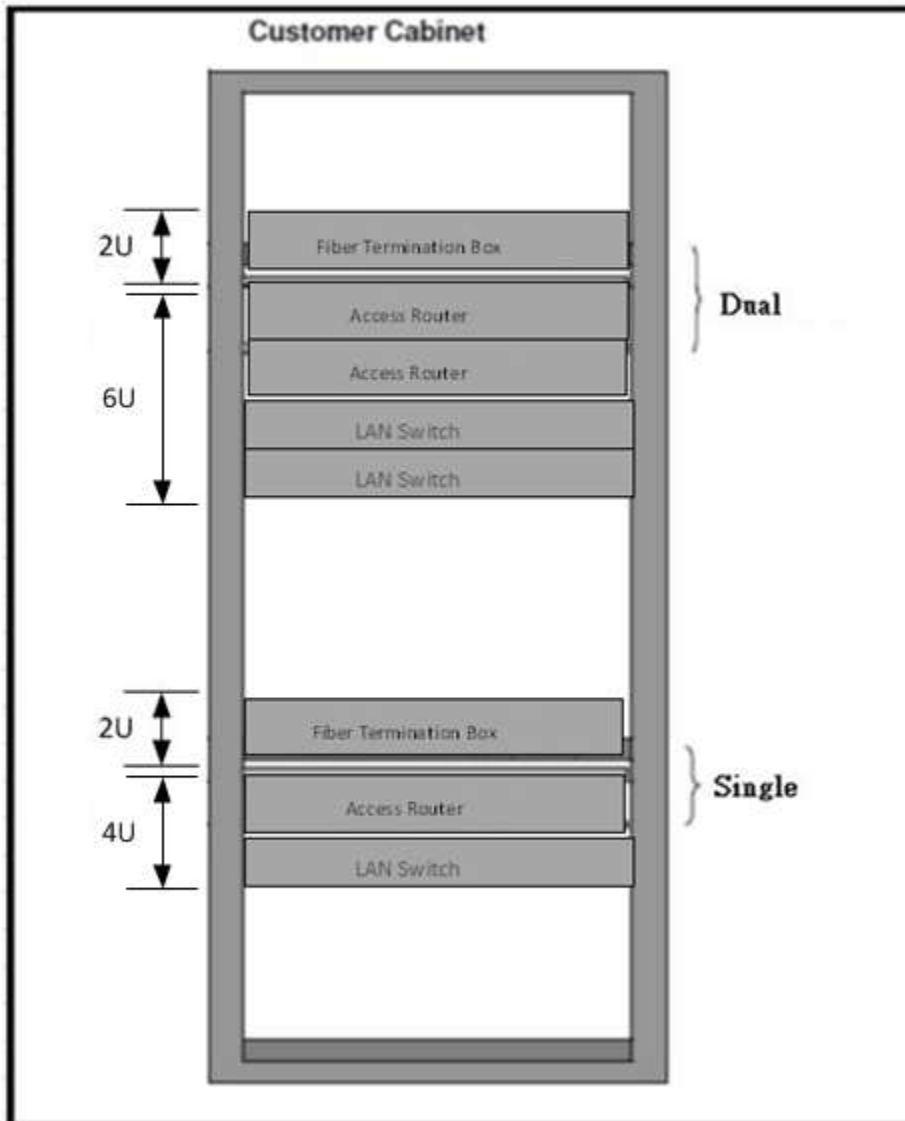
Cabinet-mount fiber box



Wall-mount fiber box

2. Accommodation Requirements

The EPs should provide sufficient accommodation to house the new equipment as follows.



Fiber Termination Panel

16.93" W x 13.78" D x 1.77" H

(430mm W x 350mm D x 45mm H)

Access Router (per unit)

11.02" W x 7.04" D x 1.73" H

(280mm W x 181mm D x 44mm H)

LAN Switch (per unit)

17.5" W x 9.52" D x 1.75" H

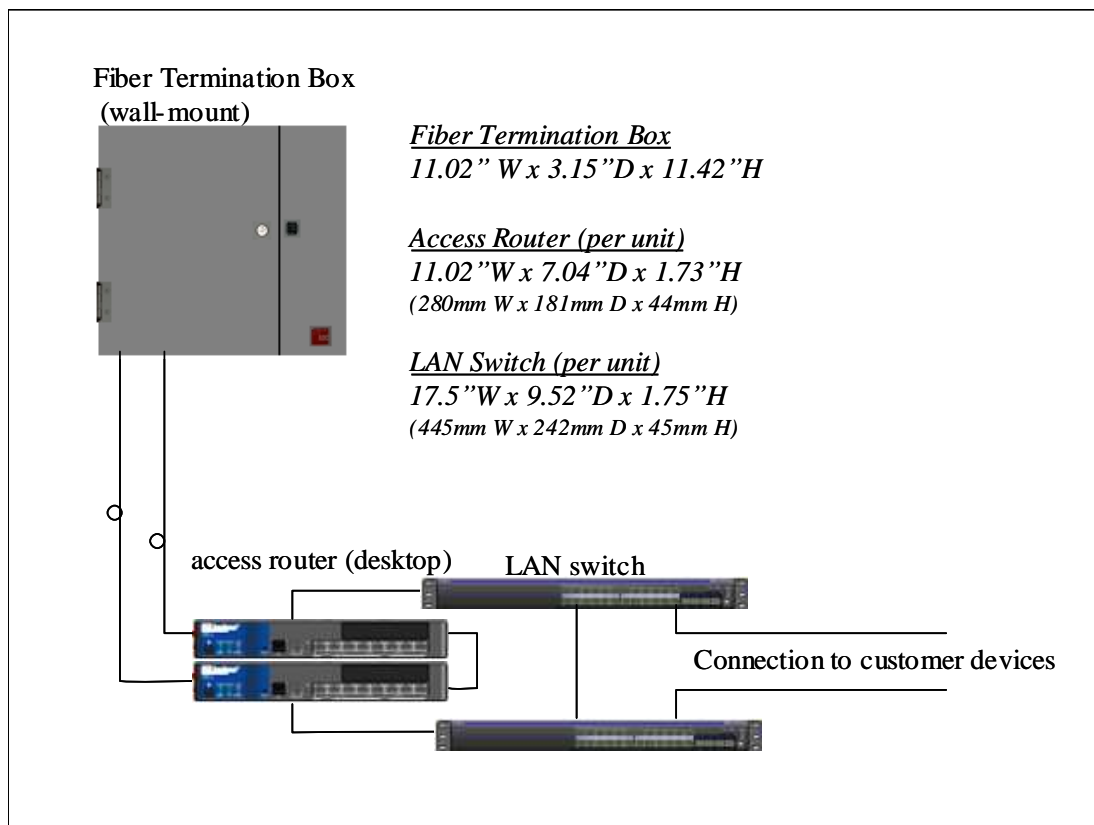
(445mm W x 242mm D x 45mm H)

3. Space Requirements

Please refer to the following table for the space requirement of different network packages:

Network Packages	Access Router and LAN Switch	Fibre Termination Box	Total Rack Space	Trays
1. Single Circuit	4U (7"/178mm)	2U (3.5"/ 89mm)	6U	2
2. Dual Circuits	6U (10.5"/ 267mm)	2U (3.5"/ 89mm)	8U	2

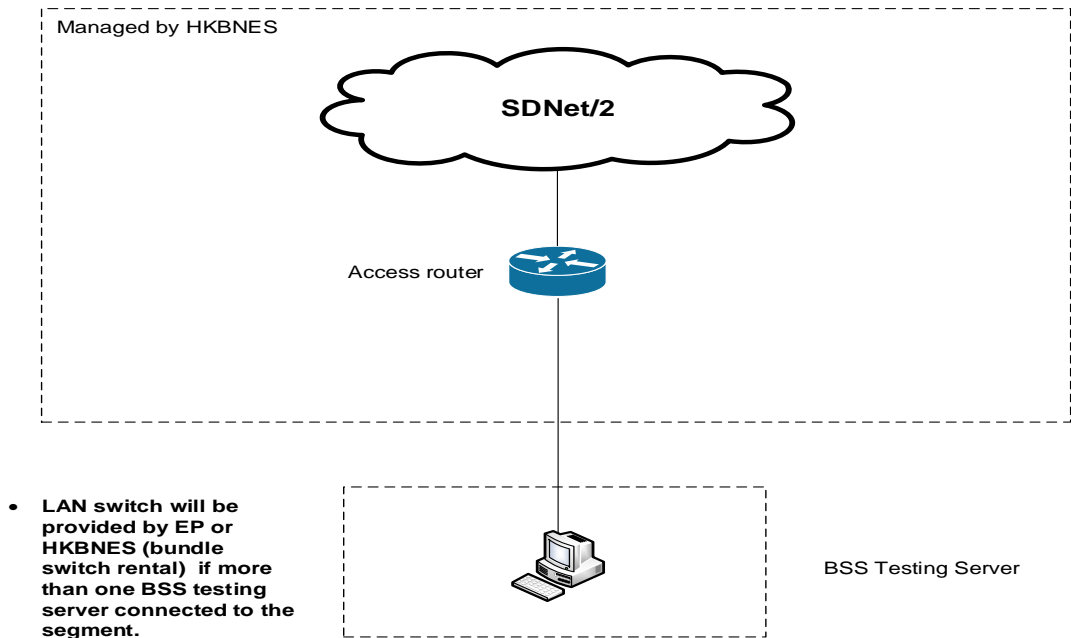
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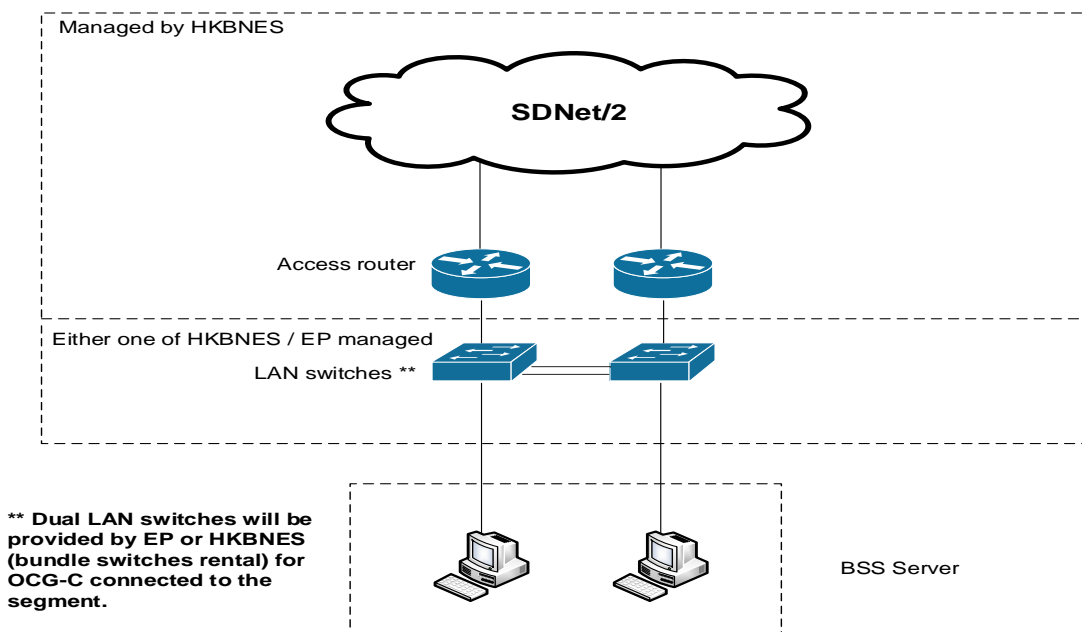
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