The system configuration of HKATS Online workstation is as follows:

HKATS Online	
Processor	Intel Core i3-550 3.2GHz or higher
RAM	8GB
Storage	3GB
Network adapter	100Mbps full-duplex
Monitor	21" with 1280 x 1024 resolution
Operating System	Microsoft Windows 10 (64-bit)
Layered software	Anti-virus software
Supported Browser	Google Chrome[1]
Network Circuit	- via SDNet connection - Firewall/Services Ports configuration, if necessary

[1] Google Chrome will be the supported browser for PTRM as well.

Note :
It's common practice for Google to maintain the backward compatibility for every release update. In the unlikely event that a backward incompatibility issue happens, Participants are required to re-instate to the Chrome version as specified by HKEX.

Switch (or Equivalent [Note 2])
1. Provide at least eight (see Note 2 below) 10/100/1000 BaseT RJ-45 connections with UTP (Cat 6 cable) to PC and SDNet routers at each Exchange Participant's site.
2. Conforms to IEEE 802.3(x) Ethernet standard with capability for 10/100/1000 BaseT auto-negotiation.
3. Can be managed through SNMP.
4. Able to support telnet-based or terminal-based out-of-band management is an advantage.

[Note 2] Exchange Participants should use switches which comply with the above specification and industrial standard.
Exchange Participant may consider purchasing additional switches for better redundancy and port capacity when deemed appropriate.
If the switch is connected to Exchange Participant's own internal network, Exchange Participants should ensure that network loop will not be created. In addition, Exchange Participant should ensure that there is no network address conflict. Two ports will be taken up by the two SDNet routers while the remaining ports are for HKATS Online and OAPI connections. If more connections are anticipated, the procured switch should provide more RJ-45 connections.
Since SDNet circuits of different site are using the same HSRP group, Exchange Participants are reminded not to connect SDNet circuits of different site on the same layer-2 LAN. If switch will be shared among sites, it should be separated by VLAN.

Two Straight Cat 6 UTP cables
1. Connection between the routers and the switch/hub.
2. The cable standard and wiring must meet the TIA 568-A/UTP Cat 6 standard.
3. The Cat 6 UTP cables should be of sufficient length and comply with the above standard.
4. If the Exchange Participant purchases additional switch, please ensure there are additional cables for cascading the switches.

Power Sockets (13A)
1.Sufficient for 2 routers, 2 modems and 1 (or 2) switch.

2.Sufficient for HKATS Online workstation(s).		

Details of estimated set up costs and running costs of HKATS with one HKATS Online connection are estimated as follows (Note 5):

	HKD	Total (HKD)
INITIAL COST		
Hardware		
HKATS Online Workstation with Microsoft Windows 7 Professional (Service Pack 1 or later) pre-installed	25,000	
Switch	8,000	
Cable	200	
Subtotal		33,200
MONTHLY FEE		
SDNet 2x2M Circuits with routers	3,800	
HKATS Online Sub-licence Fee	2,600	
Total Monthly Fee		6,400

Details of estimated set up costs and running costs of HKATS with one OAPI connection with throughput of 5 transactions per second to central gateway are estimated as follows:

	HKD	Total (HKD)
INITIAL COST		
Hardware [Note 7]		
Switch	8,000	✓
OAPI Workstation	25,000	✓
Cable	200	✓
Total Initial Cost		33,200
MONTHLY FEE		
SDNet 2x4M Circuits with routers	5,800	✓
OAPI Sub-licence Fee ($2,600 per connection, waived for the first 2 connections)	0	✓
Total Monthly Fee		5,800
ANNUAL MAINTENANCE		
Switch	1,300	✓
Total Annual Maintenance Fee		1,300

Note 7: Cost on OAPI software is not shown in the above table.