

# Application Note

## Deploying the DXPC card in quad-head applications.

AN47

### Summary

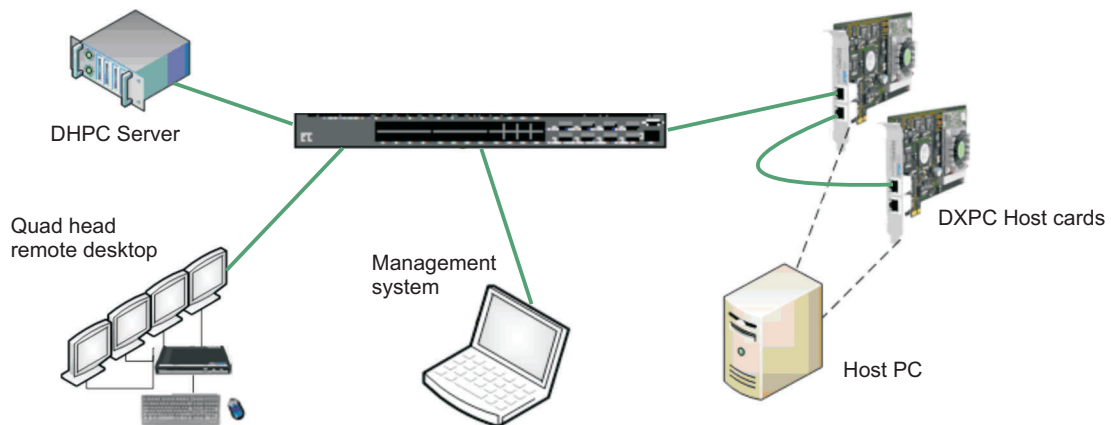
This document provides step by step instruction on deploying a multi-monitor DXPC PCoIP solution including setting up a quad monitor system using two DXPC host cards in a host PC with a DXR4-iP quad head portal.

### Quad monitor DXPC Deployment

This section describes a basic quad monitor deployment.

A DXPC card supports up to two monitors. Support for up to four monitors at the desk can be provided by installing two DXPC cards in the host PC paired with a DXR4-IP quad-head zero-client desktop device.

In this example the host cards are configured to use static IP addresses.



### Host PC requirements

Each DXPC card has an on-board graphics module, either NVIDIA FX370M or ATI 2400M.

The host PC requires two free PCIe slots (minimum x1). The PSU must be capable of delivering 25W to each slot.

### Host card installation

This section outlines the installation using host card A as the master and host card B as the slave.

Host card A, the master, can be used for remote power management. If you wish to enable power management, please refer to section 2.

### Host Installation process

1. Power off the host PC and unplug the AC power connector
2. Ensure anti-static precautions are observed
3. Note the MAC address of Host Card A and install in an available PCIe slot
  - a. Connect JP2 to PC power button if remote power is required, please refer to the product manual HP-DXPC-0001.
4. Note the MAC address of Host Card B and install in an available PCIe slot
  - a. Ensure a jumper is connected to JP4 on Host Card B
5. Connect the Ethernet link cable between AUX port on Host Card A and AUX port on Host Card B
6. Connect Ethernet cable from the LAN switch to port labelled PORTAL on Host Card A, if link resilience is required refer to the product manual HP-DXPC-0001 (it is recommended that DHCP is supported on the LAN for ease of initial configuration)
7. Reconnect the AC power connector and power on the host PC.

## Portal installation

1. Connect the four monitors, keyboard and mouse to the DXR4-IP.
2. Connect the portal to the LAN (it is recommended that DHCP is supported on the LAN for ease of initial configuration), if link resilience is required refer to the product manual HP-DRTX-0001
3. Connect the AC power and switch on the portal.

## Network configuration

This section describes configuring the host cards and to use static IP addresses using the administrative web interface. Note in a larger deployments it is recommended that either a connection broker or static mapping is used, this is due to the inherent limitation of the portal only displaying 10 host cards in Host Discovery mode.

The network parameters can be reconfigured using a management PC.

Assign the IP addresses to be used in this deployment. If static IP addresses are used – ensure you assign reservations within the DHCP server if required. IP address conflicts will cause connection errors on the LAN.

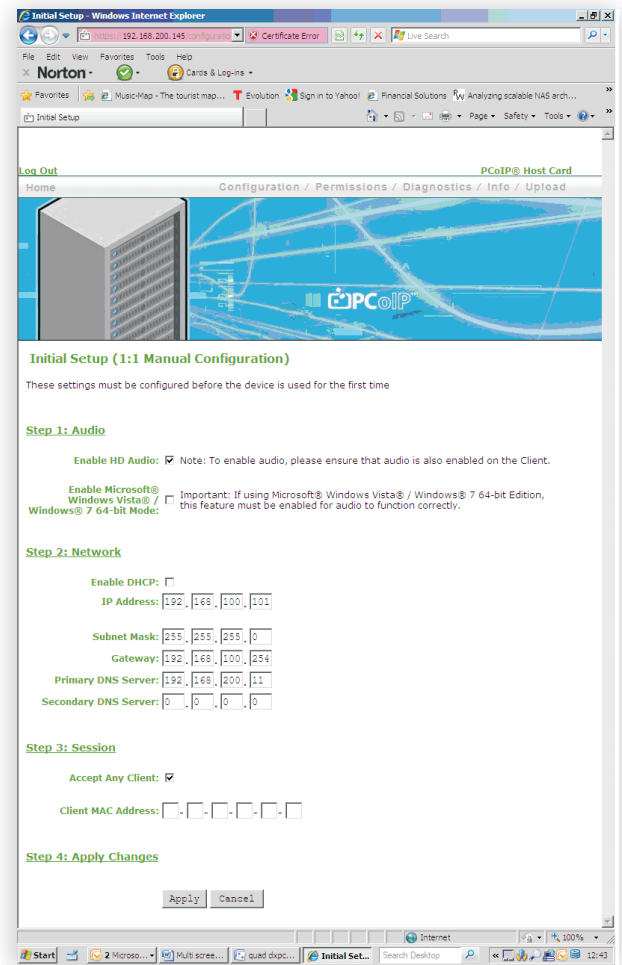
This example uses the following example static IP addresses and MAC addresses

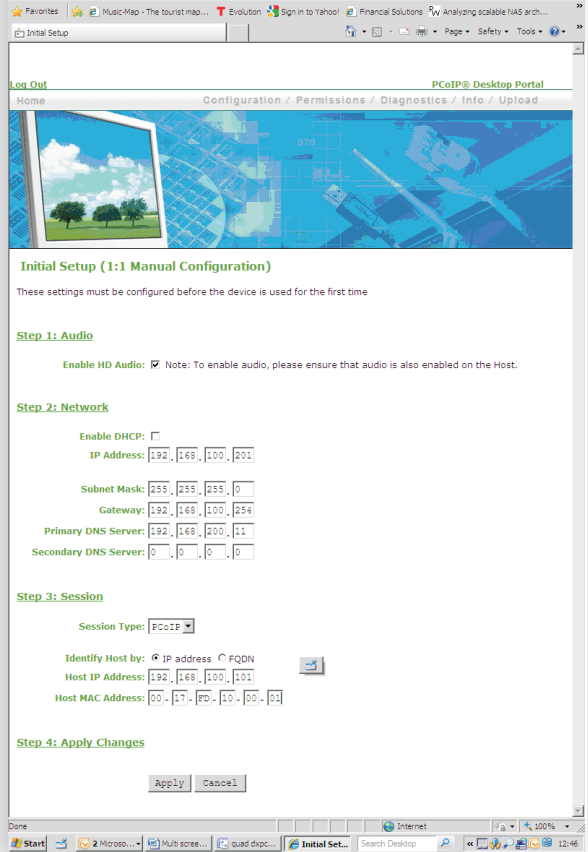
**Host Card A:** 192.168.100.101 MAC:00-17-FD-10-00-01  
**Host Card A:** 192.168.100.102 MAC:00-17-FD-10-00-02  
**Portal T1:** 192.168.100.201 MAC: 00-17-FD-10-00-0A  
**Portal T2:** 192.168.100.202 MAC: 00-17-FD-10-00-0B

In this document it is assumed that you have a working knowledge of the Administrative Web Interface. For more information on the PCoIP Administrative Web Interface, refer to the user manual.

## Configuration

1. Determine the IP addresses given to the host cards by the DHCP server. You can get this from the DHCP server or use the 'connect' tab on the portal.
2. Determine the IP addresses assigned to the portal either from the local interface or the DHCP server.
3. Open a browser on the management PC and connect to the Administrative Interface of Host Card A.
4. Log in and select the Configuration->Initial Setup menu item. The initial setup web page is shown here...



5. Configure Host Card A using the Initial Setup Web page:
  - a. Step 1: if using audio, enable HD audio (only enable vista 64-bit mode if using Windows Vista 64 or Windows 7 64.).
  - b. Step 2: Uncheck Enable DHCP and enter the IP address you want to use, i.e. 192.168.100.101. Enter Subnet Mask (i.e. 255.255.255.0) and Gateway (i.e. 192.168.100.254)
  - c. Step 3: Ensure Accept Any Portal is enabled. (If you disable Accept Any Portal, you must enter the MAC address of the primary Tera-chip on the portal (Even MAC address, i.e. 00-17-FD-10-00-0A)
  - d. Select Apply to accept the changes made.
6. Configure Host Card B by repeating steps 1 – 5, using the correct IP address (i.e. 192.168.100.102) but do not enable the HD audio on Host Card B.
7. Shutdown and restart the PC using the PC power button.
8. Browse to the primary IP address of the DXR4-IP determined in step 2 above.(It has an even MAC address i.e. 00-17-FD-10-00-0A)
9. Log in and select the Configuration -> Initial Setup menu item. The Initial Setup web page for the portal master is shown here...
 
10. Configure DXR4-IP primary Tera-chip using the Initial Setup Web page:
  - a. Step 1: if using audio, enable HD audio
  - b. Step 2: Uncheck Enable DHCP and enter the IP address you want to use, i.e. 192.168.100.201. Enter Subnet Mask (i.e. 255.255.255.0) and Gateway (i.e. 192.168.100.254)
  - c. Step 3: Select PCoIP for Session Type and Identify Host by IP address. Enter Host Card A's static IP address and MAC address, i.e. 192.168.100.101 and 00-17-FD-10-00-01
  - d. Select Apply to accept the changes made.
  - e. Restart the Tera-chip
  - f. Configure DXR4-IP secondary Tera-chip using the steps detailed in 8-10 (the MAC address is always odd, i.e. 00-17-FD-10-00-0B) – entering the correct IP and MAC addresses i.e. 192.168.100.102 and 00-17-FD-10-00-02.

### Establish PCoIP session

11. Hit enter key on the keyboard to establish a PCoIP session to the host PC.
  - a. You may need to configure the Operating system to use all the monitors
12. Done!