Application Note

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Performance issue affecting 8 monitor PCoIP solutions

This application note describes a solution to a performance issue that can affect Amulet Hotkey 8 monitor PCoIP solutions based on DXM520 and DXM620 blade workstations. These solutions are achieved through the use of two PCoIP host cards and zero clients per remote workstation, normally linked both physically and within a connection broker.

Note: 8 monitor solutions are also sometimes referred to as *octal head systems*.

Issue

When moving from one PCoIP session to the other within an 8 monitor setup, there is a visible degradation in PCoIP image quality and/or frame rate. This is most commonly seen when moving a window from one PCoIP session to the other or when opening a new application. Note that the user may not necessarily be aware that they are moving between chips because the transition is seamless.

Cause

Each PCoIP chip can be configured with a bandwidth limit, target and floor. These settings specify the limits within which the PCoIP protocol must operate. You can edit these settings from the PCoIP Management Console or from the Administrative Web Interface (AWI).

The Device Bandwidth Floor setting defines the minimum bandwidth assigned when congestion is present and bandwidth is required. This setting allows you to optimise performance for a network with understood congestion or packet loss. By default, this setting is set to zero, equating to 1000 kbps or approximately 1 Mbps (Megabits per second)

The Device Bandwidth Floor setting is also used when a PCoIP session has been idle and screen activity suddenly resumes. In this situation, the PCoIP chip slowly ramps up its bandwidth usage, starting at the floor. This feature is designed to prevent sudden spikes in network activity.

When one of the host/client setups in an 8 monitor setup has been idle and screen activity suddenly resumes, the slow ramping of bandwidth up from the floor is seen as a reduction in PCoIP performance.

Solution

To avoid any fall in user experience when moving between the two PCoIP sessions in an 8 monitor setup, we recommend that you set a bandwidth floor higher than the default 1Mbps. Our testing shows that a 10Mbps floor is sufficient in most LAN implementations, although we always recommend customer-specific testing to establish an appropriate starting point.

This application note describes how to set the bandwidth floor using the Administrative Web Interface (AWI). The AWI lets you remotely configure individual PCoIP hosts and zero clients using a web browser:

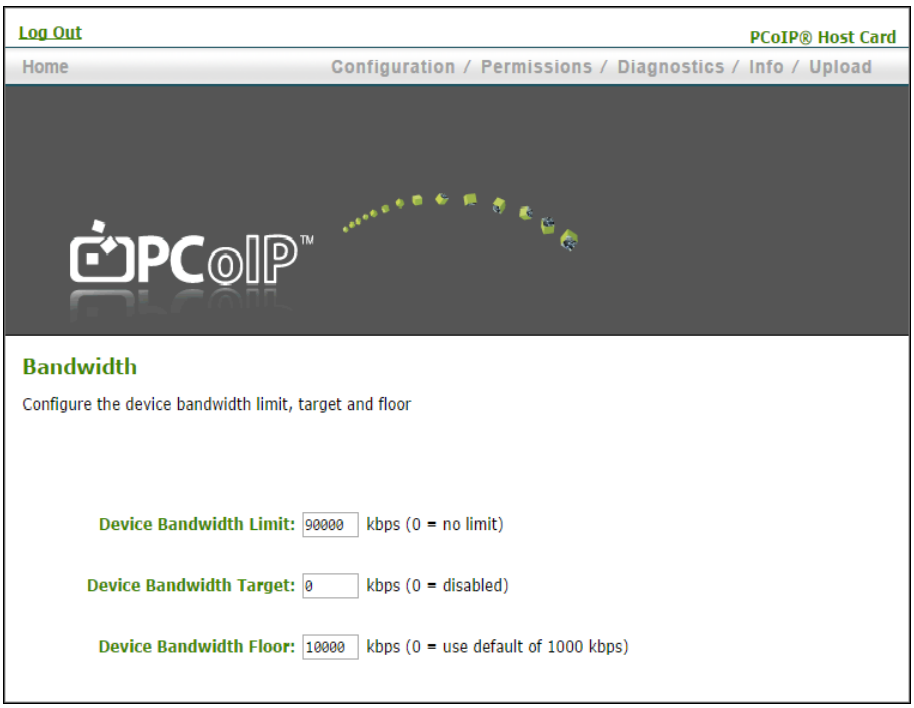
1. Log on to the AWI for the first of the two PCoIP host cards in the 8-monitor setup.

   To access the AWI, browse to the IP address of the first PCoIP host and enter the password. The default password is **ahkdante**.

2. From the home page, choose Configuration > Bandwidth.

3. Set the Device Bandwidth Floor to the required level.

   You must enter the value in kilobits per second. To set a floor of 10Mbps (approximately 10,000 kbps), simply enter '10000'.



AWI Bandwidth screen. In this example, the Device Bandwidth Floor is set to 10,000 kbps.

4. Now set the same Device Bandwidth Floor for the second PCoIP host in the 8-monitor setup.

   To do this, log on to the second host's AWI and repeat steps 2 and 3.

   Note: When applying any bandwidth setting, you must ensure the setting is matched on both PCoIP hosts and/or both zero clients in an 8 monitor setup. You can do this easily by creating and deploying a firmware *profile* across your estate of devices using the Teradici PCoIP Management Console. For full details about managing profiles, see the Teradici *PCoIP Management Console User Guide*.
   At September 2014 this manual was available on the Downloads page of the Teradici Support web site:

   http://techsupport.teradici.com/ics/support/DLSplash.asp?task=download