

# Application Note

## BNP K4u updated firmware feature set



### Background

The K4u has been updated to support certain types of smart card and incorporate the ability to have its firmware upgraded using one of the rear panel USB ports as an alternative to the serial D9 socket. This application note details the new functionality.

### Smart Card Specification

#### What it will do

- Accept connection of a USB Smart Card reader on USB ports A, B, C or D
- Allow users to log on to all PCs connected to the K4u using a single smart card
- Switch the smart card's focus to the PC currently in focus. Note, smart card focus will remain on the previous channel until access is requested by the current channel and only after 3 seconds of card inactivity has been detected
- Reset the smart card whenever its focus changes and a different PC tries to access the card, this prevents cross PC access
- Immediately lock all PCs on smart card-enabled USB channels if the card is removed
- Emulate a card removal and insertion to a single locked PC in response to a keyboard hotkey without having to remove and reinsert the physical card. This prevents unnecessarily locking all PCs to unlock a single PC
- Correctly operate with the Dell SK-3205 USB keyboard with inbuilt card reader and the Gemalto PC USB-TR standalone card reader amongst others

#### What it won't do

- Automatically log users into all connected PCs; they will need to switch to each PC in turn and enter their PIN
- Automatically switch the smart card to a non-focused PC if it attempts to access the card. However, if the current focused channel has not accessed the card, the cards focus will have remained on the previous channel and will continue to accept access from that channel
- Work with the HP KUS0133 USB keyboard with inbuilt card reader with P/N ending in 032
- Work with multiple card readers attached to the K4u simultaneously

### USB Updating Specification

#### What it will do

- Utilise a new version of Mouse Point compatible with 32-bit and 64-bit versions of Windows XP and 7
- Allow a user to view the status and details of their K4u from any USB connected PC using a new Mouse Point application menu option
- Allow a user to update the K4u firmware from any USB connected PC using a new Mouse Point application menu option. Upgrade attempts by multiple PCs will be arbitrated by the K4u
- Use Mouse Point registry keys to configure firmware updates. This permits scripting of registry keys to provide 'networked configuration' of the firmware update
- Check a central repository at a pre-defined time each day to check for updates to apply, both repository location and time are configured via registry settings
- Automatically add a small variation to scheduled upgrade times to prevent network overload on mass deployments
- Perform an immediate update from a defined file location, initiated through a registry key
- Log actions to a network folder in addition to a local PC folder
- Maintain a status log of the currently connected K4u
- Indicate when the K4u is being updated via an on-screen status message and colour coded system tray icon

#### What it won't do

- Allow any updates if a user isn't logged in. The PC can be locked but must be logged in
- Continue to support legacy Sun keyboards and mice on the front panel of the switch
- Report the serial number of the K4u. A unique identifier and the connected PC identifier will be reported but this will not be the K4u's serial number

## Other information

- Cascading and sharing features will not be supported in this version of firmware

## Summary of supported features

Feature	Supported
Smart Card	Yes
USB monitoring and updating	Yes
SaverSync™	Yes
Remember last channel and hot-plug port focus	Yes
Mouse Point™ channel changing	Yes
Video Board (K4vu only)	Yes
Rear panel USB channels	Yes
Rear panel PS/2 channels	Yes
Rear panel legacy Sun®	Yes
Front panel USB keyboard and mouse	Yes
Front panel PS/2 keyboard and mouse	Yes
Front panel legacy Sun® keyboard and mouse	No
K4u cascading	No
K4u sharing	No