DISGUISE

Part 1. Disguise RX II

1.01 Control Hardware

A. General

- The product should be a server system designed to deliver high fidelity graphics safely by distributing rendering power across multiple render nodes, and be used for cluster rendering in a virtual production or entertainment application.
- The server shall be used to generate real-time content for graphic engines such as Unreal Engine, Notch, Touch Designer, and Unity.
- The server shall utilise RenderStream as a protocol to deliver content across multiple render nodes
- The operating software of the server shall be stored in a dedicated non-removable, non-volatile solid-state memory. It shall be possible to update the Operating Software by download from a remote personal computer over an Ethernet or USB connection.
- The server shall have an internal real-time clock that continues to operate when external power is absent. It shall be capable of adjusting for Daylight Saving Time automatically and can be updated over the Internet using the Network Time Protocol (NTP).
- The server shall support connection to a network to connect multiple systems together from its one control interface software.
- There shall be visual indicators on the server showing status of the controller.
- The server shall be accessible over IP on its Ethernet interface. This shall allow status information, control and configuration options to be accessed remotely.
- The server shall have a front-loaded power button for resetting the unit without removal of power.

B. Mechanical

- The server shall be a black metal enclosure, 2U 19” rack mount.
- The server shall be 438.5mm x 88.5mm x 788.8mm (17.26” x 3.42” x 31.06”).
- The server shall weigh 32kg (70.55lbs).
- The server shall operate in a temperature range of 5 - 30°C (40 - 86°F).
- The server shall operate in a humidity range of 20 - 80% non condensing.
- The server shall operate at an altitude range of 0 - 2700m (0 - 8850 ft).

C. Electrical

- The server shall have the following Inputs and Outputs:
    - 2 x IEC C13 connections on rear
    - 2 x 1Gb Ethernet connector

  - 2 x 10Gb Ethernet connector
  - 2 x 25Gb Ethernet with SFP28 connector
  - 4 x USB 3.0
  - 1 x DisplayPort 1.4 GUI port
- The server shall be powered via a worldwide (100-240V AC) auto ranging internal power supply.

2.01 Software

- The server shall function as a remote rendering node with advanced networking and interconnectivity options
- The server shall be based upon Windows 10 Enterprise GAC.
- The server shall have the operating software and media stored on a drive
- The server shall be capable of hosting a user-defined graphics engine
- The server shall support the ability to render uncompressed 10-bit content
- The server shall support a variety of HDR gamma profiles including PQ and HLG
- The server shall utilise UV maps for 3D content delivery
- The server shall include a one year RenderStream licence included as standard
- The server shall be able to be synchronised with additional servers of the same variety to support distributed cluster rendering.
- Multiple Controllers shall automatically synchronise and share triggers when programmed as part of a single show and linked via Ethernet during playback

3.01 Accessories

- The server shall be supplied with the following packaged in a tray within the shipping container:
  - Slide rail kit
  - Rack handles
  - Hardware guide
  - IEC power cables - 2x USA, 2x EU, 2x UK

4.01 Service, Documentation & Training

- The server shall be covered by a 2 year return to base hardware warranty, extendable to 5 years with an extended warranty package.
- The server shall be supplied with free technical support via phone or email.
- Regular training courses shall be offered for the server and operating software, at both foundation and advanced levels.
- Documentation shall be provided via printed, online and video formats.
- An online knowledge base shall be provided for the server.