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NEESGrid Systems Site Hardware Requirements

Doru Marcusiu[1]

[1] NCSA, University of Illinois, Urbana-Champaign

Feedback on this document should be directed to marcusiu@ncsa.uiuc.edu

Introduction

The purpose of this document is to provide a single source of information about hardware requirements for the major NEESGrid site resources. This document describes requirements for 4 stand-alone systems for supporting NEESpop, Tele-presence, Data Acquisition, and Local Data Storage capabilities. The need for stand-alone systems to support these capabilities depends on the requirements of each site. The NEESGrid software is developed and packaged by service category. Therefore, depending on the requirements of a site, multiple services could be hosted by a single system. The factors to be considered include the amount of data to be stored locally and the amount of video streaming to be done. If neither of these requirements is significant then a single system could host neespop, tele-presence, and local data storage capabilities.

It is strongly suggested that the site's local data and video streaming requirements be discussed with the SI team in order to identify the appropriate hardware needs to support those needs.

NEESpop system

- 1+ GHz dual Pentium-III or Pentium IV

- 1 GB RAM 2 x 64-bit, 66 MHz PCI slots

- 36 GB SCSI disk

- 2 x Gigabit Ethernet NICs

- Redhat Linux version 7.2 or 7.3

Tele-Presence System

- 1+ GHz dual Pentium-III or Pentium IV

- 1 GB RAM 2 x 64-bit, 66 MHz PCI slots

- 36 GB SCSI disk

- 2 x Gigabit Ethernet NICs

- Redhat Linux version 7.2 or 7.3

- Up to 5 Axis 2401(Linux) Internet Appliance Video Server

- Up to 5 Video Cameras, two of which may be TeleRobotic

DAQ System

Providing a Data Acquisition System is the responsibility of each site. The site must choose a DAQ system that will be interfaced to the NSDS driver. There is no single solution and therefore no single hardware recommendation for a Data Acquisition System. A list of requirements for a reference implementation of a DAQ is provided here only as an example.

- Any high-end desktop/server PC (similar to the neespop specifications)

- Windows XP/2000/NT

- LabVIEW 6.1

- LabVIEW Internet toolkit

- A Labview-supported data acquisition board

Local Data Storage System

- 1+ GHz dual Pentium-III or Pentium IV

- 1 GB RAM 2 x 64-bit, 66 MHz PCI slots

- 100 GB SCSI disk (Required disk space varies with site needs)

- 2 x Gigabit Ethernet NICs

- Redhat Linux version 7.2 or 7.3