Repurposing of Decommissioned Clusters

Overview
Due to ICS’s process of decommissioning several clusters as a part of the transition to newer machines, the task of designing an outreach project for repurposing some of the clusters has been given to the senior design team and engineering design master’s program students.

Objectives
Our intention was to find a new purpose for this hardware. We were to work with a team of graduate students and an independent study to figure out how best to repurpose the clusters. Then we were to expound on the idea we came up with.

Approach
- Brain Storm
- Consider Feasibility of practicality and desire for options
- Test Hardware
- Find Compatible Software
- Develop a Prototype interface for a given option
- Show prototype to the donee for feedback

Outcome
We ended up deciding to donate to a rural high school. To expound on this decision, we installed the operating system EdUbuntu onto a cluster and developed a prototype interface that would make the operating system easier to use for students and high school teachers.

- This relatively powerful hardware can run educational apps and design programs
- Teachers who wouldn’t otherwise have the means to integrate programming or software in their plans now have that opportunity
• Students may have a chance to learn hands on about the hardware (given extra clusters for studying)