

Cray SV2 Software Survey

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Topics

- **Why Survey?**
- **Survey Status**
- **Today's Session**
- **Respondent Profile**
- **Areas of Survey**
- **Cray SV2 Features for General Release**
- **Results Overview**

Why Survey?

- Initial set of Cray SV2 software functionality for general release is nearing completion
- We'd like to get your input to help prioritize future development efforts
- Survey is part of a new, ongoing process
 - Survey twice a year, in the spring and fall
 - Use results to influence resource allocations and release planning
 - Planning session in June for 1H03 releases
- Participants will get a summary soon after the survey period

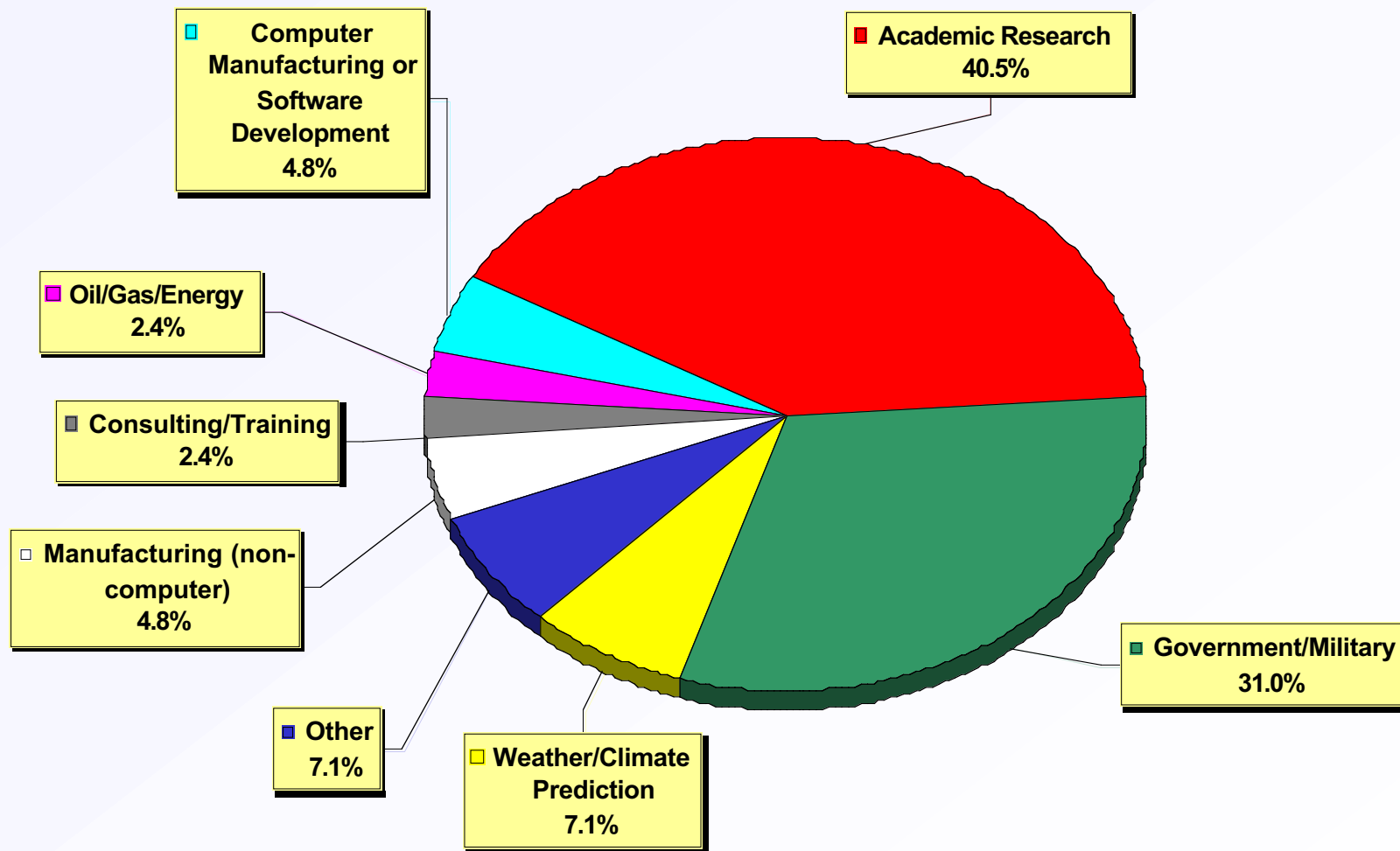
Survey Status

- **Web-based survey from WebSurveyor**
websurveyor.net/wsb.dll/8405/CraySV2survey.htm
- **Launched May 1, 2002**
- **Open for responses until June 15th**
- **Interested in multiple perspectives from each site (one per job type)**

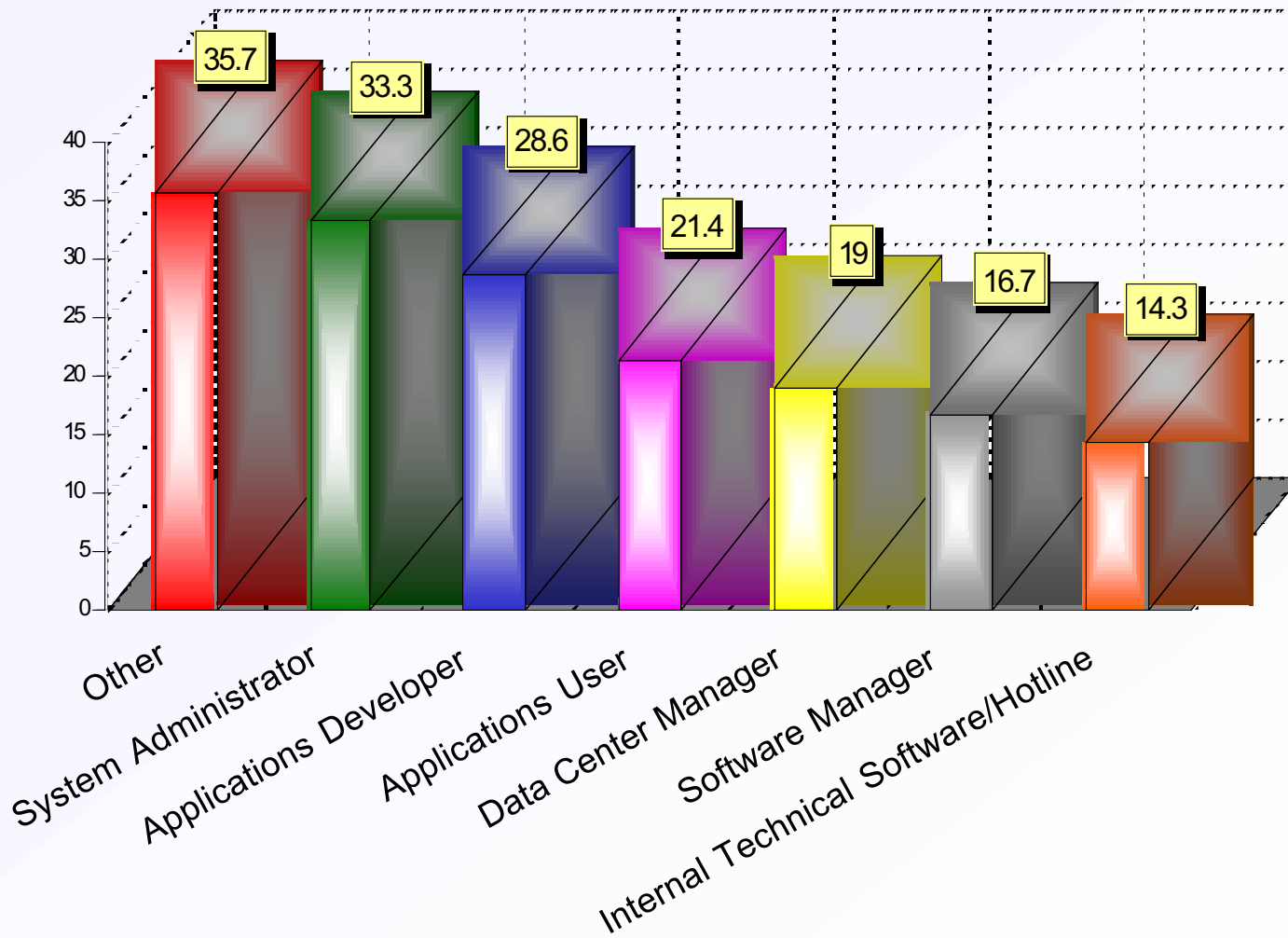
Today's Session

- **Review preliminary results**
 - Hear your comments
 - Ask follow-up questions for clarification
 - Look at overall responses
- **Results based on 42 respondents from various industries and job types**

Please indicate the primary business function of your organization



Please describe your position (select one or more):



Areas of Survey

- **Programming Environment**
- **Operating System**
- **System Administration**
- **Release Frequency and Support**
- **Applications**

Cray SV2

Features for General Release

OS Features

- UNICOS/mk architecture
- Scaling to 64 MSPs
- psched scheduling from Cray T3E
- PBS Pro batch
- Checkpoint and restart
- Accounting including AC IDs
- TCP/IP suite and secure shell
- NFS v3 client/server
- POSIX commands & utilities
- XFS file system
- NIS
- Kerberos
- sar and other admin utilities

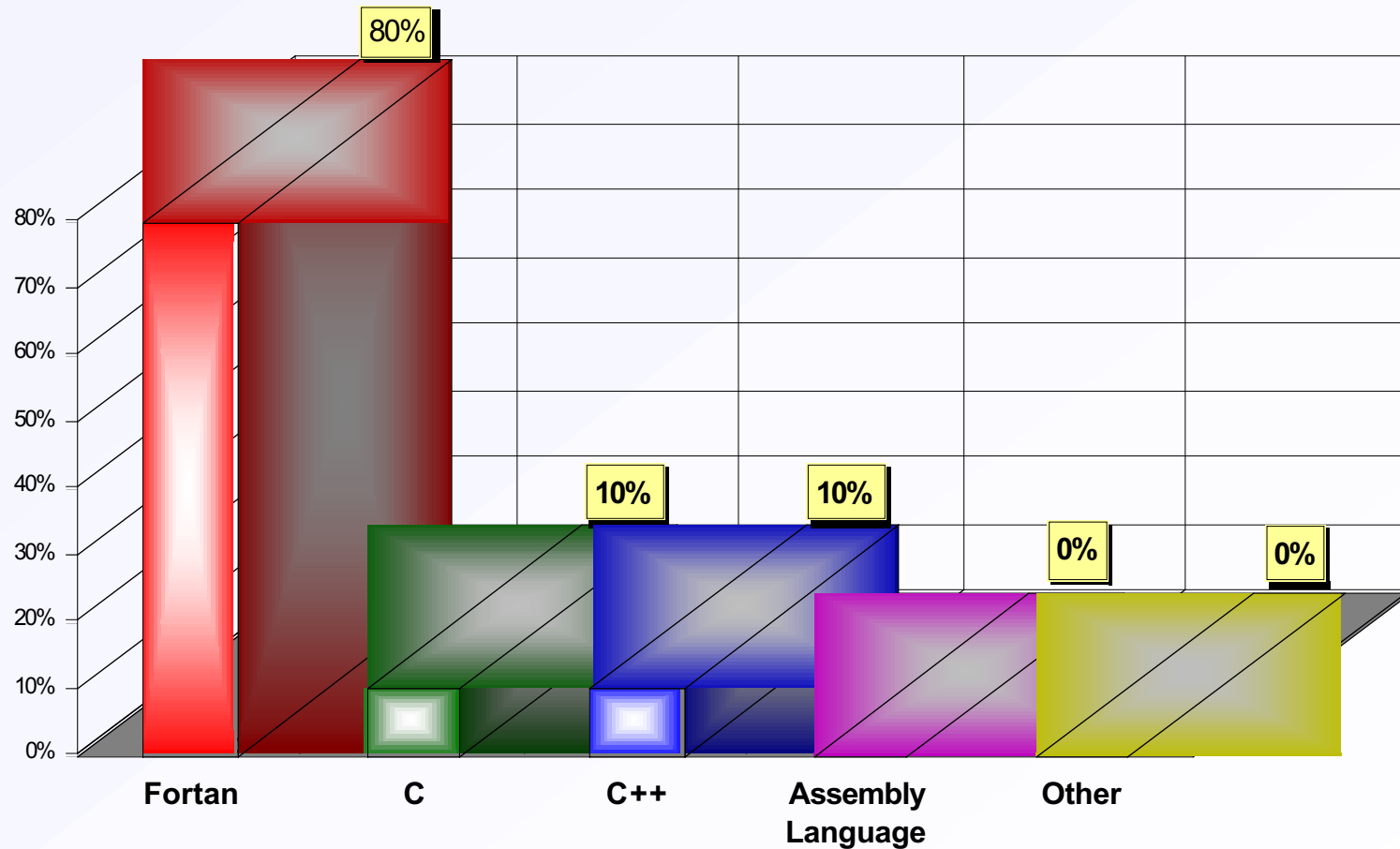
Prog. Env. Features

- Cray SV1 compiler base (PDGCS)
- Fortran, C/C++
- UPC and Fortran Co-array extensions
- pthreads support
- MPI & shmem
- TotalView Debugger
- Pulse performance tool
- Math & scientific libraries
- I/O libraries with FFIO & global I/O
- X11R6

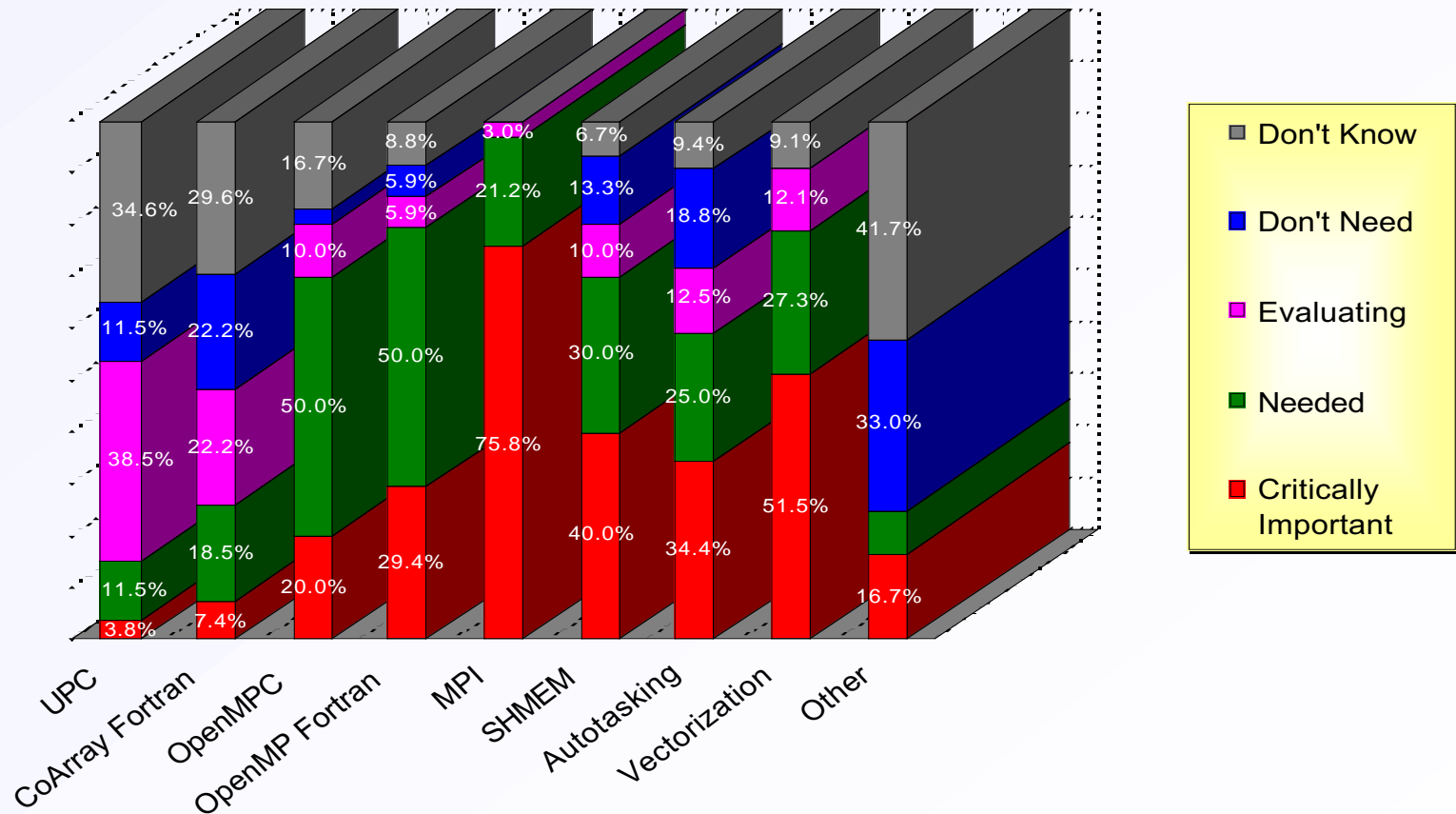


Results Overview

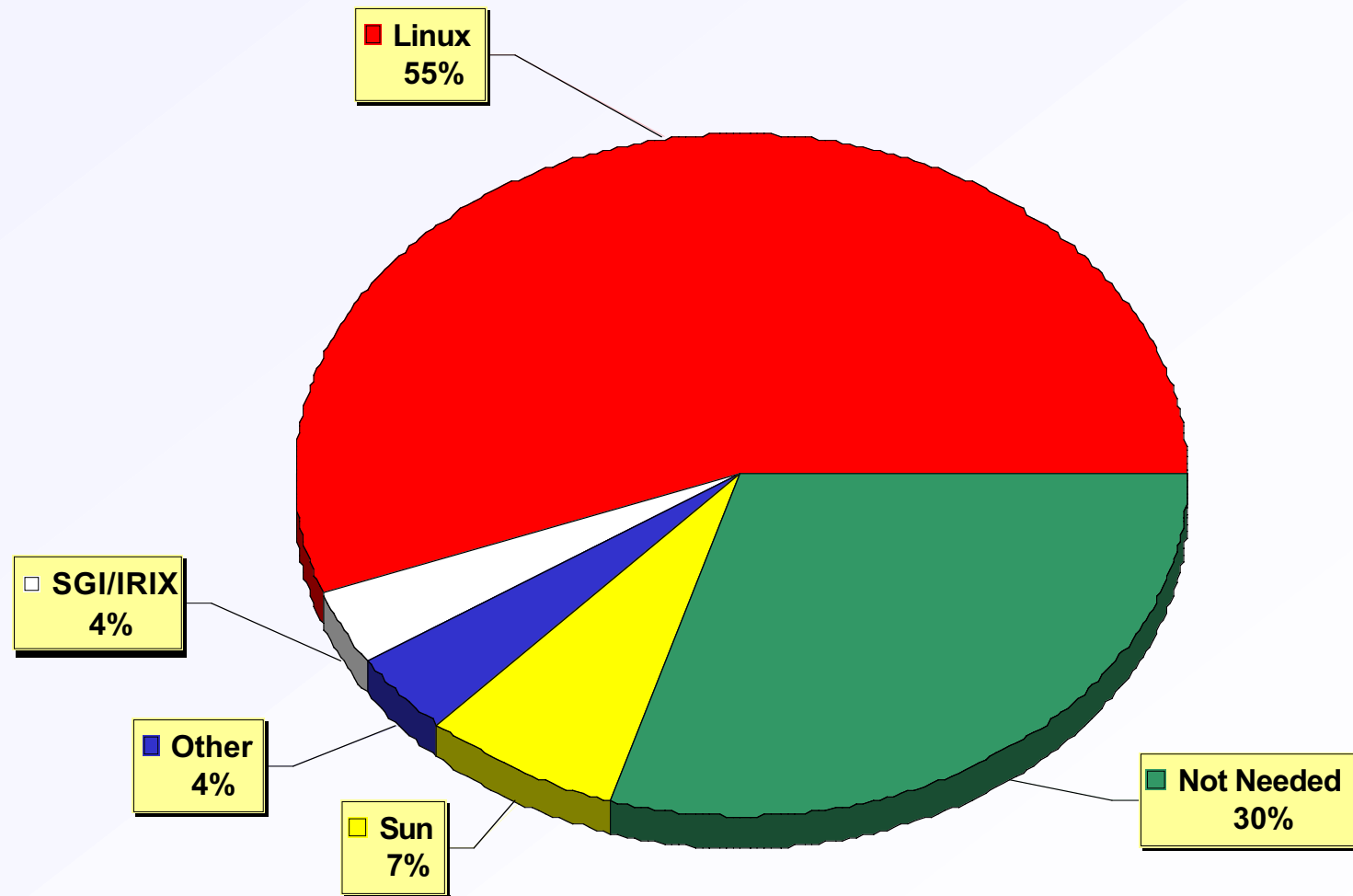
Please list the language usage in supercomputer applications created by your organization:



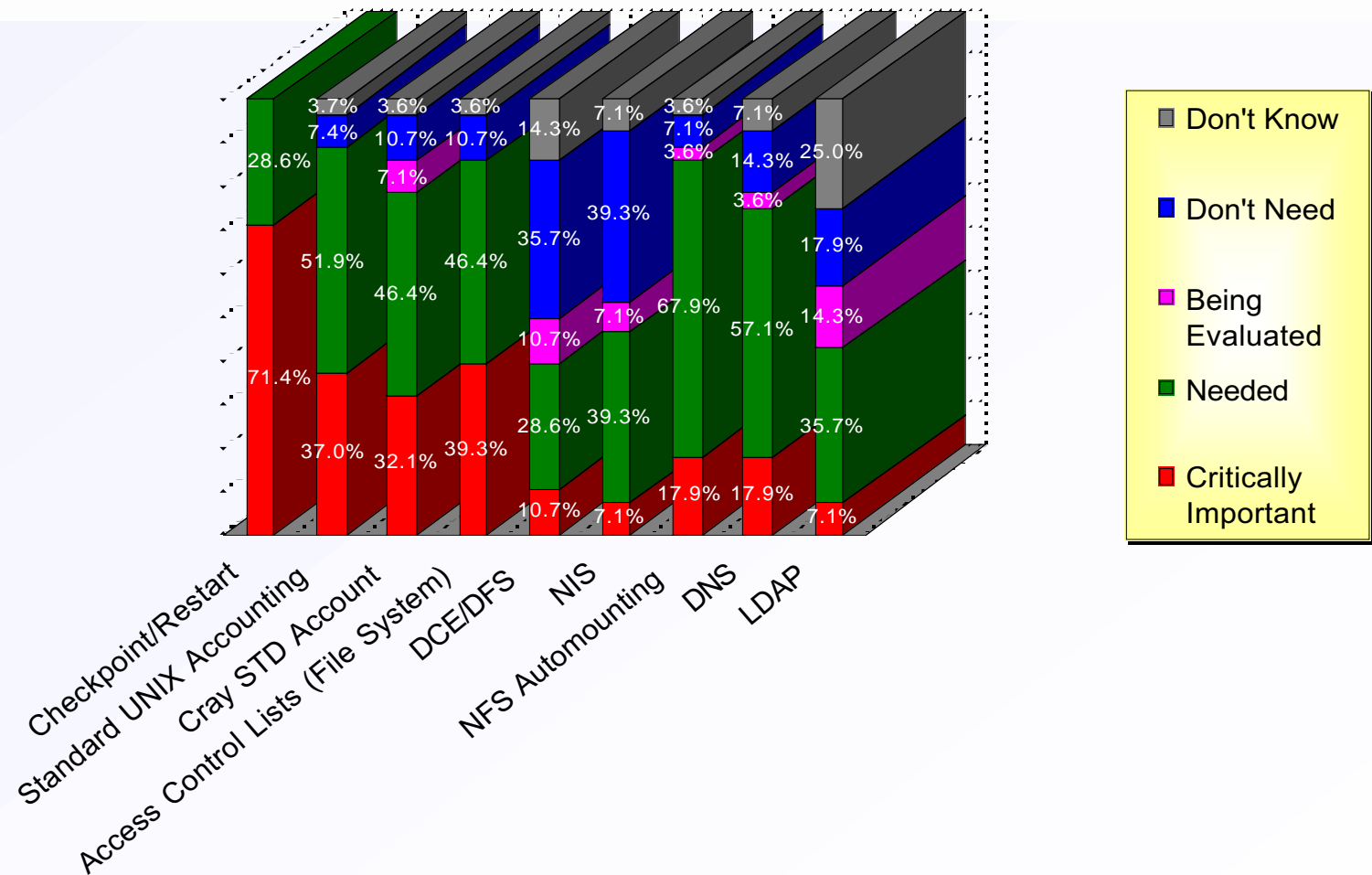
Please Characterize the usage of the following parallel programming models for your organization:



If a cross-compilation environment were offered for an additional fee, which of the following would be the most important platform?



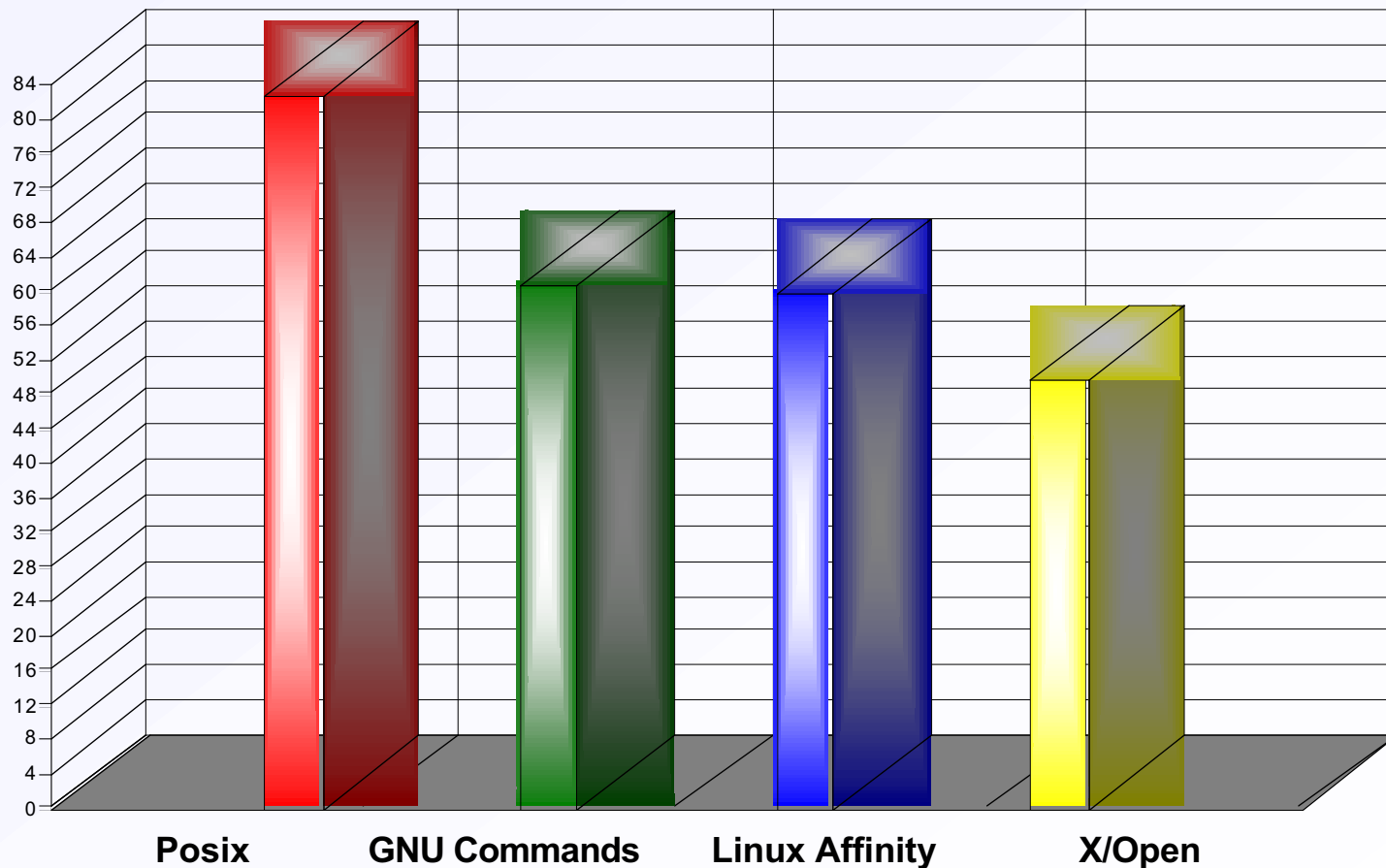
Please indicate the importance to your site of the following features:



Follow-up Question

- ***Why do you use checkpoint/restart ?***
 - ***Resiliency***
 - ***Restarting jobs with different variables***
 - ***Migration within a machine***
 - ***Scheduling reasons***
 - ***Other***

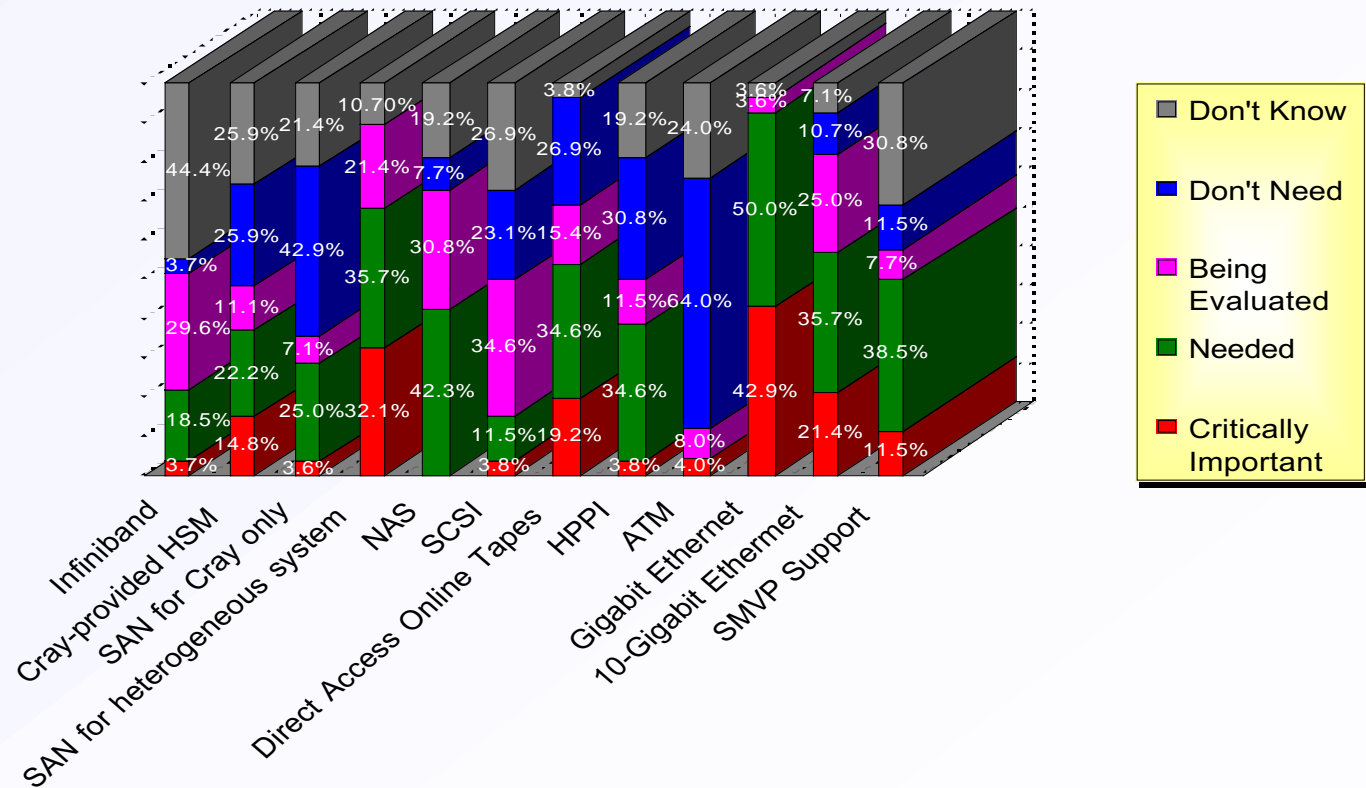
Please rank in order of importance to your site, the following operating system standards?



Follow-up Question

- *Why are you interested in a formal evaluation/certification for standards compliance?*

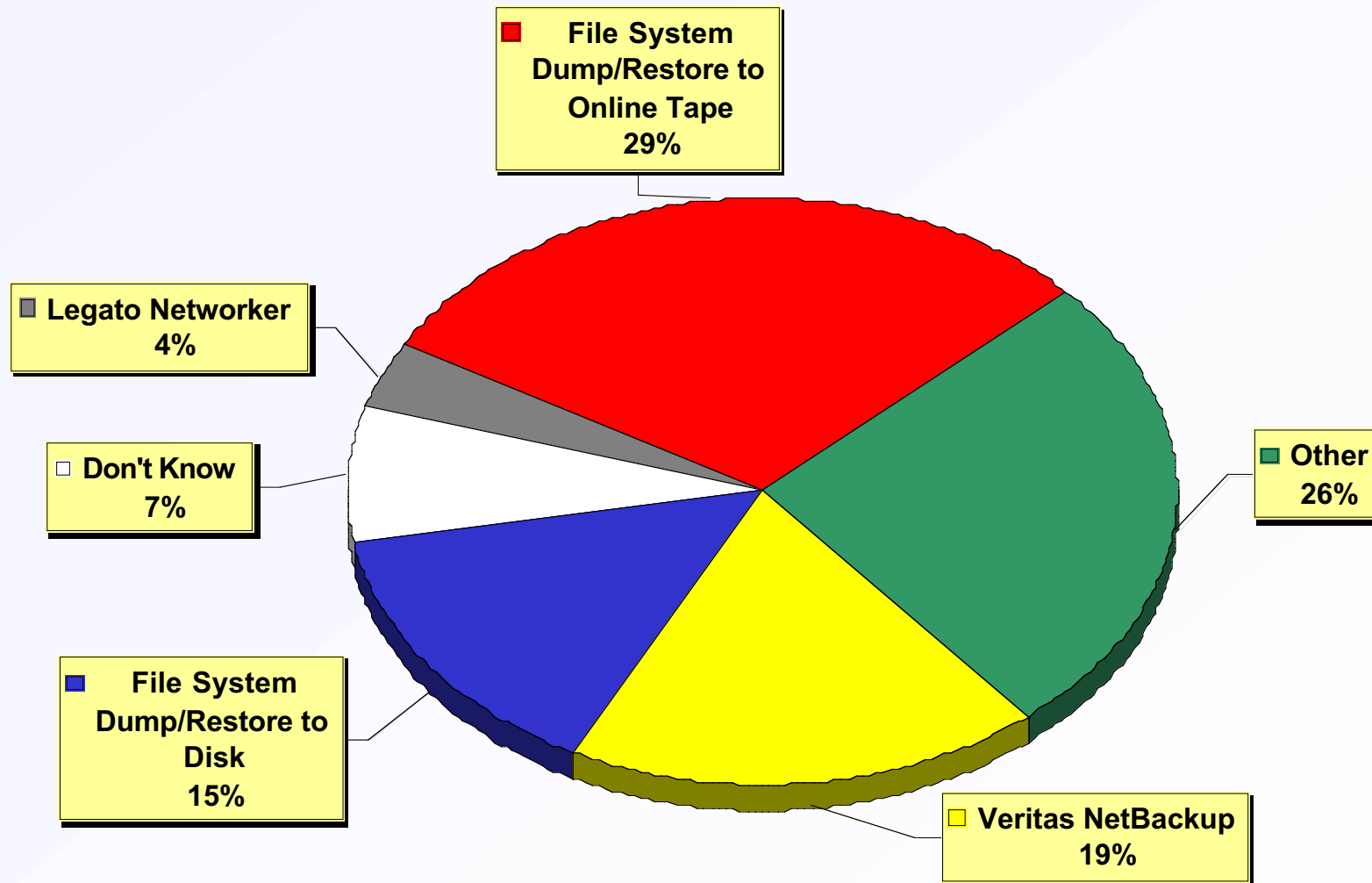
Regarding I/O, please indicate the level of interest at your site:



Follow-up Questions

- **For what purpose do you need online tape support?**
 - To do backups
 - For applications that use tapes
 - Other

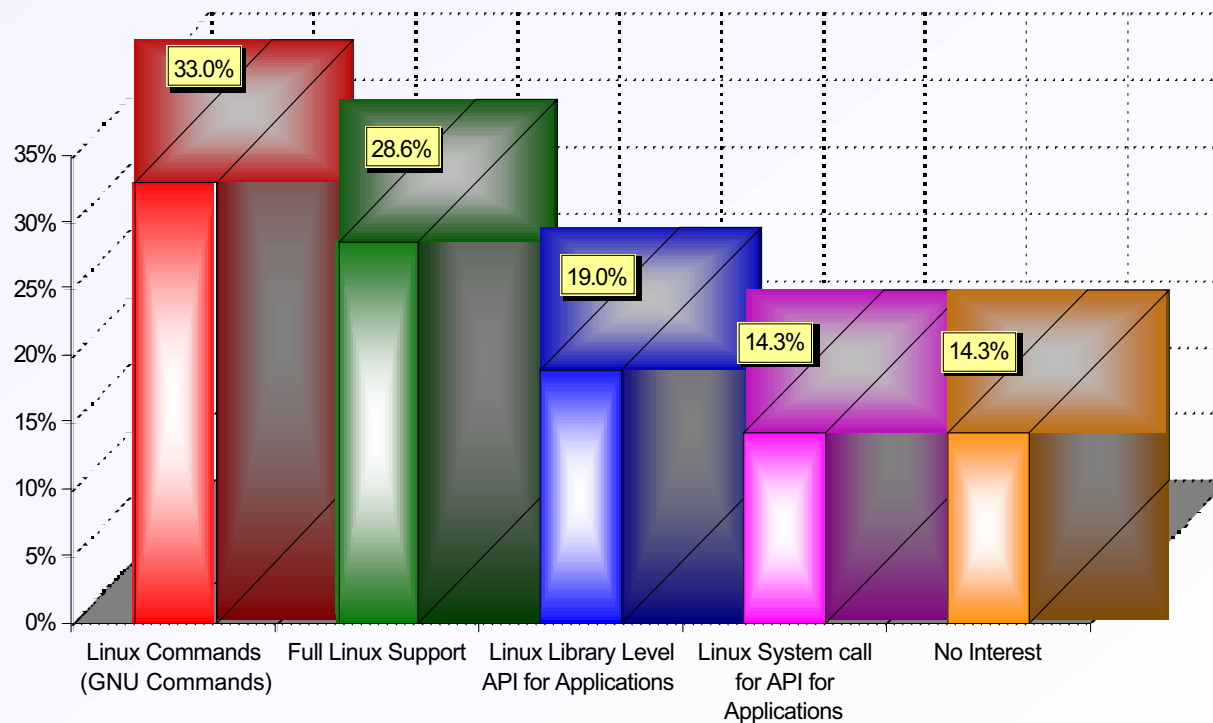
What is the preferred data backup method for your site?



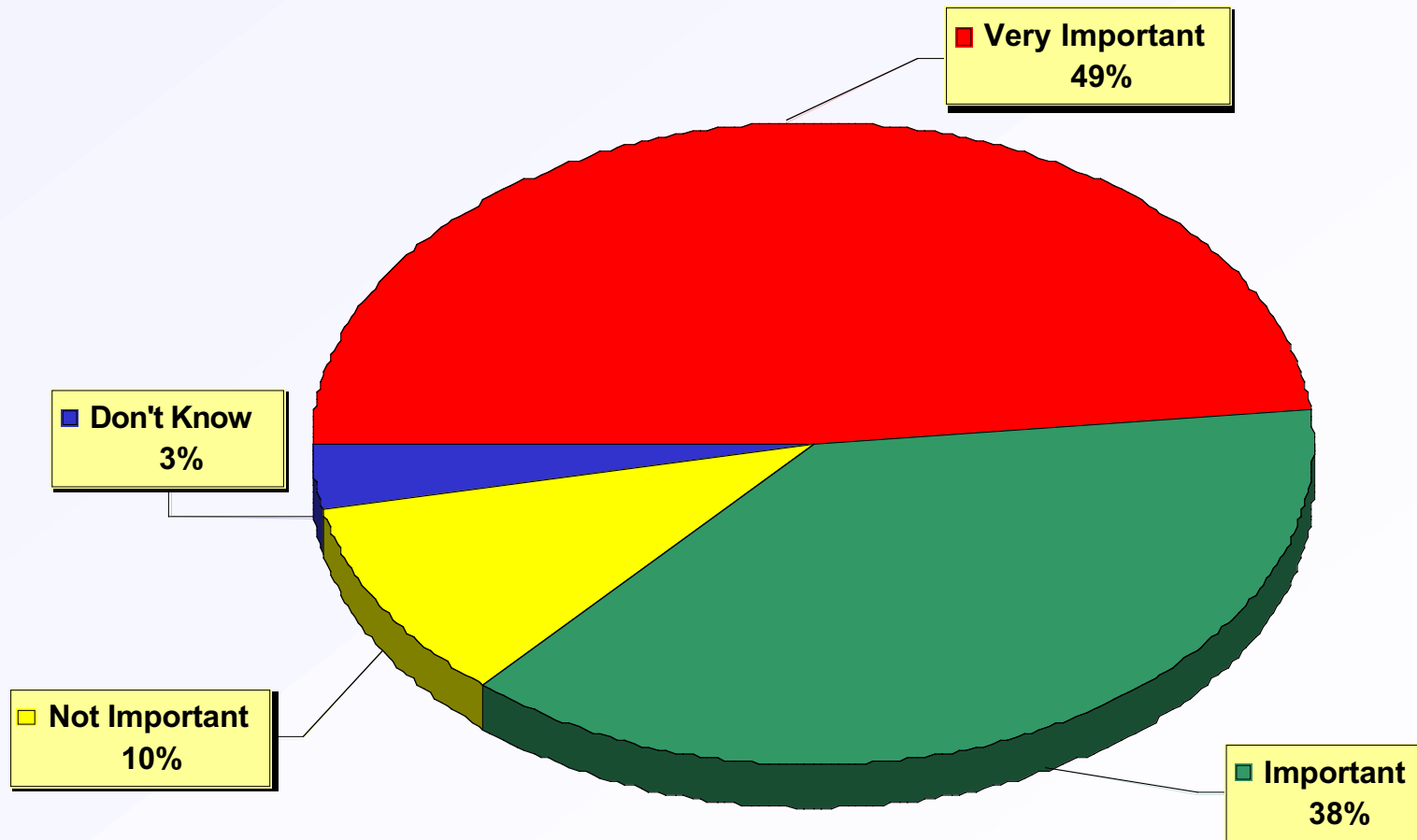
What role(s) might the Cray SV2 play in the grid computing strategy at your site?



What is your interest at your site regarding Linux on a Cray SV2 System?



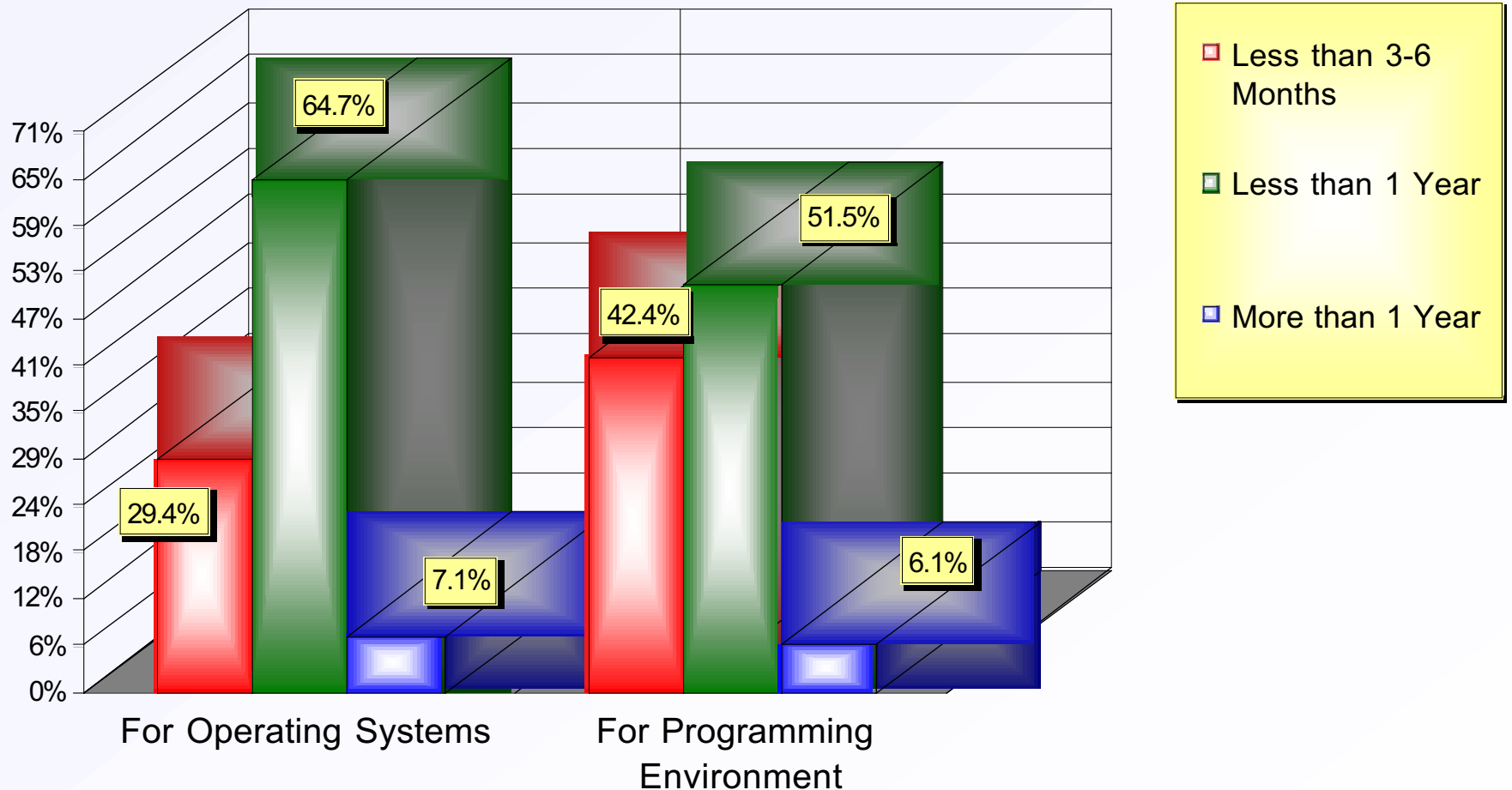
How important is it that the Cray SV2 System can be administered the same way as other systems?



Follow-up Questions

- *How important is it that the Cray SV2 system be similar in administration to non-Cray systems?*
- *What things would you like administered the same on the Cray SV2 system as on your other systems?*

Given expected levels of reliability for Cray SV2 Software, what would your site consider to be the optimal interval between software feature releases?



Follow-up Question

- ***What are the biggest factors driving the frequency of your upgrades?***

Summary

- **First in a series of biannual surveys**
- **Results, when analyzed, will be used to help prioritize software development efforts for Cray SV2 and beyond**
- **Good response so far, but we are interested in hearing from more of you.**