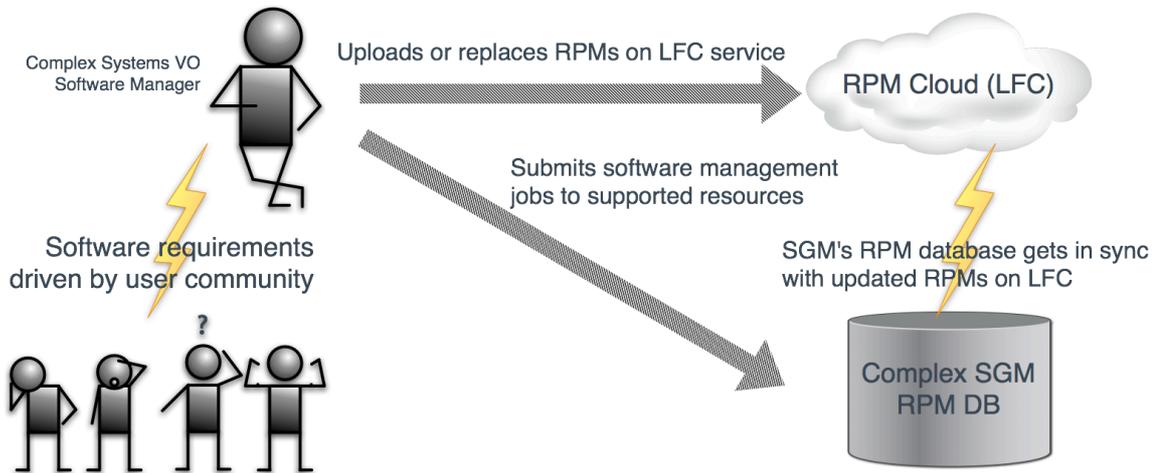


## Overview

In March 2010 the Complex Systems VO developed and deployed a robust software management service for installing and updating the software requested by the community of users on the available computing resources and was coupled with the Complex Systems VO Nagios monitoring service for checking the up-to-date of the software database.



## Description

The service is based on the Redhat Package Manager (RPM) framework and it provides a straightforward mechanism of installation, updating and removal mechanism for software on Redhat Linux binary compatible resources.

To manage RPM packages over the shared filesystem dedicated for VO software, several known limitations have to be bypassed. Two obvious problems are the usage of the network filesystem provided, which is prohibited by the RPM framework, as well as the creation of a central RPM database for checking if all the packages were installed correctly and downloading the RPM packages.

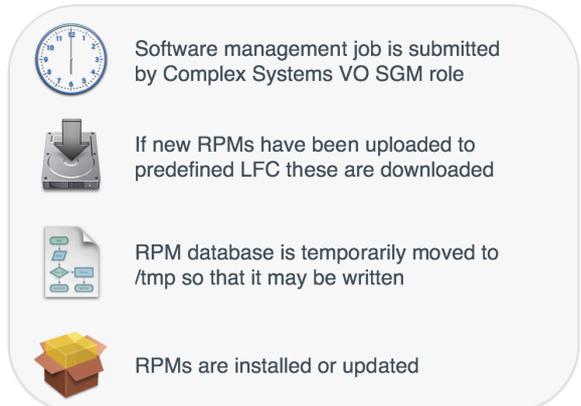
As far as the network file system is concerned our implementation uses a bypass hook within our software management workflow that allows us to perform management operations on the temporary local filesystem and restoring afterwards these changes onto the shared software filesystem. In the second case, we have gone forward with the creation of an RPM directory on the storage elements as a reference point for the RPM database.

## Discussion

**Any software package** that may be related to the research activities of the VO members and has been **packaged in RPM format can be installed** on the supported computational resources.

The set of workflow tools we have deployed allow us to effectively and **in time** respond and **handle** any software related requests from **VO users**.

## Implementation



## List of packages

	Name	Version
Supported Software	blas	3.0
	igraph	0.5.3
	igraph-devel	0.5.3
	lcg-rec-tools	0.0.1
	mono	1.2.4
	numpy	1.2.1
	python-matplotlib	0.99
	scipy	0.6.0