# Experiences designing and building a PRAGMA Cloud Scheduler

[Short Paper]

Shava Smallen
San Diego Supercomputer Center
University of California San Diego
ssmallen@sdsc.edu

Nadya Williams
San Diego Supercomputer Center
University of California San Diego
nadya@sdsc.edu

Philip Papadopoulos
San Diego Supercomputer Center
University of California San Diego
phil@sdsc.edu

## ABSTRACT

The Pacific Rim Application and Grid Middleware Assembly (PRAGMA) is a community of individuals and institutions from around the Pacific Rim that actively collaborate to enable scientific expeditions in areas like biodiversity and lake ecology. Over the past X years, the technology focus for PRAGMA partners has shifted to cloud and software defined networking as enabling technologies. During PRAGMA 27, the Resources Working group discussed rebooting the persistent PRAGMA Testbed as a way for sites to contribute and use shared resources, leveraging technologies such as PRAGMA Boot, Personal Cloud Controller (PCC), and overlay networks. To make PRAGMA resource sharing easier, a lightweight scheduler was proposed and discussed as a way to enable access to the resources and to manage resource reservations. This short paper discusses the design process and initial prototype of a simple cloud scheduler for PRAGMA.

## Keywords

Cloud, Scheduling, Resource Sharing

## 1. INTRODUCTION

some text [1]

Repeat longer version of text in abstract with appropriate citations.

Discuss requirements and technologies like pragma boot, etc.

## 2. SCHEDULER DESIGN

Discuss process of narrowing down scheduler design from meeting ideas (e.g., batch scheduler, Grid 5000, GENI, Google doc, DHCP leases).

## 3. CALENDARING SYSTEMS

Discuss selection of Booked.

## 4. CLOUD SCHEDULER PILOT

Discuss creation of Cloud Scheduler Pilot.

## 5. CONCLUSIONS AND FUTURE WORK

Some interesting conclusion.

## 6. REFERENCES

[1] The Pacific Rim Application and Grid Middleware Assembly Website. `http://www.pragma-grid.net`, 2013.