Opscode Chef

Functional Area: Cluster Resource Management

Overview:

Chef is a tool for configuring and managing systems and cluster environments. It can be used to maintain physical computing environments, and can also work with cloud platforms such as OpenStack, Amazon EC2 and Microsoft Azure. Chef is available from the company formerly known as Opscode (now simply called Chef) in either Enterprise or Open Source versions. Either version supports a client/server mode as well as a local chef-solo mode. While not an Apache Foundation project like many of the other packages included here, it is open source and is covered by the Apache license model.

The Chef client software is written in Ruby, and configuration instructions to support a user’s environment are also written as Ruby scripts, in this case called “recipes”. These recipes define the desired system configuration, and by running them Chef configures the environment and software as requested. One key feature of Chef is referred to by its developers as “idempotence”, which simply means a script will produce an identical environment regardless of how many times it is run. In other words, it will not break if told to install something already installed.