



# CFEngine Nova Mission Portal

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CFEngine Enterprise Documentation  
for version 2.1 alpha1



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## 1 Introduction

CFEngine Nova is a commercially licensed version of the core CFEngine software<sup>1</sup> with enterprise library extensions. All of the documentation for CFEngine 3 applies to CFEngine Nova. This document is a supplement describing the graphical user interphase used in CFEngine Nova: the Mission Portal.

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<sup>1</sup> Major version 3



## 2 Mission Portal

Knowledge management has become a new focus in IT management, and it is a core focus at CFEngine. Comprehending the growing complexity of IT operations is one of the main challenges in IT today. CFEngine Nova has a number of key features for knowledge management, including automated documentation, report generation and associative inference. The CFEngine Mission Portal is the centerpiece of user interaction with CFEngine Nova.

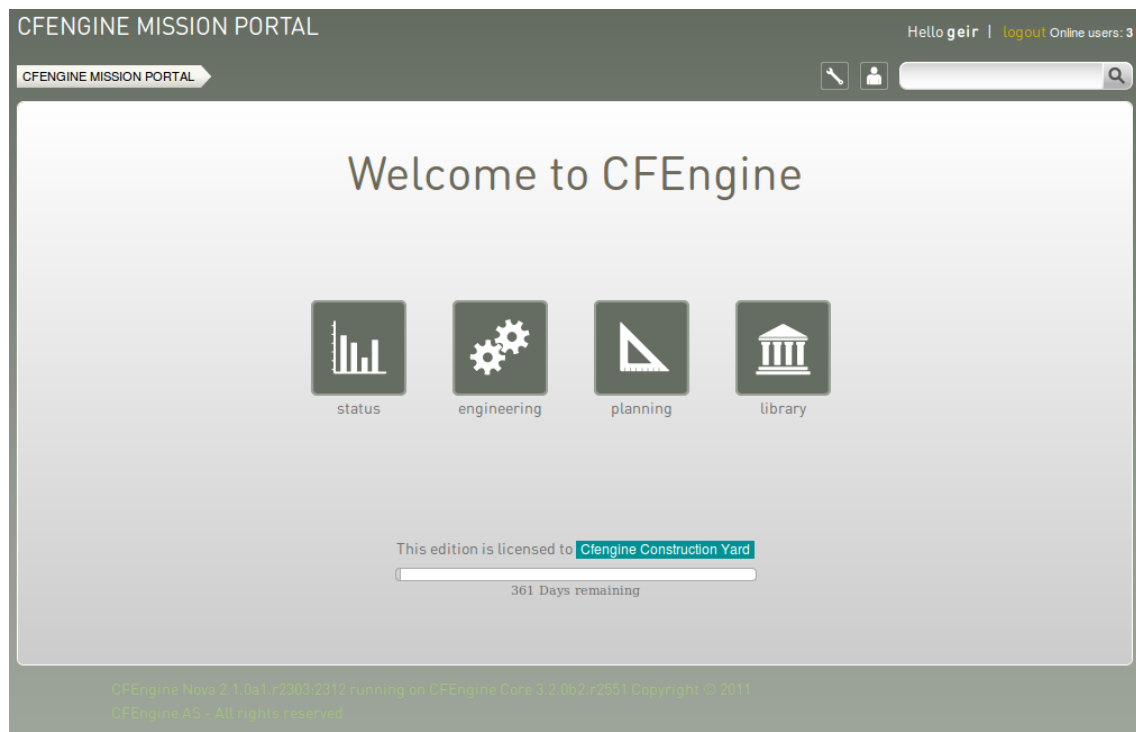


Figure: The mission portal

### 2.1 Mission Portal Rooms

There are four main rooms in the Mission Portal:

- Status - a top level overview of compliance status
- Engineering - a place to see the current state of system repair
- Planning - a place to plan and make policy changes
- Library - a knowledge bank that connects information together

Each of these rooms is a beginning from which you can refine your overview and search through information.

#### 2.1.1 Mission Status

Mission status is a high level summary of how well the entire system is behaving.



Figure: The status of IT operations.

Business Value and Host Status: Pie charts show the business value of the promises kept/not kept as well as host status (for those that have reported to the hub; hosts that have lost connection are not included).

Compliance Summary: The row of bar meters shows the compliance of all registered hosts in blocks of 6 hours for the past week. It summarizes performance and anomalous behavior in a simple red (promises not kept), yellow (promises repaired) and green (promises kept) scale.

Services/Goals: A summary of Mission goals (as defined in user policy files; cannot be edited from the Mission Portal).

### 2.1.2 Mission Engineering

Mission engineering illustrates the state of the system in relation to the desired state at all scales. Zoom in to specific areas and examine the impact of promises, query data, and extract reports.



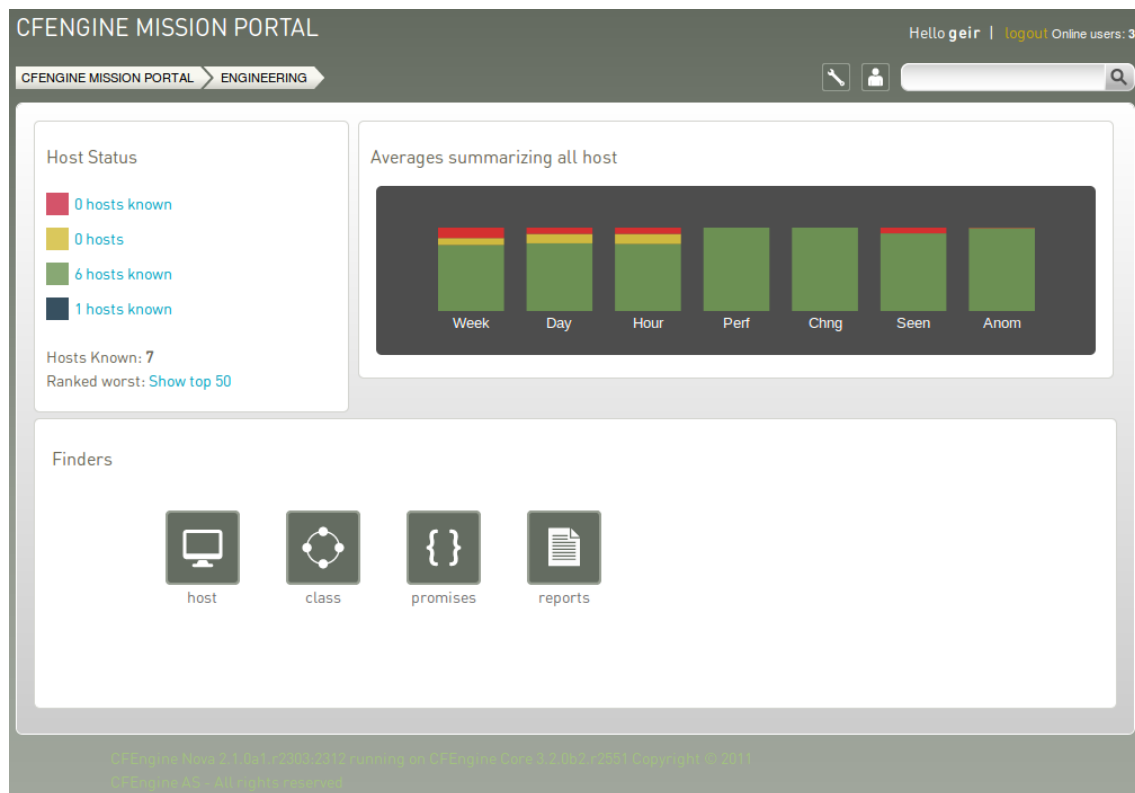


Figure: Mission Engineering

**Host Status:** The hosts are classified into red, yellow, green and blue according to the status of their compliance. A host is red if less than 80% of its promises are kept, yellow if less than 80% of its promises were initially kept, but CFEngine was able to repair to above 80% promises kept during a run, green if more than 80% of its promises are kept, and blue if there is no contact between the hub and the client. Clicking on the colored links produces a list of the hosts in that category.

**Averages summarizing all hosts:** The row of bar meters shows the compliance of all registered hosts over the past week, the past day and the past hour. It also summarizes performance and anomalous behavior in a simple red, yellow green scale.

**Finders:** The Mission Engineering room comes with four finder functions: host, class, promises, and reports (see section on Finders).

### 2.1.3 Mission Planning

Make changes to policies, goals determined by promises and implement specific tactics to achieve the desired state. Interact with data, approve changes and anomalies. Get an overview of users logged on to the Mission Portal, as well as their current activity.

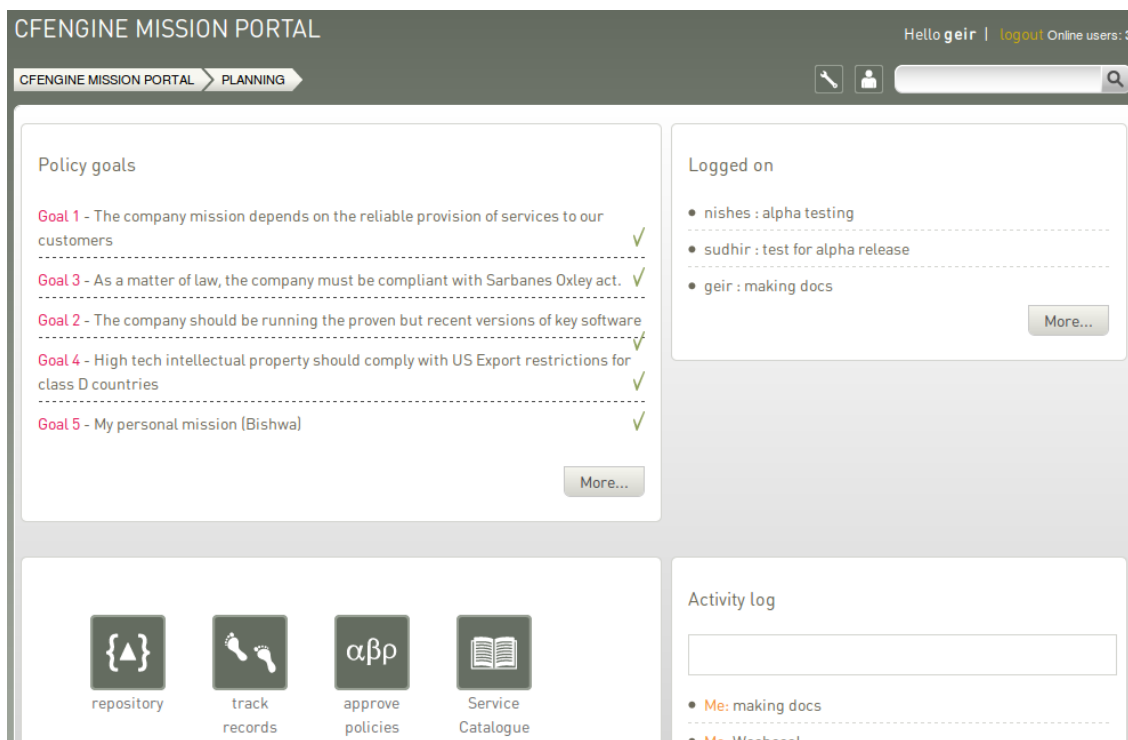


Figure: Mission Planning

Policy Goals: List of policy goals and link to the Service Catalogue (see which bundles contribute to these policy goals).

Editors. Repository, track records, approve policies, service catalogue.

Activity log: Shows the the latest entries in the activity log. Type in a new activity to keep your colleagues posted on what you are working on.

#### 2.1.4 Mission Library

The Library contains finders for documents, topics, a notes archive, and link to the CFEngine community.

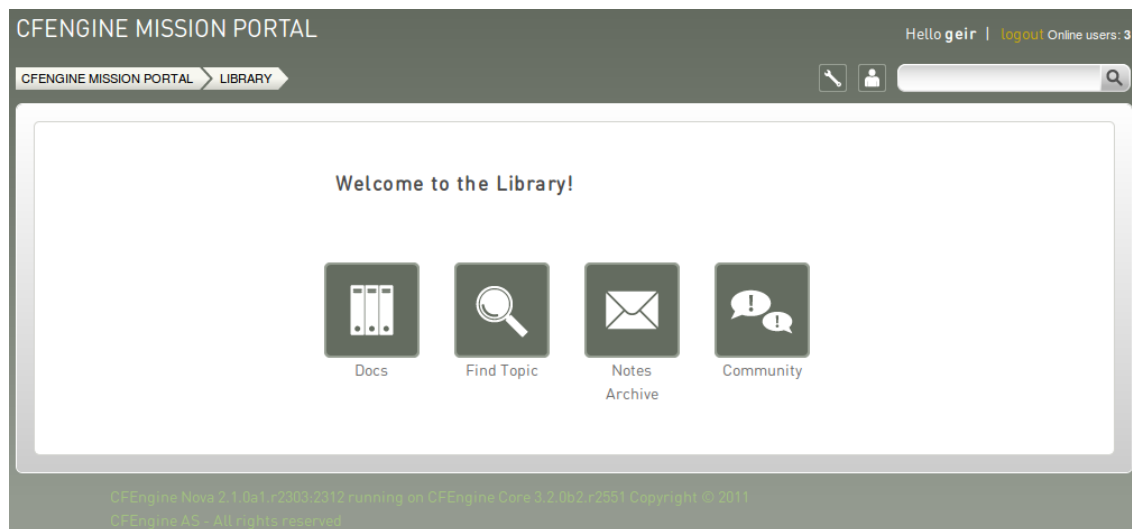


Figure: Mission Library

## 2.2 Finders

Finders are modules that make it simple and intuitive to browse and search for objects of a particular type.

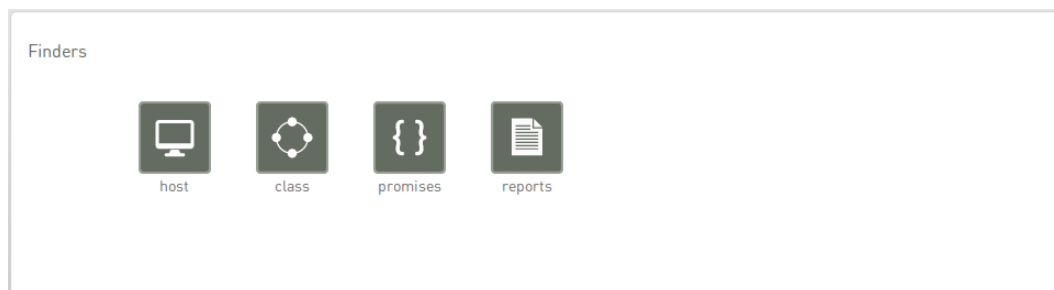


Figure: Finders in the Mission Engineering room

### 2.2.1 Host finder

The host finder can be found in the Mission Engineering room and will display a list of hosts. Browse by scrolling through the list, click a letter corresponding to the first letter of a host name, or search for hosts in the search box (top right corner). Clicking on a host name will bring you to the host viewer.

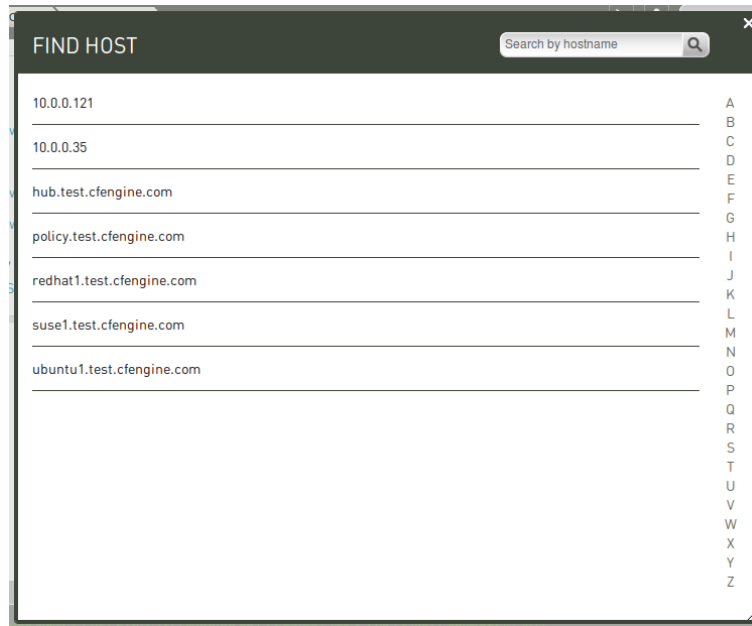


Figure: Host finder

### 2.2.2 Class finder

The class finder can be found in the Mission Engineering room and will display a list of classes. Browse by scrolling through the list, click a letter corresponding to the first letter of a class name, or search for classes in the search box (top right corner; choose between searching all, time, soft or IP classes). Clicking on a class will bring you to a report for that class profile.

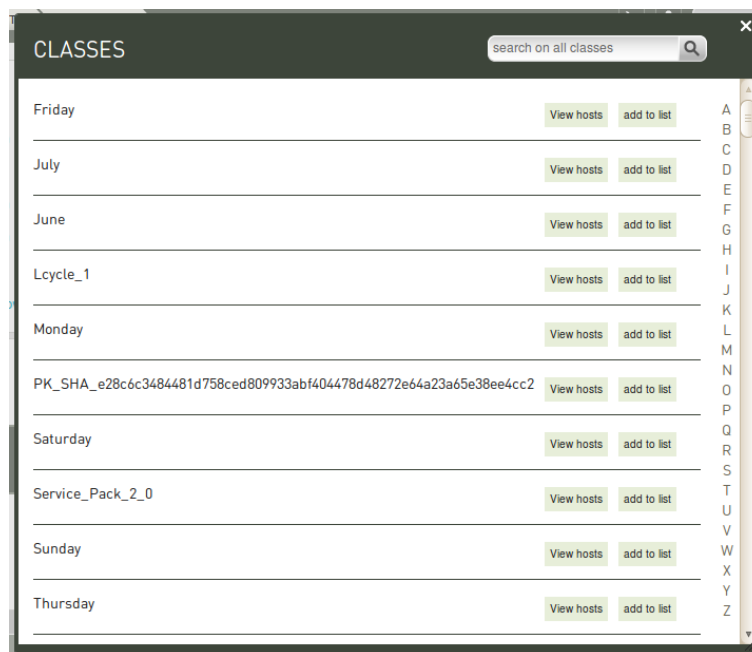


Figure: Class finder.

### 2.2.3 Promise finder

The promise finder can be found in the Mission Engineering room and will display a list of promises. Browse by scrolling through the list, click a letter corresponding to the first letter of a promiser/bundle/handle name (set alternative in searchbox and click a letter in the right column), or search for promiser/bundle/handle in the search box (top right corner; choose between searching promiser, bundle, or handle). Clicking on a promise/bundle will bring you to the promise/bundle viewer.

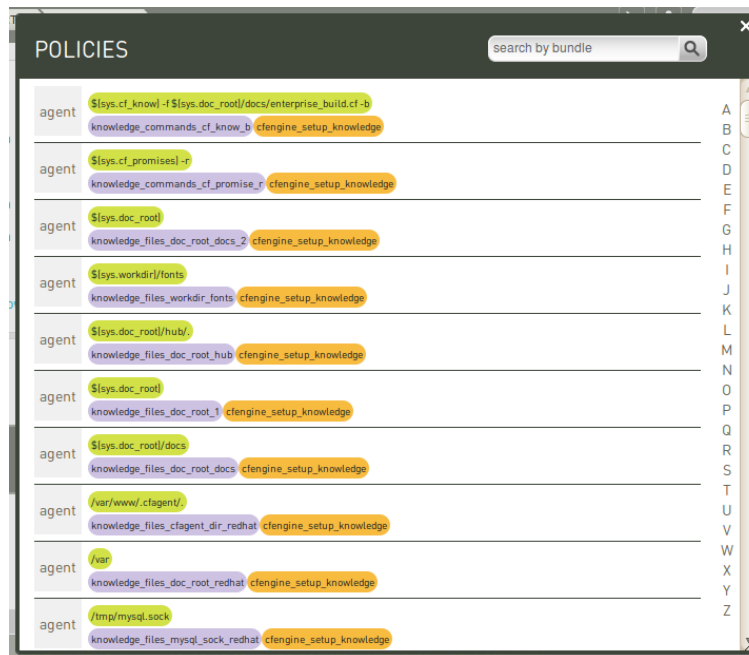


Figure: Promise finder

### 2.2.4 Reports finder

The reports finder can be found in the Mission Engineering room and will display a list of report categories. Browse by scrolling through the list. Clicking on a report category will bring up a query table that will produce a report according to the entered query criteria.

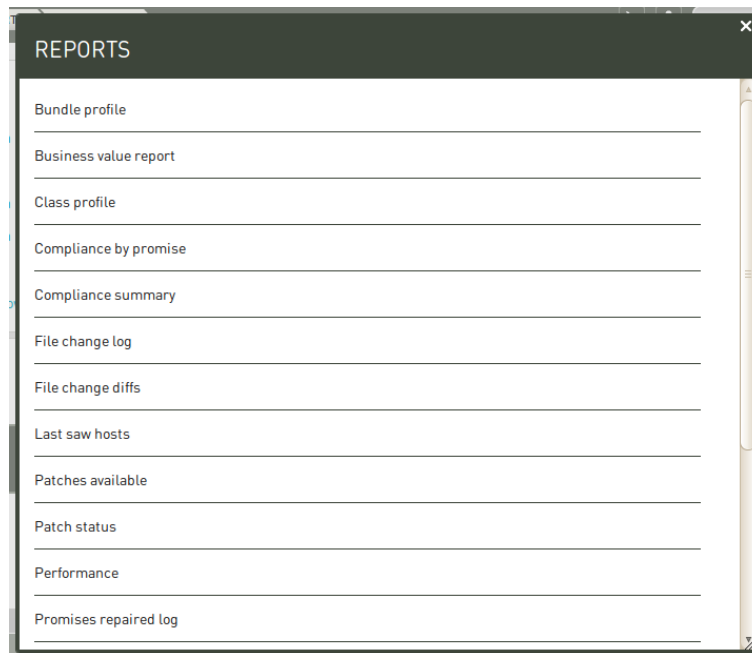


Figure: Reports finder

## 2.3 Viewers

Viewers show info about the main objects at different scales of the system.

### 2.3.1 Host viewer

The host viewer has the following broad characteristics:

- Action buttons: view reports, view and make notes, view vital signs and problems (promises not kept).
- Host name, operating system, type, address and unique identity.
- A summary meter for compliance, performance, etc.
- Operating system and host type.

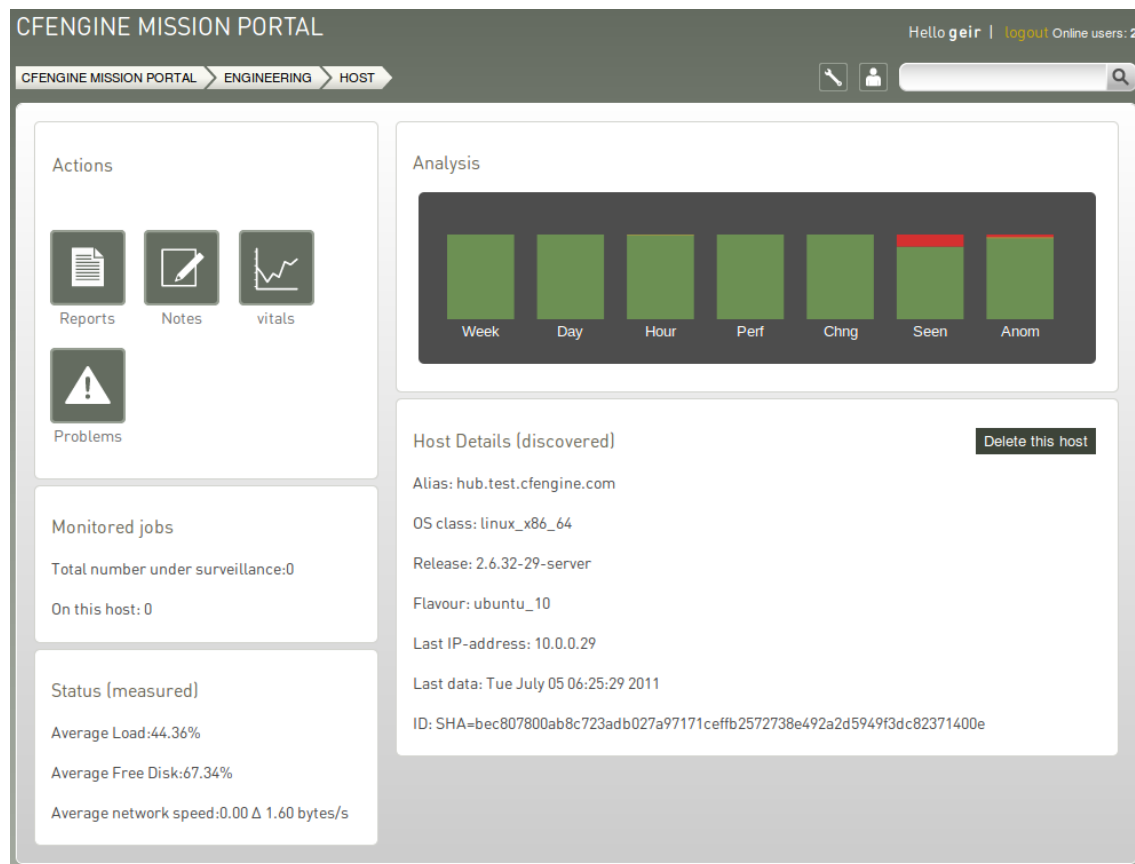


Figure: Host viewer

## Analysis

### 2.3.2 Bundle viewer

The bundle viewer shows a list of classes using the bundle and the promises made within that bundle. Tabs also display other bundles using the one currently viewed or an overview of all bundles.

CFENGINE MISSION PORTAL

Hello **geir** | [logout](#) Online users: 3

CFENGINE MISSION PORTAL > ENGINEERING > BUNDLE

Bundle Details Bundles using this bundle All Bundles

Bundle definition of `append_user_field`

Name: `append_user_field`

Arguments:

- `allusers`
- `field`
- `group`

HANDLE	COMMENT
<b>Host classes using this bundle</b>	
<code>any</code>	
<b>Promises in this bundle</b>	
<code>promise_cfengine_stdlib_cf_360</code>	
<code>promise_cfengine_stdlib_cf_354</code>	

Figure: Bundle viewer

### 2.3.3 Promise viewer

The promise viewer shows a promise definition and body. There are tabs for viewing leads (promise type, context, dependencies), other promises used in same bundle, other promises made by same promiser, and other promises of same type.

CFENGINE MISSION PORTAL

Hello **geir** | [logout](#) Online users: 1

CFENGINE MISSION PORTAL > ENGINEERING > PROMISE

Definition Leads Same Bundle Same Promiser Same Type

Promise definition	
Belonging to agent bundle	<code>cfengine_setup_knowledge</code>
Reference handle	<code>knowledge_files_cfagent_dir_redhat</code>
Affected object (promiser)	<code>/var/www/.cfagent/.</code>
Stakeholders (promisees)	None mentioned
Comment on original intention	Ensure permissions to .cfagent directory
Promise is about	<code>files</code>
Applies in the class context	<code>redhat.am_policy_hub</code>
Defined in file	<code>/var/cfengine/inputs/knowledge.cf</code>
Body of the promise	
<code>depth_search =&gt;</code>	<code>recurse_basedir[inf]</code>
<code>perms =&gt;</code>	<code>mog(700,{owner[redhat]},{\$group[redhat]})</code>

Figure: Promise viewer



### 2.3.4 Vital signs

The Vital signs viewer shows the performance specs of a host in different categories of information.

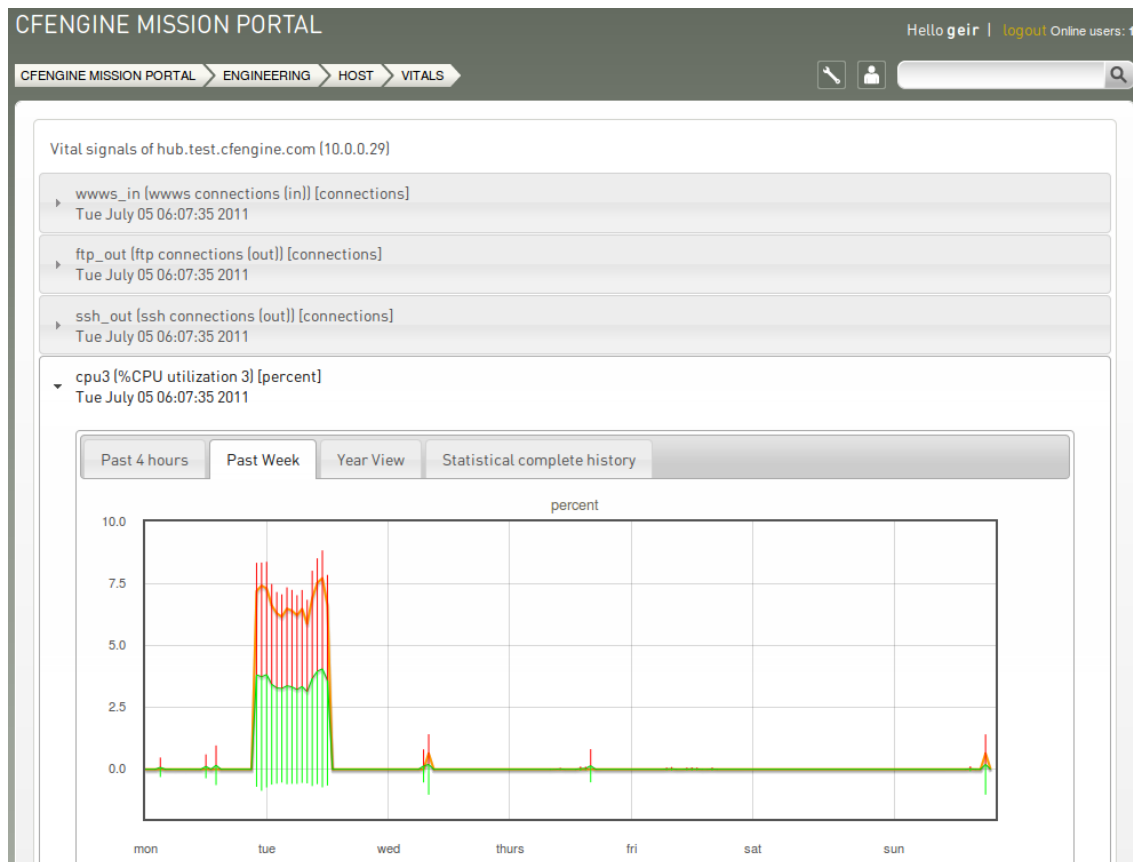


Figure: Host viewer

### 2.3.5 Topics (Knowledge library)

Knowledge map

### 2.3.6 Weakest hosts

A link to Top N worst hosts can be found in the Mission Engineering room.

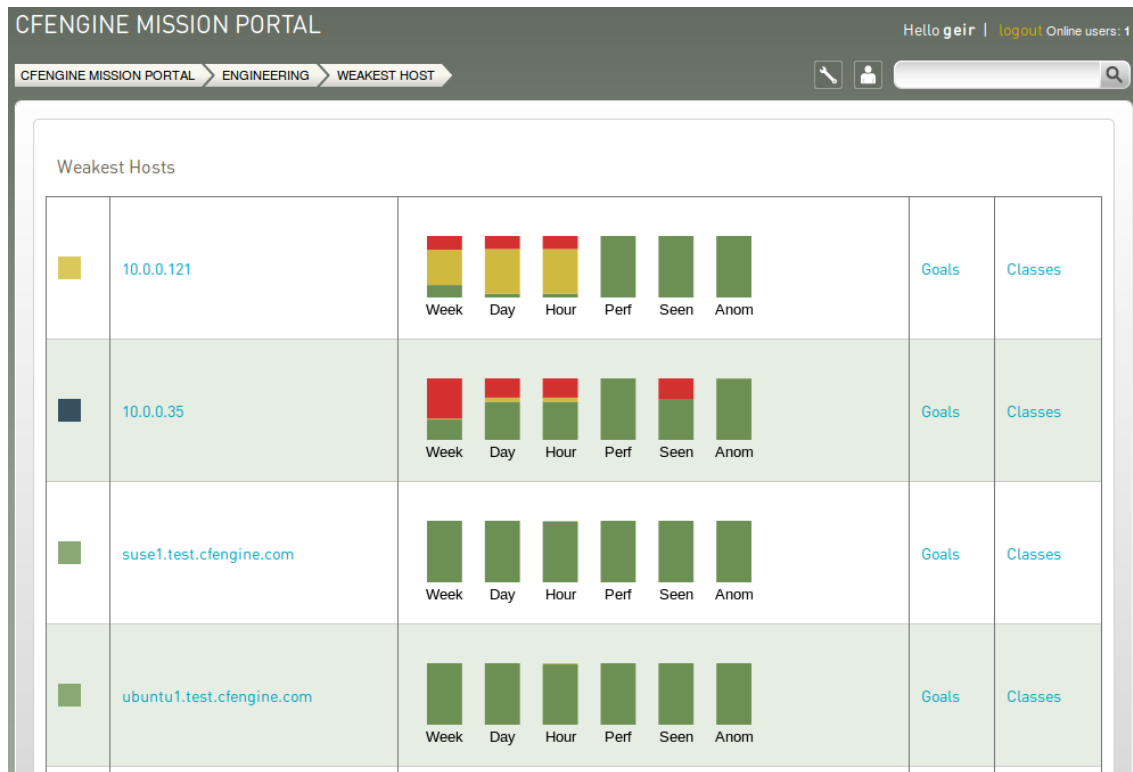


Figure: Weakest hosts

### 2.3.7 Reports

A significant capability of CFEngine Nova is the existence of automated system reporting. A report is a tabular summary of CFEngine's internal information, tailored to a particular purpose. Reports are searchable and describe attributes and qualities of managed hosts.

## 2.4 Editors

TBC.