

Cloud Scheduler Quick Start Guide

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Welcome

Welcome to the *Cloud Scheduler Quick Start Guide!*

The Gale Technologies Cloud Scheduler dramatically improves the utilization of virtual infrastructure with intelligent time-based capacity management by allowing users to proactively schedule virtual machines from a self-service portal.

Virtualization results in significant savings through consolidation of infrastructure, but also creates new problems with virtual machine (VM) sprawl and over-allocation of resources that often erode the efficacy of virtualized infrastructure. In addition, IT administrators must perform several manual operations each time a VM is requested, adding to delays and administrative overhead.

The Cloud Scheduler addresses these issues by automating administrative tasks associated with creating a VM, and proactively controlling VM sprawl by providing self-service scheduling and reservation of VMs for bounded periods of time. The Cloud Scheduler automatically provisions and de-provisions VMs based on need, availability, and administrative policies—dramatically improving the utilization of the virtual infrastructure with intelligent and elegant capacity management. The self-service feature of the Cloud Scheduler allows administrators of virtual infrastructure to automate repetitive manual steps to accelerate their responsiveness to VM requests from days to minutes.

Features of the Cloud Scheduler

- Real-time inventory buildup For VMware vCenter-recognized virtual resources
- Administrator and user account management
- Workload creation with multiple VMs
- Virtual memory capacity management and optimization
- Outlook-like calendar view (day, week, month) for workload reservations
- Display of system- and user-generated messages

Benefits of Using the Cloud Scheduler

With the Cloud Scheduler, organizations can fully realize the value of VMware virtualization with these benefits:

- Improving VM delivery agility by automating manual tasks associated with provisioning a VM and offering a self-service catalog of VMs for users to reserve
- Arresting VM sprawl with need-based resource allocation to VMs
- Increasing infrastructure utilization intelligent allocation and de-allocation of virtual resources
- Pro-actively managing capacity based on actual anticipated demand
- Preventing performance issues caused by long running VMs by decommissioning virtual resources at the end of the reservation.

Because of the Cloud Scheduler's integration with VMware vSphere APIs, customers who have deployed VMware vSphere can seamlessly manage virtual inventory, as well as import VMs with the High Availability/Fault Tolerant (HA/FT) and Disaster Recovery (DR) properties that were created using the vSphere client. These imported VMs can be grouped into workloads and scheduled through the Cloud Scheduler. The Cloud Scheduler can scale to a large infrastructure managed by one or more VMware vCenter servers.

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BEFORE YOU BEGIN

Hardware Requirements

The systems on which Cloud Scheduler is installed must meet the minimum hardware requirements to install and run the application:

- 2.0 GHz or faster Intel or AMD x86 processor
- 2.5 GB or more RAM
- 12 GB or more disk storage
- 10/100 Ethernet adapter (Gigabit recommended)

Software Requirements

You must have VMware vSphere installed to deploy the Cloud Scheduler, and have a web browser to access the Cloud Scheduler user web interface.

Supported Platform

The Cloud Scheduler can be deployed on VMware vSphere 4.x.

Web Browsers

The Cloud Scheduler is a tested and supported application for the following web browsers:

- Microsoft Internet Explorer 8.0 and later releases
- Mozilla Firefox 3.6 and later releases
- Google Chrome 16.0

Environment Requirements

The Cloud Scheduler integrates only with VMware vCenter 4.x.

<i>Supported vSphere Hosts & Versions</i>	<i>Supported vCenter Server Versions</i>
VMware ESX 4.0	VMware vCenter Server 4.0
<ul style="list-style-type: none"> • VMware ESX 4.0 Update 1 • VMware ESX 4.0 Update 2 • VMware ESX 4.0 Update 3 	<ul style="list-style-type: none"> • VMware vCenter Server 4.0 Update 1 • VMware vCenter Server 4.0 Update 2 • VMware vCenter Server 4.0 Update 3
VMware ESX 4.1	VMware vCenter Server 4.1
<ul style="list-style-type: none"> • VMware ESX 4.1 Update 1 	<ul style="list-style-type: none"> • VMware vCenter Server 4.1 Update 1
VMware ESXi 4.0	
<ul style="list-style-type: none"> • VMware ESXi 4.0 Update 1 	
VMware ESXi 4.0 Update 2	

INSTALLING THE CLOUD SCHEDULER SOFTWARE

The Cloud Scheduler is provided as a **cloud-scheduler.ova** file—a virtual appliance file that must be installed via VMware vSphere or a VMware vCenter Server. At least one administrator in your company must install the **cloud-scheduler.ova** file.

Deploying the Cloud Scheduler as a Virtual Appliance via the vSphere Host

Prerequisites

- Download the **cloud-scheduler.ova** file from <http://www.galetechnologies.com> (the Cloud Scheduler Product screen) and save it to your local machine.
- Ensure that you have vSphere Client installed.

Procedure

1. From the **File** menu in the vSphere client, select **Deploy OVF Template**.
2. In the **Deploy OVF Template** screen, specify the location of the saved OVA file and click **Next**.
3. Verify **OVF Template Details** and click **Next**.
4. Accept the **Cloud Scheduler End User License Agreement** and click **Next**.
5. Specify a **Name** for the Cloud Scheduler virtual appliances and click **Next**.
6. Select the **resource pool** within which you want to deploy the template and click **Next**.
7. Select the **Datastore** in which you want to store the virtual machine files and click **Next**.
8. Select the **Disk Format** in which you want to store the virtual disks and click **Next**.
9. Review the information in the **Ready to Complete** screen and click **Finish**.
The installer starts deploying the template.
10. Power on the virtual machine and configure the virtual machine details.
The webapp URL will be updated with new address in the format **http://<IP-Address>:3000/**.

Deploy the Cloud Scheduler as a Virtual Appliance via the vCenter Server

Prerequisites

- Download the **cloud-scheduler.ova** file from <http://www.galetechnologies.com> (the Cloud Scheduler Product screen) and save it to your local machine.
- Ensure that you have vSphere Client installed.

Procedure

1. From the **File** menu in the vSphere client, select **Deploy OVF Template**.
2. In the **Deploy OVF Template** screen, specify the location of the saved OVA file and click **Next**.
3. Verify **OVF Template Details** and click **Next**.
4. Accept the **Cloud Scheduler End User License Agreement** and click **Next**.
5. Specify a **Name** and **Inventory Location** for the Cloud Scheduler virtual appliances and click **Next**.
6. Select the **resource pool** within which you want to deploy the template and click **Next**.
7. Select the **Datastore** in which you want to store the virtual machine files and click **Next**.
8. Select the **Disk Format** in which you want to store the virtual disks and click **Next**.
9. Select a **network** for the deployed template and click **Next**.
10. Select the **IP Address Allocation** policy to allocate IP addresses and click **Next**.
11. Review the information in the **Ready to Complete** screen and click **Finish**.
The installer starts deploying the template.
12. Power on the virtual machine and configure virtual machine details.

CONFIGURING THE CLOUD SCHEDULER SOFTWARE

Configuring the Network Adapter

1. From your vSphere Client, select **Cloud Scheduler VM**.
2. Navigate to the **VM Console** and log in with the following credentials:

Username: **admin**

Password: **admin**

3. Navigate to the `/etc/network` path.
4. Modify the interfaces file and provide the following values:
 - `address`
 - `netmask`
 - `network`
 - `broadcast`
 - `gateway`

Example data:

- `address 192.168.0.42`
- `netmask 192.168.0.0`
- `network 255.255.255.0`
- `broadcast 192.168.0.255`
- `gateway 192.168.0.1`

5. Navigate to the `/etc` location and modify the `resolv.conf` file to configure `dns` entry.

`nameserver xxx.xxx.xxx` (enter IP address)

Example of `resolv.conf` file:

`search cyberciti.biz`

`nameserver 202.54.1.10`

Where, `search domain.com`: The search list is normally determined from the local domain name; by default, it contains only the local domain name. When you type `nslookup www`, it will be matched to `www.cyberciti.biz`.

`nameserver Name-server-IP-address`: Point to your own nameserver or to an ISP's name server. Up to three (3) name servers can be listed.

6. Restart networking:
`sudo /etc/init.d/networking restart`

GETTING STARTED

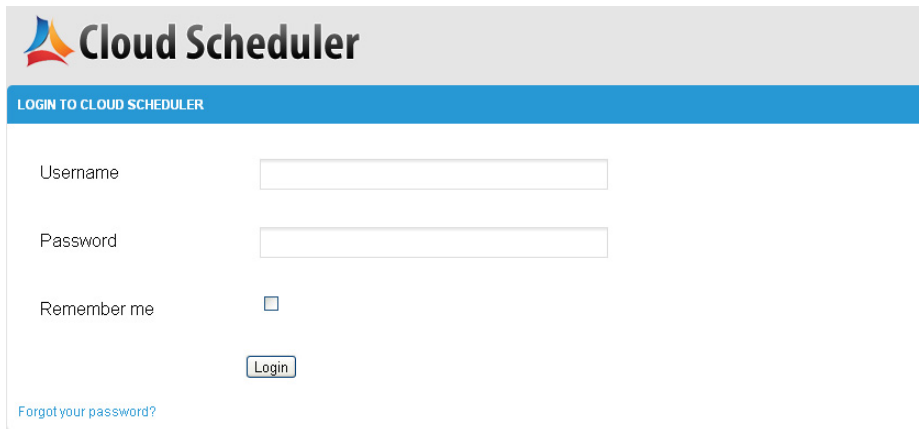
Accessing and Logging Into the Cloud Scheduler

To access and log in to the Cloud Scheduler software:

1. Point your browser to **http://<CloudScheduler_VM_IPADDRESS>:3000/** to display the **Login to Cloud Scheduler** screen (Figure 1).



NOTE: For IP address details, navigate to the **VM Console** and execute the **ifconfig** command at the prompt.



The screenshot shows the login interface for Cloud Scheduler. At the top, there is a grey header with the Cloud Scheduler logo and the text 'Cloud Scheduler'. Below this is a blue horizontal bar containing the text 'LOGIN TO CLOUD SCHEDULER'. The main content area is white and contains a login form. The form has two input fields: 'Username' and 'Password'. Below the 'Password' field is a 'Remember me' checkbox. At the bottom of the form is a 'Login' button. Below the 'Login' button is a link that says 'Forgot your password?'. The entire form is enclosed in a light grey border.

Figure 1: Login Screen for the Cloud Scheduler

2. Enter your **Username** and **Password**, and click **Login**. Click the **Remember me** check box to keep the password for the next login.

When you install the Cloud Scheduler, by default, two administrator accounts are created: **System** and **Admin**. The default password is **password**.



NOTE: We recommend you use **admin/password** to create new user accounts.

Changing the Default Account Password

To change the default account password:


1. Log in using one of the default administrator accounts.
2. On the Cloud Scheduler menu bar, click **Users** to display the **Users** screen (Figure 2).

The screenshot shows the Cloud Scheduler interface. At the top, there is a navigation bar with the following items: VCENTER SERVERS, ESX HOSTS, VIRTUAL MACHINES, DATASTORES, WORKLOADS, RESERVATIONS, **USERS**, and SUPPORT. The 'USERS' section is active, displaying a table of users. The table has the following data:

Username	First Name	Last Name	Email	State	Actions
System	System	User	system@galetechnologies.com		
Admin	Admin	IStrator	admin@galetechnologies.com		
Tintin	Vittoria	Deloulay	vittoriad@galetechnologies.com	Active Deactivate	

Below the table, it says 'Showing 1 to 3 of 3 entries' and provides navigation buttons: First, Previous, 1, Next, Last. On the right side, there is a 'MESSAGES' sidebar showing a list of recent events, including 'Admin created user tintin', 'User admin signed in', 'System updated user admin', and 'User admin signed out'. The top right corner shows 'Hello admin | Logout', 'v12.01.13', and 'Last Login: Jan 12, 2012'.

Figure 2: List of Current Users

3. Click the respective **Username** for the password change you want to make and click the **Edit** icon  in the **Actions** column to display the **Edit System** screen (Figure 3).

The screenshot shows the 'Edit System' page in the Cloud Scheduler interface. The page has a header with the Cloud Scheduler logo and user information: 'Hello admin | Logout', 'v12.01.13', and 'Last Login: Jan 18, 2012'. A navigation bar contains links for 'VCENTER SERVERS', 'ESX HOSTS', 'VIRTUAL MACHINES', 'DATASTORES', 'WORKLOADS', 'RESERVATIONS', 'USERS', and 'SUPPORT'. The 'EDIT SYSTEM' section contains the following fields:

- Username:** system
- First name:** System
- Last name:** User
- Email Address:** system@galetechnologies.com
- Role:** User (dropdown menu)
- Password:** (empty field) with a note: 'Enter password if you want to change it'
- Password confirmation:** (empty field)

An 'Update User' button is located below the password fields. On the right, the 'MESSAGES' section shows a timestamp of '11:48:00 AM' on '18 January Wednesday'. The message log includes:

- Jan 18, 2012 at 11:38: User admin signed in
- Jan 18, 2012 at 10:31: System updated vcenter server V FD6BG4HRMRK
- Jan 18, 2012 at 10:31: System updated datastore datastore1
- Jan 18, 2012 at 10:31: System updated virtual machine VCenter
- Jan 18, 2012 at 10:31: System updated virtual machine CScheduler
- Jan 18, 2012 at 10:31: System updated virtual machine webServer
- Jan 18, 2012 at 10:31: System updated virtual machine qaLab
- Jan 18, 2012 at 10:31: System updated virtual machine preProduction
- Jan 18, 2012 at 10:31: System updated virtual machine devLab

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Figure 3: Edit System—Changing Password

- In the **Password** and **Password Confirmation** fields, enter your new password and click **Update User**.

Creating a New User Account

The administrator logs in to the Cloud Scheduler and creates the user from the **Users** tab.

To create a new user account:

1. Log in to the Cloud Scheduler application using your credentials.
2. On the Cloud Scheduler menu bar, click **Users** to display the **Users** screen (Figure 4).

The screenshot shows the Cloud Scheduler interface with the 'USERS' tab selected. The main content area displays a table of users:

Username	First Name	Last Name	Email	State	Actions
System	System	User	system@galetechnologies.com		Edit
Admin	Admin	iStrator	admin@galetechnologies.com		Edit
Tintin	Vittoria	Deloulay	vittoriad@galetechnologies.com	Active	Deactivate Edit

Below the table, there are navigation controls: 'Showing 1 to 3 of 3 entries' and 'First | Previous | 1 | Next | Last'. A 'New' button is located above the table. On the right side, there is a 'MESSAGES' panel showing a list of system messages with timestamps and user names.

Figure 4: Edit System—Changing Password

3. Click **New** to display the **New User** screen (Figure 5).

The screenshot shows the 'NEW USER' form in the Cloud Scheduler interface. The form contains the following fields:

- Username:
- First name:
- Last name:
- Email Address:
- Role:
- Password:
- Password confirmation:

A 'Create User' button is located at the bottom of the form. On the right side, there is a 'MESSAGES' panel showing a list of system messages with timestamps and user names.

Figure 5: Creating a New User

4. Enter your **Username, First name, Last name, and Email Address.**
5. Select a **Role: User or Admin.**
6. In the **Password and Password Confirmation** fields, enter your password and click **Create User** to display the list of created users (Figure 6).

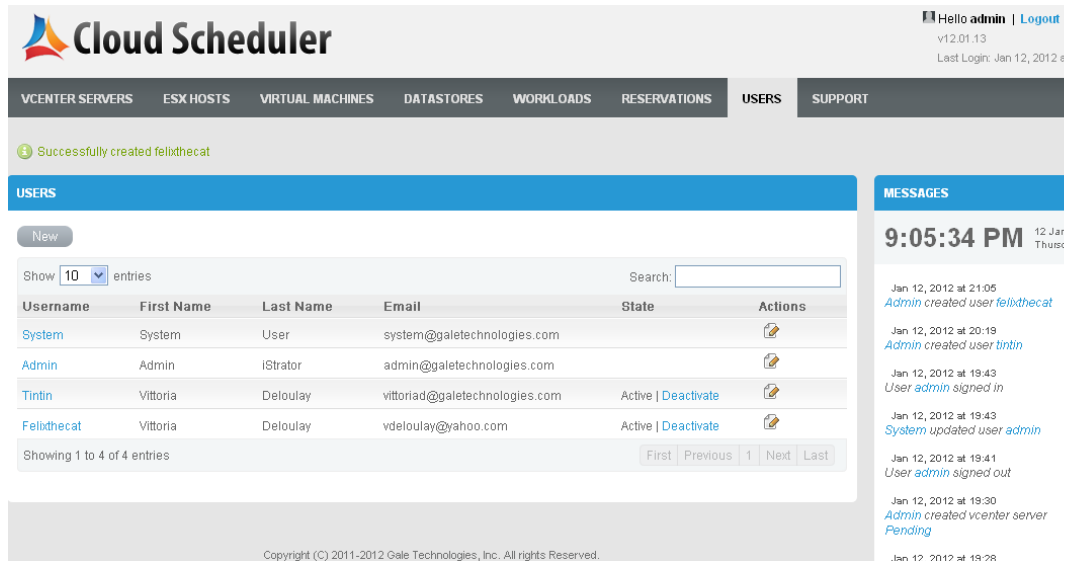


Figure 6: List of Users Created

At user creation, the administrator sends an email to the specified email address with the username information and login URL, but it does not include password credentials (see Figure 7 for an example).

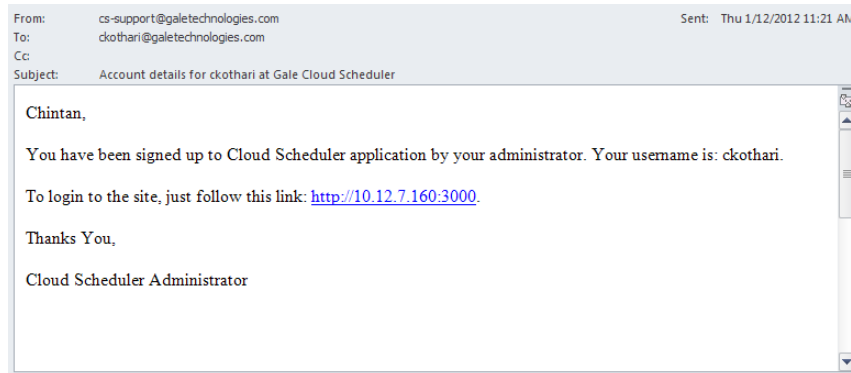


Figure 7: Administrator Account Permission for User

7. When you click the URL provided, the Cloud Scheduler application displays with the password. You can change the password by edit user capability (see “Changing the Default Account Password” on page 11).

MANAGING YOUR INFRASTRUCTURE

Adding a vCenter Server



NOTE: You need, at least, one VMware vCenter Server deployed in your environment for the Cloud Scheduler to connect to.

To add a vCenter Server:

1. Log in to the Cloud Scheduler using one of your administrator accounts.
2. On the Cloud Scheduler menu bar, click **vCenter Servers** to display the **Add vCenter Servers** screen (Figure 8).

The screenshot shows the Cloud Scheduler interface. At the top, there's a navigation bar with 'VCENTER SERVERS' selected. Below it, the 'ADD VCENTER SERVER' form is displayed. The form contains three input fields: 'Host' (10.12.7.20), 'Admin username' (Administrator), and 'Password' (masked with dots). An 'Add' button is located below the password field. A 'Back' link is at the bottom left of the form. The top right corner shows the user 'Hello admin' and 'Logout' options, along with the version 'v12.01.13' and the last login time 'Jan 12, 2012'. On the right side, there's a 'MESSAGES' sidebar showing a clock at 7:56:07 PM and a list of system events, including 'User admin signed in', 'System updated user admin', and 'Admin created vcenter server Pending'.

Figure 8: Add vCenter Server

3. Enter your vCenter Server **Host**, **Admin Username**, and **Password**, and click **Add**. A new server should be added into the **vCenter Server** tab (Figure 9).

Cloud Scheduler

Hello admin | Logout
v12.01.13
Last Login: Jan 12, 2012

VCENTER SERVERS ESX HOSTS VIRTUAL MACHINES DATASTORES WORKLOADS RESERVATIONS USERS SUPPORT

Vcenter server was successfully added.

VCENTER SERVERS

New

Show 10 entries Search:

name	IP4 Address	Hostname	Available Storage	Available Memory	Available CPU	Used Storage	Used Memory	Used CPU	Status
WIN-FD6BG4HRMRK	10.12.7.20	csvc01.hq.avule.com	0 Bytes	0 Bytes	0 Hz	0 Bytes	0 Bytes	0 Hz	Discover

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

MESSAGES

9:20:59 PM 12 Ja Tue

Jan 12, 2012 at 21:20
System updated vcenter server Pending

Jan 12, 2012 at 21:20
System updated datastore datastore1

Jan 12, 2012 at 21:20
System updated virtual machine VCenter

Jan 12, 2012 at 21:20
System updated virtual machine CScheduler

Jan 12, 2012 at 21:20
System updated virtual machine webServer

Jan 12, 2012 at 21:20
System updated virtual machine qaLab

Jan 12, 2012 at 21:20
System updated virtual machine preProduction

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Figure 9: Review vCenter Server

This list contains all of the vCenter Servers that are under the Cloud Scheduler control. Ensure that your vCenter entry is in the **Discovered** Status. It should only take a few minutes for the server to be discovered.

Reviewing ESX Hosts

To review the current set of ESX hosts under the Cloud Scheduler:

1. Log in to the Cloud Scheduler using one of your administrator accounts.
2. On the Cloud Scheduler menu bar, click **ESX Hosts** to display the **Hosts** screen (Figure 10).


The screenshot shows the Cloud Scheduler interface. At the top, there is a navigation bar with the following items: VCENTER SERVERS, **ESX HOSTS**, VIRTUAL MACHINES, DATASTORES, WORKLOADS, RESERVATIONS, USERS, and SUPPORT. The main content area is titled "HOSTS" and contains a table with the following data:

Name	Ip4 address	Total Cpu	Used Cpu	Total Memory	Used Memory	State	Host type	vCenter Server
10.12.7.3	10.12.7.3	9.18 GHz	246 MHz	16 GB	7 GB	connected	avu-cacti.hq.avule.com	

Below the table, it says "Showing 1 to 1 of 1 entries" and provides navigation buttons: First, Previous, 1, Next, Last. On the right side, there is a "MESSAGES" sidebar showing a list of system messages with timestamps and titles like "System updated vcenter server Pending".

Figure 10: ESX Hosts

3. Click the **Name** of the Host to get a list of running machines and associated data stores. An example is displayed in Figure 11.



Hello admin | [Logout](#)
 v12.01.13
 Last Login: Jan 12, 2012

VCENTER SERVERS
ESX HOSTS
VIRTUAL MACHINES
DATASTORES
WORKLOADS
RESERVATIONS
USERS
SUPPORT

10.12.7.3

Properties

Name	IP4 Address	IP6 Address	Total CPU	Used CPU	Total Memory	Used Memory	State	Host Type
10.12.7.3	10.12.7.3		9.18 GHz	231 MHz	16 GB	7 GB	connected	

Virtual Machines

Show 10 entries
 Search:

Name	IP4 Address	CPU	VRAM	Datastore	State	Host
appServer		1	1 GB	datastore1	poweredOff	10.12.7.3
cloud-scheduler		4	2 GB	datastore1	poweredOn	10.12.7.3
dbServer		1	2 GB	datastore1	poweredOff	10.12.7.3
devLab		2	4 GB	datastore1	poweredOff	10.12.7.3
preProduction		1	8 GB	datastore1	poweredOff	10.12.7.3
qaLab		1	2 GB	datastore1	poweredOff	10.12.7.3
webServer		1	8 GB	datastore1	poweredOff	10.12.7.3
CScheduler		1	4 GB	datastore1	poweredOff	10.12.7.3
VCenter	10.12.7.20	1	4 GB	datastore1	poweredOn	10.12.7.3

Showing 1 to 9 of 9 entries

[First](#)
[Previous](#)
1
[Next](#)
[Last](#)

10.12.7.3 Datastores

Show 10 entries
 Search:

UUID	Name	Location	Datastore Type	Capacity	Free Space
4e1cbf73-f5d7e7e3-412d-0022191ac935	datastore1	sanfs://vmfs_.../0022191ac935/	VMFS	1.36 TB	876.42 GB

MESSAGES

9:42:05 PM

12 Ja
Thus

- Jan 12, 2012 at 21:41
System updated vcenter server
Pending
- Jan 12, 2012 at 21:41
System updated datastore
datastore1
- Jan 12, 2012 at 21:41
System updated virtual machine
VCenter
- Jan 12, 2012 at 21:41
System updated virtual machine
CScheduler
- Jan 12, 2012 at 21:41
System updated virtual machine
webServer
- Jan 12, 2012 at 21:41
System updated virtual machine
qaLab
- Jan 12, 2012 at 21:41
System updated virtual machine
preProduction
- Jan 12, 2012 at 21:41
System updated virtual machine
devLab
- Jan 12, 2012 at 21:41
System updated virtual machine
dbServer
- Jan 12, 2012 at 21:41
System updated virtual machine
cloud-scheduler

Figure 11: ESX Host Properties

Reviewing VMs

To review the current set of VMs under the Cloud Scheduler:

1. Log in to the Cloud Scheduler using one of your administrator accounts.
2. On the Cloud Scheduler menu bar, click **Virtual Machines** to display the **Virtual Machines** screen (Figure 12).

The screenshot displays the Cloud Scheduler interface. At the top, there's a navigation bar with tabs for VCenter Servers, ESX Hosts, Virtual Machines (selected), Datastores, Workloads, Reservations, Users, and Support. The main content area is titled 'VIRTUAL MACHINES' and features a search bar and a table of VMs. The table has columns for Name, IP4 Address, vCPU, VRAM, Datastore, State, Status, and vCenter Server. The VMs listed are: appServer (1 vCPU, 1 GB VRAM, poweredOff), cloud-scheduler (4 vCPU, 2 GB VRAM, poweredOn), dbServer (1 vCPU, 2 GB VRAM, poweredOff), devLab (2 vCPU, 4 GB VRAM, poweredOff), preProduction (1 vCPU, 8 GB VRAM, poweredOff), qaLab (1 vCPU, 2 GB VRAM, poweredOff), webServer (1 vCPU, 8 GB VRAM, poweredOff), CScheduler (1 vCPU, 4 GB VRAM, poweredOff), and VCenter (10.12.7.20 IP, 1 vCPU, 4 GB VRAM, poweredOn). A messages sidebar on the right shows a clock at 9:45:53 PM and several system update notifications for vcenter server, datastore1, VCenter, CScheduler, webServer, and qaLab.

Name	IP4 Address	vCPU	VRAM	Datastore	State	Status	vCenter Server
appServer		1	1 GB	datastore1	poweredOff	Discovered	Pending
cloud-scheduler		4	2 GB	datastore1	poweredOn	Discovered	Pending
dbServer		1	2 GB	datastore1	poweredOff	Discovered	Pending
devLab		2	4 GB	datastore1	poweredOff	Discovered	Pending
preProduction		1	8 GB	datastore1	poweredOff	Discovered	Pending
qaLab		1	2 GB	datastore1	poweredOff	Discovered	Pending
webServer		1	8 GB	datastore1	poweredOff	Discovered	Pending
CScheduler		1	4 GB	datastore1	poweredOff	Discovered	Pending
VCenter	10.12.7.20	1	4 GB	datastore1	poweredOn	Discovered	Pending

Figure 12: Virtual Machines

This screen lists all of the VMs deployed in your environment, independently of their power state.

Reviewing Datastores

To review the current set of Datastores under the Cloud Scheduler:

1. Log in to the Cloud Scheduler using one of your administrator accounts.
2. On the Cloud Scheduler menu bar, click **Datastores** to display the **Datastores** screen (Figure 13).

The screenshot shows the Cloud Scheduler interface. At the top, there is a navigation bar with the following items: VCENTER SERVERS, ESX HOSTS, VIRTUAL MACHINES, DATASTORES, WORKLOADS, RESERVATIONS, USERS, and SUPPORT. The 'DATASTORES' tab is currently selected. The main content area displays a table of datastores. The table has the following columns: Name, Location, DS Type, Number of Hosts, Number of VMs, Capacity, and Free Space. There is one entry in the table: 'datastore1' with location 'sanfs://vmfs_...'. Below the table, there are pagination controls showing 'Showing 1 to 1 of 1 entries' and buttons for 'First', 'Previous', '1', 'Next', and 'Last'. On the right side, there is a 'MESSAGES' sidebar showing a list of system messages with timestamps and details.

Name	Location	DS Type	Number of Hosts	Number of VMs	Capacity	Free Space
datastore1	sanfs://vmfs_.../0022191ac935/	VMFS	1	9	1.36 TB	876.42 GB

Figure 13: Datastores

This screen lists a consolidated view of all Datastores across all vCenter Servers and ESX Hosts.

BUILDING AND SCHEDULING YOUR WORKLOADS

Creating Your Workload

To create your workload:

1. Log in to the Cloud Scheduler using one of your administrator accounts.
2. On the Cloud Scheduler menu bar, click **Workloads** > **New** to display the **Create Workload** screen (Figure 14).

Cloud Scheduler

Hello admin | Logout
v12.01.13
Last Login: Jan 12, 2012

VCENTER SERVERS ESX HOSTS VIRTUAL MACHINES DATASTORES **WORKLOADS** RESERVATIONS USERS SUPPORT

CREATE WORKLOAD

Complete fields below. Required fields marked with *

Name*:

Description*:

Select Virtual Machines

Select	Name	VRAM	vCenter Server	Datastore
<input checked="" type="checkbox"/>	appServer	1 GB	Pending	datastore1
<input type="checkbox"/>	cloud-scheduler	2 GB	Pending	datastore1
<input type="checkbox"/>	dbServer	2 GB	Pending	datastore1
<input type="checkbox"/>	devLab	4 GB	Pending	datastore1
<input type="checkbox"/>	preProduction	8 GB	Pending	datastore1
<input checked="" type="checkbox"/>	qaLab	2 GB	Pending	datastore1
<input type="checkbox"/>	webServer	8 GB	Pending	datastore1

MESSAGES

9:59:45 PM 12 Ja Thu

Jan 12, 2012 at 21:59
System updated vcenter server
Pending

Jan 12, 2012 at 21:59
System updated datastore
datastore1

Jan 12, 2012 at 21:59
System updated virtual machine
VCenter

Jan 12, 2012 at 21:59
System updated virtual machine
CScheduler

Jan 12, 2012 at 21:59
System updated virtual machine
webServer

Jan 12, 2012 at 21:59
System updated virtual machine
qaLab

Jan 12, 2012 at 21:59
System updated virtual machine
preProduction

Jan 12, 2012 at 21:59
System updated virtual machine
devLab

Jan 12, 2012 at 21:59
System updated virtual machine
dbServer

Jan 12, 2012 at 21:59
System updated virtual machine
cloud-scheduler

Figure 14: Create Workload

3. Enter the **Name** and **Description**.
4. Select, at least, one **Virtual Machine**. These are the same VMs listed in the Virtual Machines screen.
5. Click **Create Workload**.

The screen redirects you to the workload summary screen you assigned (Figure 15).

Cloud Scheduler Hello admin | Logout
v12.01.13
Last Login: Jan 12, 2012

VCENTER SERVERS ESX HOSTS VIRTUAL MACHINES **DATASTORES** **WORKLOADS** RESERVATIONS USERS SUPPORT

WORKLOAD01

Summary

Name	State	Description	Action
Workload01	Idle	This is a simple workload.	

Workload01 Virtual Machines

Show 10 entries Search:

Name	IP4 Address	vCPU	vRAM	Datastore	State	Host
appServer		1	1 GB	datastore1	poweredOff	10.12.7.3
qaLab		1	2 GB	datastore1	poweredOff	10.12.7.3

Showing 1 to 2 of 2 entries First Previous 1 Next Last

Comments

New Comment

[Edit](#) | [Back](#)

MESSAGES

10:02:04 PM

12 January Thursday

- Jan 12, 2012 at 22:02 System updated datastore datastore1
- Jan 12, 2012 at 22:02 System updated ESX host 10.1...
- Jan 12, 2012 at 22:01 System updated vcenter server Pending
- Jan 12, 2012 at 22:01 System updated datastore datastore1
- Jan 12, 2012 at 22:01 System updated virtual machin VCenter
- Jan 12, 2012 at 22:01 System updated virtual machin CScheduler
- Jan 12, 2012 at 22:01 System updated virtual machin webServer
- Jan 12, 2012 at 22:01 System updated virtual machin qaLab
- Jan 12, 2012 at 22:01 System updated virtual machin

Figure 15: Workload Summary

- On the Cloud Scheduler menu bar, click **Workloads** to review all of your workloads (Figure 16).

Cloud Scheduler Hello admin | Logout
v12.01.13
Last Login: Jan 12, 2012

VCENTER SERVERS ESX HOSTS VIRTUAL MACHINES DATASTORES **WORKLOADS** RESERVATIONS USERS SUPPORT

WORKLOADS

Show 10 entries Search:

Name	State	Description	Actions
Workload01	Idle	This is a simple workload.	

Showing 1 to 1 of 1 entries First Previous 1 Next Last

MESSAGES

10:05:06 PM

12 January Thursday

- Jan 12, 2012 at 22:05 System updated vcenter server Pending
- Jan 12, 2012 at 22:05 System updated datastore datastore1
- Jan 12, 2012 at 22:05 System updated virtual machin VCenter
- Jan 12, 2012 at 22:05 System updated virtual machin CScheduler
- Jan 12, 2012 at 22:05 System updated virtual machin webServer
- Jan 12, 2012 at 22:05 System updated virtual machin qaLab

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Figure 16: Workloads List

Scheduling Your Workload

To schedule your workload:

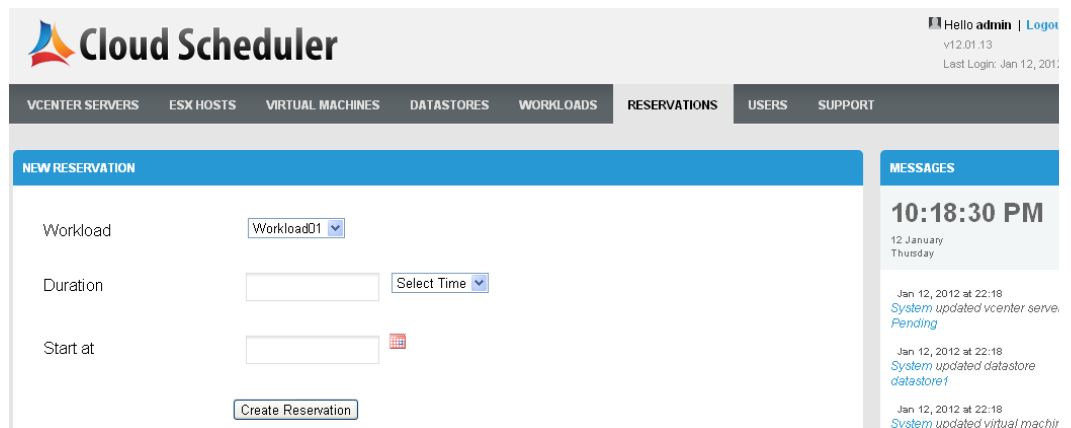
1. Log in to the Cloud Scheduler using one of your administrator accounts.
2. On the Cloud Scheduler menu bar, schedule your workload in one of the following ways:
 - From the **Workloads** tab > select the workload to schedule (see Figure 16 for example), and in the **Actions** column, click the **Reserve Workload** icon.
 - From the **Workloads** Summary screen > in the **Action** column, click the **Reserve Workload** icon (see Figure 17 for example).

Summary

Name	State	Description	Action
Workload01	Idle	This is a simple workload.	

Figure 17: Summary of Workloads to Schedule

- From the **Reservations** tab > select **New** and select your workload from the **Workload** drop-down list (see Figure 18 for example).



The screenshot shows the Cloud Scheduler interface. At the top, there's a navigation bar with tabs: VCENTER SERVERS, ESX HOSTS, VIRTUAL MACHINES, DATASTORES, WORKLOADS, RESERVATIONS, USERS, and SUPPORT. The 'RESERVATIONS' tab is active. Below the navigation bar, there's a 'NEW RESERVATION' form. The form has three main sections: 'Workload' with a dropdown menu showing 'Workload01', 'Duration' with a text input field and a 'Select Time' dropdown, and 'Start at' with a text input field and a calendar icon. At the bottom of the form is a 'Create Reservation' button. On the right side, there's a 'MESSAGES' sidebar showing the current time '10:18:30 PM' and three system messages: 'System updated vcenter server Pending', 'System updated datastore', and 'System updated virtual machine'.

Figure 18: Schedule Workloads from Reservations Tab

3. In the **Duration** field, enter a duration of time in **Minutes, Hours, Days, or Weeks**.
On the Duration selection, the scheduler will propose the earliest start time. To change that manually, select the calendar icon and modify the the start date and time.
4. Click **Create Reservation**.
On successful creation, you are redirected to the main Reservations screen (Figure 19).

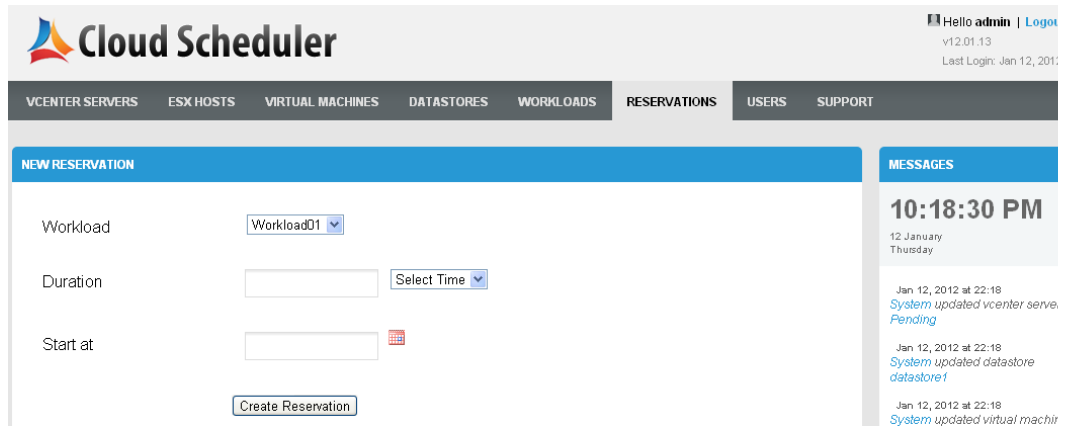


Figure 19: Create Reservation

The scheduled workload is in the **Scheduled** state (Figure 20).

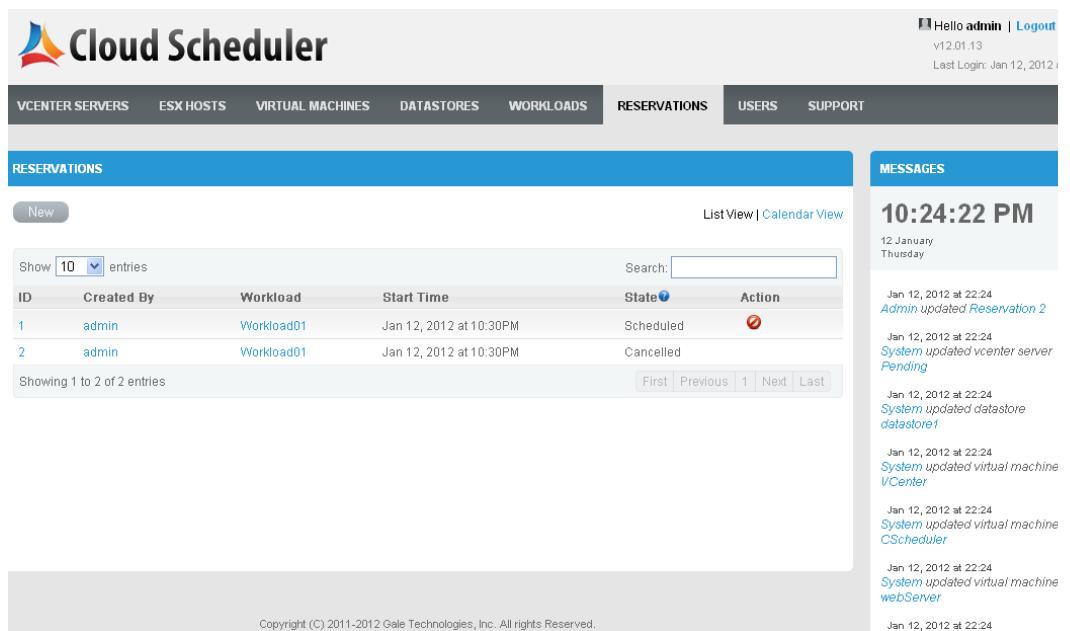


Figure 20: Reservation in Scheduled State Example

MANAGING RESERVATIONS

Reviewing the Calendar

To review the scheduled reservations in a calendar format, click **Calendar View** (Figure 21).

Cloud Scheduler Hello admin | Logout
v12.01.13
Last Login: Jan 12, 2012

VCENTER SERVERS ESX HOSTS VIRTUAL MACHINES DATASTORES WORKLOADS **RESERVATIONS** USERS SUPPORT

RESERVATIONS New List View | Calendar View

Show 10 entries Search:

ID	Created By	Workload	Start Time	State	Action
1	admin	Workload01	Jan 12, 2012 at 10:30PM	Scheduled	
2	admin	Workload01	Jan 12, 2012 at 10:30PM	Cancelled	

Showing 1 to 2 of 2 entries First Previous 1 Next Last

MESSAGES
10:24:22 PM
12 January
Thursday

- Jan 12, 2012 at 22:24 Admin updated Reservation 2
- Jan 12, 2012 at 22:24 System updated vcenter server Pending
- Jan 12, 2012 at 22:24 System updated datastore datastore1
- Jan 12, 2012 at 22:24 System updated virtual machine VCenter
- Jan 12, 2012 at 22:24 System updated virtual machine CScheduler
- Jan 12, 2012 at 22:24 System updated virtual machine webServer
- Jan 12, 2012 at 22:24

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Figure 21: Reservations—Calendar View

The view changes to a real-time calendar (Figure 22).

RESERVATION CALENDAR New List View | Calendar View

January 2012 month week day

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	1
2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17

Figure 22: Calendar View

TRACKING USER ACTIVITY

Understanding the Message Board

Upon login, the Cloud Scheduler tracks and stores all activities performed within the system by all users. All events are hotlinked and are displayed in the **Messages** pane (Figure 23).

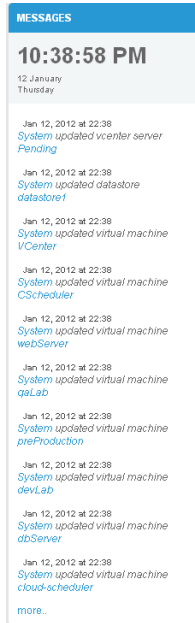


Figure 23: Messages

To review the entire event log, click more...(Figure 24).

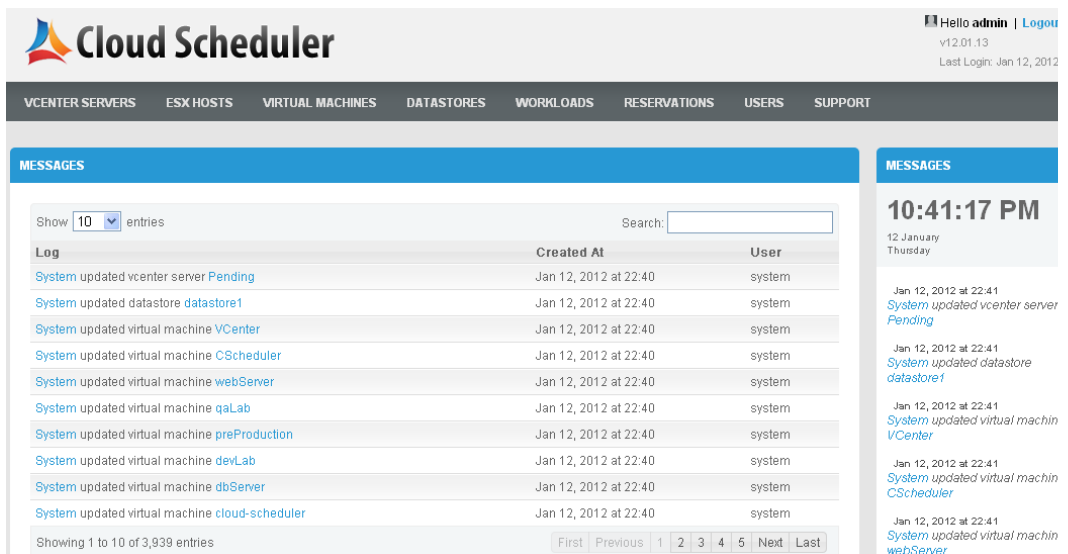


Figure 24: Event Log

GALE TECHNOLOGIES SUPPORT

Gale Technologies wants to ensure that you are completely satisfied with the Cloud Scheduler software, and will address any concerns in a timely manner. We are also extremely interested in your product feedback and application needs, and would be happy to discuss either with you.

For technical questions or to speak with one of our support staff at:

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http://www.galetechnologies.com/index.php/products/gale_cloud_scheduler

