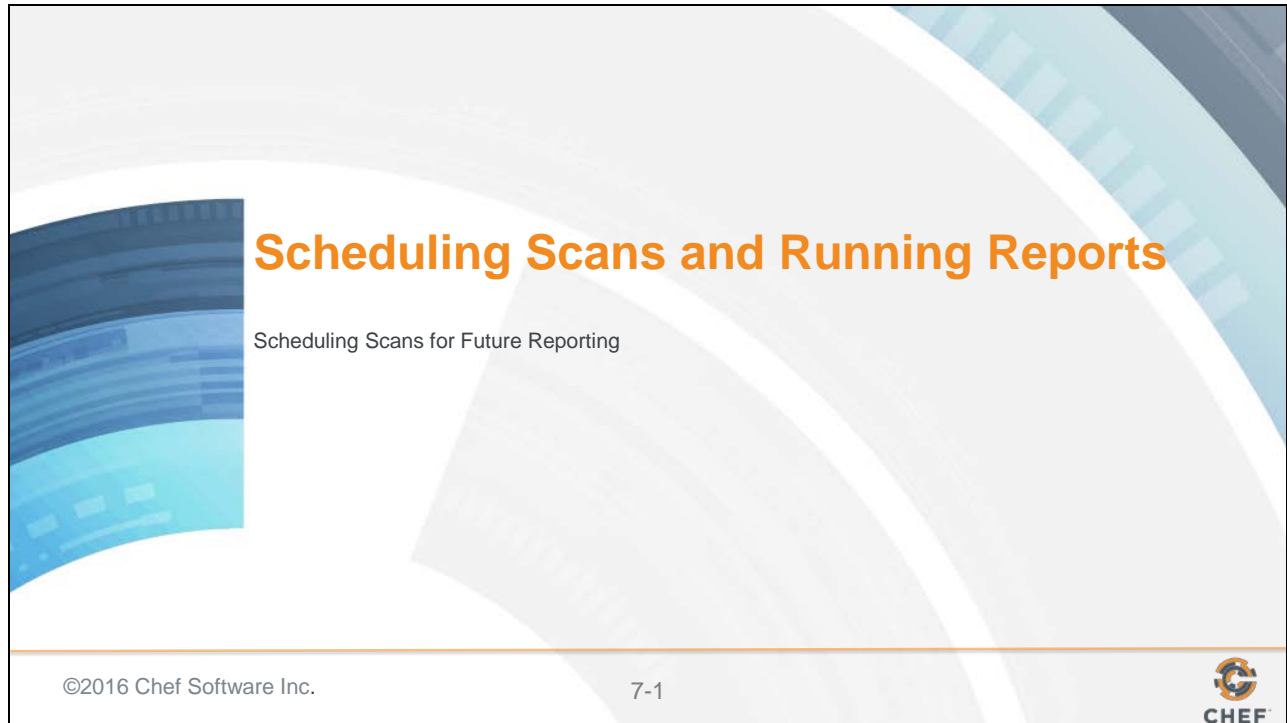


7: Scheduling Scans and Running Reports



Slide 2

Objectives

After completing this module, you should be able to:

- Schedule scans.
- View pending jobs.
- View and export reports.

Slide 3

CONCEPT



Scheduling Scans


You can schedule scans to run at a later time.

Running a scheduled compliance scan on your infrastructure, say every night, could give you up-to-date compliance information on a daily basis.

In this way, any changes to your infrastructure that may have put some nodes out of compliance can be routinely identified.

Slide 4

CONCEPT



Scheduling Scans


The time zone for "Date" scheduling in the Compliance web UI is based on your local workstation's browser time zone.

The time zone for "Recurring" scheduling in the Compliance web UI is based on UTC. (Coordinated Universal Time, which equals GMT.)

The Compliance logs, should you view them, are also based on UTC.

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7-4



This time distinction is important when scheduling scans or if viewing the compliance logs.

Instructor Note: As of this writing this slide is correct but it could be subject to change. Also, here is the ``tail`` command in case you want to demonstrate the logs as you set a scheduled scan: ``sudo tail -f /var/log/chef-compliance/core/current``

Slide 5

EXERCISE



GE: Scheduling Scans

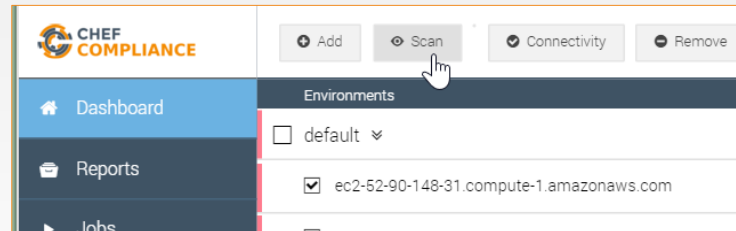
Objective:

- ☐ Schedule a scan.
- ☐ View the scan output.

Slide 6

GE: Scheduling Scans

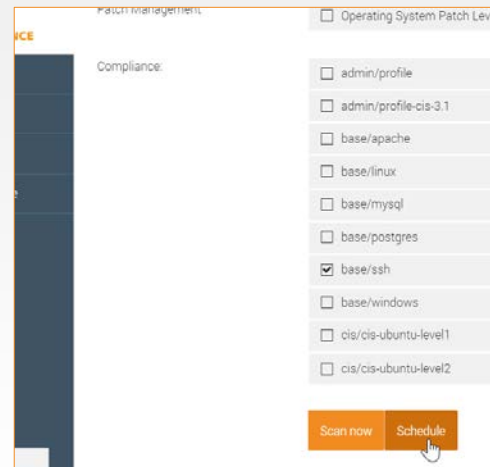
1. Open the Compliance web UI's Dashboard page.
2. Select one of your target nodes.
3. Click **Scan**.



Slide 7

GE: Scheduling Scans

4. Deselect all profiles.
5. Select the **base/ssh** profile for a Linux node or the **base/windows** profile for a Windows node
6. Click the **Schedule** button.



Slide 8

GE: Scheduling Scans

7. Type a name for this scan in the **Name the job** field.

8. Click the up arrow and set the scheduled time to 5 minutes from now and then click **Schedule**.

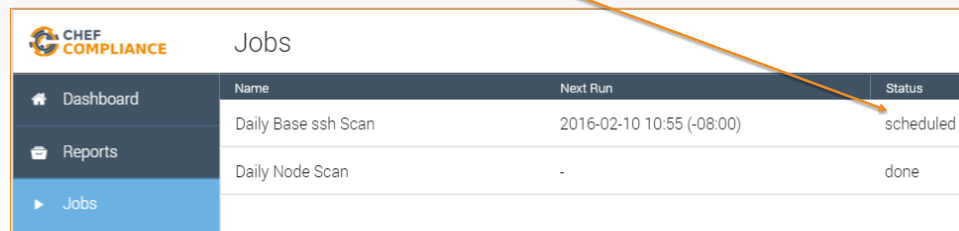
Note: The up/down arrows are also used to set the AM and PM value.

The screenshot shows the 'Scheduling Scans' interface. At the top is a text input field labeled 'Name the job'. Below it are two radio buttons: 'Date' (selected) and 'Recurring'. Underneath is a calendar for 'December 2015'. The calendar grid shows days from 1 to 31, with the 30th highlighted in blue. Below the calendar is a time picker showing '08:55 AM'. To the right of the time picker is a small 'x' icon and a mouse cursor pointing at the up arrow. At the bottom right are two buttons: 'Back' and 'Schedule'.

Slide 9

GE: Scheduling Scans

Click the **Jobs** tab and you should see your scheduled scan's details such as its Next Run time and its "scheduled" status.

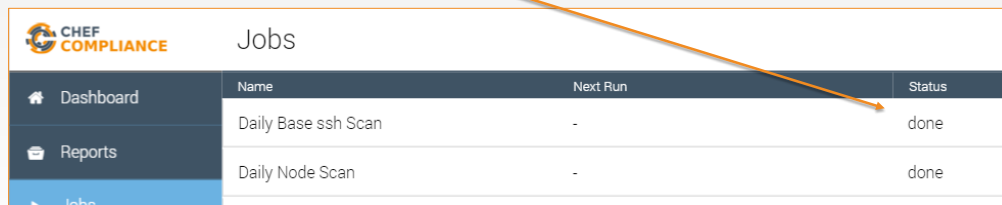


CHEF COMPLIANCE Jobs			
Dashboard	Name	Next Run	Status
Reports	Daily Base ssh Scan	2016-02-10 10:55 (-08:00)	scheduled
Jobs	Daily Node Scan	-	done


Slide 10


GE: Scheduling Scans


When 5 minutes have elapsed, refresh your browser and you should see that your Job's status is now "done".



Jobs

 Dashboard

 Reports

 Jobs

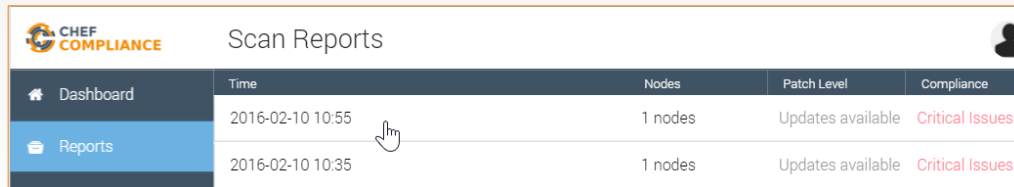
Name	Next Run	Status
Daily Base ssh Scan	-	done
Daily Node Scan	-	done




Note: If you like you could click that job to see its original details that you set when you scheduled it.

Slide 11

GE: Scheduling Scans

Click the **Reports** tab and then click the report from your scheduled scan.



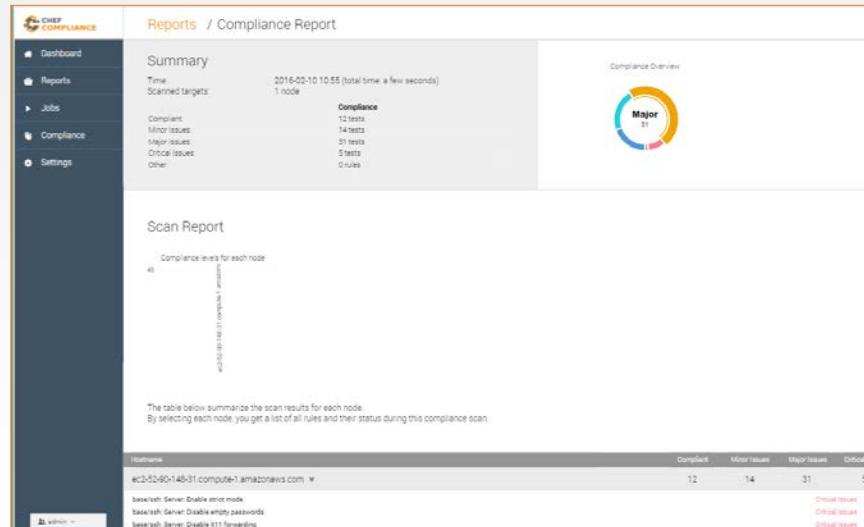
CHEF COMPLIANCE		Scan Reports			
 Dashboard	Time	Nodes	Patch Level	Compliance	
 Reports	2016-02-10 10:55	1 nodes	Updates available	Critical Issues	
	2016-02-10 10:35	1 nodes	Updates available	Critical Issues	

It may take a minute or two after the scan is run for the report to display.

Slide 12

GE: Scheduling Scans

At this point you should be able to view the report from your scheduled scan.

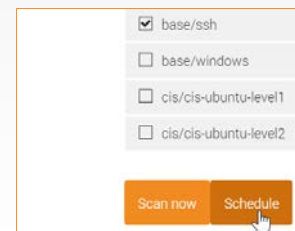
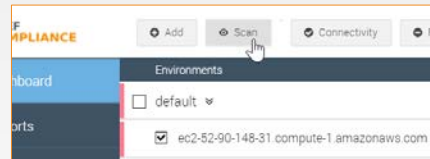


Slide 13

Demonstration: Recurring Scans

You can schedule recurring scans as well.

To do so, set up a scheduled scan like you just did...



Slide 14

Demonstration: Recurring Scans

...but when you get to the page with the calendar (Scan nodes page), click the **Recurring** link and you'll be able to set the recurrence.

In this example the user is scheduling a scan to run every day at 23:48 UTC.

The screenshot shows the 'Scan nodes' page in the Chef Compliance dashboard. At the top, there's a 'Name the job' input field. Below it, two tabs are visible: 'Date' and 'Recurring', with the 'Recurring' tab selected. A calendar for December 2015 is shown below the tabs. The main content area is titled 'Dashboard / Scan nodes' and contains the same 'Name the job' field. Below this, the 'Recurring' tab is active, showing a dropdown menu for frequency with options: day, minute, hour, day (selected), week, month, and year. To the right of the dropdown is a time input field set to 'at 23:48 UTC'. At the bottom right, there are 'Back' and 'Schedule' buttons.

Demonstration: Scheduled Scan Logs

While not necessary, if you ever want to view the Compliance log files while you are scheduling or running a scan, keep in mind that log files use UTC time instead of your local browser time.

To tail those logs, from your Compliance Server you can run:

```
`sudo tail -f /var/log/chef-compliance/core/current`
```

Instructor Note: As this slide indicates, tailing the log files is not required but can be of interest to some users. In one scenario where it came in handy, a browser session to the Compliance Server got stale and would not schedule a scan. After tailing the log files and realizing the scan was not even being scheduled, the user refreshed the Compliance Server web UI, logged in again, and the scan would properly schedule and run.

Instructor Note: If you find yourself ahead of schedule, you can spend some time demonstration the output of this log file as you perform a number of procedures via the Web UI.

Slide 16

Demonstration: Scheduled Scan Logs

Dashboard / Scan nodes

Windows Node01 Base Scan

Date

Recurring

January 2016

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

01:45 PM

Back

Schedule

```
2016-01-12_21:41:16.82603 21:41:16.825 DEB => Add
job: admin/2e48b32c-bd3b-4024-9d15-f3fc82537290
2016-01-12 21:45:00 +0000 UTC next: 2016-01-12
21:45:00 +0000 UTC
```

```
2016-01-12_21:41:16.83327 [GIN] 2016/01/12 - 21:41:16 |
200 | 9.475356ms | 50.170.125.99 | POST
/owners/admin/jobs
```

```
2016-01-12_21:41:16.94064 [GIN] 2016/01/12 - 21:41:16 |
200 | 3.283171ms | 50.170.125.99 | GET
/owners/admin/jobs
```

The image on the left shows the user setting the next scheduled scan for 1:45 P.M. local browser time.

The image on the right shows the output of ``sudo tail -f /var/log/chef-compliance/core/current`` taken at the very same time that the scan was scheduled. Notice the log file timestamps are in UTC and the next schedule scan is set for UTC: **2016-01-12 21:45:00 +0000 UTC** instead of the local browser time.

Slide 17

CONCEPT



Deleting Old Jobs

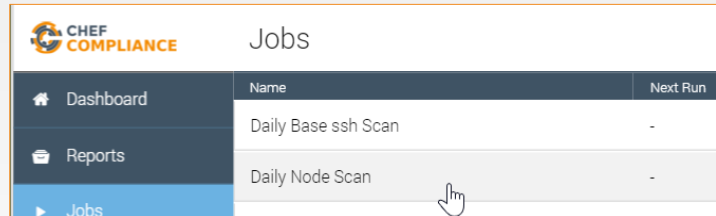
The list of old scheduled jobs can grow so you can delete them if you no longer need them.

Slide 18

Demonstration: Deleting Jobs

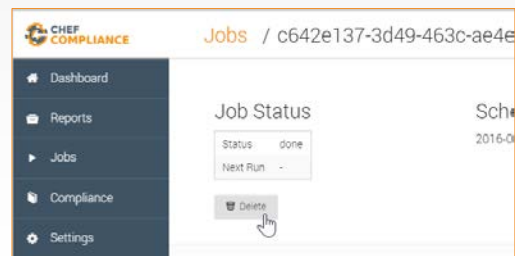
To delete an old job, from the Jobs tab, click a job...

...and from the resulting page, click the **Delete** button.



The screenshot shows the 'Jobs' page in the Chef Compliance interface. On the left is a sidebar with navigation links: Dashboard, Reports, Jobs (highlighted), Compliance, and Settings. The main content area has a table with two columns: 'Name' and 'Next Run'. The table lists two jobs: 'Daily Base ssh Scan' and 'Daily Node Scan'. A mouse cursor is hovering over the 'Daily Node Scan' row.

Name	Next Run
Daily Base ssh Scan	-
Daily Node Scan	-



Slide 19

CONCEPT



Compliance Reports

The results of all of your scans are available via the Reports tab.

As of this writing, JSON-based exporting of reports is supported.

 CHEF COMPLIANCE	Scan Reports			
	Time	Nodes	Patch Level	Compliance
Dashboard	2015-12-30 09:15	1 nodes	Updates available	Critical Issues
Reports	2015-12-30 08:55	1 nodes	Updates available	Critical Issues
Jobs	2015-12-30 08:18	1 nodes	Updates available	Critical Issues
Compliance	2015-12-29 11:19	1 nodes	Updates available	Critical Issues

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Slide 20

CONCEPT



Compliance Reports

You can also export a compliance report as a PDF.

In the near future, Chef Compliance will also support exporting reports to Excel and sending to an email recipient.



The screenshot shows the Chef Compliance dashboard with a sidebar menu containing Dashboard, Reports, Jobs, Compliance, and Settings. The main content area displays a table summarizing scan results for a node. The table has columns for Hostname, Compliant, Minor Issues, Major Issues, Critical Issues, and Total. The data row shows 12 Compliant, 14 Minor Issues, 21 Major Issues, 5 Critical Issues, and a Total of 5. Below the table, a list of rules is shown with their status (e.g., Critical Issues, Minor Issues).

Hostname	Compliant	Minor Issues	Major Issues	Critical Issues	Total
ec2-52-90-148-31.compute-1.amazonaws.com: w	12	14	21	5	5

Rules:

- base::ssh::Server::Disable strict mode
- base::ssh::Server::Disable empty passwords
- base::ssh::Server::Disable rhosts forwarding
- base::ssh::Server::Ignore legacy photo configuration
- base::ssh::Server::If rhosts is used, allow one host
- base::ssh::Server::Configure a listen address

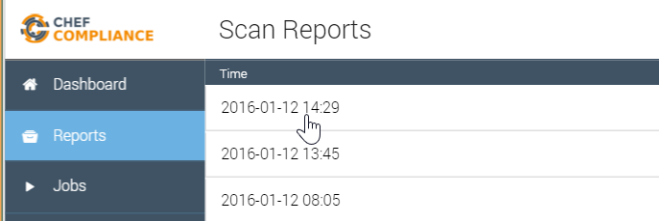
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Instructor Note: This section is more of a placeholder for exporting Compliance reports after the email and Excel methods are ready for release.

Slide 21

GE: Exporting Reports

1. From the left column of the web UI, click **Reports** and then click any report that may exist.



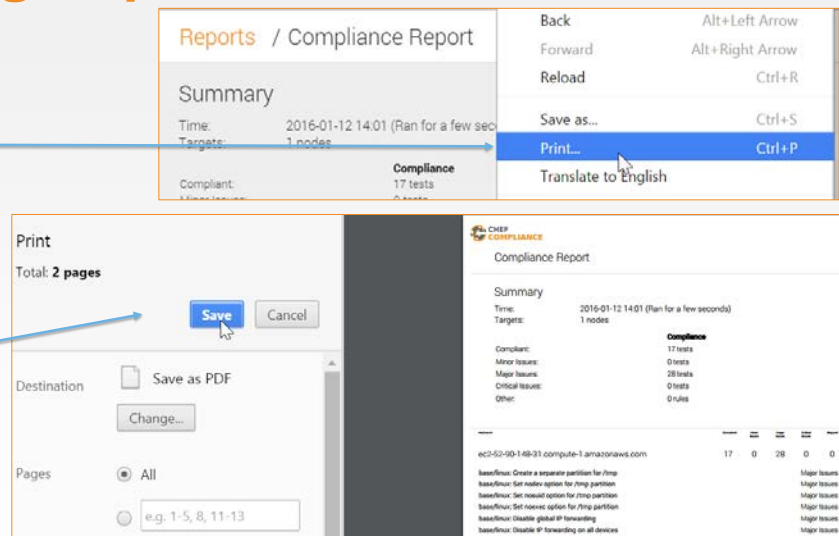
CHEF COMPLIANCE		Scan Reports
	Time	
Dashboard	2016-01-12 14:29	
Reports	2016-01-12 13:45	
Jobs	2016-01-12 08:05	

Slide 22

GE: Exporting Reports

2. Right-click on the report page and then click **Print**.

3. Ensure your print option is set to PDF and save and then click **Save**, thus saving to you local laptop.




This example is from a Windows user. The exporting reports procedure is similar on a Mac.

Slide 23

GE: Exporting Reports

Your saved report should look similar to this example with the text properly aligned and formatted.



Compliance Report

Summary

Time:

2016-01-12 14:01 (Ran for a few seconds)

Targets:

1 nodes

Compliant:

17 tests

Minor Issues:

0 tests

Major Issues:

28 tests

Critical Issues:

0 tests

Other:

0 rules

Compliance

hostname	Compliant	Minor Issues	Major Issues	Critical Issues	Disped
ec2-52-90-148-31.compute-1.amazonaws.com	17	0	28	0	0
base/linux: Create a separate partition for /tmp					Major Issues
base/linux: Set nodev option for /tmp partition					Major Issues
base/linux: Set nosuid option for /tmp partition					Major Issues
base/linux: Set noexec option for /tmp partition					Major Issues
base/linux: Disable global IP forwarding					Major Issues
base/linux: Disable IP forwarding on all devices					Major Issues

Additional methods for exporting reports will be available in the near future.

Slide 24

Review Questions

1. When scheduling one time scans, which time zone does the web UI use?
2. When scheduling recurring scans, which time zone does the web UI use?
answer
3. In Chef Compliance, what are "Jobs"?

Instructor Note Answers:

1. Your local workstation's browser time zone.
2. The time zone for "Recurring" scheduling in the Compliance web UI is based on UTC. (Coordinated Universal Time, which equals GMT.)
3. They are a list of scheduled scans, past or present.

Review Questions

4. Where can you view the results of a scheduled scan?
 - a. On the Jobs page.
 - b. On the Reports page.
 - c. On the Dashboard.
 - d. On the Compliance page.

5. What methods are available for exporting reports?

Instructor Note Answers:

4. b. On the Reports page.
5. Print/Save to PDF...(more to come)

Slide 26

