

Server Administration Dashboard

Use Cases

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Overview: Server Administration Use Cases

#	Use Case Name	User Roles	Last Updated
1	Using Server Administration	Manager, Support	3/30/2018
2	View historic utilization data	Manager, Support	3/30/2018
3	View scheduled downtime details	Manager	3/30/2018

Manager: Manager with server dashboard administration privileges.

Support: System support specialist with server dashboard viewing privileges.

Use Case 1. Using Server Administration

Description: A user logs into the server dashboard to monitor and evaluate year-to-date server performance.

Actor: Manager, Support

Pre-conditions: A user is looking at the Server Administration screen.

Post-condition: A user logs out of Server Administration dashboard.

Primary Scenario: A user logs into Server Administration to check on the current and year-to-date status of the servers.

Primary Task Flow:

1. The user checks the current status of the servers.
2. The user checks the current resource utilization of each server.
3. The user checks the calendar for scheduled server downtime for the current month and next month
 - a. The manager will see the 'Add downtime window' link above the calendar.
 - b. The support user will not see the 'Add downtime window' link above the calendar.
4. The user logs out of the server administration dashboard.

Technical Specs:

Server Administration page

- Page background color #efefef
- Base font specs:
 - Size: .75em
 - Font-family: verdana,geneva,lucida,arial,sans-serif
 - Font color: #000000
- Page header:
 - Page title, (<h1>), "Server Administration Dashboard – XYZ Corporation"
 - Font-size: 1.4em
 - Logout link, "Logout"
 - Font-size: 90% of normal (.675em)
 - Underlined
 - Right-aligned with right side of page
 - 1em right margin
- Four main sections on the page:
 - Current Server Status – top left corner

- Current Resource Utilization – top right corner
- Server Time Performance Statistics – below Current Server Status
- Scheduled Downtimes – below Current Resource Utilization
- Each section has:
 - Section heading (<h2>):
 - Size: 1.2em
 - 1px solid #ccc border below
 - .5em margin below

Current Server Status section

This section displays the overall server status and the current status for each server.

- The heading is the overall percent of servers that are up.
- There is a table below the heading that indicates the status of each server.
 - Each cell of the table contains a server name and a graphic indicator of the server status:
 - A green indicator graphic indicates the server is up.
 - A yellow indicator graphic indicates that the server is down, but it is a scheduled outage.
 - A red indicator graphic indicates that the server is down, but it is not a scheduled outage.
 - The servers are sorted alphabetically by server name.
 - The servers are listed left to right then down. For example, servers 1 – 5 make up the first row of the table.
- The current server status data is updated hourly.
 - Only the overall percent of servers (indicated in the heading) and the indicator graphics change when the data is updated; the entire page is not redrawn.

Current Resource Utilization section

The overall resource utilization section is comprised of multiple graphs; one for each server.

- Each graph has the server name to the left of the graph.
 - Font: normal weight, underlined.
 - Each name is right-aligned with the other server names.
 - Each name is a link to the Resource Utilization Detail for

that server (see Use Case 2, View historic utilization data).

- Each graph is divided into 3 parts:
 - 0% - 49% Performance is within acceptable limits
 - Green, diagonally-striped background
 - 50% - 74%: Performance warning
 - Yellow, diagonal-checked background
 - 75% - 100%: Critical situation
 - Red, checked background
- The actual resource utilization percentage for each server is displayed as a dark-colored bar.
 - The length of the bar represents the total % resource utilization for that server.
 - When the bar is moused over a tip appears with the actual percent value.
- The scale for the graphs is displayed at the top and bottom of the group.
 - The scale is displayed as a percent of utilization.
 - Hash marks are displayed for 50% and 75%, as these are the important breakpoints for measuring performance.
 - Hash marks are also displayed between the graphs for the 8th and 9th servers to provide an additional reference point.
 - 0 and 100% are included on the scale for reference.

Server Time Performance Statistics section

This section is divided into three subsections; Overall Unscheduled Downtime, Overall Scheduled Downtime, and Current Server Uptime.

- Each subsection has a header.
 - The header is formatted as <h3>.
 - Font-size: 1em
 - Bottom border: 1px solid #ccc
 - Bottom margin: .5em
- The data for each subsection is presented as a set of 3 2-column tables, each listing 5 servers.
 - The servers are listed alphabetically top to bottom, then left to right.
 - The first column of each table displays the server name.

- The second column of each table displays:
 - For the Server Uptime table: % of the time the server was up.
 - For the Downtime tables: the amount of time the server was down, formatted as hh:mm:ss.

Downtime Schedule section

The downtime schedule is presented as a calendar, displaying one month at a time.

- Servers scheduled for outages in that month are displayed on the day they are scheduled to be down.
- The name of the server is a link to a dynamic display of information about the scheduled maintenance for that server (see Use Case 3, View scheduled downtime details).
- The calendar has a header row:
 - <Current Month> YYYY
 - Centered in header
 - Left and right scroll indicators to the previous and next months.
 - Left scroll is left-aligned, right scroll is right-aligned with edge of calendar.
- An 'Add downtime window' link is displayed in the bottom right corner.
 - The link is displayed in black, underlined, normal weight font.
 - The link is right-aligned with the calendar.
 - The link is only displayed for a manager user; support users may only view the calendar, not add a downtime window (see Use Case 4, Add scheduled downtime window).

Figure 1: Server Administration Dashboard screen

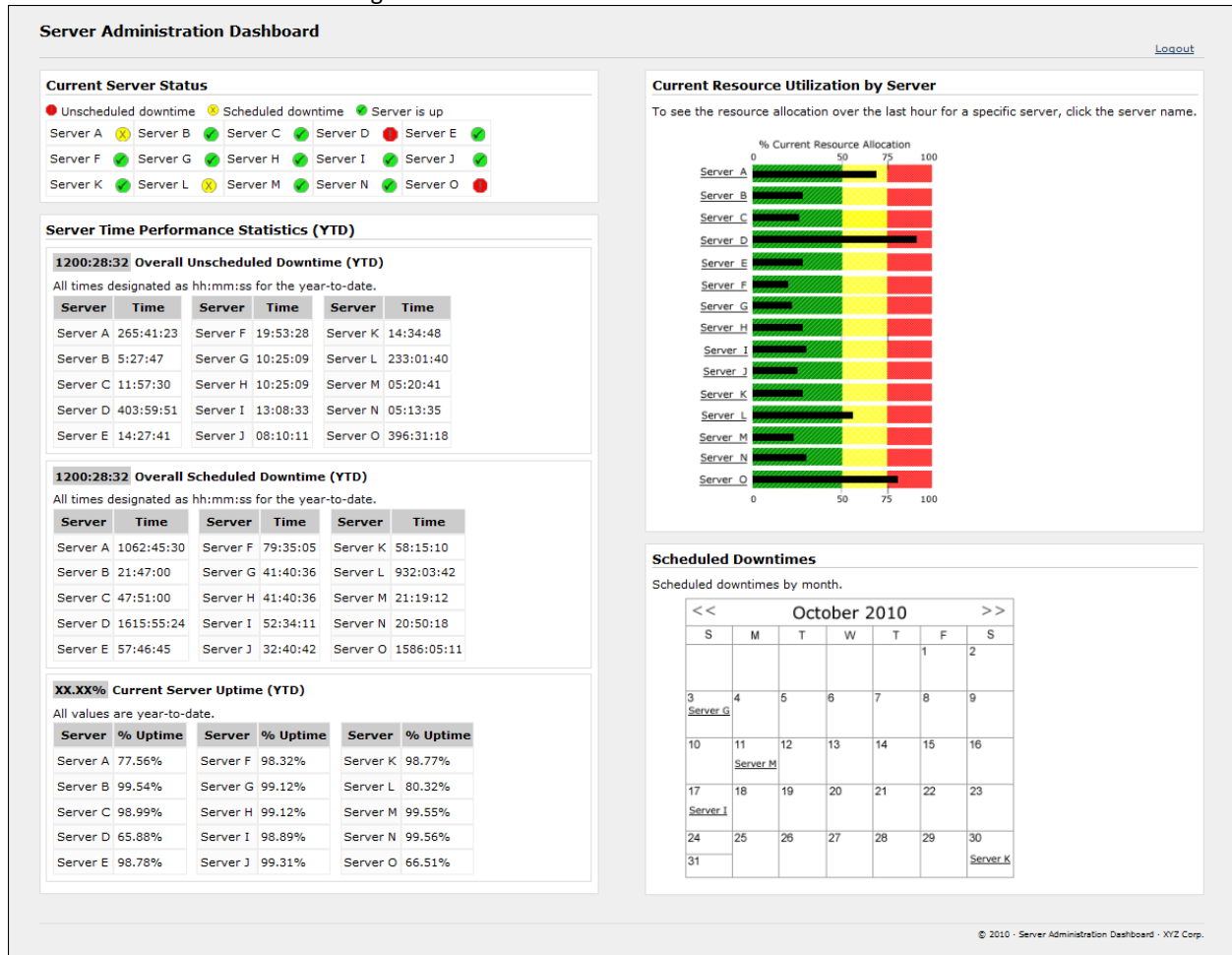


Figure 2: Scheduled Downtime – manager logged in

Scheduled Downtimes

Scheduled downtimes by month.

[Add downtime window](#)

<< October 2010 >>						
S	M	T	W	T	F	S
					1	2
3 <u>Server G</u>	4	5	6	7	8	9
10	11 <u>Server M</u>	12	13	14	15	16
17 <u>Server I</u>	18	19	20	21	22	23
24	25	26	27	28	29	30
31						<u>Server K</u>

Use Case 2: View historic utilization data

Description: A user logs into the server dashboard to monitor and evaluate year-to-date server performance.

Actor: Support

Pre-conditions: A support user is looking at the Server Administration home screen.

Post-condition: A support user is viewing the historic data for a specific server.

Primary Scenario: A support user logs into the server dashboard to check the status of the servers.

Primary Task Flow:

1. The user checks the current resource utilization of each server and notices that one is showing a warning level of resource utilization.
2. The user clicks on the server name to view historic utilization data.
3. The user takes note of any unusual activity.
4. The user closes the Historic Resource Utilization pop-up.
5. The user logs out of Server Site.

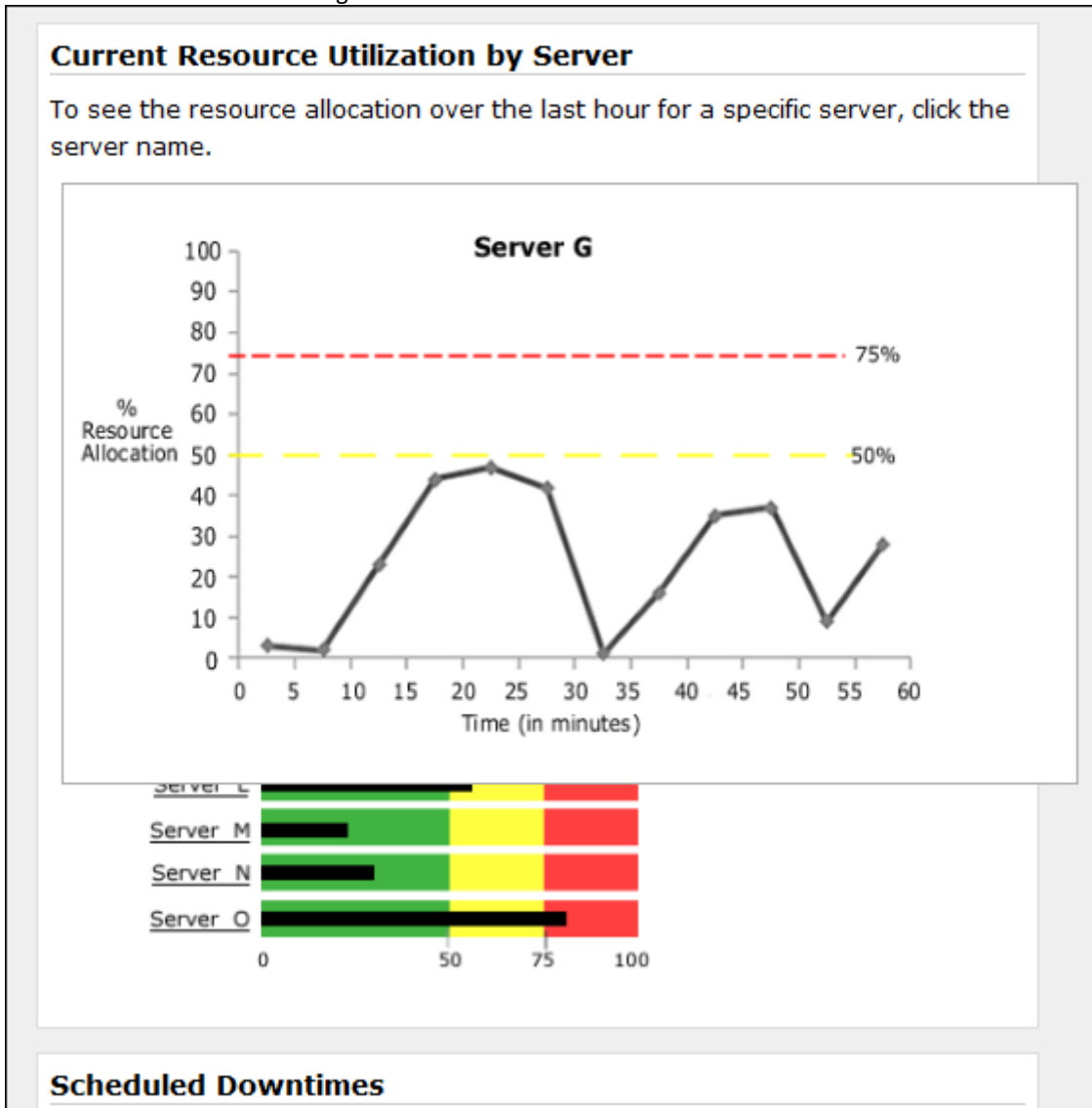
Technical Specs:

Historical Utilization display

The historical utilization display is displayed as a 'pop-up' over the Resource Utilization graphs.

- It is a line graph of resource utilization over the last hour for the selected server.
- The data is updated every 5 minutes.
 - A new point is added to the line.
 - All values are shifted to the right.
 - The oldest (60 minute) value is dropped from the graph.
- The vertical axis measures the resource utilization rate in percentages.
 - Hash marks and labels are displayed for each 10%.
- The horizontal axis measures time in 5 minute intervals.
 - Hash marks and labels are displayed for each 5 minutes.

Figure 3: Historic Resource Utilization Detail



Use Case 3: View scheduled downtime details

<i>Description:</i>	A user logs into the server dashboard to view the scheduled downtime windows for the next few months.
<i>Actor:</i>	Manager, Support
<i>Pre-conditions:</i>	A support user is looking at the Server Administration home screen.
<i>Post-condition:</i>	A support user is viewing next month's scheduled downtime windows.
<i>Primary Scenario:</i>	A support user logs into the server dashboard to check the scheduled downtime windows.
<i>Primary Task Flow:</i>	<ol style="list-style-type: none">1. The user checks the current month's scheduled downtime windows.2. The user clicks on the server name to view the details of a downtime window.<ol style="list-style-type: none">a. The 'Add3. . The user closes the downtime window and clicks to view the following month's downtime windows.4. The user clicks on a server name to view the details of the downtime window.5. The user closed the downtime window and logs out of Server Administration.
<i>Technical Specs:</i>	<p>Scheduled Downtime Detail display</p> <p>The scheduled downtime detail is displayed as a 'pop-up'; overlapping the scheduled downtime calendar.</p> <ul style="list-style-type: none">• The following information is displayed:<ul style="list-style-type: none">▪ Server name▪ Date and time of outage.▪ Expected duration of outage.▪ Task(s) assigned for that outage window.▪ Any applications and/or systems impacted by the outage, with contact information.

Figure 4: Scheduled Downtime Detail

Scheduled Downtimes

Scheduled downtimes by month.

Scheduled Downtime Window - Server I

Date / Time:	10/17/2010 3:30pm EST
Duration:	4 hours, 30 minutes
Reason:	New application release
Impacted systems / Contact:	Group ABC / Tom Johnson, tjohnson@xyz.com
	Group XYZ / Amy Adams, acadams@xyz.com

17	18	19	20	21	22	23
<u>Server I</u>						
24	25	26	27	28	29	30
31						<u>Server K</u>

Use Case 4: Add scheduled downtime window

<i>Description:</i>	A user logs into the server dashboard to check scheduled downtime windows and add a new one.
<i>Actor:</i>	Manager
<i>Pre-conditions:</i>	The user has logged in to check the downtime schedule for the servers.
<i>Post-condition:</i>	The user has added a new downtime window for a server.
<i>Primary Scenario:</i>	The user notices that one of the servers is showing an overutilization of resources and decides to schedule some maintenance for that server.
<i>Primary Task Flow:</i>	<ol style="list-style-type: none"> 1. The user clicks on the 'Add downtime window' link. 2. The 'Add Scheduled Downtime' window opens. 3. The user fills in the information about the scheduled downtime. 4. The user clicks the 'Submit' button or tabs to the 'Submit' button and presses 'Enter'. 5. The 'Add Scheduled Downtime' window closes and the server name is displayed on the calendar on the day entered.

Technical Specs:

Add Downtime Schedule window

The 'Add Downtime Schedule' window provides a form for the user to indicate the following information for the server downtime:

- Server name
- Date and time of scheduled outage
- Expected duration of outage
- The systems expected to be impacted by the outage.
- The form is formatted as follows:
 - Labels are to the left of the field with which they are associated.
 - Labels are right-aligned with each other.
 - The 'Server name' field is a select box with all 15 names listed as options.
 - The 'Date' field contains a text input box.
 - The input box is 15px long.
 - There is an error message generated if an invalid date is entered and the user clicks or tabs out of the field; "Invalid format. Please enter a valid date in the format mm/dd/yyyy."
 - The 'Time' field contains a text input box.

- The Time input box is 10px long.
- There is an error message generated if an invalid time is entered and the user clicks or tabs out of the field; “Invalid format. Please enter a valid time in the format hh:mm am or pm.”
- The ‘Duration’ and ‘Reason’ fields contain text input boxes.
 - There is no validation done on these fields.
 - The ‘Duration’ field input box is 15 characters long.
 - The ‘Reason’ field input box is 50 characters long.
- The ‘Impacted Systems / Contact’ field contains 2 select boxes:
 - The select box options are all the systems that use the 15 servers.
 - When the first system is selected, that system is removed from the options available in the second list.
 - There is a link ‘Add another system’ under the select box; this allows the user to add another system if there are others that might be affected by this server outage.
- Error messages:
 - Formatted with regular weight, .75em red font.
 - Displayed above and left-aligned with the input field with which they are associated.

Figure 5: Add Downtime Schedule

Scheduled Downtimes

Scheduled downtimes by month.

[Add downtime window](#)

Add Scheduled Downtime

Server Name:

Date:
(mm/dd/yyyy)

Time:
(hh:mm)

Duration:

Reason:

System:

[Add another system](#)

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Figure 6: Add Scheduled Downtime with server selection

Scheduled Downtimes

Scheduled downtimes by month.

[Add downtime window](#)

Add Scheduled Downtime

Server Name:

Date:

Time:

Duration:

Reason:

System:

- Please Choose a Server...
- Server A
- Server B
- Server C
- Server D
- Server E
- Server F
- Server G**
- Server H
- Server I
- Server J
- Server K
- Server L
- Server M
- Server N
- Server O

Figure 7: Add Scheduled Downtime - Second server selection

Scheduled Downtimes

Scheduled downtimes by month.

[Add downtime window](#)

Add Scheduled Downtime

Server Name:

Date:

Time:

Duration:

Reason:

System:

- Please Choose a System...
- System ABC
- System DEF
- System JKL
- System MNO
- System PRS

Figure 8: Add Downtime Schedule with Time error

Scheduled Downtimes

Scheduled downtimes by month. [Add downtime window](#)

Add Scheduled Downtime

Server Name:

Date:
(mm/dd/yyyy)

Time:
(hh:mm am/pm)

Duration:

Reason:

System:

Invalid format. Please enter a valid time in the format hh:mm.