

ExpressCluster[®] X 3.1
WebManager Mobile

Administrator's Guide

10/11/2011
First Edition



Revision History

Edition	Revised Date	Description
First	10/11/2011	New manual

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Preface

Who Should Use This Guide

The *ExpressCluster® X 3.1 WebManager Mobile Administrator's Guide* is intended for system administrators who manage a cluster system using ExpressCluster WebManager Mobile, and also for system engineers who introduce the WebManager Mobile. This document describes the procedures necessary to install cluster systems using ExpressCluster® WebManager Mobile (hereinafter called WebManager Mobile).

How this Guide is Organized

- | | |
|-----------|--|
| Chapter 1 | Overview of WebManager Mobile: Describes the WebManager Mobile product and how to set it up. |
| Chapter 2 | Functions of the WebManager Mobile: Describes the functions of WebManager Mobile. |
| Chapter 3 | Supplement: Contains supplementary information about WebManager Mobile |

ExpressCluster Documentation Set

The ExpressCluster manuals consist of the following five guides. The title and purpose of each guide is described below.

Getting Started Guide

This guide is intended for all users. The guide covers topics such as product overview, system requirements, and known problems.

Installation and Configuration Guide

This guide describes all procedures necessary prior to operation and is intended for system engineers and administrators who want to build, operate, and maintain a cluster system. Instructions for designing, installing, configuring, and evaluating a cluster system with ExpressCluster are covered in this guide.

Reference Guide

This guide is intended for system administrators and engineers who want to introduce cluster systems using ExpressCluster. The guide covers topics such as how to operate ExpressCluster, the function of each module, maintenance-related information, and troubleshooting.

The guide is a supplement to the *Installation and Configuration Guide*.

Integrated WebManager Administrator's Guide

This guide is intended for system administrators who manage a cluster system using ExpressCluster Integrated WebManager, and also for system engineers who introduce the Integrated WebManager. This document describes the procedures necessary to introduce cluster systems using ExpressCluster® Integrated WebManager (hereinafter called Integrated WebManager).

WebManager Mobile Administrator's Guide

This guide is intended for system administrators who manage a cluster system using ExpressCluster WebManager Mobile, and also for system engineers who introduce the WebManager Mobile. This document describes the procedures necessary to introduce cluster systems using ExpressCluster® WebManager Mobile (hereinafter called WebManager Mobile).

Conventions

In this guide, **Note**, **Important**, and **Related Information** are used as follows:

Note:

Used when the information given is important, but not related to data loss or damage to the system and devices.

Important:

Used when the information given is necessary to avoid data loss or damage to the system and devices.

Related Information:

Used to indicate the location of reference information.

The following conventions are used in this guide.

Convention	Usage	Example
Bold	Indicates graphical objects, such as fields, list boxes, menu selections, buttons, labels, icons, etc.	Tap Start . Properties dialog box
Square brackets within a command line	Indicates that the value specified inside of the square brackets can be omitted.	<code>clpstat -s [-h <i>host_name</i>]</code>
Monospaced font (Courier)	Indicates path names, commands, system output (messages, prompts, etc.), directories, file names, functions and parameters.	<code>c:\Program files\CLUSTERPRO</code>
Monospaced bold font (Courier)	Indicates the value that a user actually enters from a command-line interface.	Enter the following: <code>clpcl -s -a</code>
<i>Monospaced italic font (Courier)</i>	Indicates that users should replace the italicized part with the actual values that they are working with.	<code>clpstat -s [-h <i>host_name</i>]</code>

Contacting NEC

For the latest product information, visit our website below:

<http://www.nec.com/global/prod/expresscluster/>

Chapter 1 Overview of WebManager Mobile

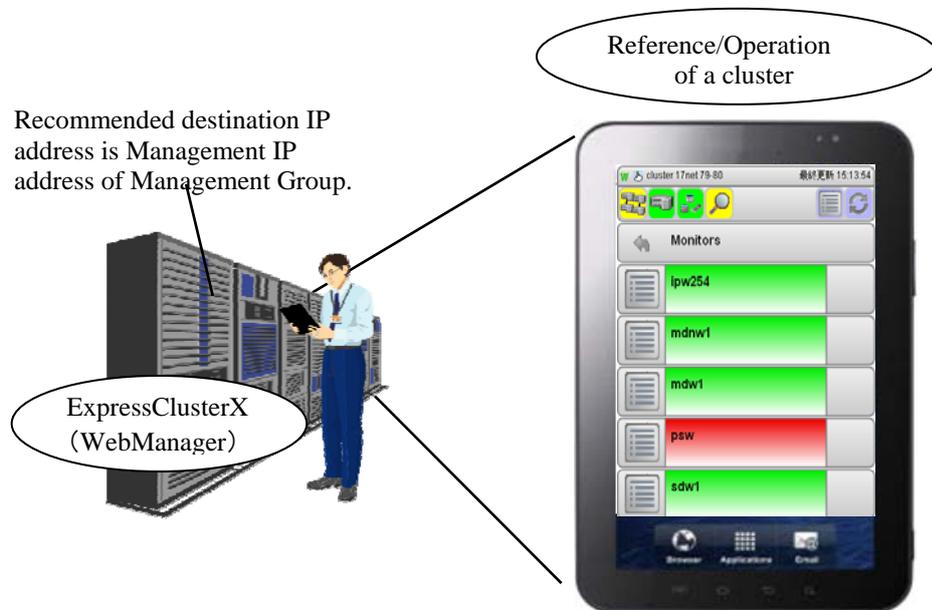
This chapter contains an overview of the WebManager Mobile.

This chapter covers:

- What is the WebManager Mobile? 10
- System requirements for the WebManager Mobile..... 11
- Setting up the WebManager Mobile 12
- Starting the WebManager Mobile..... 13

What is the WebManager Mobile?

The WebManager Mobile is a function that monitors the status of cluster systems from a mobile device such as a tablet PC or smartphone. An overview of the WebManager Mobile is shown in the following figure:



The WebManager Mobile runs on a web browser.

System requirements for the WebManager Mobile

This section describes system requirements for operating the WebManager Mobile.

Supported operating systems and browsers

For the latest information, please refer to the most recent manual on the ExpressCluster website. Currently supported operating systems and browsers are as follows:

Operating system	Browser	Language
Android 2.2	Browser (standard)	Japanese/English/Chinese
Android 2.3	Browser (standard)	Japanese/English/Chinese

Setting up the WebManager Mobile

Connect the WebManager Mobile from the web browser to the server where ExpressCluster X 3.1 has been set up. The server must be set to allow connections to the WebManager Mobile in order to use the WebManager Mobile.

Click the **WebManager** tab in **Cluster Properties** of the Builder and select **Enable WebManager Mobile Connection**.

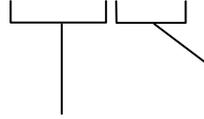
Note:

The WebManager service must be enabled to use the WebManager Mobile.

Starting the WebManager Mobile

Connect the WebManager Mobile from the web browser to the server where ExpressCluster Server in ExpressCluster X 3.1 has been set up by specifying the URL below.

http://10.0.0.3:29003/mobile/



Specify the port number of the WebManager specified at installation.
(Default value is 29003)

Specify the actual IP address of the ExpressCluster Server-installed server or the management IP.

Note:

Be sure to input "/" at the end of the URL.

If "/" is not input at the end of the URL, a TCP ERROR occurs and it is not possible to access WebManager Mobile.

Chapter 2 Functions of the WebManager Mobile

This chapter describes the functions of the WebManager Mobile.

Note:

The description in this chapter is based on a Japanese environment. The language displayed depends on the operating system locale of the management terminal.

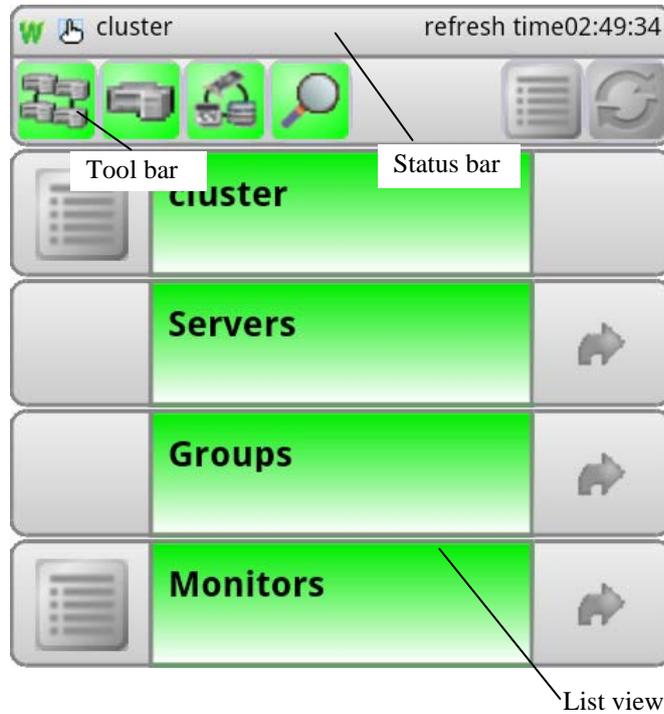
This chapter covers:

- Window of the WebManager Mobile 16
- Updating WebManager Mobile information 20
- Checking the status of each object in the list view of WebManager Mobile 21
- Checking the cluster status in the WebManager Mobile list view 32
- Changing the settings without using the WebManager Mobile 32
- Setting limitations on the connection and operation of the WebManager Mobile 35
- Operating a cluster by using the WebManager Mobile 38

Window of the WebManager Mobile

This chapter provides information about the WebManager Mobile window.

Main window



Menu window

To display the menu window, use the [] button in the main window.

W cluster refresh time02:49:34



Cluster Operation

Shutdown

Reboot

Start Cluster

Stop Cluster

Suspend Cluster

Resume Cluster

Menu

Status bar

The status bar displays the status of WebManager Mobile.

Icon	Function overview
	Indicates that Windows is the operating system at the connection destination (Windows)
	Indicates that Linux is the operating system at the connection destination (Linux)
	Indicates that Solaris is the operating system at the connection destination (Solaris)
	Indicates operation mode
	Indicates reference mode
Cluster Name	Indicates the cluster name
refresh time	Indicates the last date and time when information was obtained from the WebManager Mobile

Tool bar

The following functions are available from the menu bar:

Icon	Function overview
 Whole cluster	Displays the status of the whole cluster
 All servers	Displays the statuses of all servers
 All groups	Displays the statuses of all groups
 All monitor resources	Displays the statuses of all monitor resources
 Cluster operation	Displays the cluster operation menu
 Update	Obtains the latest cluster information and updates the WebManager Mobile window

List view

The list view allows you to see the status of an object in the cluster.

Icon	Function overview
	This icon is displayed if there an operation is being performed. Tapping this icon displays the operation window.
Object name	This icon displays the object name. The background color indicates the object status.
	This icon is displayed if a next level exists. To go to the next level, tap this icon.
	This icon is displayed if a previous level exists. The selected object name or operation name is displayed. To go back to the previous level, tap this icon.

Menu

You can operate the cluster from the menu.

Icon	Function overview
Operation	Tap this icon to perform an operation or go to the next window.

Updating WebManager Mobile information

This section describes how to update the information displayed in the WebManager Mobile to reflect the most recent changes.

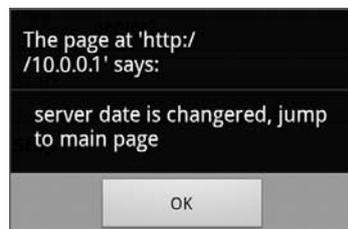
Note:

The information displayed in **the WebManager Mobile** is not automatically updated. Some objects may appear in gray if communication with the connection destination is not available, or ExpressCluster is not running on the connection destination.

Tap the **Update** button on the tool bar.

This acquires the update time and all the statuses of clusters.

When the **Update** button is tapped, the same window is displayed in the new status. When there are no more windows to be displayed, the cluster's main window is displayed with the following warning.



Checking the status of each object in the list view of WebManager Mobile

You can see the status of the objects that form the cluster on the WebManager Mobile by following the steps below. The procedure is described below.

Start the WebManager. (http://management_IP_address or IP_address_for_the_cluster_server:port_number (the default value is 29003)/mobile/).

A list view is displayed at the bottom of window. The icon color of each object indicates the object's status. You can browse objects by following the list view hierarchy.

Note:

The configuration of the tree depends on the version and option products of ExpressCluster.

The colors of the icons displayed in the WebManager Mobile list view

The following table shows icon colors and their meanings:

Whole cluster

Status	Explanation
 Normal	All servers, group resources, and monitor resources are in a normal status.
 Warning	One or more servers, group resources, or monitor resources have experienced an error or entered a state of warning.
 Error	All servers are down or have experienced an error.

All servers

Status	Explanation
 Normal	All the servers are running.
 Warning	One or more servers are down or suspended.
 Unknown	Information cannot be collected.

Individual servers

Status	Explanation
 Started	Servers are running normally.
 Suspended (Network Partition Unsolved)	The network partition cannot be solved because there is an error in the disk network partition resolution resource.
 Suspended (Restart After Shutdown)	Server is forcibly shut down by an operation other than cluster stop or cluster shut down, and the server is starting.
 Stopped/Unkn	Server is down or information cannot be collected.

own	
------------	--

Network partition resolution resource

Status	Explanation
 Normal	The resource can communicate with all servers.
 Warning	One or more servers in the cluster cannot be accessed.
 Error	The resource is not running normally.
 Unknown	Information cannot be collected.
 Not Used	The network partition resolution resource is not registered.

All groups

Status	Explanation
 Normal	All groups are running normally.
 Warning	One or more groups are not running normally.
 Error	No groups are running normally.
 Unknown	Information cannot be collected.

Individual groups

Status	Explanation
 Started	The group is running.
 Error	The group has an error.
 Stopped/Unknown	The group is stopped or no information can be collected.

Group resources

Status	Explanation
 Started	The group resource has been started.
 Error	The group resource contains an error.
 Stopped/Unknown	The group resource is stopped or no information can be collected.

All monitor resources

Status	Explanation
 Normal	All monitor resources are running normally.
 Warning	One or more monitor resources contain an error, or monitoring is suspended on a server.
 Error	All monitor resources contain errors.

Monitor resource

Status	Explanation
 Normal	All monitor resources are running normally.
 Warning	One or more monitor resources contain an error or monitoring is suspended on a server.
 Error	All monitor resources contain errors.
 Unknown	All monitor resources contain errors.

Operations from the WebManager Mobile

You can operate the **cluster**, **individual servers**, **individual groups**, **individual group resources**, **all monitor resources** and **individual monitor resources** in the cluster from the WebManager Mobile.

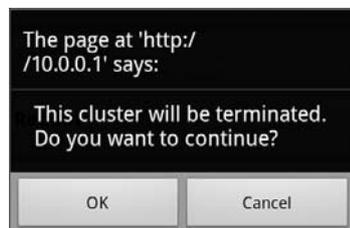
Objects in the cluster

Tap the **Operation** icon on the tool bar or the **Operation** icon to the left of the cluster name in the status view to show the following menu:



◆ Shut down

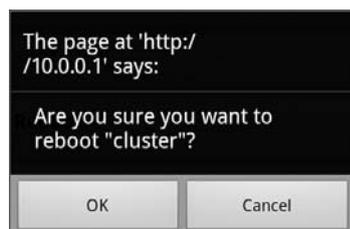
Shuts down all running servers when you select this operation, the following confirmation dialog box appears:



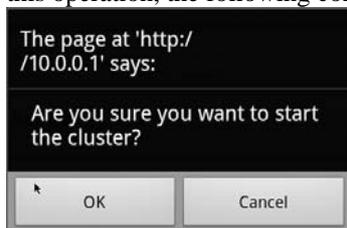
Note that servers that cannot be accessed from the server to which the WebManager is connected (for example, servers on which all LAN heartbeat resources are stopped) will not be shut down.

◆ Reboot

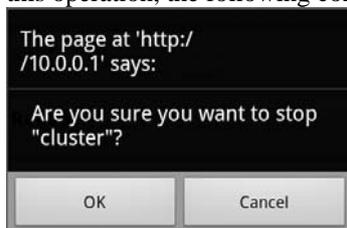
Reboots all running servers when you select this operation, the following confirmation dialog box appears:



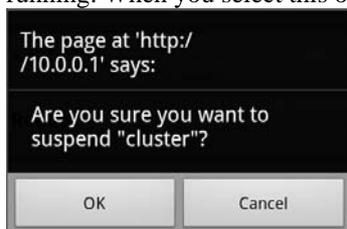
- ◆ **Start Cluster**
Starts a cluster. This menu can be selected only when a cluster is stopped. When you select this operation, the following confirmation dialog box appears:



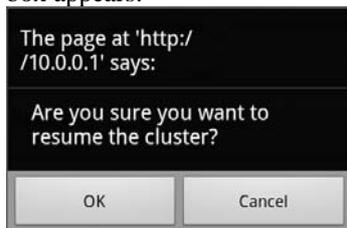
- ◆ **Stop Cluster**
Stops a cluster. This menu can be selected only when a cluster is running. When you select this operation, the following confirmation dialog box appears:



- ◆ **Suspend Cluster**
Suspends a cluster. This menu can be selected only when all the servers in a cluster are running. When you select this operation, the following confirmation dialog box appears:



- ◆ **Resume Cluster**
Resumes the suspended cluster. This menu can be selected only when all the servers in a cluster are suspended. When you select this operation, the following confirmation dialog box appears:



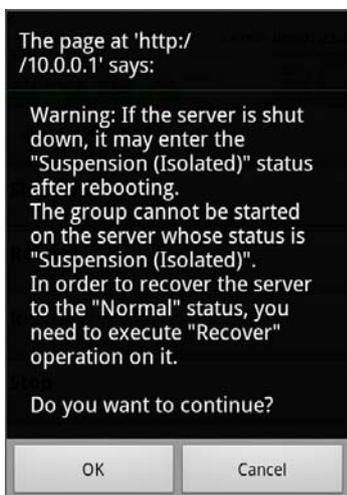
Individual server objects

Tap the **Operation** icon to the left of the server name in the status view to show the following menu:



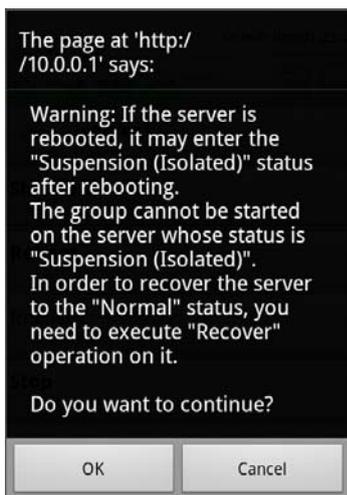
◆ Shut down

Shuts down the selected server. When you select this operation, the following confirmation dialog box appears:



◆ Reboot

Reboots the selected server. When you select this operation, the following confirmation dialog box appears:



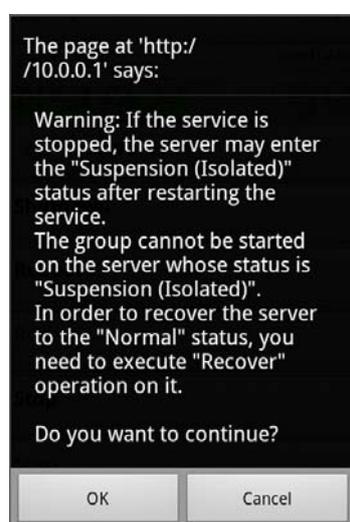
◆ Recover

Recovers the selected server. When you select this operation, the following confirmation dialog box appears:



◆ Stop

Stops the selected server. When you select this operation, the following confirmation dialog box appears:



◆ Start

Starts the selected server. When you select this operation, the following confirmation dialog box appears:



Individual group objects

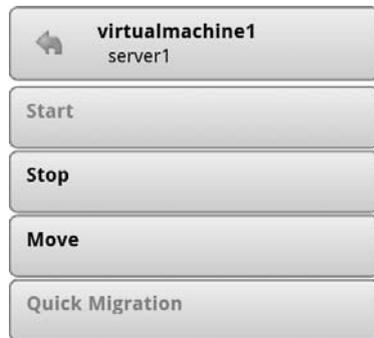
Tap the **Operation** icon to the left of the group name in the status view to display the following menu:

The group name and the name of the server on which the group is running are shown on the top menu.

If the group type is failover



If the group type is virtual machine



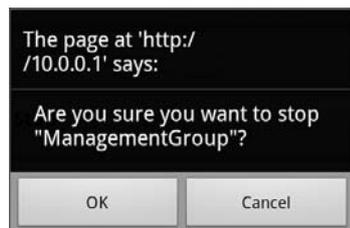
- ◆ Start Group (enabled only when the group is stopped)

Starts up the selected group. The window for choosing a server that starts up the selected group appears:



- ◆ Stop group (enabled only when the group is running or when it contains an error)

Stops the selected group. When you select this operation, the following confirmation dialog box appears:



- ◆ Move Group (enabled only when the group is running)

Moves the selected group. The window for choosing a server to which you want to move the selected group appears.



- ◆ Quick Migration (enabled only when the group type is virtual machine and is running)^{*1}
Suspends the virtual machine managed by the virtual machine resources in the selected group and moves the group to another server. The dialog box for choosing a server to which you want to move the selected group appears.



The suspended virtual machine will resume on the destination server.

Individual group resource objects

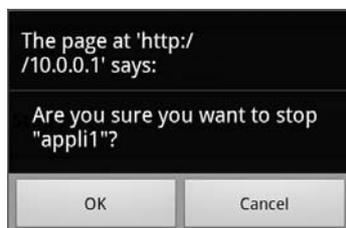
Tap the **Operation** icon to the left of the group resource name in the status view to display the following menu.



- ◆ Start Resource (enabled only when the group is stopped)
Starts up the selected group resource. A window appears for choosing a server to start up the selected group.



- ◆ Stop Resource (enabled only when the group is running or when it contains an error)
Stops the selected group. A window appears for choosing a server to stop the selected group.



^{*1} Quick Migration in Windows and Live Migration in Linux or Solaris.

Monitors object

Tap the **Operation** icon to the left of **Monitors** in the status view to display the following menu.



- ◆ Monitor Resume (enabled when the resource is stopped temporarily)

Resumes all monitor resources. A window appears for selecting the server where monitor resources will resume.



- ◆ Monitor Suspend (enabled during monitoring)

Suspends all monitor resources. A window appears for selecting the server where monitor resources are suspended.



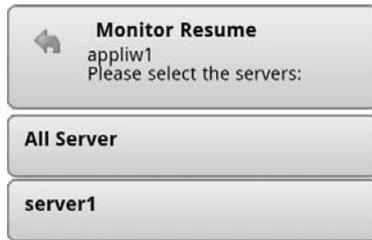
Individual monitor resource objects

Tap the **Operation** icon to the left of the monitor resource name in the status view to display the following menu:



- ◆ Monitor Resume (enabled when the resource is stopped temporarily)

Resumes the selected monitor resource. A window appears for choosing a server where the selected monitor resource will resume.



◆ **Monitor Suspend (enabled during monitoring)**

Suspends the selected monitor resource. A window appears for choosing a server where the selected monitor resource is suspended.



Checking the cluster status in the WebManager Mobile list view

You can display detailed information on the object you have tapped in the list view of the WebManager Mobile.

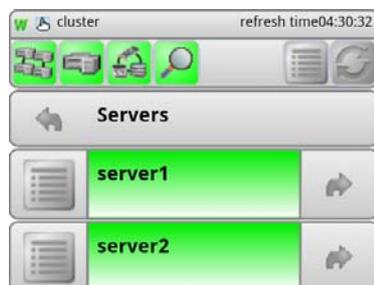
To display information on the whole cluster in the WebManager Mobile list view

1. Start the WebManager Mobile: `http://management_IP_address` or `IP_address_for_the_cluster_server:port_number` (the default value is 29003)/mobile/
2. Tap the whole cluster icon  on the tool bar. The list view indicates the statuses of all servers, all groups, and all monitor resources by color.



To check the statuses of all servers in the WebManager Mobile list view

1. Start the WebManager Mobile: `http://management_IP_address` or `IP_address_for_the_cluster_server:port_number` (the default value is 29003)/mobile/
2. Tap the all servers icon  or the icon to the right of **Servers**  in the list view. The list view displays the servers' names and indicates their status by color.



To check the status of individual servers in the WebManager Mobile list view

1. Start the WebManager Mobile: `http://management_IP_address` or `IP_address_for_the_cluster_server:port_number` (the default value is 29003)/mobile/
2. Tap the icon to the right of an individual server [👉] in the list view. The list view displays the individual server's network partition resolution resource name and indicates its status by color.



To check the statuses of all groups in the WebManager Mobile list view

1. Start the WebManager Mobile: `http://management_IP_address` or `IP_address_for_the_cluster_server:port_number` (the default value is 29003)/mobile/
2. Tap the all groups icon [👉] or the icon to the right of **Groups** [👉] in the list view. The list view displays the groups' names and indicates their status by color.



To check the status of individual groups in the WebManager Mobile list view

1. Start the WebManager Mobile: http://management_IP_address or IP_address_for_the_cluster_server:port_number (the default value is 29003)/mobile/
2. Tap the icon to the right of individual group [👉] in the list view. The list view displays the individual group's group resource name and indicates its status by color.



To check the statuses of all monitor resources in the WebManager Mobile list view

1. Start the WebManager Mobile: http://management_IP_address or IP_address_for_the_cluster_server:port_number (the default value is 29003)/mobile/
2. Tap the all monitor resources icon [🔍] or the icon to the right of **Monitors** [👉] in the list view. The list view displays the monitor resources' names and indicates their status by color.



Changing the settings without using the WebManager Mobile

If you do not want to use the WebManager Mobile for security reasons, change the settings so that the WebManager is not available to the Builder.

For information on how to specify and apply the settings, see “WebManager tab” in Chapter 2 Functions of the Builder in the *ExpressCluster Reference Guide*.

Setting limitations on the connection and operation of the WebManager Mobile

The limitation in connection and operation of the WebManager Mobile can be configured in **Cluster Properties** in the Builder. For more information, see “WebManager tab” in Chapter 2 Functions of the Builder in the *ExpressCluster Reference Guide*.

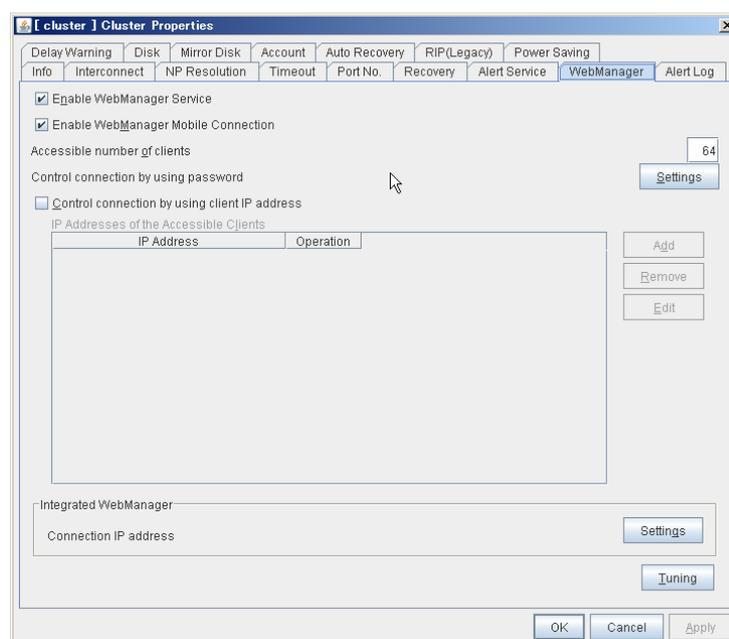
Limitation types

There are three ways to set usage limitations:

- ◆ Limiting access through client IP addresses
- ◆ Limiting the number of connecting clients
- ◆ Limiting through passwords

Limiting access through client IP addresses

This function limits the clients that can access and use the WebManager Mobile by using client IP addresses. Add IP addresses to **IP Addresses of the Accessible Clients** on the **WebManager** tab in the **Cluster Properties** of the Builder.



When specifying the connection limitations of the WebManager Mobile, if you attempt to access to the WebManager Mobile from an IP address that is not added to **IP Addresses of the Accessible Clients**, the following error message is displayed.

403 Forbidden

Access to this resource has been denied to
Please contact the site administrator.

When one of these limited clients connects to WebManager Mobile, the WebManager Mobile enters into reference mode and cannot be changed to operation mode.

Add IP addresses to **IP Addresses of the Accessible Clients** on the **WebManager** tab in the **Cluster Properties** of the Builder.

Note:

Limiting by using client IP addresses is common to the WebManager Mobile and the WebManager.

Limiting the number of connecting clients

This function limits the number of clients that can access the WebManager Mobile.

To configure this limitation: in **Cluster Properties** of the Builder, click the **WebManager** tab and then **Accessible number of clients**.

Note:

Limiting access by the number of connecting clients is common to the WebManager Mobile and the WebManager.

This limitation indicates the total number of clients that can access WebManager Mobile or WebManager.

Limiting through passwords

This function uses a password to limit the viewing and operation of WebManager.

To configure this limitation: in **Cluster Properties** of the Builder, click the **WebManager** tab and then **Control connection by using password**.

Once password protection is specified for the WebManager, the following authorization dialog box appears when an attempt is made to access the WebManager Mobile.



Sign in to 192.168.230.83
"CLUSTER"

Name

Password

Sign in Cancel

To log onto the WebManager Mobile, enter the **Name** and **Password** in operation or read-only mode, whichever you want to use.

- ◆ The authorization dialog box does not appear if password protection has not been configured (you can log on to the WebManager without an authorization process).

When you log on with reference-only authorization, the WebManager starts in reference mode. You cannot operate the cluster in reference mode.

Note:

The user ID is fixed in ExpressCluster X3.1.

To start the WebManager Mobile in operation mode, enter a user ID (admin) in **Name**. To start the WebManager Mobile in read-only mode, enter a user ID (user) in **Name**.

Combination of IP address and password limitations

The operational limitations when using both IP address and password limiting methods are as follows:

	Password limitation		
Client IP address limitation	Operable mode	Reference only	Unable to operate or view (authorization failed)
Operable mode	Operable mode	Reference only	Unavailable
Reference only	Cannot access	Reference only	Unavailable
Cannot access	Cannot access	Cannot access	Cannot access

Operating a cluster by using the WebManager Mobile

Cluster shutdown and cluster shutdown reboot

For information on performing cluster shutdown and cluster shutdown reboot from the WebManager Mobile, see “Operations from the WebManager Mobile” on page 24.

Recovering servers

When **Off** is selected in **Auto Return** in **Auto Recovery** tab of **Cluster Properties** in the Builder, if a server is shut down or rebooted without using Cluster Shutdown command, the server is started in the status of **Suspension (isolated)**. A server in this status does not run as a part of a cluster system. Thus you need to return the server to the cluster system after you finished the necessary maintenance work to the server. For the information on how to return a server to a cluster by using the WebManager Mobile, see “Individual server objects” on page 25.

Shutting down and rebooting an individual server

For information on how to shut down and reboot an individual server from the WebManager Mobile, see “Individual server objects” on page 25.

Starting, stopping, and moving an individual group

For information on how to start, stop and move an individual group from the WebManager Mobile, see “Individual group objects” on page 28.

Starting and stopping a group resource

For information on how to start and stop a group resource from the WebManager Mobile, refer to “Individual group objects” on page 29.

Resuming and suspending a monitor resource

For information on how to resume and suspend a monitor resource from the WebManager Mobile, refer to “Individual monitor resource objects” on page 30.

Chapter 3 Supplement

This chapter contains supplementary information about the WebManager Mobile.

This chapter covers:

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Notes

- ◆ Information displayed by the WebManager Mobile does not always reflect the latest status. To acquire the latest information, tap the **Update** button on the tool bar.
- ◆ If a server fails while the WebManager Mobile is acquiring information, the information acquisition fails, which may result in a failure to show some objects. Tap the **Update** button on the tool bar to reacquire the latest information.
- ◆ If you work on the WebManager when no connectivity is established, it may take a while to regain control.
- ◆ If you are using a proxy server, configure the proxy server so that the port number of the WebManager Mobile can be relayed.
- ◆ An error or warning from the failure simulation function is displayed as an ordinary error or warning.
- ◆ Once entered, the password is saved in the browser. To switch between operation mode and read-only mode, delete the password from the browser setting.

Output Messages

The following is a list of messages displayed while operating the WebManager Mobile.

Level	Message	Cause	Solution
Error	Failed to connect to server(%1 : %2)	Failed to access the WebManager.	Make sure that WebManager is running on the server.
Error	The response content is invalid.	Connection to the server has been lost.	Check the server operating status and network connectivity.
Error	Authorization failed.	Password was changed when accessing the WebManager.	Try logging on to WebManager again.
Error	Authorization failed (Internal error.)	An internal error occurred when accessing WebManager.	Try logging on to WebManager again. Reboot the WebManager daemon if the error continues to occur.
Error	Failed to connect to the server.	Failed to access WebManager.	Make sure that WebManager is running on the server. Make sure that WebManager can be connected to the server successfully.
Error	Failed to get data for the cluster tree view from the server.	Failed to acquire the cluster configuration.	Use a command to check that ExpressCluster is running on the server.
Error	The cluster tree obtained from the server may not be complete	An error occurred while acquiring the server's status.	Try reloading later.
Error	Configuration information has been changed. The top page will be displayed.	Because configuration information was updated and the node displayed in this window no longer exists, the top page is displayed.	-
Confirmation	This cluster will be terminated. Do you want to continue?	The confirmation message for shutting down the cluster	-
Confirmation	Are you sure you want to suspend "{0}"?	The confirmation message for suspending the cluster {0} represents the name of the cluster.	-
Confirmation	Are you sure you want to resume "{0}"?	The confirmation message for resuming the cluster {0} represents the name of the cluster.	-
Confirmation	Are you sure you want to start "{0}"?	The confirmation message for starting the cluster daemon {0} represents the name of the cluster.	-
Confirmation	Are you sure you want to stop "{0}"?	The confirmation message for stopping the cluster daemon {0} represents the name of the cluster.	-

Level	Message	Cause	Solution
Confirmation	Are you sure you want to restart the manager daemon?	The confirmation message for restarting the server-side WebManager service.	-
Confirmation	Are you sure you want to suspend the cluster?	The confirmation message for suspending the cluster.	-
Confirmation	Are you sure you want to resume the cluster?	The confirmation message for resuming the cluster.	-
Confirmation	Are you sure you want to start the cluster?	The confirmation message for starting the cluster daemon.	-
Confirmation	Are you sure you want to stop the cluster?	The confirmation message for stopping the cluster daemon.	-
Confirmation	Warning:If the server is shut down, in order to recover the mirror which is used on this server to normal status, you need to execute mirror recover operation on it. It may take a long time to perform mirror recovery. Are you sure you want to shutdown "{0}"?	The confirmation message for shutting down some of the servers in the cluster. {0} represents the name of the server.	-
Confirmation	Warning: If the server is rebooted, in order to recover the mirror which is used on this server to normal status, you need to execute mirror recover operation on it. It may taka a long time to perform mirror recovery. Are you sure you want to reboot "{0}"?	The confirmation message for rebooting some of the servers in the cluster. {0} represents the name of the server.	-
Confirmation	Are you sure you want to start "{0}"?	The confirmation message for starting a cluster daemon of some of the servers in the cluster. {0} represents the name of the server.	-

Level	Message	Cause	Solution
Confirmation	Are you sure you want to stop "{0}"?	The confirmation message for stopping a cluster daemon of some of the servers in the cluster. {0} represents the name of the server.	-
Confirmation	If you start this group, mirror recovery is interrupted. Do you want to continue?	The confirmation message for starting the group when there is a mirror disk resource processing mirror recovery on the failover group. This message is only displayed in the Windows version.	-
Confirmation	Are you sure you want to stop "{0}"?	The confirmation message for stopping the failover group. {0} represents the name of the group.	-
Confirmation	If you stop this group, mirror recovery is interrupted. Are you sure you want to stop this group?	The confirmation message for stopping the group when there is a mirror disk resource processing mirror recovery on the failover group. This message is only displayed in the Windows version.	-
Confirmation	Are you sure you want to start "{0}"?	The confirmation message for starting some of the resources in the fail over group. {0} represents the name of the resource.	-
Confirmation	Are you sure you want to stop "{0}"?	The confirmation message for stopping some of the resources in the failover group. {0} represents the name of the resource.	-
Confirmation	If you start this resource, mirror recovery is interrupted. Do you want to start this resource?	The confirmation message for starting the resource when the selected mirror disk resource is processing mirror recovery.	-
Confirmation	If you stop this resource, mirror recovery is interrupted. Do you want to stop this resource?	The confirmation message for stopping the resource when the selected mirror disk resource is processing mirror recovery.	-
Error	Failed to shutdown cluster "{0}".	The cluster cannot be shut down. The following conditions may be preventing the cluster from shutting down. - A group is starting up or being stopped.	Try again after the group has completely started or stopped.

Level	Message	Cause	Solution
Error	Failed to reboot cluster "{0}".	The cluster cannot be shut down. The following conditions may be preventing the cluster from shutting down. - A group is starting up or being stopped.	Try again after the group has completely started or stopped.
Error	Failed to start the cluster "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the cluster.	Click the Reload button to display the latest status of a cluster, and try again.
Error	Failed to stop the cluster "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the cluster.	Click the Reload button to display the latest status of a cluster, and try again.
Error	Failed to suspend the cluster "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the cluster.	Click the Reload button to display the latest status of a cluster, and try again.
Error	Failed to resume the cluster "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the cluster.	Click the Reload button to display the latest status of a cluster, and try again.
Error	Failed to restart the manager daemon. Click the Reload button, or try again later.	An error occurred in the data transfer server of ExpressCluster.	Check the status of the data transfer server of ExpressCluster.
Error	Failed to shutdown server "{0}".	The server cannot be shut down. The following conditions may be preventing the cluster from shutting down. - A group is starting up or being stopped.	Try again after the group has completely started or stopped.
Error	Failed to reboot server "{0}".	The server cannot be restarted. The following conditions may be preventing the cluster from shutting down. - A group is starting up or being stopped.	Try again after the group has completely started or stopped.
Error	Failed to recover the server "{0}". Click the Reload button, or try again later.	The server may not be updated to the most recent status. This message is only displayed in the Windows version.	Click the Reload button to display the latest status of a cluster, and try again.
Error	Failed to start the server "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the server.	Click the Reload button to display the latest status of a cluster, and try again.

Level	Message	Cause	Solution
Error	Failed to stop the server "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the server.	Click the Reload button to display the latest status of a cluster, and try again.
Error	Failed to start group "{0}" at server "{1}".	Securing memory or creating a thread might have failed.	Make sure that system resources are sufficient for the operation.
Error	Failed to stop group "{0}".	Securing memory or creating a thread might have failed.	Make sure that system resources are sufficient for the operation.
Error	Failed to move group "Group Name" to server "Server Name".	Moving the group failed. [Group Name] group_name [Server Name] server_name	Solve the problem causing the failure of moving a group. For detailed information on the error, see the alert log.
Error	Failed to migrate group "{0}" to server "{1}".	Securing memory or creating a thread might have failed.	Make sure that system resources are sufficient for the operation.
Error	Could not start the group because it contains a recovering mirror disk. Try again after mirror recovery is completed.	Starting failover group will be stopped because there is a mirror disk resource processing mirror recovery.	Perform the same operation after mirror recovery finishes.
Error	Could not move the group because it contains a recovering mirror disk. Try again after mirror recovery is completed.	Moving failover group will be stopped because there is a mirror disk resource processing mirror recovery.	Perform the same operation after mirror recovery finishes.
Error	Could not migrate the group because it contains a recovering mirror disk. Try again after mirror recovery is completed.	Migrating failover group will be stopped because there is a mirror disk resource processing mirror recovery.	Perform the same operation after mirror recovery finishes.
Error	Failed to start the resource "{0}". Click the Reload button, or try again later.	The resource may not be updated to the most recent status. {0} represents the name of the resource.	Click the Reload button to display the latest status, and try again.
Error	Failed to stop the resource "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the resource.	Click the Reload button to display the latest status, and try again.

Level	Message	Cause	Solution
Error	Could not start the mirror disk because it is recovering now. Try again after mirror recovery is completed.	Starting a resource will be stopped because the mirror disk resource is processing mirror recovery.	Perform the same operation after mirror recovery finishes.
Error	Failed to suspend any monitor. Click the Reload button, or try again later.	The monitor may not be updated to the most recent status.	Click the Reload button to display the latest status, and try again.
Error	Failed to resume any monitor. Click the Reload button, or try again later.	The monitor may not be updated to the most recent status.	Click the Reload button to display the latest status, and try again.
Error	Failed to suspend the monitor "{0}". Click the Reload button, or try again later.	The monitor may not be updated to the most recent status. {0} represents the name of the monitor resource.	Click the Reload button to display the latest status, and try again.
Error	Failed to resume the monitor "{0}". Click the Reload button, or try again later.	The cluster may not be updated to the most recent status. {0} represents the name of the monitor resource.	Click the Reload button to display the latest status, and try again.
Error	Failed to suspend the monitor. Click the Reload button, or try again later.	The cluster may not be updated to the most recent status.	Click the Reload button to display the latest status, and try again.
Error	Failed to resume the monitor. Click the Reload button, or try again later.	The cluster may not be updated to the most recent status.	Click the Reload button to display the latest status, and try again.