



# Cisco IOx Local Manager Pages and Options

This chapter provides detailed reference information about the pages and options that are available in Cisco IOx Local Manager.

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## Cisco IOx Local Manager Tabs

Cisco IOx Local Manager includes the following main tabs in its menu bar. You use these tabs to access the Cisco IOx Local Manager pages:

- **Applications** tab—Displays the Applications page, displays general information about the Cisco IOx apps that have been uploaded to the host system, provides options for managing and administering them, and provides an option for adding a new app.
- **Cartridges/Layers** tab—Displays the Cartridges/Layers page. This page lists the Cisco cartridges that have been installed on the host system, displays general information about these cartridges, and provides options for installing, deleting, and obtaining additional information about them. It also displays information about the Docker layers that are used by all applications that are installed on the host system, and provides an option for deleting unused layers.
- **System Info** tab—Displays the System Info page, which provides hardware, software, network, and resource information that relates to the host system.
- **System Troubleshoot** tab—Displays the System Troubleshoot page, which provides options for reviewing events, errors, and diagnostic information on the host system, and managing and obtaining log files and related information for troubleshooting.

- **System Setting** tab—Displays the System Settings page, which provides information about the range of NAT IP addresses that are reserved for app, and provides options for managing SSL connections and app signature validation
- **Middleware Service** tab—Displays the Middleware Service page, which lists the Cisco Data in Motion services that are available for apps, displays general information about these services, and provides options for starting, stopping, and uploading licenses for them.
- **App-ID** tab—When you click the **manage** option on the Applications tab for an app, a tab with the ID of that app is added to the menu bar. The *App-ID* tab displays the *App-ID* page, which provides access to pages for viewing information and performing other activities that relate to a specific app.

To remove an App-ID tab from the menu bar, hover your mouse over the tab and click its **Close** button



On Cisco IOx Local Manager pages:

- You can click any field title in a table that displays rows of information to toggle the information in that table in ascending or descending alphabetical order by that field.
- On most pages that display information in multiple areas, you can click an area title to expand or collapse the information in that area.

## Applications Page

The Applications page lists the Cisco IOx apps that have been uploaded to the host system, displays general information about these apps, and provides options for managing and administering them.

It also provides buttons for adding an app and refreshing the page

To access the Applications page, choose **Applications** from the Cisco IOx Local Manager menu bar. The following table describes the fields and options that are available on this page.

**Table 1: Applications Page Fields and Options**

Item	Description
<b>Uploaded App areas</b>	Each app that has been uploaded to the host system displays in an area that includes the following items:
Name of the app	Displays at the top left of an app area
Description of the app	Displays under the name of the app

Item	Description
Status of the app	<p>Status of the app:</p> <ul style="list-style-type: none"> <li>• <b>DEPLOYED</b>—App is uploaded to the host system. System CPU and RAM resources are not committed to the app. An app with this status can be activated, upgraded, or deleted.</li> <li>• <b>ACTIVATED</b>—App is on the host system and ready to run. System CPU and RAM resources have been reserved for the app but are not yet in use. An app with this status can be started or deactivated.</li> <li>• <b>RUNNING</b>—App is operating on the host system. System CPU and RAM resources are in use for the app. An app with this status can be stopped.</li> <li>• <b>STOPPED</b>—App has been running on the host system but its operation has been stopped. System CPU and RAM resources remain reserved for the app. An app with this state can be started or deactivated.</li> </ul>
TYPE	Type of the app ( <b>paas, kvm, lxc, or docker</b> ).
VERSION	Version of the app
PROFILE	Resources profile that is assigned to the app ( <b>default, c1.tiny, c1.small, c1.medium, c1.large, c1.xlarge, or Custom</b> )
Memory bar	For an app that is in DEPLOYED state, blue shading indicates the relative amount of total memory (RAM) resources on a host system that the app requests. For an app that is in ACTIVATED, RUNNING, or STOPPED, state, green shading indicates the relative amount of total memory resources on a host system that is allocated to the app. The percentage value at the right of the bar indicates the percentage of total memory on the host system that is requested by or allocated to the app.
CPU bar	For an app that is in DEPLOYED state, blue shading indicates the relative amount of CPU resources on a host system that the app requests. For an app that is in ACTIVATED, RUNNING, or STOPPED, state, green shading indicates the relative amount of CPU resources on a host system that is allocated to the app. The percentage value at the right of the bar indicates the percentage of total CPU resources on the host system that is requested by or allocated to the app.
Start button	Appears for an app that has a status of ACTIVATED or STOPPED. Click to start the app. See the <a href="#">Starting an App</a> section.
Stop button	Appears for an app that has a status of RUNNING. Click to stop the app. See the <a href="#">Stopping an App</a> section.
Activate button	Appears for an app that has a status of DEPLOYED. Click to activate the app. See the <a href="#">Activating an App</a> section.
Deactivate button	Appears for an app that has a status of ACTIVATED or STOPPED. Click to deactivate the app. See the <a href="#">Deactivating an App</a> section.
Delete button	Appears for an app that has a status of DEPLOYED. Click to remove the app from the host system. See the <a href="#">Deleting an App</a> section.

Item	Description
<b>Manage</b> button	Appears when the app that has any status except DEPLOYED. Click to display the <i>App-ID</i> page for the app. See the <a href="#">App-ID Page, on page 12</a> section.
<b>Upgrade</b> button	Appears for an app that has a status of DEPLOYED. Click to upgrade the app. See the <a href="#">Upgrading an App</a> section.
<b>Visualization</b> button	Appears for an app is in running state if its descriptor file (package.yaml) file asks for visualization. Click to open a new tab that can show graphs and tables of data that relates to the app. The information that displays depends on what visualization information the app asks for.
<b>General buttons</b>	The first app that has does not include information for an installed app displays the following buttons:
<b>Add New</b> button	Uploads the app to the host system and puts the app in DEPLOYED state. See the <a href="#">Adding/Deploying an App</a> section.
<b>Refresh</b> button	Click to update the page with current information.

## Cartridges/Layers Page

The Cartridges/layers page lists the Cisco cartridges that have been installed on the host system, displays general information about these cartridges, and provides options for installing, deleting, and obtaining additional information about them. This page also displays information about the layers that are used by all applications that are installed on the host system, and provides an option for deleting unused layers.

Cartridges are used by PAAS apps, but not for KVM, LXC, or Docker apps. The packages for these apps include only the app logic (such as Python or Java files), but not the Linux operating system files or the root file system that the app requires. Cartridges provide the root file system and Python or Java files that an app requires to run. See the [Cartridge Management Workflows](#) section for additional information.

A layer is a component of a Docker image from which an app package has been created

To access the Cartridges/Layers page, choose **Cartridges/Layers** from the Cisco IOx Local Manager menu bar. The following table describes the fields and options that are available on this page.

**Table 2: Cartridges/Layers Page Fields and Options**

Item	Description
<b>Cartridges Area</b>	Click the area name to expand or hide the information in this area
Total field	Total number of megabytes that cartridges consume on the disk of the host system.
<b>Id</b> field	Unique identifier of the cartridge.
<b>Name</b> field	Name of the cartridge.

Item	Description
<b>Actions</b> field	Provides options that you can click to execute operations for the cartridge: <ul style="list-style-type: none"> <li>• <b>Info</b>—Displays a pop-up window that provides detailed information about the cartridge. See the <a href="#">Viewing Detailed Information about a Cartridge</a> section.</li> <li>• <b>Delete</b>—Removes the cartridge from the host system. See the <a href="#">Deleting a Cartridge</a> section.</li> </ul>
<b>Description</b> field	Brief description of the cartridge.
<b>Version</b> field	Version of the cartridge.
<b>Install</b> button	Installs the cartridge on the host system. See the <a href="#">Installing a Cartridge</a> section.
<b>Docker Layers Area</b>	Click the area name to expand or hid the information in this area
Total field	Total number of megabytes that layers consume on the disk of the host system.
<b>Layer Id</b> field	Unique identifier of the layer.
<b>Size</b> field	Number of megabytes that layer consumes on the disk of the host system
<b>Used By</b> field	Name of the app that uses the layer.
<b>Delete Unused Layer</b> button	Deletes layers that are not used by installed apps on the host system. See the <a href="#">Layer Management Workflow</a> section.

## System Info Page

The System Info page provides hardware, software, network, and resource information that relates to the host system and to the Cisco IOx infrastructure and framework. The information that this page displays is not specific to any particular app.

To access the System Info page, choose **System Info** from the Cisco IOx Local Manager menu bar. The following table describes the fields and options that are available on this page.

**Table 3: System Info Page Fields and Options**

Item	Description
<b>Refresh Stats</b> button	Click to update the page with current information.
<b>Host Info</b> area	
Information fields	Provides general information about the host system.
<b>Memory</b> area	
Information fields	Provides information about memory use on the host system.

Item	Description
<b>CPU &amp; Processes area</b>	
Information fields	Provides information about CPU and processes that are used on the host system.
<b>Inspect Process</b> button	Click to display a pop-up window that provide additional information about processes that are running on the host system.
<b>Monitoring area</b>	
Corrupted Apps field	If any apps are corrupted on the host system, this field shows the name of each app.
Disk Status field	Displays the status of the hard disk on the host system, if the host system provides this information.  This information can indicate that disk status is not available, that the last file system consistency check identified errors, or that the file system consistency check cannot recover from disk errors.
<b>IP v4 Routing area</b>	
Information fields	Provides IP v4 routing information that relates to the host system.
<b>DNS and NTP Settings area</b>	
Information fields	Provides domain information for any DNS and NTP servers that the host system is using.
<b>Storage area</b>	
SSD Lifetime Information	Displays the expected remaining lifetime of the SSD on the host system, as a percentage of the total expected lifetime, if the host system provides this information.  If Cisco Local Manager cannot display this information, a message in this field explains why the information is not available.  SSD lifetime information is supported only on Cisco 829 Industrial Integrated Services Routers.
Information fields	Provides information about storage devices that host system is using.
<b>Serial Interfaces area</b>	
Information fields	Provides information about serial interface devices that are available on the host system.
<b>Interfaces area</b>	
Information fields	Provides information about general interfaces that host system is using.

# System Setting Page

The System Setting page provides options for managing internal Cisco IOx networks for apps and managing SSL connections and app signature validation.

Internal Cisco IOx networks allow apps on host systems to communicate with other systems. The network named `svcbr_0` is provided by default, and cannot be deleted. Some host systems allow other networks to be added.

If needed, refer to the app documentation or developer for information network configuration that an app requires when it runs.

To access the System Setting page, choose **System Setting** from the Cisco IOx Local Manager menu bar. The following table describes the fields and options that are available on this page.

**Table 4: System Setting Page Fields and Options**

Item	Description
<b>Additional Networks area</b>	
<b>Add Network</b> button	Click to add an internal network on host systems that support adding internal networks. See the <a href="#">Adding an Internal Network</a> section.
<b>Interface</b> field	Name of the internal Cisco IOx bridge that provides connectivity for this internal network.
<b>Description</b> field	Brief description of the internal network.
<b>Physical Interface</b> field	Physical interface that the internal network uses for connectivity.
<b>Logical Network</b> field	Logical networks that provide bridge and NAT networking modes for the internal network.  Click a logical network name to display a dialog box that provides detailed information about that logical network.
<b>Vlan ID</b> field	Identifier of the VLAN on which this internal network operates, if applicable.
<b>IP Mode</b> field	IP mode of the internal Cisco IOx bridge that provides connectivity for this internal network ( <b>dhcp</b> , <b>static</b> , or <b>no_ip_address</b> ).
<b>IP Address</b> field	IP address and subnet mask of the internal Cisco IOx bridge that provides connectivity for this internal network.
<b>Actions</b> field	Provides these options: <ul style="list-style-type: none"> <li>• <b>edit</b>—Click to edit information that is configured for the network. See the <a href="#">Editing Information for an Internal Network</a> section.</li> <li>• <b>delete</b>—Click to remove the network. See the <a href="#">Deleting an Internal Network</a> section.</li> <li>• <b>view</b>—Click to display information that is configured for the network. See the <a href="#">Viewing Information about an Internal Network</a> section.</li> </ul>

Item	Description
<b>SSL/TLS area</b>	
<b>Import Certificates</b> button	Click to import a externally signed SSL certificate to the host system. See the <a href="#">Configuring an SSL Connection</a> section.
<b>Application Signature Validation area</b>	Appears only if the host system supports app signing.
<b>Enable Application Signature / Disable Application Signature</b> toggle button	Click the <b>Enable Application Signature</b> button to enable App Package Signature Verification on the host system. When this option is enabled, the Cisco application-hosting framework verifies the signature of an app when the app is installed on the host system. If the app signature is not verified, the installation fails.  Click the <b>Disable Application Signature</b> button to disable App Package Signature Verification on the host system. When this option is disabled, the Cisco application-hosting framework does not verify the signature of an app when the app is installed on the host system.  See the <a href="#">Configuring App Signature Validation</a> section.
<b>Trust Anchor area</b>	Appears if the host system supports managing trust anchors.
<b>Import Trust Anchor</b> button	Click to import a trust anchor (a .tar or .tar.gz certificate file) to the host system. Use the Import Trust Anchor dialog box that displays to locate and select the trust anchor that you want, and then click <b>OK</b> .  If you enabled application signature verification, apps are validated against this certificate when they are added to the host system. If the validation fails, an app does not install.  See the <a href="#">Configuring App Signature Validation</a> section.
<b>Refresh</b> button	If a certificate already exists on the host system, click to display the certificate. If this certificate is the one that you want to use, you do not need to import a certificate. If you import a certificate, it replaces the one that exists on the host system.
List of trust anchors	Displays the checksum value and metadata for each certificate that you imported.

## System Troubleshoot Page

The System Troubleshoot page provides options for reviewing events, errors, and diagnostic information on the host system, and managing and obtaining log files and related information for troubleshooting.


The options on this page are useful for troubleshooting the Cisco IOx framework. For related information, see the following sections.


To access the System Troubleshoot page, choose **System Troubleshoot** from the Cisco IOx Local Manager menu bar. The following table describes the fields and options that are available on this page.



Table 5: System Troubleshoot Page Fields and Options

Item	Description
<b>Events area</b>	
<b>Refresh</b> button	Click to update the fields in the Events area with current information. The information in these fields does not update automatically while the System Troubleshoot page is displayed.
<b>Device Uptime</b> field	The amount of time that has passed since the host system last started, shown as days, hours, minutes, and seconds.
<b>CAF Uptime</b> field	The amount of time that has passed since the Cisco application-hosting framework last started on the host system, shown as days, hours, minutes, and seconds.
<b>System Time</b> field	The current date and time on the host system.
<b>Current CAF Stats</b> fields	The following fields provide information about the number of items that have been written to the Cisco application-hosting framework log files since the Cisco application-hosting framework last started on the host system: <ul style="list-style-type: none"> <li>• <b>Warning</b> field—Number of warnings.</li> <li>• <b>Error</b> field—Number of errors.</li> <li>• <b>Critical</b> field—Number of errors that have a severity of critical.</li> <li>• <b>Events</b> field—Number of events. An event typically relates to a successful Cisco application-hosting framework operation.</li> </ul>
<b>Search</b> field and button	Lets you display specific Events or Errors in the Events list or Errors list. See the <a href="#">Viewing Events</a> section or the <a href="#">Viewing Errors</a> section.
<b>Events</b> button	Click to display the Events list. See the <a href="#">Viewing Events</a> section.
<b>Errors</b> button	Click to display the Errors list. See the <a href="#">Viewing Errors</a> section.
Events list	Appears when you click the <b>Events</b> button. Displays information about events that have occurred on the host system. An event typically relates to a successful Cisco application-hosting framework operation. See the <a href="#">Viewing Events</a> section.
Errors list	Appears by default or when you click the <b>Errors</b> button. Displays information about errors that have occurred on the host system and lets you view detailed information about an error. See the <a href="#">Viewing Errors</a> section.
Pagination controls	Let you navigate the Events list or Errors list. See the <a href="#">Viewing Events</a> section or the <a href="#">Viewing Errors</a> section.
<b>Logs area</b>	

Item	Description
<b>Refresh</b> button	Click to update the fields in the Logs area with current information. The information in these fields does not update automatically while the System Troubleshoot page is displayed.
<b>Logging Management</b> button	Click to configure the type and level of information that the host system captures in its log files. See the <a href="#">Configuring Log Files</a> section.
<b>Select Log Type</b> drop-down list	Choose the type of log files that appear in the Log File list. See the <a href="#">Downloading Log Files</a> section.
Log File list	Displays information for each log file, according to the log type option that you choose. See the <a href="#">Downloading Log Files</a> section. You can drag a border between column headings to resize a column.
<b>Diagnostics area</b>	
<b>Diagnostic Type</b> field	Choose the type of diagnostic information to obtain and display. See the <a href="#">Diagnostic Information Workflow</a> section.
<b>Detailed Information</b> check box	Check this check box to display detailed diagnostic information in the Display field. See the <a href="#">Diagnostic Information Workflow</a> section.
Display field	Displays diagnostic information according to the Diagnostic Type option that you chose. See the <a href="#">Diagnostic Information Workflow</a> section.
<b>TechSupport Information area</b>	
<b>Tech Support snapshot file name</b> field	Lists the names of snapshot files that you have generated. A file name has the format <code>tech_support_timestamp</code> , where <i>timestamp</i> is the host system date and time that the file was generated. See the .
<b>File Size</b> field	Size of the snapshot file, in bytes.
<b>Download</b> field	Click <b>download</b> to download the corresponding snapshot file to the location of your choice. See the <a href="#">Downloading a Snapshot File</a> section.
<b>Delete</b> field	Click the <b>Delete</b> icon  to delete the corresponding snapshot file from the host system. See the <a href="#">Deleting a Snapshot File</a> section.
<b>Generate snapshot file</b> button	Click to generate a snapshot file. See the <a href="#">Generating a Snapshot File</a> section.
<b>Refresh</b> button	Click to update the list of snapshot files with current information.
<b>Core file name</b> field	Lists the name of core dump files that the system generated.
<b>File Size</b> field	Size of the core dump file, in bytes.
<b>Download</b> field	Click <b>download</b> to download the corresponding core dump file to the location of your choice. See the <a href="#">Downloading a Core Dump File</a> section.

Item	Description
<b>Delete</b> field	Click the <b>Delete</b> icon  to delete the corresponding core dump file from the host system. See the <a href="#">Deleting a Core Dump File</a> section.
<b>Refresh</b> button	Click to update the list of core dump files with current information.

## Middleware Service Page

The Middleware Service page lists the Cisco Data in Motion middleware service that is available for apps, displays general information about this service, and provides options for starting, stopping, and uploading licenses for it. This service runs on the host system.

To access the Middleware Service page, choose **Middleware Service** from the Cisco IOx Local Manager menu bar. The following table describes the fields and options that are available on this page.

**Table 6: Middleware Service Page Fields and Options**

Item	Description
<b>Name</b> field	Name of the Cisco Data in Motion service.
<b>Status</b> field	Status of the Cisco Data in Motion service: <ul style="list-style-type: none"> <li>• <b>Running</b>—Service is running on the host system</li> <li>• <b>Stopped</b>—Service is not running on the host system</li> </ul>
<b>Actions</b> field	Provides options that you can click to execute operations for the Cisco Data in Motion service. Options that appear depend on the status of the service as follows: <ul style="list-style-type: none"> <li>• <b>start</b>—Click to start a service that has a status of Stopped. See the <a href="#">“Starting a Cisco Data in Motion Service”</a> section.</li> <li>• <b>stop</b>—Click to stop a service that has a status of Running. See the <a href="#">Stopping a Cisco Data in Motion Service</a> section.</li> <li>• <b>license</b>—Click to upload a Data in Motion license to the host system. See the <a href="#">Uploading a Cisco Data in Motion License</a> section.</li> </ul>
<b>Description</b> field	Description of the Cisco Data in Motion service.
<b>Version</b> field	Version of the Cisco Data in Motion service.
<b>Require License</b> field	Indicates whether a license is required for the Cisco Data in Motion service to operate on the host system.
<b>Refresh</b> button	Click to update the page with current information.

## App-ID Page

The *App-ID* page, where *App-ID* is the ID of an app, includes the following tabs. These tabs provide access to pages for viewing information and performing other activities that relate to a specific app.

- **Resources** tab—Displays the Resources page, from which you can assign various resources to an app, activate an app, and deactivate an app. See the [App-ID > Resources Page, on page 12](#) section.
- **App-info** tab—Displays the App-info page, from which you can view system and network information that relates to an app. See the [App-ID > App-info Page, on page 15](#) section.
- **App-Config** tab—Displays the App-Config page, from which you can update configuration information for an app. See the [App-ID > App-Config Page, on page 18](#) section.
- **App-DataDir** tab—Displays the App-DataDir page, from which you can see the contents of the /data directory in an app container, upload files to the /data directory or subdirectory, download files to your local system, and delete files or subdirectories from the /data directory. The files can be configuration files or other files that the app needs when it runs. See the [App-ID > App-DataDir Page, on page 18](#) section.
- **Logs** tab—Displays the Logs page, from which you can view information about and download app log files. See the [App-ID > Logs Page, on page 19](#) section.

To access the *App-ID* page, choose the *App-ID* tab for the app from the Cisco IOx Local Manager menu bar.

If you do not see the tab for an app, choose the **Applications** tab, and then click the **manage** option for the app that you want.

To remove an App-ID tab from the menu bar by, hover your mouse over the tab and click its **Close** button



## App-ID > Resources Page

The *App-ID > Resources* page lets you assign a resource profile (host system CPU and memory resources) to an app, designate the network from which the app obtains its IP address, and activate or deactivate an app. This page also shows CPU and memory resources that are available on the host system.

If needed, refer to the app documentation or developer for information regarding resources that an app requires when it runs.

To access the *App-ID > Resources* page, choose an *App-ID* tab from the Cisco IOx Local Manager menu bar, and then choose **Resources**. The following table describes the fields and options that are available on this page.

**Table 7: App-ID > Resources Page Fields and Options**

Item	Description
Resources title	Click to expand or collapse this page.
Resource Profile area	

Item	Description
<b>Profile</b> drop-down list	<p>Provides options for designating the <i>resource profile</i> for an app. A resource profile designates the amount of host system CPU and memory (RAM) resources that the app requires to run, as follows.</p> <ul style="list-style-type: none"> <li>• <b>default</b>—Assigns CPU and memory resources based on the requirement that is specified in the metadata for the app.</li> <li>• <b>c1.tiny, c1.small, c1.medium, c1.large, or c1.xlarge</b>—Assigns the CPU and memory resources that the options display. These values are based on the host system hardware.</li> <li>• <b>Custom</b>—Lets you enter your own CPU, RAM, and disk space values in the CPU, Memory, and Disk fields</li> </ul> <p>See the <a href="#">Activating an App</a> section for more information.</p>
<b>CPU</b> field	<p>Number of CPU units that the app requires on the host system.</p> <p>If you choose <b>Custom</b> from the <b>Profile</b> drop-down list, enter a value in this field. If you choose another option, the system enters a value in this field for you.</p>
<b>Memory</b> field	<p>Amount of RAM, in MB, that the app requires on the host system.</p> <p>If you choose <b>Custom</b> from the <b>Profile</b> drop-down list, enter a value in this field. If you choose another option, the system enters a value in this field for you.</p>
<b>Disk</b> field	<p>Amount of disk space, in MB, that the app requires on the host system.</p> <p>You can enter a value in this field for any option that you choose from the <b>Profile</b> drop-down list. The value that you enter must be greater than the existing value; you cannot decrease the disk space value.</p>
<b>Vcpu</b> field	<p>Appears only for VM-based apps. Enter the number of virtual CPUs that the app requires on the system.</p> <p>If you choose <b>Custom</b> from the <b>Profile</b> drop-down list, enter a value in this field. If you choose another option, the system enters a value in this field for you.</p>
<b>Avail. CPU</b> field	<p>Number of available CPU units on the host system.</p> <p>The system does not allow you to activate an app if the value in the <b>CPU</b> field exceeds this available CPU value.</p>
<b>Avail. Memory</b> field	<p>Amount of available RAM, in MB, on the host system.</p> <p>The system does not allow you to activate an app if the value in the <b>Memory</b> field exceeds this available memory value.</p>
<b>Max VCPU/App</b> field	<p>Appears only for VM-based apps. Number of virtual CPUs that are available on the host system.</p>

Item	Description
<b>Advanced Settings area</b>	This area appears only if the app type is Docker and the host system supports native Docker.
Docker Options	Enter one or more Docker run options to be used when you activate the app. This field includes the --rm option by default. For related information, see the following row in this table.
Auto delete container instance	Check this check box to add the --rm run option to the Docker Options field and to use this option when you activate the app.  When you stop an app that you activated and started with the --rm option, the app container instance is deleted automatically and the app goes to DEPLOYED state (rather than STOPPED state).  This check box is checked by default.
<b>Network Configuration area</b>	
Network Name drop-down list	Provides options for designating the network from which the app obtains its IP address or addresses. The options that are available in this list depend on the type of host system. Here are examples of some options that can appear: <ul style="list-style-type: none"> <li>• <b>iox-bridge0</b>—App obtains its IP address from a DHCP pool that is configured in Cisco IOS.</li> <li>• <b>ioxnat0</b>—App obtains its IP address from an internal network address translator.</li> <li>• <b>iox-nat_docker0</b>—App obtains its IP address from an internal native Docker network address translator. (Applicable only to host systems that support native Docker.)</li> </ul> <p>The default network that the Cisco Application Framework returns is selected by default, but you can chose another network.</p>
<b>Port Mapping</b> link Available when the Network Name option is set to a nat type network	Click to configure mapping of external ports to internal ports for an app. See Step 11 in the <a href="#">Activating an App</a> section.
<b>Interface Setting</b> link Available when the Network Name option is set to a bridge type network	Click to configure mapping of external ports to internal ports for an app. See the <a href="#">Activating an App</a> section.
<b>Serial Access Configuration area</b>	Appears only if the app metadata requests that a serial port on the host system be assigned for use by the app.

Item	Description
<i>Port_description</i> radio button	Identifies one or more serial ports on the host system that the app metadata requests for use by the app. <i>Port_description</i> is a description of the port usage that comes from the app metadata.  Click the radio button for each port that you want to assign for use by the app.
<b>Activate / Deactivate</b> toggle button	Click to activate or deactivate an app. See the <a href="#">Activating an App</a> section and the <a href="#">Deactivating an App</a> section.
<b>debug mode</b> check box	Appears only for Docker and PAAS type apps. Check this check box to activate the app in debug mode.  If an app that is running in debug mode shuts down unexpectedly, the app does not go to STOPPED state. Instead, the app remains in RUNNING state so that you can use an SSH client to access the app and troubleshoot.  If you want to enable or disable the debug mode of an app that has been activated, you must first deactivate the app.
<b>USB Configuration area</b>	Appears only if the host system can provide this information and if the app metadata requests that a USB port on the host system be assigned for use by the app.
<i>Port_description</i> radio button	Identifies one or more USB ports on the host system that the app metadata requests for use by the app. <i>Port_description</i> is a description of the port usage that comes from the app metadata.  Click the radio button for each port that you want to assign for use by the app.
<b>VNC Options area</b>	Appears only if the host system supports this functionality.
<b>Password</b> field	Enter a password for accessing an app via a VNC session.  Use this password in the VNC client that you use to access the app.
<b>Port</b> field	Enter a port number to be used for accessing the app via a VNC session.  If you do not enter a port number, the system assigns a value.  Valid port numbers are 5900 through 65535.

## App-ID > App-info Page

The *App-ID > App-info* page displays system, resource, and network information that relates to an app. It also provides information that you can use to access an app via a console. Much of the information on this page comes from the app metadata.

To access the *App-ID > App-info* page, choose an *App-ID* tab from the Cisco IOx Local Manager menu bar, and then choose **App-info**. The following table describes the fields and options that are available on this page. Some of the fields on this page appear only when an app is in a specific state or has a specific configuration.

Table 8: App-ID &gt; App-info Page Fields and Options

Item	Description
<b>Application Information area</b>	
<b>ID field</b>	ID of the app
<b>State field</b>	Current state of the app (for example, DEPLOYED).
<b>Name field</b>	Name of the app.
<b>Cartridge Required field</b>	For PAAS applications, the name of each cartridge that the app requires. See the <a href="#">Cartridge Management Workflows</a> section.
<b>Version field</b>	Version of the app.
<b>Author field</b>	Author of the app (for example, the company that provided the app).
<b>Author link field</b>	Link to an external page for the author (for example, the website of the author).
<b>Application Type field</b>	Type of the app (PAAS or MV).
<b>Description field</b>	Brief description of the app.
<b>Toolkit service field</b>	Not used.
<b>Debug mode field</b>	If the app was activated in debug mode, this field shows <b>true</b> . Otherwise, this field shows <b>false</b> .
<b>App Access area</b>	
<b>Console Access</b>	For an app that has a status of RUNNING, displays the command that you can use to access the app via a console. See the <a href="#">Accessing an App via a Console</a> section.
<b>VNC Access field</b>	For a VM-based app that has a status of RUNNING, displays the password and port number that you entered in the VNC Options area in the <i>App-id</i> > Resources page. You use this password and port number when you access an app via a VNC session.
<b>Requested Resource area</b>	
<b>CPU field</b>	Number of CPU units that the app consumes on the host system.
<b>Memory field</b>	RAM, in MB, that the app consumes on the host system.
<b>Profile field</b>	Resource profile that you assigned to the app. See the <a href="#">Activating an App</a> section.
<b>Disk field</b>	Disk space, in MB, that the app consumes on the host system.
<b>Vcpu field</b>	Number of virtual CPUs that are available on the host system for a VM-based app.



Item	Description
<b>Network Information area</b>	
<b>interface-name</b> field	<p>Name of the network interfaces that the app uses for network access. Click an interface name to display a dialog box that shows the following information, as available:</p> <ul style="list-style-type: none"> <li>• <b>interface-name</b>—Name of the network interface that the app uses for network access.</li> <li>• <b>TCP</b>—If the app metadata requests that TCP ports be open on the host system, displays the TCP port number or numbers that the app requests be open for its use. If <b>info</b> appears in this field, click <b>info</b> to display a dialog box that provides port mapping information for this network interface.</li> <li>• <b>UDP</b>—If the app metadata requests that UDP ports be open on the host system, displays the TCP port number or numbers that the app requests be open for its use. If <b>info</b> appears in this field, click <b>info</b> to display a dialog box that provides port mapping information for this network interface.</li> <li>• <b>mac_address</b>—MAC address of the network interface that the app uses for network access.</li> <li>• <b>network_name</b>—Name of the network on which the app is activated.</li> <li>• <b>ipv4</b>—IPv4 address that is assigned to the internal interface of the app.</li> <li>• <b>ipv6</b>—IPv6 address that is assigned to the internal interface of the app.</li> </ul>
<b>Device Information area</b>	
<b>SLNo</b> field	Row number in this area number for the corresponding information.
<b>usage</b> field	Description of the USB or serial device that the app uses on the host system.
<b>device-id</b> field	Unique ID used by the host system to identify the USB or serial device that the app uses.
<b>type</b> field	Indicates the type of device ( <b>serial</b> or <b>usbport</b> ).
<b>label</b> field	ID used by the app to identify the USB or serial device that the app uses on the host system.
<b>App Health area</b>	
<b>App Health</b> field	Description of the health of the app. “Healthy” means that the app has no errors and is operating normally. “Unhealthy” means that the app has errors. Click a description to see more detailed information, if available.
<b>Reconcile Attempted</b> field	If Cisco IOx determined that the app was corrupted and tried to recover the app, this field shows <b>true</b> . Otherwise, this field shows <b>false</b> .

Item	Description
<b>Reconcile Failure</b> field	If Cisco IOx tried to recover the app but was not able to, this field shows <b>true</b> . Otherwise, this field shows <b>false</b> .  If this field shows <b>true</b> , the app must be recovered manually.
<b>Resource Usage area</b>	
<b>CPU</b> field	Percentage of total CPU units on the host system that the app is currently consuming.
<b>Memory</b> field	Memory, in KB, that the app is currently consuming on the host system.
<b>Disk</b> field	Disk space, in MB, that the app is currently consuming on the host system.
<b>Network</b> field	Data, in bytes, that the app has received from and transferred to the host system.
<b>Refresh</b> button	Click to update the page with current information.

## App-ID > App-Config Page

The *App-ID > App-Config* page from lets you update the configuration file for an app.

An app configuration file is a text file named `package_config.ini`, which is stored in the `/data` directory in the app container for the app. When an app starts, it obtains configuration parameters from this file, if the file exists. The contents and use of this file by its app are defined by the app developer.

To access the *App-ID > App-Config* page, choose an *App-ID* tab from the Cisco IOx Local Manager menu bar, and then choose **App-Config**. The following table describes the fields and options that are available on this page.

**Table 9: App-ID > App-Config Page Fields and Options**

Item	Description
Text field	Lets you enter configuration information for the app. See the <a href="#">“Updating an App Configuration file”</a> section.
<b>Save</b> button	Click to save the updates that you made in the <b>Text</b> field.

## App-ID > App-DataDir Page

The *App-ID > App-DataDir* page lets you see the contents of the `/data` directory in an app container, upload files to the `/data` directory or subdirectory, download files to your local system, and delete files or subdirectories from the `/data` directory. The files can be configuration files or other files that the app needs when it runs. log files, and other files that are created while app is running.

To access this page, the app must be in the **ACTIVATED**, **RUNNING**, or **STOPPED** state. This page is not available for use when an app is in the **DEPLOYED** state.

To access the *App-ID* > App-DataDir page, choose an *App-ID* tab from the Cisco IOx Local Manager menu bar, and then choose **App-DataDir**. The following table describes the fields and options that are available on this page.

**Table 10: App-ID > App-DataDir Page Fields and Options**

Item	Description
Current Location	Location in the app container /data directory of a folder that you clicked in the Name field.
Name field	Displays the files and subdirectories in the app container /data directory. In this field, you can take the following actions: <ul style="list-style-type: none"> <li>• If you are viewing a subdirectory, click <code>../</code> to display the contents of the directory that is one level up from the directory that you are viewing.</li> <li>• Click the <b>Home</b> button to the contents of the top level of the /data directory.</li> <li>• Click a subdirectory name to see its contents.</li> <li>• Click a file name to download the file to your local PC. See the <a href="#">Downloading a File from an App Data Directory</a> section.</li> </ul>
Type field	Indicates the type of the corresponding item: <ul style="list-style-type: none"> <li>• <b>file</b>—Item is a file in the /data directory or a subdirectory</li> <li>• <b>dir</b>—Item is a subdirectory in the /data directory</li> </ul>
Size field	Size of a file, in bytes. For directories, the size displays as 0.
Actions field	Provides the <b>delete</b> option for deleting a file or directory. See the <a href="#">Deleting a File or Directory from an App Data Directory</a> section.
Home button	Click to display in the Name field the contents of the top level of the /data directory.

## App-ID > Logs Page

The *App-ID* > Logs page provides information about the app log files that the app creates in the /data/logs directory in the app container for the app, and lets you download these log files.

To access the *App-ID* > Logs page, choose an *App-ID* tab from the Cisco IOx Local Manager menu bar, and then choose **Logs**. The following table describes the fields and options that are available on this page.

**Table 11: App-ID > Logs Page Fields and Options**

Item	Description
Log name field	Name of the log file.
Timestamp field	Host system date and time that the log file was last updated.
Log Size field	Size of the log file, in bytes.

Item	Description
download button	Lets you download a log file. See the <a href="#">Downloading an App Log File</a> section.