
CloudExpress

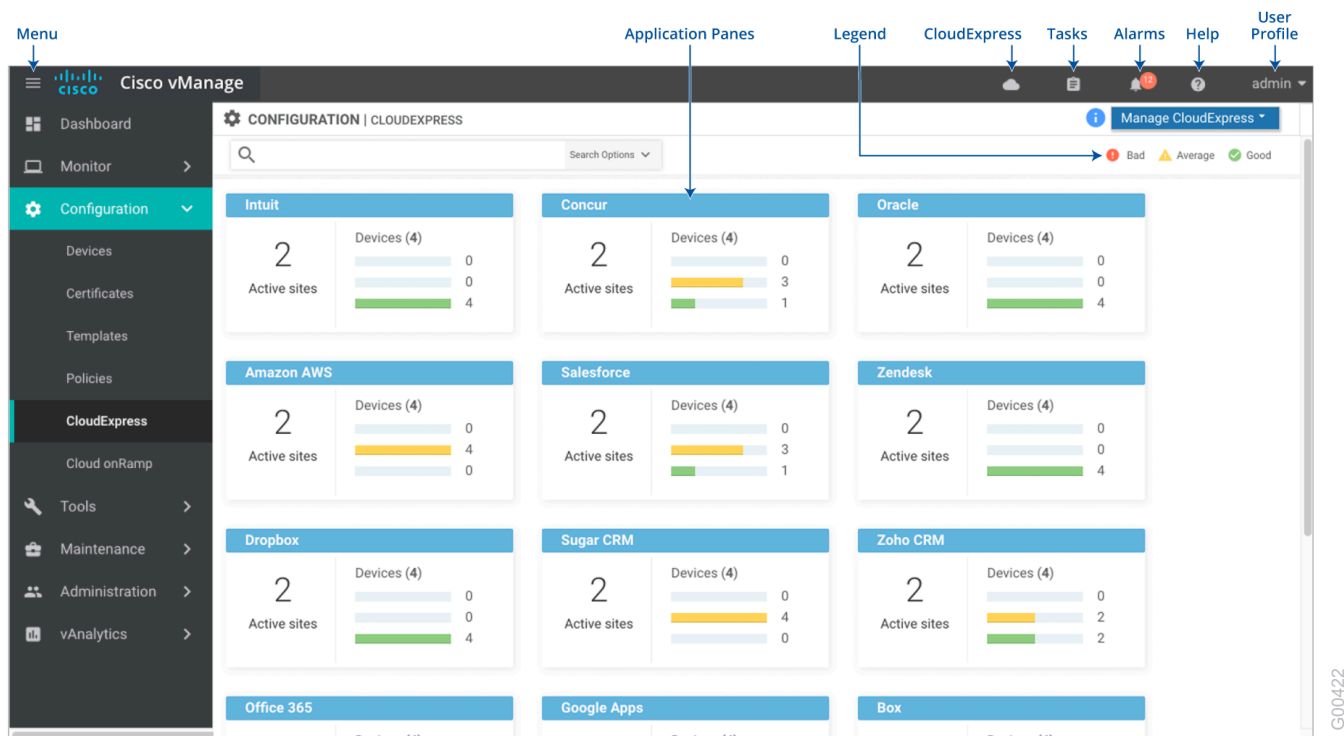
Use the CloudExpress dashboard to configure the CloudExpress service and to view the performance of cloud applications for which you have enabled CloudExpress service.

CloudExpress service calculates a value called the Viptela Quality of Experience (vQoE). The vQoE value weighs loss and latency using a formula customized for each application. For example, email applications tolerate latency better than video applications do, and video applications tolerate loss better than email does. The vQoE value ranges from zero to ten, with zero being the worst quality and ten being the best. CloudExpress service computes vQoE values for applications and paths, then assigns applications to the paths that best match their vQoE value. CloudExpress service periodically recalculates vQoE values for paths to ensure ongoing optimal application performance.

Screen Elements

- Top bar—On the left are the menu icon, for expanding and collapsing the vManage menu, and the vManage product name. On the right are a number of icons and the user profile drop-down.
- Title bar—Includes the title of the screen, CloudExpress.
- Search box—Includes the Search Options drop-down, for a Contains or Match string.
- Application panes—Display performance of individual applications.
- Legend—Indicates quality of experience levels for cloud applications.
- Manage CloudExpress—Manage CloudExpress applications, client sites, gateways, and Direct Internet Access (DIA) sites.





View Application Performance

Each pane in the CloudExpress dashboard displays the performance of a cloud application.

Each application pane displays the number of vEdge routers accessing the application and the quality of the connection:

- The bottom status bar displays green for devices experiencing good quality.
- The middle status bar displays yellow for devices experiencing average quality.
- The top status bar displays red for devices experiencing bad quality.

The number to the right of each status bar indicates how many devices are experiencing that quality of connection.

View Details about an Application

1. Click in an application's pane. vManage NMS displays a list of sites accessing the application.
2. Click a graph icon in the vQoE Score column to display vQoE history for that site.
 - Click the time duration links to adjust the data the chart displays.



- Hover over a point on the chart to display vQoE details for that point in time.

Manage CloudExpress Applications

Select Manage CloudExpress ► Applications. The screen changes and displays the following elements:

- Add Applications and VPN—Add applications to CloudExpress service.
- Applications table—Display applications and VPNs configured for CloudExpress service.

The screenshot shows the vManage Configuration page for CloudExpress Manage Applications. The interface includes a sidebar menu with 'Configuration' selected, and a main area with a table of applications and their VPNs. Annotations point to the 'Menu', 'Applications Table', 'CloudExpress', 'Tasks', 'Alarms', 'Help', and 'User Profile' sections.

Applications	VPN
<input type="checkbox"/> Concur	1
<input type="checkbox"/> Salesforce	1
<input type="checkbox"/> Amazon AWS	1
<input type="checkbox"/> Google Apps	1
<input type="checkbox"/> Intuit	1
<input type="checkbox"/> Oracle	1
<input type="checkbox"/> Zendesk	1
<input type="checkbox"/> Dropbox	1
<input type="checkbox"/> Sugar CRM	1
<input type="checkbox"/> Goto Meeting	1
<input type="checkbox"/> Box	1
<input type="checkbox"/> Zoho CRM	1
<input type="checkbox"/> Office 365	1

To edit the VPN configured for an application, click the Edit icon for that application, then enter the new VPN. You can enter any VPN other than 0, which is the transport VPN, or 512, which is the management VPN.

To add applications to CloudExpress service:

1. From the Manage CloudExpress drop-down, located to the right of the title bar, select Applications.
2. Click the Add Applications and VPN button. The Add Applications & VPN popup window displays.
3. In the Applications field, select an application.



4. In the VPN field, enter the service VPN in which that application runs. You can enter any VPN other than 0 and 512.
5. Click Add.
6. Repeat Steps 2 through 4 for each application you want to add.
7. Click Save Changes.

Manage CloudExpress Client Sites

Client sites in CloudExpress service choose the best gateway site for each application to use for accessing the internet. In the title bar, select Manage CloudExpress ► Client Sites. The screen changes and displays the following elements:

- Attach Sites—Add client sites to CloudExpress service.
- Detach Sites—Remove client sites from CloudExpress service.
- Client sites table—Display client sites configured for CloudExpress service.

The screenshot displays the vManage interface for managing CloudExpress client sites. The sidebar on the left contains a 'Menu' icon and various navigation options. The main panel shows the 'Manage Sites' configuration page. At the top, there's a search bar and buttons for 'Attach Sites' and 'Detach Sites'. Below this is a table labeled 'Client Sites Table' with columns for 'Site Id' and 'Status'. A single site with ID 100 and a green status is listed. The interface also includes a status bar at the top indicating '0 Rows Selected' and a 'Total Rows: 1' count.

To display details about a client site, select the site from the Client Sites Table and click the forward arrow located to the right of the row.

To detach a client site, select the site from the Client Sites Table and click Detach Sites.



To add client sites to CloudExpress service:

1. Click Attach Sites. The Attach Sites popup window displays all sites in your overlay network, with available sites highlighted. For a site to be available, all devices at that site must be running in vManage mode.
2. In the Available Sites pane, select a site to attach and click the right arrow. If you wish to remove a site from the Selected Sites pane, select the site and click the left arrow.
3. Click Attach to push the new template to the vEdge routers.

Manage CloudExpress Gateways

Gateway sites in CloudExpress service choose the best network path for application traffic that originates at client sites.

In the title bar, select Manage CloudExpress ► Gateways. The screen changes and displays the following elements:

- Attach Gateways—Attach gateway sites.
- Detach Sites—Remove gateway sites from CloudExpress service.
- Edit Sites—Edit interfaces on gateway sites.
- Gateways table—Display gateway sites configured for CloudExpress service.

The screenshot shows the vManage CloudExpress Manage Gateways configuration page. The interface includes a left sidebar menu with options like Dashboard, Monitor, Configuration, Devices, Certificates, Templates, Policies, CloudExpress, Tools, Maintenance, Administration, and vAnalytics. The main content area shows the 'CONFIGURATION CloudExpress > Manage Gateways' page. At the top, there are buttons for 'Attach Gateways', 'Detach Sites', and 'Edit Sites'. Below these is a search bar and a status summary: 'Devices in sync', 'Sync pending', and 'One or more devices out of sync'. The 'Gateways Table' is displayed with columns for 'Site Id' and 'Status'. One row is visible with 'Site Id' 400 and a green checkmark in the 'Status' column. The top right of the interface has navigation links for CloudExpress, Tasks, Alarms, Help, and User Profile (admin).

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To display details about a gateway site, select the site from the Gateways Table and click the forward arrow located to the right of the row.

To detach a gateway site, select the site from the Gateways Table and click Detach Gateways.

To attach gateways:

1. Click Attach Gateways. The Attach Gateways screen displays. The Site List shows all available sites in your overlay network. For a site to be available, all devices at that site must be running in vManage mode.
2. In the Available Gateways pane, select a site to attach and click the right arrow. If you wish to remove a site from the Selected Sites pane, select the site and click the left arrow.
3. If you would like to specify GRE interfaces for CloudExpress service to use:
 1. Click Add Interfaces to Selected Sites.
 2. In the Interfaces drop-downs, add GRE interfaces.

If you do not specify interfaces for CloudExpress service to use, the system will select a NAT-enabled physical interface from VPN 0.

4. Click Attach to push the new template to the vEdge routers.

To edit CloudExpress interfaces on gateway sites:

1. Select the sites you want to edit and click Edit Gateways.
2. In the Edit Interfaces of Selected Sites screen, select a site to edit.
 - To add interfaces, click the Interfaces field to select available interfaces.
 - To remove an interface, click the X beside its name.
3. Click Save Changes to push the new template to the vEdge routers.

Manage CloudExpress DIA Sites

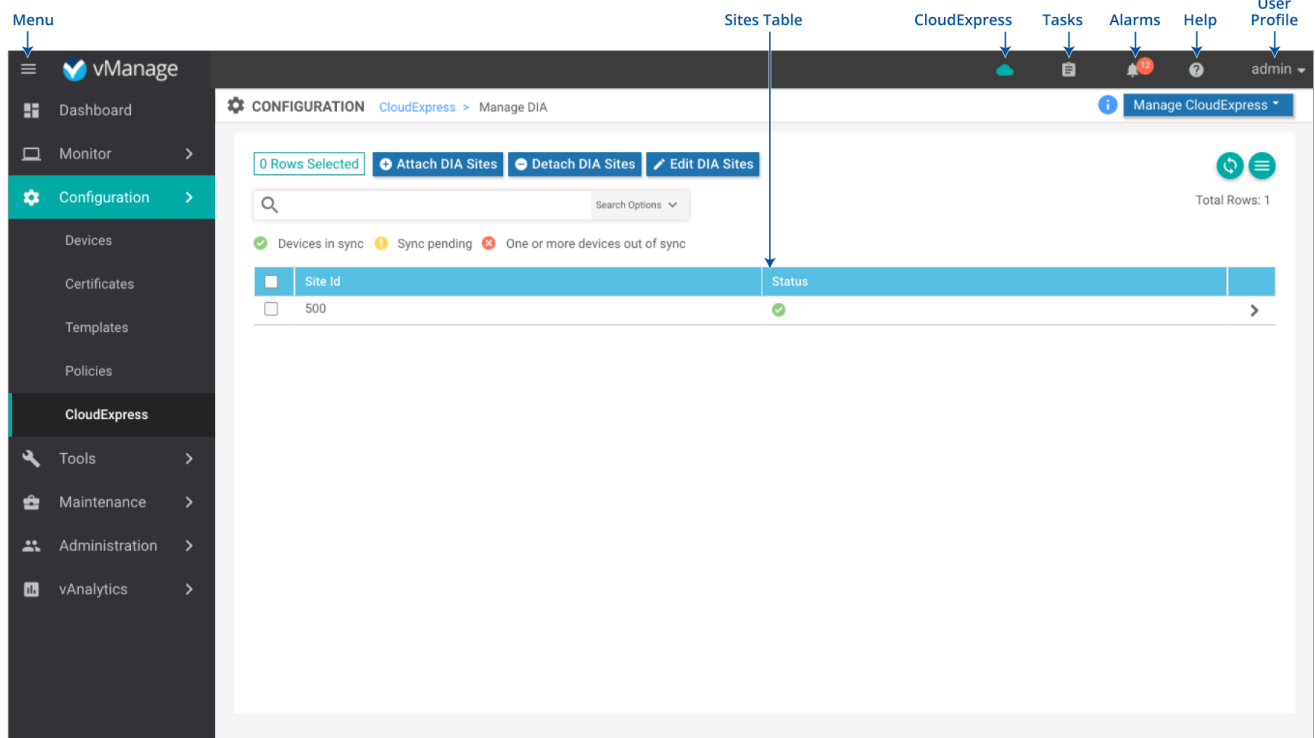
In CloudExpress service, DIA sites choose the best internet path for the application to use. They also consider paths that exit to the internet through gateway sites.

In the title bar, select Manage CloudExpress ► DIA. The screen changes and displays the following elements:

- Attach DIA Sites—Attach DIA sites.
- Detach DIA Sites—Remove DIA sites.
- Edit DIA Sites—Edit interfaces on DIA sites.



- Sites table—Display sites configured for CloudExpress service.



To display details about a site, select the site from the Sites Table and click the forward arrow located to the right of the row.

To detach a DIA site, select the site from the Sites Table and click Detach DIA Sites.

To attach DIA sites:

1. Click Attach DIA Sites. The Attach DIA Sites screen displays. The Site List shows all sites in your overlay network, with available sites highlighted. For a site to be available, all devices at that site must be running in vManage mode.
2. In the Available Sites pane, select a site to attach and click the right arrow. If you wish to remove a site from the Selected Sites pane, select the site and click the left arrow.
3. If you would like to specify GRE interfaces for CloudExpress service to use:
 1. Click Add Interfaces to Selected Sites.
 2. In the Interfaces drop-downs, add GRE interfaces.

If you do not specify interfaces for CloudExpress service to use, the system will select a NAT-enabled physical interface from VPN 0.

4. Click Save Changes to push the new template to the vEdge routers.



To edit CloudExpress interfaces on DIA sites:

1. Select the sites you want to edit and click Edit DIA Sites.
2. In the Edit Interfaces of Selected Sites screen, select a site to edit.
 - To add interfaces, click the Interfaces field to select available interfaces.
 - To remove an interface, click the X beside its name.
3. Click Save Changes to push the new template to the vEdge routers.

