



# Field Reference for Reports

This section provides field descriptions for pages found under the **Reports** menu in Cisco Prime Infrastructure Release 3.1.

- [Report Launch Pad](#)
- [Report Results](#)
- [Scheduled Run Results](#)
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## Report Launch Pad

The following topics contain field descriptions for reports found in **Reports > Report Launch Pad**.

- [Report Launch Pad > Report Type > New](#)
- [Report Launch Pad > Report Type > New > Customize](#)

## Report Launch Pad > Report Type > New

**Table 6-1** Report Launch Pad > Report Type > New Field Descriptions

Field	Description
<b>Settings</b>	
Create reports in current and each sub Virtual Domains	<p>Select this check box if you want to create reports not only in current virtual domain but also for each sub virtual domains. Click the <b>View sub Virtual Domains</b> link to view details about the virtual domains such as the name of the virtual domain, email address, and the time zone.</p> <p>If this check box is enabled and the report is not scheduled, the report template is created and saved in all the subdomains but the report is not run. If the <b>Create reports in current and sub Virtual Domains</b> check box is checked, and the report is scheduled, then the report is scheduled in all the subdomains and is run at the scheduled time.</p> <p>If this check box is enabled, you can only save the report. All other options (such as run, run and save, save and export, save and email) are not visible in the report details page. This means that the reports can only be created and scheduled to run in sub domains.</p> <p>There should be a sufficient time interval (at least 30 minutes) between the report creation and report execution as the report creation time varies between different systems.</p>

Table 6-1 Report Launch Pad &gt; Report Type &gt; New Field Descriptions (continued)

Field	Description
Report Title	Enter a report name. This report title is suffixed with <i>_VirtualDomainName</i> if you select the <b>Create reports in current and each sub Virtual Domains</b> check box. The <i>VirtualDomainName</i> is the name of the virtual domain for which the report has been generated.
Report By	Choose the appropriate Report By category from the drop-down list. The categories differ for each report.
Report Criteria	The field allows you to sort your results depending on the previous <b>Report By</b> selection made. Click <b>Edit</b> to open the Filter Criteria page and select the required filter criteria.
Reporting Period	Do one of the following: <ul style="list-style-type: none"> <li>• Select the <b>Select a time period</b> radio button and choose the period of time from the drop-down list.</li> <li>• Select the <b>From</b> radio button and enter the From and To dates and times. You can type a date in the text box or click the calendar icon to choose a date. Choose the hours and minutes from the drop-down lists.</li> </ul>
<b>Schedule</b>	
Scheduling	Check the <b>Enable</b> check box to run the report on the set schedule.
Export Format	Choose <b>CSV</b> or <b>PDF</b> as the file format to use when exporting the report results after a report is run. The default file locations for CSV and PDF files are as follows: <p style="text-align: center;"><i>/ncs-ftp/reports/Inventory/ReportTitleName_yyyymmdd_HHMMSS.csv</i></p> <p style="text-align: center;"><i>/ncs-ftp/reports/Inventory/ReportTitleName_yyyymmdd_HHMMSS.pdf</i></p>
Destination	Choose your destination type (File or Email). Enter the applicable file location or the email address. <p>If you checked the <b>Create reports in current and each sub Virtual Domains</b> check box, the Email to default Contact in each Virtual Domain radio button appears instead of the Email radio button. You can click the <b>View Contacts</b> link to view the email IDs for the various virtual domains.</p> <p>To set the mail server setup for emails, choose <b>Administration &gt; Settings &gt; System Settings</b>, then choose <b>Mail Server Configuration</b> from the left sidebar menu to open the Mail Server Configuration page. Enter the SMTP and other required information.</p> <p>If an email address is not specified for a subVirtual Domain then the email address of the current Virtual Domain is used if it is specified for the current Virtual Domain.</p>

Table 6-1 Report Launch Pad &gt; Report Type &gt; New Field Descriptions (continued)

Field	Description
Start Date/Time	<p>Enter a date in the provided text box or click the calendar icon to open a calendar from which you can choose a date. Choose the time from the hours and minutes drop-down lists. The report begins to run on this data and at this time.</p> <p>The time referred to here is the Prime Infrastructure server time and not the local time of the browser.</p> <p><b>Note</b> If you generate a report for older records (e.g. 4 months old) or if the report is generated based on the weekly aggregated table then the generated report will have only one entry per week.</p> <p>If you selected the <b>Create reports in current and each sub Virtual Domains</b> check box then the <b>Use Virtual Domain time zone</b> check box appears. Select this check box if you want to use the time zone of the virtual domain as the time zone of the report. Click the <b>View time zones</b> link to view the timezones of the various virtual domains.</p>
Recurrence	<p>Select the frequency for the report to be run from the following options:</p> <ul style="list-style-type: none"> <li>• No Recurrence—The report runs only once (at the time indicated for the Start Date/Time).</li> <li>• Hourly—The report runs on the interval indicated by the number of hours you enter in the Entry text box.</li> <li>• Daily—The report runs on the interval indicated by the number of days you enter in the Every text box.</li> <li>• Weekly—The report runs on the interval indicated by the number of weeks you enter in the Every text box and on the days specified by the selected check boxes.</li> <li>• Monthly—The report runs on the interval indicated by the number of months you enter in the Every text box.</li> </ul>

## Report Launch Pad > Report Type > New > Customize

Table 6-2 Report Launch Pad &gt; Report Type &gt; New &gt; Customize Field Descriptions

Field	Description
Custom Report Name	<p>Choose the report you intend to customize from the drop-down list.</p> <p><b>Note</b> The Available data fields and Data fields to include column heading selections might change depending on the report selected.</p>
Available data fields / Data fields to include	<p>Use the <b>Add</b> and <b>Remove</b> buttons to move the highlighted fields between the <b>Available data fields</b> and <b>Data fields to include</b> columns.</p> <p>Fields that appear in blue font in the <b>Data fields to include</b> column are mandatory fields for the report selected in the Custom Report Name field.</p>

**Table 6-2** Report Launch Pad > Report Type > New > Customize Field Descriptions (continued)

Field	Description
Change order buttons	Use the <b>Move Up</b> and <b>Move Down</b> buttons to determine the order of the columns in the results table. The higher the column heading appears in the Selected Columns list, the farther left it appears in the results table.
Data field sorting	<p>Indicate your sorting preference (Ascending or Descending). Determine how the report data is sorted.</p> <p>You can select four data fields for which you can specify sorting order. Use the Sort by and Then by drop-down lists to choose each data field for sorting.</p> <p>For each sorted data field, choose whether you want it sorted in Ascending or Descending order.</p> <p>Only reports in table form (rather than graphs or combined) can be sorted. Only fields that can be sorted appear in the Data field sorting drop-down lists.</p> <p>The Sortable fields displayed in the Create Custom Report page list all sortable fields irrespective of the data fields that are in the Data fields to include pane. The report is sorted based on the data field selected even if that column is not displayed in the report.</p>

## Report Results

This section describes the results displayed for the various report types, depending on how the reports are customized on the **Reports > Report Launch Pad > Report Type > New > Customize > Create Custom Report** page.

## Client Reports

The following topics describe the fields displayed on the Client Reports.

### Busiest Clients Report Results

**Table 6-3** Busiest Clients Report Results Field Descriptions

Field	Description
Client MAC Address	The MAC address of the client.
IP Address	The IP address of the client. This field displays IPv6 address for IPv6 clients and IPv4 address for IPv4 and dual stack clients.
Protocol	802.11a/n or 802.11b/g/n.
Throughput	Either Mbps or kbps. If throughput is less than 0.1 kbps, you see <0.1 kbps.
Global Unique	The aggregate global unicast address of an IPv6 address. This field is populated only if a client is assigned a Global Unique IPv6 address.
Local Unique	The local unicast address of an IPv6 address. This field is populated only if a client is assigned a Local Unique IPv6 address.
Link Local	The link local unicast address of an IPv6 address. This field is populated only if a client is assigned a Link Local IPv6 address.

**Table 6-3** *Busiest Clients Report Results Field Descriptions (continued)*

Field	Description
On Device	The device on which the client is located.
Bytes sent (MB)	The number of bytes sent and received in MB.
Bytes received (MB)	If the value is greater than 1,000,000,000, a G is appended at the end of the value (such as 3.45 G). If the value is greater than 1,000,000 but less than 1,000,000,000, an M is appended at the end of the value (such as 456.8 M).
Packets sent	The number of packets sent and received in MB.
Packets received	If the value is greater than 1,000,000,000, a G is appended at the end of the value (such as 3.45 G). If the value is greater than 1,000,000 but less than 1,000,000,000, an M is appended at the end of the value (such as 456.8 M).

## Client Sessions Report Results

**Table 6-4** *Client Sessions Report Results Field Descriptions*

Field	Description
Client Username	The username of this client.
IP Address	The IP address of this client.
MAC Address	The MAC address of this client.
Association Time	The date and time this client associated.
Access Point Name	The access point name to which this client is assigned.
Map Location	The building, floor area, or outdoor area (as applicable) where the client is located.
SSID	The SSID to which this client is associated.
Profile	The name of the profile to which this client is associated.
VLAN ID	The VLAN Identifier. The range is 1 to 4096.
Protocol	802.11a, 802.11b, 802.11g, 802.11n_5GHz, or 802.11b_2.4GHz.
Policy Type	The type of security policy for this client session.
Host Name	The DNS hostname of the machine on which this client is located.  Prime Infrastructure performs a DNS lookup to resolve the hostname from the client IP address. The IP address to hostname mapping must be defined in a DNS server. By default, the hostname lookup is disabled. Use <b>Administration &gt; Settings &gt; System Settings &gt; Clients</b> to enable hostname lookup.
Global Unique	The aggregate global unicast address of an IPv6 address. This field is populated only if a client is assigned a global unique IPv6 address.
Local Unique	The local unicast address of an IPv6 address. This field is populated only if a client is assigned a local unique IPv6 address.
Link Local	The link local unicast address of an IPv6 address. This field is populated only if a client is assigned a link local IPv6 address.
CCX	The Cisco Client Extension version number.
AP MAC Address	The MAC address of the access point.
AP IP Address	The IP address of the access point.

**Table 6-4** Client Sessions Report Results Field Descriptions (continued)

Field	Description
AP Radio	The radio type of the access point.
Device IP Address	The IP address of the device to which this client is associated.
Device Port	The port number for the device to which this client is associated.
Anchor Controller	The IP address of the anchor or foreign controller for the mobility client, if applicable.
Association ID	The Association ID used in this client session.
Disassociation Time	The date and time this client disassociated.
Authentication	The authentication method for this client.
Encryption Cypher	Encryption cypher used in this client session.
EAP Type	EAP type used in this client session.
Authentication Algorithm	EAP type used in this client session.
Web Security	Web security used in this client session.
Tx and Rx (bytes)	The approximate number of bytes transmitted or received during the client session.
SNR	Signal-to-noise ratio for this client session.
RSSI	The Received Signal Strength Indicator in dBm.
Status	Associated or disassociated.
Reason	Reason for disassociation.
E2E	Version number or Not Supported.

## Client Traffic Stream Metrics Report Results

**Table 6-5** Client Traffic Stream Metrics Report Results Field Descriptions

Field	Description
Time	Time that the statistics were gathered from the access point(s).
Client MAC	MAC address of the client. This shows a list of the clients evaluated during the most recent 90-second interval. The client could be a VoIP phone, laptop, PDA and refers to any client attached to the access point collecting measurements.
QoS	QoS values (packet latency, packet jitter, packet loss, roaming time) that can affect the WLAN are monitored. Access points and clients measure the metrics, access points collect the measurements and send them to the controller. The access points update the controller with traffic stream metric information every 90 seconds and 10 minutes of data per client is stored in the WLC. Prime Infrastructure polls this data and stores it for the last seven days.
AP Name	The name of the access point to which this client is associated.
Radio Type	The radio type of the access point.
Avg Queuing Delay (ms) (Downlink)	Average queuing delay in milliseconds for the downlink. Average packet queuing delay is the average delay of voice packets traversing the voice queue. Packet queue delay is measured beginning when a packet is queued for transmission and ending when the packet is successfully transmitted. It includes time for retries, if needed.

**Table 6-5** Client Traffic Stream Metrics Report Results Field Descriptions (continued)

Field	Description
Avg Queuing Delay (ms) (Uplink)	Average queuing delay in milliseconds for the uplink. Average packet queuing delay is the average delay of voice packets traversing the voice queue. Packet queue delay is measured beginning when a packet is queued for transmission and ending when the packet is successfully transmitted. It includes time for retries, if needed.
% PLR (Downlink)	Percentage of packets lost on the downlink (access point to client) during the 90-second interval.
% PLR (Uplink)	Percentage of packets lost on the uplink (client to access point) during the 90-second interval.
% Packets > 40ms Queuing Delay (Uplink)	Percentage of queuing delay packets greater than 40 milliseconds.
% Packets 20ms-40ms Queuing Delay (Uplink)	Percentage of queuing delay packets between 20 to 40 milliseconds.
Roaming Delay	Roaming delay in milliseconds. Roaming delay, which is measured by clients, is measured beginning when the last packet is received from the old access point and ending when the first packet is received from the new access point after a successful roam.

## Unique Clients and Users Report Results

**Table 6-6** *Unique Clients and Users Report Results Field Descriptions*

Field	Description
Client User Summary	<p>Displays the client user summary information. It includes the following:</p> <ul style="list-style-type: none"> <li>• Number of Unique Clients</li> <li>• Number of Sessions</li> <li>• Number of Unique Users</li> <li>• Number of Unique APs</li> <li>• Average Users per AP</li> <li>• Average Clients per AP</li> <li>• Total Session Time (Hours)</li> <li>• Average Session Time (Minutes)</li> <li>• Average Session Time per User (Minutes)</li> <li>• Average Session Time per Client (Minutes)</li> </ul>
Client Traffic Summary	<p>Displays the client traffic summary information. The reports for Total Traffic and Total clients show hourly data for up to 15 days. It includes the following:</p> <ul style="list-style-type: none"> <li>• Total Traffic (MB)</li> <li>• Total Throughput (Mbps)</li> <li>• Total Sessions</li> <li>• Total Clients</li> <li>• Total Unique Users</li> <li>• Total Session Time (Hours)</li> <li>• Average Traffic per Session (KB)</li> <li>• Average Traffic per User (KB)</li> <li>• Average Traffic per Client (KB)</li> <li>• Average Throughput per Session (Kbps)</li> <li>• Average Throughput per User (Kbps)</li> <li>• Average Throughput per Client (Kbps)</li> </ul>



**Table 6-6** Unique Clients and Users Report Results Field Descriptions (continued)

Field	Description
Client Summary by Protocol	<p>Displays the client summary by protocol. It includes the following:</p> <ul style="list-style-type: none"> <li>• Protocol—802.11a, 802.11b, 802.11g, 802.11n_5GHz, or 802.11b_2.4GHz, 802.3, 802.11ac</li> <li>• Number of Sessions</li> <li>• Number of Clients</li> <li>• Number of Users</li> <li>• Session Time (Hours)</li> <li>• Traffic (MB)</li> <li>• % of Sessions</li> <li>• % of Clients</li> <li>• % of Users</li> <li>• % of Session Time</li> <li>• % of Traffic</li> </ul>
Client Summary by Vendor	<p>Displays the client summary by vendor. It includes the following:</p> <ul style="list-style-type: none"> <li>• Vendor</li> <li>• Number of Sessions</li> <li>• Number of Clients</li> <li>• Number of Users</li> <li>• Session Time (Hours)</li> <li>• Traffic (MB)</li> <li>• % of Sessions</li> <li>• % of Clients</li> <li>• % of Users</li> <li>• % of Session Time</li> <li>• % of Traffic</li> </ul>

## CCX Client Statistics Report Results

**Table 6-7** CCX Client Statistics Report Results Field Descriptions

Field	Description
Client MAC Address	The MAC address of the client.
Transmitted Fragment Count	This counter increments for each successfully received MPDU Data or Management type.
Multicast Transmitted Frame Count	This counter increments only when the multicast bit is set in the destination MAC address of a successfully transmitted MAC Service Data Unit (MSDU). When operating as a Station (STA) in an Extended Service Set (ESS), where these frames are directed to the access point, this implies having received an acknowledgment to all associated MAC Protocol Data Units (MPDUs).

**Table 6-7** *CCX Client Statistics Report Results Field Descriptions (continued)*

Field	Description
Failed Count	This counter increments when an MSDU is unsuccessfully transmitted.
Retry Count	This counter increments when an MSDU is successfully transmitted after one or more retransmissions.
Multicast Retry Count	This counter increments when an MSDU is successfully transmitted after more than one retransmission.
Frame Duplicate Count	This counter increments when a frame is received that the Sequence Control field indicates is a duplicate.
RTS Success Count	This counter increments when a CTS (clear-to-send) is received in response to an RTS (ready-to-send).
RTS Fail Count	This counter increments when a clear-to-send is not received in response to a ready-to-send.
ACK Fail Count	This counter increments when an ACK is not received when expected.
Received Fragment Count	The total number of packets received that were less than 64 octets in length (excluding framing bits but including FCS octets).
Multicast Received Frame Count	This counter increments when an MSDU is received with the multicast bit set in the destination MAC address.
FCS Error Count	This counter increments when a Frame Check Sequence error is detected in a received MPDU.
Transmitted Frame Count	This counter increments for each successfully transmitted MSDU.

## Device Reports

The following topics describe the fields displayed on the Device Reports.

### AP Image Predownload Report Results

**Table 6-8** *AP Image Predownload Report Results Field Descriptions*

Field	Description
AP Name	The name of the access point.
Primary Image	Current Primary Image present in the AP.
Backup Image	Current Backup Image present in the AP.
Predownload Version	The image version that is currently downloading to the AP from the controller as part of the predownload process.
Predownload Status	The current status of the image download as part of the predownload process.
MAC Address	The MAC Address of the AP.

**Table 6-8** AP Image Predownload Report Results Field Descriptions (continued)

Field	Description
Controller IP Address	IP address of the controller to which the access point is associated.
Upgrade Role	The current status of the upgrade role. It could be any of the following: <ul style="list-style-type: none"> <li>• Master Central</li> <li>• Master Local</li> <li>• Slave Central</li> <li>• Slave Local</li> <li>• Unknown</li> </ul>

## AP Profile Status Report Results

**Table 6-9** AP Profile Status Report Results Field Descriptions

Field	Description
Time	The date and time at which AP Profile Status is collected.
AP Name	The name of the access point.
AP MAC Address	The MAC Address of the access point.
Radio Type	802.11a/n or 802.11b/g/n.
Load	Pass or Fail. Indicates whether or not the load level exceeds a threshold level.
Noise	Pass or Fail. Indicates whether or not the noise level exceeds a threshold level.
Interference	Pass or Fail. Indicates whether or not the interference level exceeds a threshold level.
Coverage	Pass or Fail. Indicates whether or not the coverage level exceeds a threshold level.
Controller Name	Name of the controller to which the access point is associated.
Controller IP Address	IP address of the controller to which the access point is associated.

## Busiest APs Report Results

**Table 6-10** Busiest APs Report Results Field Descriptions

Field	Description
AP Name	The name of the access point.
Radio Type	802.11a/n or 802.11b/g/n.
Rx Utilization (%)	The percentage of time the access point receiver is busy operating on packets. It is a number from 0 to 100 representing a load from 0 to 1.
Tx Utilization (%)	This is the percentage of time the access point transmitter is busy operating on packets. It is a number from 0 to 100 representing a load from 0 to 1.
Channel Utilization (%)	This is the percentage of time an access point channel is busy operating on packets. It is a number from 0 to 100 representing a load from 0 to 1.
Controller Name	Name of the controller to which the access point is associated.

**Table 6-10** *Busiest APs Report Results Field Descriptions (continued)*

Field	Description
Controller IP Address	IP address of the controller to which the access point is associated.
Map Location	The building, floor area, or outdoor area (as applicable) where the access point is located.

## Scheduled Run Results

The following table describes the fields on the **Reports > Scheduled Run Results** page.

**Table 6-11** *Scheduled Run Results Field Descriptions*

Field	Description
Report Category	Choose the appropriate report category from the drop-down list or choose <b>All</b> .
Report Type	Choose the appropriate report type from the drop-down list or choose <b>All</b> . The report Type selections change depending on the selected report category.
From / To	Type the report start (From) and end (To) dates in the text boxes or click the calendar icons to select the start and end dates.
Report Generation Method	Choose one of the report generation method from the following options: <ul style="list-style-type: none"> <li>Scheduled</li> <li>On-demand Export</li> <li>On-demand Email</li> </ul>

## Saved Report Templates

The following table describes the fields on the **Reports > Saved Report Templates** page.

**Table 6-12** *Saved Report Templates Field Descriptions*

Field	Description
Report Category	Choose the appropriate report category from the drop-down list or choose <b>All</b> .
Report Type	Choose the appropriate report type from the drop-down list or choose <b>All</b> . The report Type selections change depending on the selected report category.
Scheduled	Choose <b>All</b> , <b>Enabled</b> , <b>Disabled</b> , or <b>Expired</b> to filter the Saved Report Templates list by scheduled status.