NetworkManagement
User Documentation

Iris System Health API User Guide

Version 7.13.2

Tektronix communications

Tektronix Communications
3033 W President George Bush Highway
Plano, Texas 75075
+1 469-330-4000 (voice)
www.tekcomms.com Web site

uadocfeedback@tektronix.com (Technical Publications email)

Plano, Texas USA - serves North America, South America, and Latin America
+1 469-330-4581 (Customer Support voice)
uaservice@tek.com (Customer Support USA email)

London, England UK - serves Northern Europe, Middle East, and Africa
+44-1344-767-100 (Customer Support voice)
uaservice-uk@tek.com (Customer Support UK email)

Frankfurt, Germany DE - serves Central Europe and Middle East
+49-6196-9519-250 (Customer Support voice)
uaservice-de@tek.com (Customer Support DE email)

Padova, Italy IT - serves Southern Europe and Middle East
+39-049-762-3832 (Customer Support voice)
uaservice-it@tek.com (Customer Support IT email)

Melbourne, Australia - serves Australia
+61 396 330 400 (Customer Support voice)
uaservice-ap@tek.com (Customer Support Australia and APAC email)

Singapore - serves Asia and the Pacific Rim
+65 6356 3900 (Customer Support voice)
uaservice-ap@tek.com (Customer Support APAC and Australia email)

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What's New from 7.13.1 to 7.13.2?

Raw Probe Stats Groups Fields that were added from 7.13.1 to 7.13.2:

IICDdmOpplCpuStats

TLrnIdleAvg
TLrnIdleMax
TLrnIdleMin
TPrsCpuUsageAvg
TPrsCpuUsageMax
TPrsCpuUsageMin

IICDdmOpplCpuStats

Column	Type	Units	Description
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
DDMCpuUsageAvg	real	percent	Average CPU used by DDM cores
DDMCpuUsageMax	counter	percent	Maximum CPU used by DDM cores
DDMCpuUsageMin	counter	percent	Minimum CPU used by DDM cores
OpplCpuUsageAvg	real	percent	Average CPU used by Oppl cores
OpplCpuUsageMax	counter	percent	Maximum CPU used by Oppl cores
OpplCpuUsageMin	counter	percent	Minimum CPU used by Oppl cores
PrimaryDimension			Primary dimension (or key): DDM or Oppl core
ProbeName			Name of the Iris probe
RecordingPeriod			Time span of the measurement in milliseconds
RecordingTime			Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
TLrnIdleAvg	real	percent	Average idle time for TOPlearn cores
TLrnIdleMax	counter	percent	Maximum idle time for TOPlearn cores
TLrnIdleMin	counter	percent	Minimum idle time for TOPlearn cores
TMdfCpuUsageAvg	real	percent	Average CPU used by TOPmodify cores
TMdfCpuUsageMax	counter	percent	Maximum CPU used by TOPmodify cores
TMdfCpuUsageMin	counter	percent	Minimum CPU used by TOPmodify cores
TPrsCpuUsageAvg	real	percent	Average CPU used by TOPparse cores
TPrsCpuUsageMax	counter	percent	Maximum CPU used by TOPparse cores
TPrsCpuUsageMin	counter	percent	Minimum CPU used by TOPparse cores
TRsvCpuUsageAvg	real	percent	Average CPU used by TOPresolve cores
TRsvCpuUsageMax	counter	percent	Maximum CPU used by TOPresolve cores
TRsvCpuUsageMin	counter	percent	Minimum CPU used by TOPresolve cores
TSrhCpuUsageAvg	real	percent	Average CPU used by TOPsearch cores
TSrhCpuUsageMax	counter	percent	Maximum CPU used by TOPsearch cores
TSrhCpuUsageMin	counter	percent	Minimum CPU used by TOPsearch cores

IicFsppStats

snoopMediaStreams
snoopNonMediaStreams

IicFsppStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime			Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
dasaAllocFailures	counter	errors	Software doesn't have enough DASA buffers for the number of packets received. Increase DASA pool count.
frAllocFailures	counter	errors	Number of errors allocating a buffer to generate a FR. Indication of a leak of packet buffers.
fsbProtAllocFailures	counter	errors	Software doesn't have enough memory for protocol state.
numFsbsCreatNoClass	counter	errors	Number of FSB created without a protocol ID.
pduClassAllocError	counter	errors	Number of errors allocating a buffer to send a class. message. Indication of a leak of wqe buffers.
protoMsgAllocFailures	counter	errors	Software doesn't have enough transaction buffers. Increase transaction buffer pool count.
snoopMediaStreams	counter	errors	Total number of media streams that are being captured at the moment.
snoopNonMediaStreams	counter	errors	Total number of non-media streams that are being captured at the moment.
timerFailures	counter	errors	Software doesn't have enough timer buffers for the number of concurrent flows. Increase FSB pool count and/or adjust flow timeouts.
totalNonTcpFlows	counter	errors	Total number of non-TCP flows.
totalPkts	counter	errors	Total number of packets received.
totalTcpFlows	counter	errors	Total number of TCP flows.

Raw Probe Stats Groups that were added from 7.13.1 to 7.13.2:

GtceTPStats

GtceTPStats

Column	Type	Units	Description
pduBandwidth	real	kbps	Tracks the incoming PDU data rate in kbps from TraceportManager
pdusPerSecond	real	pdus per second	Tracks the number of incoming pdus per second from TraceportManager
numPktDrops	counter	packets	Tracks the number of packets dropped by TraceportManager

HugePageUsage

HugePageUsage

Column	Type	Units	Description
compactFail	counter	events	compact_fail is incremented if the system tries to compact memory but failed
compactStall	counter	events	compact_stall is incremented every time a process stalls to run memory compaction so that a huge page is free for use
compactSuccess	counter	events	compact_success is incremented if the system compacted memory and freed a huge page for use
nranontransparent	counter	events	The number of transparent huge pages in use on the system

S1DecipherStats

S1DecipherStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime			Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): codec name or payload type and thread number
numS1CipheredPdu	counter	counter	count of S1AP Ciphered Pdu
numS1DecipherSuccess	counter	counter	count of S1AP Decipher Success

Long-Term Server Stats Groups that were added to 7.13.2.2 from 7.13.1:

IrisOralOStats

IrisOralOStats

ServerName	string		Name of the Oracle Database server or Exadata Appliance server
Application	string		Application name is 'ora'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"irisOracleRdbmsIOStats" or "irisOracleExadataIOStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			1 hour in milliseconds
kpiKeyFieldCount-2	string		Number of key fields following this field. The key fields combine to create a unique object.
instanceNumber	integer		Instance number of database node.For non Exadata, it will be 1. For Exadata, it can be 1-n, depends on the deployment of database.
fileType	string		4 Types: ControlFile, DataFile, LogFile, TempFile
smRead	integer	MB	Number of single block megabytes read
smWrite	integer	MB	Number of single block megabytes written
lgRead	integer	MB	Number of multi-block megabytes read
lgWrite	integer	MB	Number of multi-block megabytes written
smReadReqs	integer	counter	Number of single block read requests
smWriteReqs	integer	counter	Number of single block write requests
smSyncReadReqs	integer	counter	Number of synchronous single block read requests
lgReadReqs	integer	counter	Number of multi-block read requests
lgWriteReqs	integer	counter	Number of multi-block write requests
smReadSvctime	integer	milliseconds	Total service time for single block read requests
smWriteSvctime	integer	milliseconds	Total service time for single block write requests
smSyncReadLatency	integer	milliseconds	Latency for single block synchronous reads
lgReadSvctime	integer	milliseconds	Total service time for multi-block read requests
lgWriteSvctime	integer	milliseconds	Total service time for multi-block write requests
retriesOnError	integer	counter	Number of read retries on error

OAMProperty

OAMProperty

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"OAMProperty"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. This key fields combine to create a unique object
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
AvgPropertyCall	double		OAM Avg. set, get, add Property call OAM ET (delta compare with last time measurement)

OAMTopology

OAMTopology

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"OAMTopology"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. This key fields combine to create a unique object
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
TopologyUpdateFromG10	integer	counter	OAM Number topology update messages from G10 (delta compare with last time measurement)
NumberOfRemotePropertyUpdateNotification	integer	counter	OAM Number of remote property update notifications (delta compare with last time measurement)

ServerAlarms

ServerAlarms

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"ServerAlarms"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. This key fields combine to create a unique object
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
NumberOfAlarmsReceived	integer	counter	Number of alarms received (delta compare with last time measurement)
ClearedAlarms	integer	counter	Cleared alarms (delta compare with last time measurement)

ServerISA

ServerISA

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"ServerISA"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. This key fields combine to create a unique object
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
NumberOfCapturesByISAInstance	integer	counter	Number of captures by ISA instance
CaptureRecordCountPerISAInstance	integer	counter	Capture record count (per ISA instance)
CaptureMessageCountPerISAInstance	integer	counter	Capture message count (per ISA instance)

ServerJVM

ServerJVM

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"ServerJVM"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. This key fields combine to create a unique object
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
GarbageCollectionTime	integer		Total garbage collection time (delta compare with last time measurement)
NumberOfGarbageCollectionEvent	integer	counter	Total garbage collection events (delte compare with last time measurement)
JVMThreadCount	integer	counter	Current JVM thread count

System

System

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"System"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. This key fields combine to create a unique object
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101). For System, it will keep '0'
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
OpenTCPSockets	integer	counter	Number of open TCP sockets used by OAM and other Iris web applications

Long-Term Server Stats Groups Name Changes

ipiOracleOverloadDatabaseStats changed to irisOraOverloadDbStats

irisOracleOverloadConnectivityStats

Column	Type	Units	Description
ServerName	string		Name of the Oracle Database server
Application	string		Application name is 'ora'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"irisOracleRdbmsOverloadConnectivityStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
connectionType	connectivity	method	2 Types: OracleInstance, SqlnetConnection
status	status	message	1 (UP) or 0 (DOWN)

ipiOracleOverloadDatabaseStats changed to irisOraOverloadDbStats

irisOraOverloadDbStats

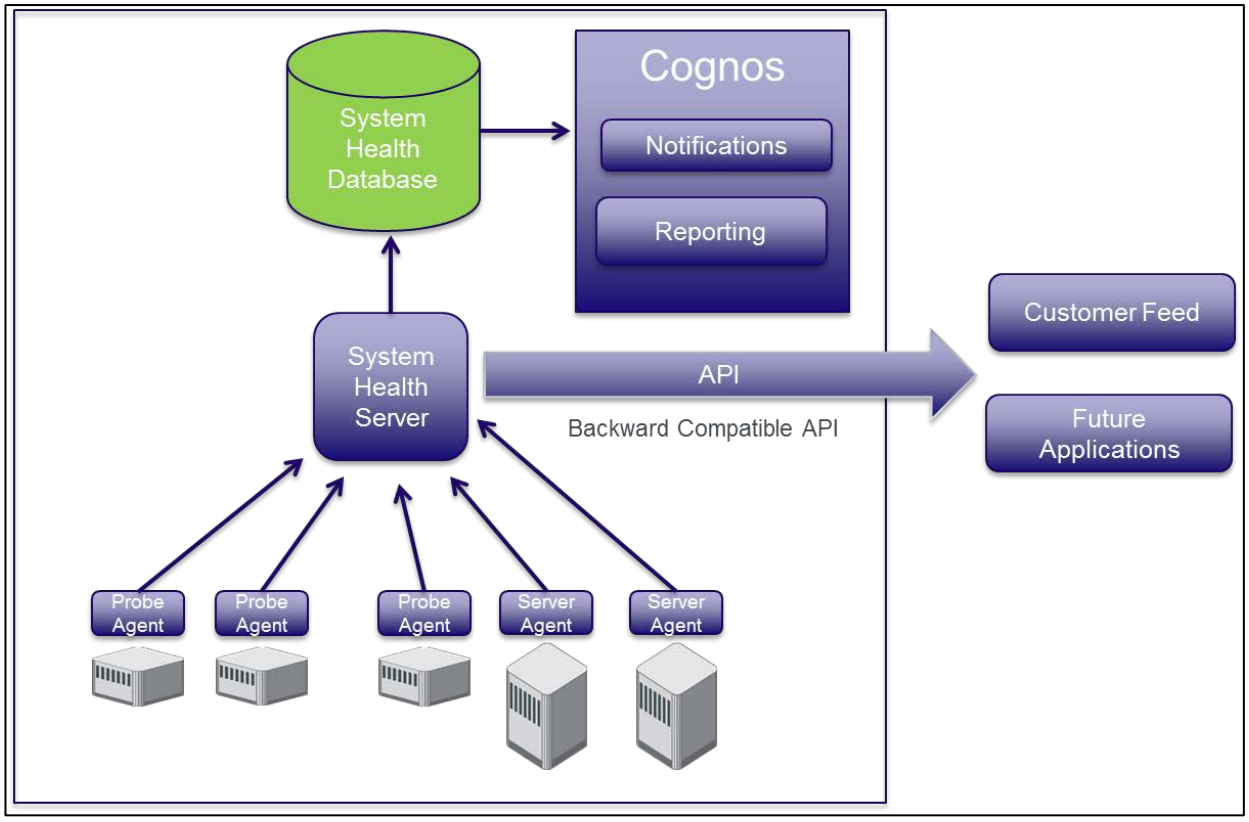
ServerName	string		Name of the Oracle Database server
Application	string		Application name is 'ora'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"irisOracleRdbmsOverloadDatabaseStats" or "irisOracleExadataOverloadDatabaseStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
connectionType	connectivity	method	1 Type: DatabaseASMSpace
status	status	message	1 (UP) or 2 (DOWN)
totalMB	real	MB	Total ASM disk space
freeMB	real	MB	Free ASM disk space
usedMB	real	MB	Used ASM disk space
usagePct	real	percent	Usage Percentage of ASM disk space
diskGroupName	string		Disk group name

Since new stats group may be added to a customer site through SPs (service packages), you may not see the new stats group listed here. In that case, you can rely on the above query result to get the latest stat group information.

API OVERVIEW

The TekShsIris Data Access API is a RESTful web service that enables external applications to access data content gathered by Tektronix System Health Services for Iris. This API Overview is similar to the *System Health API for GeoProbe*. Where possible, the same syntax and mechanics are indicated in this API Overview.

In general, the health measures are counts or rates summarizing behavior, error conditions, and general health of the Tektronix equipment and software. This API Overview exposes the measures as CSV content suitable for further data analysis.



The data content is continuously available as the system gathers data from the Iris system. The API itself provides a "pull model". To capture a continuous view of the content, data consumers will need to establish recurring invocations.

The following sub-sections provide an overview of the types of data content provided by the API.

API Syntax

The **base URL** for all of the operations is formed as:

http://SERVER:PORT/tekshs/api/iris
where SERVER is the hostname or IP address of the Iris OAM Server. The PORT is configured by default to 8989.
The specific API operations described in the following section are addressed by

- appending a sub-path to the base URL
- embedding path parameters
- appending query parameters

Sub-path is a more precise URL.

Path parameters are encoded within the URL path and will be called out in the documentation below using curly braces, such as {statgroup} in this document.

Query parameters are appended to the end of the URL after an initial question mark and must be encoded as:

name=value pairs, and are separated by ampersands, such as:

query?parm1=value1&parm2=value2

These parameters use the following formats in this document: {***startTime***}, {***endTime***}, {***start***},{***end***},{***probeName***},{***server***},{***timeframe***}{***timezone***}

If any query parameter needs a space within it, the standard HTML query syntax of using a "plus sign" in its place is supported. For example:

```
"Phrase with spaces" can be specified as "Phrase+with+spaces"
```

URL Construction Rules

Please refer to the following URL example:

http://localhost:8989/tekshs/api/iris/measures/entry/MemoryUsage.csv?probeName=Test Probe 4171&startTime=2013-02-05 00:00:00+0800&endTime=2013-02-07 17:08:07+0800&timezone=gmt

If the user wants to export records from one StatGroup with one specific timeframe, the timeframe can only be "daily","entry","hourly", or "monthly" and the **statGroup** can be any supported stat group name (in total 12 stat groups in 12.2+, such as CpuUsage, MemoryUsage, and DiskUsage). Extra parameters such as **probeName** or **startTime** or **endTime** after the **?** delimiter where probeName can be added mutiple times.

The following tables provide more parameter detail:

Name	Type	Description	Default
probeName	@QueryParam	Used to limit the output to a subset of known probes. Optional, but when present, may be given multiple times; ex. probeName=Probe1&probeName=Probe2	All probes shown
timezone	@QueryParam	This timezone parameter will result in which kind of date format is applied for date type records in exported CSV.If it is not applied in URL, the default DateFormat is "yyyy-MM-dd HH:mm:ss". Currently it only supports "UTC","GMT", and “local" timezones. For example, if the timezone is GMT, the date format in generated CSV file will be as follows: 2013-01-14 16:00:00+0000 In JDBC, the retrieved date strng from Date type column in Oracle is as follows: 2013-01-15 17:02:51.0	Date format in exported CSV file will be yyyy-MM-dd HH:mm:ss
startTime	@QueryParam	Indicates the start of the time range to query. Records matching exactly the start time are included. The format of this parameter is described below.	-2h
endTime	@QueryParam	Indicates the end of the time range to query. Records matching exactly the end time are not included. The format of this parameter is described below.	now

The "startTime" and "endTime" parameters must be formatted as one of the following:

Table 1 – Start Time and Time Parameters

now	Always uses the current time (local time zone) when the query is invoked.
-1h(m, d)	Specifies a relative time in the past (using local time zone) when the query is invoked. The leading minus sign is required. The suffix indicates the units, hours (h) or minutes (m) or days (d), of the numerical part in the middle.
1288633638	Specifies a UNIX timestamp, which is the number of seconds since Jan 1, 1970 GMT.
2013-01-15 17:08:07+0800	Using timezone to specify a time to query data, here the related time is "**2013-01-15 17:08:07**", the"**0800**" indicate the local time zone. Please note when the date string "2013-01-15 17:08:07+0800" is applied in URL, the browser will convert the blank space to "%20". In this scenario, the server will receive the following date string "2013-01-15%2017:08:07+0800".

1. If the optional parameter, **timezone**, is not input in the RESTful URL then the SimpleDateFormat (**yyyy-MM-dd HH:mm:ss**) will be used as date format in exported CSV file. Or you can use the following three timezones , "**UTC**","**GMT**" and "**local**" to change the display style. If the timezone is "GMT", then SimpleDateFormat(**yyyy-MM- dd HH:mm:ssZ**) will be used as date format in exported CSV file.

2. The "**startTime**","**Start**", "**endTime**" and "**end**" parameters must be formatted as in Table 1.

3. The "**endTime**" must be later than "**startTime**"**,** and the "**end**" must be later than "**start**". Once the time is valid a corresponding date string (2013-01-15 17:08:07). If checking fails, error information will prompt on the browser.

4. The optional parameter "**probeName**" should be validated. As long as at least one input probeName is valid, the final query could be executed. Otherwise, error information will prompt to alert the invalid probe name.

5. The optional parameter "**server**" should be validated. As long as at least one input server name is valid, then the final query could be executed. Otherwise, error information will prompt to alert the invalid server name.

6. The **timeframe** is mandatory if the RESTful API format request it. It can only be one of the four values (daily,entry,hourly,monthly). Otherwise, error information will prompt to alert the invalid timeframe.

7. When **timeframe** is applied, for "**daily**" and "**monthly**" cases, the "**start**", "**startTime**", "**end**" and "**endTime**" will be translated to local time (where the RESTful app is running) to invoke query.

Examples:

RESTful app is running in GMT+0800 timezone so all the startTime and endTime will be converted
into local time (GMT+0800 timzone in below case)

http://sh-cloud-c1s8-iris3:8989/tekshs/api/iris/measures/daily/CpuUsage.csv?startTime=2013-09-17 09:00:00+0800&endTime=2013-09-17 13:00:00+0800

then the query will retrieve data:

RECORDINGTIME >= to_date('2013-09-17 09:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME <
to_date('2013-09-17 13:00:00','yyyy-mm-dd hh24:mi:ss')

http://sh-cloud-c1s8-iris3:8989/tekshs/api/iris/measures/daily/CpuUsage.csv?startTime=2013-09-17 09:00:00+0700&endTime=2013-09-17 13:00:00+0800

then the query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 10:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME <
to_date('2013-09-17 13:00:00','yyyy-mm-dd hh24:mi:ss')

http://sh-cloud-c1s8-iris3:8989/tekshs/api/iris/measures/monthly/CpuUsage.csv?startTime=2013-09-17 09:00:00+0700&endTime=2013-09-17 13:00:00+0800

then the query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 10:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME <
to_date('2013-09-17 13:00:00','yyyy-mm-dd hh24:mi:ss')

8. When **timeframe** is applied, for “**daily**” and “**monthly**” cases, if optional parameter: **timezone** is omitted, then the retrieve result display style default as: **local**
9. If timeframe is applied, for “entry” and “hourly” cases, or for other cases which timeframe are not applied, the “**start**”, “**startTime**”, “**end**” and “**endTime**” will be translated to GMT time to invoke query.

Examples:

RESTful app is running in GMT+0800 timezone, all the startTime and endTime will be converted into GMT time(GMT+0000 timezone) in below case:

http://sh-cloud-c1s8-iris3:8989/tekshs/api/iris/measures/entry/CpuUsage.csv?startTime=2013-09- 17 09:00:00+0800&endTime=2013-09-17 13:00:00+0800

The query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 01:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME < to_date('2013-09-17 05:00:00','yyyy-mm-dd hh24:mi:ss')

http://sh-cloud-c1s8-iris3:8989/tekshs/api/iris/measures/entry/CpuUsage.csv?startTime=2013-09-17%2009:00:00+0700&endTime=2013-09-17%2013:00:00+0800

The query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 02:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME < to_date('2013-09-17 05:00:00','yyyy-mm-dd hh24:mi:ss')

http://sh-cloud-c1s8-iris3:8989/tekshs/api/iris/measures/hourly/CpuUsage.csv?startTime=2013- 09-17 09:00:00+0800&endTime=2013-09-17 13:00:00+0800

The query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 01:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME < to_date('2013-09-17 05:00:00','yyyy-mm-dd hh24:mi:ss')

No timeframe cases: (if the local time is 2013-09-17 15:00:00 and the time zone is +0800)

http://localhost:8989/tekshs/api/iris/probe/measures/DiskUsage.csv?app=0&start=-4h

The query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 03:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME < to_date('2013-09-17 07:00:00','yyyy-mm-dd hh24:mi:ss')

http://localhost:8989/tekshs/api/iris/probe/measures/DiskUsage.csv?app=0&start=2013-09-17 09:00:00+0800&end=2013-09-17 13:00:00+0800

The query will retrieve data:
RECORDINGTIME >= to_date('2013-09-17 01:00:00','yyyy-mm-dd hh24:mi:ss') and
RECORDINGTIME < to_date('2013-09-17 05:00:00','yyyy-mm-dd hh24:mi:ss')

10. If timeframe is applied, for "**entry**" and "**hourly**" cases, or for other cases which timeframe are not applied, if optional parameter: **timezone** is omitting, then the retrieve result display style default as: **GMT**

11. The parameter **statgroup** should be validated. Otherwise, error information will prompt to alert the invalid statgroup name.

Accessing API Data Using shsQuery

While other tools may be available to provide API access, a sample tool is provided with the IRIS System Health mix for initial validation purposes, and for access to the API. The shsQuery command line tool can be accessed by the *iris* user in the ~/irisInstalls/current/tekshsiris/bin directory. Scripts or other tools can be developed by customers to query the API in the manner they prefer.

Other tools that may work to access this information:

- Any Internet browser with port access to server (due to web syntax)
- wget v1.13 and later
- curl

You can use these tools to remotely access the API through the Iris System Health server processes' listening port. If you are already on a local system, you can directly access the API with the provided command line utility, shsQuery.

The following commands are examples of the structure of shsQuery commands. The URL portion of the queries must be enclosed in single quotes as shown in these examples:

```
shsQuery 'http://localhost:8989/tekshs/api/iris/]{type}.csv'
```

```
shsQuery 'http://localhost:8989/query?parm1=value1&parm2=value2'
```

Access Restriction Using Application Keys

Access to some System Health information (most notably some probe Stat Group statistics) is restricted. Only accessible Application keys are not applicable to Server related APIs.

Access to the Probe related API is authorized for only those tools and/or organizations that have been allocated an application key. Application keys are passed as the 'app' parameter and must be formatted as a hexadecimal number, such as

```
app=ABC1234
```

The Tektronix System Health team is responsible for allocating and providing application identifiers. If the application key is omitted, then the API provides very limited access. This is to enable "guest" usage and experimentation against the API.

RESTful API EXPORT for Long-Term Storage Table Data Export

In past releases, RESTful API only supported exporting data from the raw database table. Iris System Health still supports raw database tables, but some 7.13.1 statistics groups are stored differently to facilitate Cognos report use.

Exporting the data from the new Entry (5-minute interval), Hourly, Daily, and Monthly tables using the RESTful API is supported in this release. For statistics group storage, only 19 statistics groups are enabled in the raw table by default. All statistics groups in the long-term storage table are disabled. Contact Tektronix Communications Customer Support to manually enable the statGroups you want before using the RESTful API to export them. The following database tables support Entry, Hourly, Daily, and Monthly data retention:

- DataCast
- IPI
- Oracle
- Probe
- Server

For additional information on Iris System Health Reports, refer to the Iris Core Capabilities System Features Document or Iris Help.

API Formats

Use the following API formats for probe, server, IPI, DataCast, and Oracle statistics groups.

Probe RESTful API Format

*http://**hostname**:8989/tekshs/api/iris/measures/{**timeframe**}/{**statgroup**}.csv?**probeName**=Test Probe 4171&**startTime**=2013-02-05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Note: You can add extra parameters such as probeName or startTime or endTime after ? delimiter where probeName can be added multiple times.

Table 2 - Probe RESTful API TimeFormat Parameters

Name	Type	Description	Default
timeframe		The timeframe can only be one of the four following values (daily, entry, hourly, monthly)	
probeName	@QueryParam	Used to limit the output to a subset of known probes. Optional, but when present, may be given multiple times; ex. probeName=Probe1&probeName=Probe2	All probes shown
timezone	@QueryParam	This timezone parameter will result in which kind of date format is applied for Date type records in exported csv, if it is not applied in url, the default DateFormat is "yyyy-MM-dd HH:mm:ss". Currently it only supports the following timezone "utc","gmt","local" For example, if timezone is gmt, the date format in generated csv file will be as follows 2013-01-14 16:00:00+0000 In JDBC, the retrieved date strng from Date type column in Oracle is as follows 2013-01-15 17:02:51.0	Date format in exported csv file will be yyyy-MM-dd HH:mm:ss
startTime	@QueryParam	Indicates the start of the time range to query. Records matching exactly the start time are included. The format of this parameter is described below.	-2h
endTime	@QueryParam	Indicates the end of the time range to query. Records matching exactly the end time are not included. The format of this parameter is described below.	now

Note: The "startTime" and "endTime" parameters must be formatted as one of the following:

now	Always uses the current time when the query is invoked.
-1h	Specifies a relative time in the past. The leading minus sign is required. The suffix indicates the units, hours (h) or minutes (m), of the numerical part in the middle.
1288633638	Specifies a UNIX timestamp, which is the number of seconds since Jan 1, 1970 GMT.
2013-01-15 17:08:07+0800	Standard gmt date format, please the date string "2013-01-15 17:08:07+0800" is applied in url, the browser will convert the blank to "%20", so the server will actually recieve the following date string "2013-01-15%2017:08:07+0800"

Examples:

*http://**hostname**:8989/tekshs/api/iris/measures/**entry/MemoryUsage**.csv*
*http://**hostname**:8989/tekshs/api/iris/measures/**hourly/MemoryUsage**.csv?**probeName**=TestProbe 4171&**startTime**=2013-02-05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Server RESTful API Format

*http://**localhost:**8989/tekshs/api/iris/measures/{**timeframe**}/{**statgroup**}.csv? **startTime**=2013-02-05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Parameters:

The timeframe, timezone, startTime and endTime refer to Table 2. Statgroup: refer to SERVER LONG-TERM
STATS GROUPS.

Examples:

*http://localhost:8989/tekshs/api/iris/measures/**hourly**/**ServerCpuUsageStats**.csv*
*http://localhost:8989/tekshs/api/iris/measures/**monthly/ServerCpuUsageStats.**csv? **startTime=**2013-02-05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&t**imezone**=gmt*

IPI RESTful API Format

Example:

*http://localhost:8989/tekshs/api/iris/measures/ **{timeframe} /{statgroup}.**csv? **startTime**=2013-02-05%2000:00:00+0800&endTime=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Parameters:

The timeframe, timezone, startTime and endTime refer to Table 2.
Statgroup: Refer to IPI LONG-TERM STATS GROUPS.

Examples:

*http://localhost:8989/tekshs/api/iris/measures/**entry/IpiHandlerStats**.csv*
*http://localhost:8989/tekshs/api/iris/measures/**hourly/IpiHandlerStats**.csv? **startTime**=2013-02-05%2000:00:00+0800&endTime=2013-02-07%2017:08:07+0800&**timezone**=gmt*

DataCast Restful API Format

Example:

*http://localhost:8989/tekshs/api/iris/measures/ **{timeframe} / {statgroup}**.csv? **startTime**=2013-02-05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Parameters:

The timeframe, timezone, startTime and endTime. Refer to Table 2.
Statgroup: refer to DATACAST LONG-TERM STATS GROUPS.

Examples:

*http://localhost:8989/tekshs/api/iris/measures/**daily/DcMedicationXdrStats**.csv*
*http://localhost:8989/tekshs/api/iris/measures/**hourly/DcMedicationXdrStats**.csv? **startTime**=2013-02- 05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Oracle RESTful API Format

*http://localhost:8989/tekshs/api/iris/measures/**{timeframe}/{statgroup}.**csv? **startTime**=2013-02-05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

Parameters:

The timeframe, timezone, startTime and endTime refer to Table 2.
Statgroup: Refer to the Oracle statistics in the IPI LONG-TERM STATS GROUPS section.

Examples:

*http://localhost:8989/tekshs/api/iris/measures/**monthly/IpiOracleOverloadDatabaseStats**.csv*
*http://localhost:8989/tekshs/api/iris/measures/**hourly/IpiOracleOverloadDatabaseStats.**csv?*
***startTime**=2013-02- 05%2000:00:00+0800&**endTime**=2013-02-07%2017:08:07+0800&**timezone**=gmt*

RESTful API EXPORT for RAW TABLE DATA

You can use the RESTful API to export raw server and probe statistics using the following URLs:

- **/iris/server/measures** URL path
- **/iris/probe/measures** URL path.

Probe

There are three kinds of probe raw table data RESTful API formats.

1. List of G10 health measure groups available to query.
(Each line is separated by a single newline control character)

RESTful API format:

http://localhost:8989/tekshs/api/iris/probe/measures/groups?app=0

Parameters: app (see Table 4)

Response MIME Type: text/plain

Response structure:

List of health measure groups available to query, one per line. Each line is separated by a single newline control
character. Table 3 indicates the potential errors and the descriptions.

Table 3 - Errors

Error Message	Description
204	Stat group is known, but could not be fully resolved. Indicates an internal error, but may succeed later.
Application key was not	Invalid application key
403	The requested measure category does not exist or is not accessible
503	TekShsIris service is not available due to misconfiguration or missing dependency

2. View G10 health measure document.
(Dynamically generate documentation of the available health statistical groups.)

RESTful API format:

http://localhost:8989/tekshs/api/iris/probe/measures/docs.html?app=0

Parameters: app (see Table 4)

Response MIME Type: text/plain

Response structure:

HTML content intended for display in a browser. Simple use of divs and tables are used enabling some amount of programmatic analysis of the response.

The following shows a snippet of a typical stat group section from that operation rendered in a browser:

AppUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime			Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): application process
cpuTime	real	percent	percentage of blade CPU used by process
rsSize	counter	MiBytes	process virtual memory resident set size
threads	counter	threads	number of threads running in the process
vmSize	counter	MiBytes	amount of virtual memory used by process

3. Query G10 health measures (can be used for all stat groups refer to section 5, or you can check the available stat group using the above itme 1 method)

   RESTful API format:

   http://hostname:8989/tekshs/api/iris/probe/measures/{statgroup}.csv?start=-100h&end=-1h&app=XXXXXXX

Table 4 – Parameter Description

N	Description	D
s t a	An accessible stat group (**refer to section 5 for available statsgroup or using the above item 1 to list all available statsgroup**)	N o
A p p	Specifies the application key of the caller XXXXXXX is app which is generated by http://hostname:8989/tekshs/admin/register?masterKey=BADF00D&name=App+Name&profileId=1 **(if omit app parameter or using app=0 in the url, only a small subsets of result can be displayed)**	N o n
S t	Indicates the start of the time range to query. Records matching exactly the start time are included. The format of this parameter is described in section URL Construction Rules.	-
E	Indicates the end of the time range to query. Records matching exactly the end time are not included. The format of this parameter is described in section URL Construction Rules.	n
t i	Indicates the output date format. The value supported is GMT, UTC and Local (case-insensitive). The format of this parameter is described in section URL Construction Rules.	l o

Response MIME Type: text/plain

Response structure:

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first four columns are always presented as the following set:

- *ProbeName*: the name of the probe as known by the Iris OA&M server
- *RecordingTime*: the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format
- *RecordingPeriod*: length of the measurement sample in milliseconds
- *PrimaryDimension*: also known as a data key, the Dimension varies by stat group

The remaining columns are data columns that vary by stat group. The presence of data columns may also vary by probe software version within a stat group. The entire output of a single API operation is normalized to use a unified data column layout.

The following is an example of the operation's response (the content and data columns are contrived):

```
ProbeName,RecordingTime,RecordingPeriod,PrimaryDimension,DataA,DataB,DataC,DataD
PROBE_2,2011-02-07 08:58:48,1000,1.1,5,6,7,8
PROBE_1,2011-01-18 11:36:42,1000,1.1,13,14,15,16
PROBE_1,2011-01-18 11:35:04,1000,1.1,9,10,11,12
```

For 7.12.1 and on, the above response would have one extra column BladeId after PrimaryDimension column like the following one:

```
ProbeName,RecordingTime,RecordingPeriod,PrimaryDimension,BladeId,DataA,DataB,Dat
aC,DataD
PROBE_2,2011-02-07 08:58:48,1000,17,1.1,5,6,7,8
PROBE_1,2011-01-18 11:36:42,1000,17,1.1,13,14,15,16 PROBE_1,2011-01-18
11:35:04,1000,17,1.1,9,10,11,12
```

Examples

Retrieves the measures reported by the G10 probes within a specific health stats group (here using DiskUsage as an example)

http://localhost:8989/tekshs/api/iris/probe/measures/DiskUsage.csv?app=0&start=-4h

http://localhost:8989/tekshs/api/iris/probe/measures/DiskUsage.csv?start=2013-04-01 06:00:00

http://localhost:8989/tekshs/api/iris/probe/measures/DiskUsage.csv?start=2013-04-01 06:00:00+0800&end=2013-04-01 06:10:00+0800

Server

Server measures are gathered by the SystemHealth ServerMonitor application at a frequency of 5 or more minutes, and the data is forwarded to TekShsIris for short-term storage (25+ hours) and user access.
Access to this data is available to all; no application keys are required.

There are six kinds of RESTful API formats.

1. Query server SAR Resource API format.

RESTful API format:

http://localhost:8989/tekshs/api/iris/server/measures/sar/system.csv?start=-100h&end=-1h&server=XXXX

Table 5 – Parameter Description

Name	Description	Default
server	Used to limit the output to a subset of known servers. Optional, but when present, may be given multiple times; ex. server=Server1&server=Server2	All servers shown
start	Indicates the start of the time range to query. Records matching exactly the start time are included. The format of this parameter is described in section URL Construction Rules.	-2h
end	Indicates the end of the time range to query. Records matching exactly the end time are not included. The format of this parameter is described in section URL Construction Rules.	now
timezone	Indicates the output date format. The value supported is GMT, UTC and Local (case-insensitive). The format of this parameter is described in section URL Construction Rules.	local

Response MIME Type: text/csv

Response structure:

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first two columns are always presented as the following set:

- *ServerName*: the name of the Iris server as known by the Iris OA&M server
- *RecordingTime*: the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format

The remaining columns are data columns that match the sar output. The presence of data columns may also vary by server software version or options to sar command. The entire output of a single API operation is normalized to use a unified data column layout.

The following is an example of the operation's response (the content and data columns are contrived):

```
SERVER_NAME,RECORDING_TIME,PCT_USR,PCT_SYS,PCT_WIO,PCT_IDLE,RUNQ_SZ,PCT_RUNOCC,S
WPQ_SZ,PCT_SWPOCC,BREAD_S,LREAD_S,PCT_RCACHE,BWRIT_S,LWRIT_S,PCT_WCACHE,PREAD_S,
PWRIT_S,SWPIN_S,BSWIN_S,SWPOT_S,BSWOT_S,PSWCH_S,SCALL_S,SREAD_S,SWRIT_S,FORK_S,E
XEC_S,RCHAR_S,WCHAR_S,IGET_S,NAMEI_S,DIRBK_S,RAWCH_S,CANCH_S,OUTCH_S,RCVIN_S,XMT
IN_S,MDMIN_S,PROC_SZ_ENTRIES,PROC_SZ,PROC_SZ_OV,INOD_SZ_ENTRIES,INOD_SZ,INOD_SZ_
OV,FILE_SZ_ENTRIES,FILE_SZ,FILE_SZ_OV,LOCK_SZ_ENTRIES,LOCK_SZ,MSG_S,SEMA_S,ATCH_
S,PGIN_S,PPGIN_S,PFLT_S,VFLT_S,SLOCK_S,PGOUT_S,PPGOUT_S,PGFREE_S,PGSCAN_S,PCT_UF
S_IPF,FREEMEM,FREESWAP,SML_MEM,SML_MEM_ALLOC,SML_MEM_FAIL,LG_MEM,LG_MEM_ALLOC,LG
_MEM_FAIL,OVSZ_ALLOC,OVSZ_ALLOC_FAIL
pc-plno-0357,8/19/2011
8:26,0,1,0,99,0,0,0,0,0,0,100,0,0,0,0,0,0,0,0,0,1312,653,15,17,0,0,3020,22513,0,
116,0,0,0,80,0,0,0,186,30000,0,99111,129797,0,1935,1935,0,0,0,0,4.48,0,0,0
,1.2,1
.79,0,0,0,0,0,0,872932,7089307,594526848,466607238,0,4160225280,2388313560
,0,173
268992,0
pc-plno-0357,8/19/2011
8:25,0,1,0,99,0,0,0,0,0,0,100,0,0,0,0,0,0,0,0,0,1312,653,15,17,0,0,3020,22513,0,
116,0,0,0,80,0,0,0,186,30000,0,99111,129797,0,1935,1935,0,0,0,0,4.48,0,0,0
,1.2,1
.79,0,0,0,0,0,0,872932,7089307,594526848,466607238,0,4160225280,2388313560
,0,173
268992,0
```

Examples:

http://localhost:8989/tekshs/api/iris/server/measures/sar/system.csv?start=-4h&server=Server1

http://localhost:8989/tekshs/api/iris/server/measures/sar/system.csv?start=2013-04-01 06:00:00

http://localhost:8989/tekshs/api/iris/server/measures/sar/system.csv?start=2013-04-01 06:00:00+0800&end=2013- 04-01 06:10:00+0800

2. Query server sar Devices.

RESTful API format:

http://localhost:8989/tekshs/api/iris/server/measures/sar/devices.csv?server=XXXX&start=-4h&end=-1h&timezone=gmt

parameters: Refer to Table 5 – Parameter Description.

Response MIME Type: text/csv

Response structure:

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first three columns are always presented as the following set:

- *ServerName*: the name of the Iris server as known by the Iris OA&M server
- *RecordingTime*: the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format
- *DeviceName*: the name of the Iris server Device

The remaining columns are data columns that match the sar output. The presence of data columns may also vary by server software version or options to sar command.

The following is an example of the operation's response (the content and data columns are contrived):

```
SERVER_NAME,RECORDING_TIME,DEVICE,PCT_BUSY,AVQUE,R_W_S,BLKS_S,AVWAIT,AVSERV pc-plno-0357,8/19/2011 8:26,"sd1,e",0,0,0,5,0,11.3
pc-plno-0357,8/19/2011 8:26,"sd1,f",1,0,1,2,0,24.5
```

Examples:

http://localhost:8989/tekshs/api/iris/server/measures/sar/devices.csv?start=2013-04-01 06:00:00

http://localhost:8989/tekshs/api/iris/server/measures/sar/devices.csv?server=Server1&start=2013-04-01 06:00:00

http://localhost:8989/tekshs/api/iris/server/measures/sar/devices.csv?start=2013-04-01 06:00:00+0800&end=2013-04-01 06:10:00+0800&timezone=gmt

3. Query server prstat Processes by cpu API format.

RESTful API format:

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByCpu.csv?start=-100h&end=-1h&server=XXXX

parameters: Refer to Table 5 – Parameter Description.

Response MIME Type: text/csv

Response structure:

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first five columns are always presented as the following set:

- *ServerName***:** the name of the Iris server as known by the Iris OA&M server
- *RecordingTime***:** the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format
- *ProcessName***:** the name of the Iris server process
- *PID***:** the ID of the Iris server process
- *UserName***:** the name of the Iris server user

The remaining columns are data columns that match the prstat output. The presence of data columns may also vary by server software version or options to the prstat command. (Note that from 7.11.3 onwards, prstat/sar processes found will not be listed)

The following is an example of the operation's response (the content and data columns are contrived):

```
SERVER_NAME,RECORDING_TIME,PROCESSNAME,PID,USERNAME,USR,SYS,TRP,TFL,DFL,LCK,SLP,LAT pc-plno-0357,8/19/2011 8:25,java,16047,iris,22,76,1.5,0,0,0,0,0
pc-plno-0357,8/19/2011 8:25,oracle,1519,oracle,1,0,0,0,0,0,99,0
```

Examples:

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByCpu.csv?end=-1h&server=Server1

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByCpu.csv?start=2013-04-01 06:00:00

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByCpu.csv?start=2013-04-01 06:00:00+0800&end=2013-04-0106:10:00+0800

4. Query server prstat Processes by mem.

RESTful API format:

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByMem.csv*?server=XXXX&start=-4h&end=- 1h&timezone=gmt*

Parameters:

Response MIME Type: *text/csv*

Response structure

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first five columns are always presented as the following set:

- *ServerName***:** the name of the Iris server as known by the Iris OA&M server
- *RecordingTime***:** the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format
- *ProcessName***:** the name of the Iris server process
- *PID***:** the ID of the Iris server process
- *UserName*: the name of the Iris server user

The remaining columns are data columns that match the prstat output. The presence of data columns may also vary by server software version or options to the prstat command. (Note that from 7.11.3 onwards, prstat/sar processes found will not be listed). The following is an example of the operation's response (the content and data columns are contrived):

```
SERVER_NAME,RECORDING_TIME,PROCESSNAME,PID,USERNAME,USR,SYS,TRP,TFL,DFL,LCK,SLP,LAT
pc-plno-0357,8/19/2011 8:26,oracle,5644,oracle,0,0,0,0,0,0,100,0 pc-plno-0357,8/19/2011
8:26,oracle,5648,oracle,0,0,0,0,0,0,100,0
```

Examples*:*

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByMem.csv

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByMem.csv?end=-1h
http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByMem.csv?start=2013-04-0106:00:00
http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByMem.csv?start=2013-04-01 06:00:00+0800&end=2013-04-0106:10:00+0800

http://localhost:8989/tekshs/api/iris/server/measures/prstat/processesByMem.csv?server=Server1&start=2013-04-01 06:00:00+0800&end=2013-04-0106:10:00+0800&timezone=gmt

5. Query server prstat users by cpu.

RESTful API format:

http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByCpu.csv*?server=XXXX&start=-4h&end=-1h&timezone=gmt*

parameters: Refer to Table 5 – Parameter Description.

Response MIME Type: text/csv

Response structure:

Response MIME Type: *text/csv*

Response structure

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first five columns are always presented as the following set:

- *ServerName***:** the name of the Iris server as known by the Iris OA&M server
- *RecordingTime***:** the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format
- *ProcessName***:** the name of the Iris server process
- *PID***:** the ID of the Iris server process
- *UserName*: the name of the Iris server user

The remaining columns are data columns that match the prstat output. The presence of data columns may also vary by server software version or options to the prstat command.

The following is an example of the operation's response (the content and data columns are contrived):

```
SERVER_NAME,RECORDING_TIME,USERNAME,NPROC,SWAP(M),RSS(M),PCT_MEMORY,PCT_CPU,EXEC
UTION_TIME
pc-plno-0357,8/19/2011 8:25,iris,17,5937,3476,21,0.1,0 9:4:44.0
pc-plno-0357,8/19/2011 8:25,oracle,72,8598,8904,55,0.2,1 8:33:2.0
```

Examples*:*

http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByCpu.csv
http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByCpu.csv?server=Server1
http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByCpu.csv?server=Server1&start=2013-04-01 06:00:00
http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByCpu.csv?server=Server1&start=2013-04-01 06:00:00+0800&end=2013-04-0106:10:00+0800&timezone=gmt

6. Query server prstat users by mem.

RESTful API format:

http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByMem.csv*?server=XXXX&start=-4h&end=- 1h&timezone=gmt*

parameters: Refer to Table 5 – Parameter Description.

Response MIME Type: text/csv

Response structure:

Response MIME Type : *text/csv*

Response structure

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The first three columns are always presented as the following set:

- *ServerName***:** the name of the Iris server as known by the Iris OA&M server
- *RecordingTime***:** the date and time of the measurement in "YYYY-MM-DD HH:mm:ss" format
- *ProcessName: the name of the Iris server process*

The remaining columns are data columns that match the prstat output. The presence of data columns may also vary by server software version or options to the prstat command.

The following is an example of the operation's response (the content and data columns are contrived):

```
SERVER_NAME,RECORDING_TIME,USERNAME,NPROC,SWAP(M),RSS(M),PCT_MEMORY,PCT_CPU,EXEC
UTION_TIME
pc-plno-0357,8/19/2011 8:26,touchpnt,2,1917,1706,2.3,0,0 3:34:56.0
```

Examples:

http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByMem.csv

http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByMem.csv?start=2013-04-01 06:00:00

http://localhost:8989/tekshs/api/iris/server/measures/prstat/usersByMem.csv?start=2013-04-01 06:00:00+0800&end=2013-04-01 06:10:00+0800

TD140

RESTful API format:

http://*hostname*:8989/tekshs/api/iris/server/measures/{statsgroup}.csv?startTime=-10h&endTime=-1h&timezone=gmt

Parameters:

Name	Description	Default
statgroup	The available query statgroup for td140. (refer to section 6)	None
startTime	Indicates the start of the time range to query. Records matching exactly the start time are included. The format of this parameter is described	-2h
endTime	Indicates the end of the time range to query. Records matching exactly the end time are not included. The format of this parameter is described below.	now
timezone	Indicates the output date format. The value supported is GMT, UTC and Local (case-insensitive).	local

Examples:

Export of LBGTPCI using the legacy RESTful API:

http://localhost:8989/tekshs/api/iris/server/measures/LBGTPCI.csv?startTime=-10h&endTime=-1h&timezone=gmt

G10 PROBE INVENTORY

The Iris OAM server serves as the main repository of inventory information (hardware inventory, etc); it is updated every time a probe is configured. The TekShsIris application can be queried for the inventory information, at which time it will gather the most recent information and present it to the user.

Inventory information may be accessed in a similar manner to Geo System Health; a 'shsProbeMap' interface is provided for backwards compatibility for those who are familiar with the usage on that product. A more direct API interface is available as well.

When accessing inventory, a 'view' must be supplied that describes the type of data that you are interested in. Depending on the view, the output may be either CSV format, or XML. Current supported views are:

View name	Format	Description
default	CSV	For every probe blade, the cage/blade/amcSlot information is displayed. Output is sorted by probe name.
auditInfo	CSV	For every probe, the date at which the inventory was last updated on the OAM server is shown. The output is sorted by probe name.
hwCounts	CSV	For every probe, counts of the number of cages, disks, blades, etc is shown. The output is sorted by probe name.
swVersions	CSV	For every probe type, provides APPs and PLAT versions. If the SW versions are not available for a probe, the columns are blank in the CSV file.
xml	XML	This is a raw dump of the inventory XML; all data collected is guaranteed to be present.

Access to inventory data is available to all; no application keys are required.

Probe Inventory using shsProbeMap

Invocation

The invocation of the 'shsProbeMap' script is similar to that of GeoProbe:

```
shsProbeMap [-help] [-list] [-view viewName]  [optional list of probes]
```

Parameters

Name	Default	Description
-help	not shown	Provides basic invocation help
-list	not shown	Shows a list of all known views
-view viewName	default view	The name of the view you are interested in seeing. If no view is specified, the 'default' view will be used.
List of probes	show all	One or more probe names; data provided will be limited to these probes. If not provided, or if the name 'all' is given, then all probes will be reported.

When specifying probe names that have a space in them, the standard HTML query syntax of using a "plus sign" in its place is supported: ex:

```
"Probe 1" can be specified as "Probe+1"
```

Response structure

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

Example Commands

- shsProbeMap
- shsProbeMap -list
- shsProbeMap -view hwCounts probe001 probe002
- shsProbeMap probe001
- shsProbeMap -view auditInfo probe+with+spaces
- shsProbeMap probe003 -view swVersions

Example Output

- shsProbeMap -list

  auditInfo

  hwCounts

  xml

  swVersions

  default

-
-
-

- shsProbeMap -view auditInfo

```
probe,probeType,auditDate,auditType
g101,G10,2011/11/23 11:22:53,hardwareInventory
g113,G10,2011/11/17 19:32:45,hardwareInventory
g114,G10,2011/11/19 12:10:07,hardwareInventory
g231,G10,2011/11/28 15:23:34,hardwareInventory
g233,G10,2011/11/29 09:41:27,hardwareInventory
sigyn,G10,2011/11/28 17:12:32,hardwareInventory
```

- shsProbeMap g231 -view hwCounts g231

```
probe,probeType,hwType,count
g231,G10,cages,1
g231,G10,IIC-Hercules,1
g231,G10,Barwick,1
g231,G10,DualWestmere,0
g231,G10,amcSlots,2
g231,G10,diskbays,1
g231,G10,drives,24
```

- shsProbeMap g227 -view swVersions

```
probe,probeType,lastUpdated,appsVersion,platVersion
g227,G10,2012/05/02 10:56:20,V7.11.3.74541p005C_EP1[74864],V7.11.3.2112b28
```

Note: The ***lastUpdated*** field indicates the last time a Probe restart was done. This normally would indicate when the probe was upgraded to the current software version (or hardware configuration), but may reflect a later restart if the probe was restarted for some other reason.

- shsProbeMap g231 -view default

```
probe,probeType,lastUpdated,assemblyType,cage,blade,bladeType,bladeHddSize,bladeRamSize,amcSlot,amcSlotType,amcHddSize,amcRamSize
g231,G10,2011/11/28 15:23:34,single-cage,'1','1-1',DualWestmere,64 GB,16 GB,,,,
g231,G10,2011/11/28 15:23:34,single-cage,'1','1-2',IIC-Hercules,32 GB,16 GB,'1-2-1',HornetI,32 GB,8 GB
g231,G10,2011/11/28 15:23:34,single-cage,'1','1-2',IIC-Hercules,32 GB,16 GB,'1-2-2',Avenger,64 GB,8 GB
```

- shsProbeMap -view xml

```
XML view is too detailed to be shown here
```

Probe Inventory (direct API access)

The 'shsProbeMap' interface is essentially a thin layer around this API command; it retrieves the inventory information from OAM server.

Invocation

HTTP Method	GET
API Path	/probe/inventory.csv
Response MIME Type	text/csv

Response structure

The response contains one or more lines of CSV (comma separated) content. The first line contains the column headers and remaining lines contain the data for each. Fields with an empty (or non-existent) value will output as a zero-length field.

The following is an example of the operation's response for 'default' view:

```
probe,probeType,lastUpdated,assemblyType,cage,blade,bladeType,bladeHddSize,blade
RamSize,amcSlot,amcSlotType,amcHddSize,amcRamSize

g231,G10,2011/11/28 15:23:34,single-cage,'1','1-1',DualWestmere,64 GB,16 GB,,,,

g231,G10,2011/11/28 15:23:34,single-cage,'1','1-2',IIC-Hercules,32 GB,16
GB,'1-',Hornet I,32 GB,8 GB

g231,G10,2011/11/28 15:23:34,single-cage,'1','1-2',IIC-Hercules,32 GB,16 GB,'1-
2-
2',Avenger,64 GB,8 GB
```

Parameters

Name	Type	Default	Description
view	Query	default	Specifies view type listed below
name	Query	all	probe name(s)

For a full list of supported view names, see previous 'shsProbeMap' section.

Example URL

http://localhost:8989/tekshs/api/iris/probe/inventory.csv?view=default&name=probeName1&name=probeName2

http://localhost:8989/tekshs/api/iris/probe/inventory.csv?view=xml

TD140 HW INVENTORY

You can use the RESTful API to export a CSV file of the TD140 inventory that you can open in Excel or other application that supports CSV.

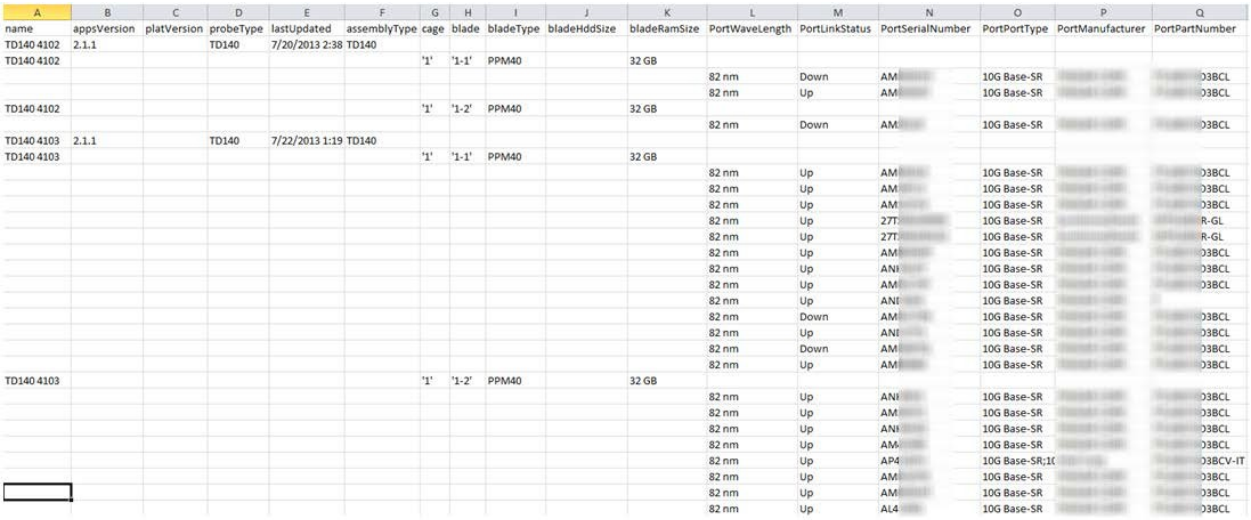
Invocation

Table 6 shows the command and path to enter when exporting the TD140 inventory to CSV.

Table 6 – TD140 HW Inventory CSV Export

HTTP Method	GET
API Path	/td140/inventory.csv
Response MIME Type	text/csv

Figure 1 shows an example CSV export with TD-140 inventory content response structure.



name	appsVersion	platVersion	probeType	lastUpdated	assemblyType	cage	blade	bladeType	bladeHddSize	bladeRamSize	PortWaveLength	PortLinkStatus	PortSerialNumber	PortPortType	PortManufacturer	PortPartNumber
TD140 4102	2.1.1		TD140	7/20/2013 2:38	TD140											
TD140 4102						'1'	'1-1'	PPM40		32 GB						
											82 nm	Down	AM	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
TD140 4102						'1'	'1-2'	PPM40		32 GB						
											82 nm	Down	AM	10G Base-SR		03BCL
TD140 4103	2.1.1		TD140	7/22/2013 1:19	TD140											
TD140 4103						'1'	'1-1'	PPM40		32 GB						
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	27T	10G Base-SR		R-GL
											82 nm	Up	27T	10G Base-SR		R-GL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AN	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AN	10G Base-SR		
											82 nm	Down	AM	10G Base-SR		03BCL
											82 nm	Up	AN	10G Base-SR		03BCL
											82 nm	Down	AM	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
TD140 4103						'1'	'1-2'	PPM40		32 GB						
											82 nm	Up	AN	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AN	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AP4	10G Base-SR;1(		03BCV-IT
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AM	10G Base-SR		03BCL
											82 nm	Up	AL4	10G Base-SR		03BCL

Figure 1 – Example TD140 HW Inventory CSV Export

The content of the CSV file includes the following columns:

- name
- appversion
- platVersion
- type
- lastUpdate date
- assemble type
- cage and blade information
- port information including WaveLength, LinkStatus, SerialNumber, PortType, Manufacturer and PartNumber.

Parameters

Table 7 displays TD140 hardware inventory parameters.

Table *7* – TD140 HW Inventory Parameters

Name	T	Default	Description
name	Q	All	Probe name(s)

Example URL

http://localhost:8989/tekshs/api/iris/td140/inventory.csv
http://localhost:8989/tekshs/api/iris/td140/inventory.csv?name=TD140 4106

Errors

Table 8 shows TD140 HW inventory error messages.

Table 8 – TD140 HW Inventory Error Messages

HTTP Response Code	Description
400	Invalid TD140

Raw and Long-Term Probe Stats Groups

System Health includes the following raw and long-term server statistics groups received directly from servers. The highlighted stat groups reside in both groups.

Probe Stats Group Accessibility per API

The following table shows which probe statistics groups are accessible only from the legacy API and which are accessible from both the legacy and E/H/D/M APIs.

Raw Probe Stat Groups	Long Term Stat Groups	Access via Legacy API?	Access via Entry, Hourly, Daily
AppUsage	AppUsage	Yes	Yes
CdpStats		Yes	No
CpuUsage	CpuUsage	Yes	Yes
CrxStats	CrxStats	Yes	Yes
DataFeedHealthStats	DataFeedHealthStats	Yes	Yes
DiskUsage	DiskUsage	Yes	Yes
DropStats	DropStats	Yes	Yes
GtceTPStats		Yes	No
GtpMapperClientStats		Yes	No
HugePageUsage		Yes	No
IcmfXdrHealthStatsPerApp		Yes	No
IcmfXdrHealthStatsPerConsumer		Yes	No
IICBackPlaneStats		Yes	No
IICDdmOpplCpuStats	IICDdmOpplCpuStats	Yes	Yes
IicDdmStats		Yes	No
IICDpiStats		Yes	No
IICErrors	IICErrors	Yes	Yes
IicEzdbgStats		Yes	No
IICFPAPoolStats		Yes	No
IICFRStats		Yes	No
IicFsppStats	IicFsppStats	Yes	Yes
IicGtpcStats		Yes	No
IicIKEStats		Yes	No
IicIpdefragStats		Yes	No
IicIPsecStats		Yes	No
IicKpiStats		Yes	No
IICOcteonPkoStats		Yes	No
IICOcteonPortStats		Yes	No

IicOpplStats		Yes	No
IICPortStats	IICPortStats	Yes	Yes
IicPppStats		Yes	No
IicProtoA11cdmaStats		Yes	No
IicProtoDiameterStats		Yes	No
IicProtoHttpStats		Yes	No
IicProtoLdapStats		Yes	No
IicProtoMsrpStats		Yes	No
IicProtoPmipv6Stats		Yes	No
IicProtoRadiusStats		Yes	No
IicProtoRtspStats		Yes	No
IicProtoWspwtpStats		Yes	No
IicRtpStats	IicRtpStats	Yes	Yes
IicSctpStats		Yes	No
IicSigtranStats		Yes	No
IicTcpStats		Yes	No
IicTunnelFsppStats		Yes	No
IicVoipH225Stats		Yes	No
IicVoipMegacoStats		Yes	No
IicVoipMgcpStats		Yes	No
IicVoipSipStats		Yes	No
IpSecMapperClientStats		Yes	No
ItaBwStats		Yes	No
LteIpmStats		Yes	No
LteMapperClientStats		Yes	No
MapperServerStats		Yes	No
MemoryUsage	MemoryUsage	Yes	Yes
NetUsage		Yes	No
NtpStats		Yes	No
PersistentHealthStats		Yes	No
PkWriterStripeStats		Yes	No
ProtoBandWidthStats	ProtoBandWidthStats	Yes	Yes
RtpCodecStats		Yes	No
S1DecipherStats	S1DecipherStats	Yes	Yes
S2dServerArchStats	S2dServerArchStats	Yes	Yes
S2dServerStripeStats	S2dServerStripeStats	Yes	Yes
SessionTrackingStats	SessionTrackingStats	Yes	Yes
Sr2dReaderStats	Sr2dReaderStats	Yes	Yes
Sr2dTimeSliceManagerStats		Yes	Yes

Sr2dWriterProtocols		Yes	No
Sr2dWriterStats	Sr2dWriterStats	Yes	Yes
TrafficProcessorSystemStats	TrafficProcessorSystem	Yes	Yes
TransHealthStats		Yes	Yes
XdrHealthStats	XdrHealthStats	Yes	Yes

AppUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): application process
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
cpuTime	real	percent	Percentage of blade CPU used by process
rsSize	counter	MiBytes	Process virtual memory resident set size
threads	counter	threads	Number of threads running in the process
vmSize	counter	MiBytes	Amount of virtual memory used by process

CdpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): For the call delivery point:
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
pdusDelivered	counter	pdus	Tracks the number of protocol data units (PDUs) sent to IrisView server
recordsByFilter	real	records	Tracks the total session records sent for non mpc searches per second to IrisView server
recordsByMpc	real	records	Tracks the total session records sent for mpc searches per second to IrisView server
recordsDelivered	real	records	Tracks the total session records sent per second to IrisView server
traceSessionClosed	counter	session	Tracks the total number of trace session closed
traceSessionCreated	counter	session	Tracks the total number of trace session created
traceSessionRejected	counter	session	Tracks the total number of trace session rejected

CpuUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): blade
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
idleTime	real	percent	Percentage of total blade CPU idle
ioWaitTime	real	percent	Percentage of total blade CPU waiting for I/O
systemTime	real	percent	Percentage of total blade CPU in system mode
userTime	real	percent	Percentage of total blade CPU in user mode

CrxStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
controlPlaneBandwidth	Real	Kbps	Tracks the incoming control plane bandwidth received by this probe in kbps.
frBandwidth	Real	Kbps	Tracks the incoming flow record data rate in kbps from IIC
frsPerSecond	Real	flow records per second	Tracks the number of incoming flow records per second from IIC
numPktDrops	Counter	Packets	Tracks the number of packets dropped by IIC
pduBandwidth	Real	Kbps	Tracks the incoming PDU data rate in kbps from IIC
pdusPerSecond	Real	pdus per second	Tracks the number of incoming pdus per second from IIC
statsBandwidth	Real	Kbps	Tracks the incoming stats message data rate in kbps from IIC
statsPerSecond	Real	stats messages per second	Tracks the number of incoming stats messages per second from IIC

DataFeedHealthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): ReceiverName-PolicyName-ThreadId
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numBytesOutgoingSent	counter	bytes	count of outgoing bytes sent on wire
numBytesOutgoingUncompressed	counter	bytes	count of outgoing bytes before compression
numDataFeedBytesIpDiscarded	counter	bytes	count of IP bytes discarded
numDataFeedBytesIpDropped	counter	bytes	count of IP bytes dropped
numDataFeedBytesIpSent	counter	bytes	count of IP bytes sent
numDataFeedBytesMsDiscarded	counter	bytes	count of Mobile bytes discarded
numDataFeedBytesMsDropped	counter	bytes	count of Mobile bytes dropped
numDataFeedBytesMsSent	counter	bytes	count of Mobile bytes sent
numDataFeedFrsIpDiscarded	counter	frs	count of IP flow records discarded
numDataFeedFrsIpDropped	counter	frs	count of IP flow records dropped
numDataFeedFrsIpSent	counter	frs	count of IP flow records sent
numDataFeedFrsMsDiscarded	counter	frs	count of Mobile flow records discarded
numDataFeedFrsMsDropped	counter	frs	count of Mobile flow records dropped
numDataFeedFrsMsSent	counter	frs	count of Mobile flow records sent

DiskUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): disk partition
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
freeDisk	real	percent	Percentage of partition total space free
freeMBytes	counter	MiBytes	Amount of partition total space free
usedDisk	real	percent	Percentage of partition total space in use

DropStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC board
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
dropCount	counter	packets	Total number of packets dropped by the hardware element.

GtceTPStats

Column	Type	Units	Description
pduBandwidth	real	kbps	Tracks the incoming PDU data rate in kbps from TraceportManager
pdusPerSecond	real	pdus per second	Tracks the number of incoming pdus per second from TraceportManager
numPktDrops	counter	packets	Tracks the number of packets dropped by TraceportManager

GtpMapperClientStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY- MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Thread name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
cntAttemptRecordQueryInGtpMapper	counter	counter	Total counter of querying record in mapper
cntSuccessRecordQueryInGtpMapper	counter	counter	Successful counter of querying record in mapper
NumRecordCreateInGtpMapper	counter	records	Total number of records created in Gtp mapper
NumRecordDeleteInGtpMapper	counter	records	Total number records deleted in Gtp mapper

HugePageUsage

Column	Type	Units	Description
CompactFail	counter	events	compact_fail is incremented if the system tries to compact memory but failed
CompactStall	counter	events	compact_stall is incremented every time a process stalls to run memory compaction so that a huge page is free for use
CompactSuccess	counter	events	compact_success is incremented if the system compacted memory and freed a huge page for use
Nranontransparent	counter	events	The number of transparent huge pages in use on the system

IcmfXdrHealthStatsPerApp

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): XdrProfileName-
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release
bytes_redistribute_send_failed	Counter	bytes	Bytes redistribute send failed
bytes_redistribute_sent	Counter	bytes	Bytes redistribute sent
bytes_send_failed_congestion	Counter	bytes	Bytes send failed congestion
bytes_send_failed_disconnected	Counter	bytes	Bytes send failed disconnected
bytes_sent	Counter	bytes	Bytes sent
num_redistribute_send_failed	Counter	xDRs	Num redistribute send failed
num_redistribute_sent	Counter	xDRs	Num redistribute sent
num_send_failed_congestion	Counter	xDRs	Num send failed congestion
num_send_failed_disconnected	Counter	xDRs	Num send failed disconnected
num_sent	Counter	xDRs	Num sent

IcmfXdrHealthStatsPerConsumer

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): XdrProfileName-ConsumerName-PolicyName-ThreadId
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
bytes_redistribute_send_failed	counter	bytes	Bytes redistribute send failed
bytes_redistribute_sent	counter	bytes	Bytes redistribute sent
bytes_send_failed_congestion	counter	bytes	Bytes send failed congestion
bytes_send_failed_disconnected	counter	bytes	Bytes send failed disconnected
bytes_sent	counter	bytes	Bytes sent
num_connects	counter	connects	Num connects
num_disconnects	counter	disconnects	Num disconnects
num_redistribute_send_failed	counter	xDRs	Num redistribute send failed
num_redistribute_sent	counter	xDRs	Num redistribute sent
num_send_failed_congestion	counter	xDRs	Num send failed congestion
num_send_failed_disconnected	counter	xDRs	Num send failed disconnected
num_sent	counter	xDRs	Num sent

IICBackPlaneStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC board TODO
BladeId			Secondary dimension (or key): BladeId (only present in output
aggregateByteCount	counter	Bytes	Total number of bytes transmitted by the endpoint
aggregatePacketCount	counter	Packets	Total number of packets transmitted by the endpoint
maxBitRate	counter	bits per second	Maximum bit rate of traffic over the endpoint
maxPacketRate	counter	packets per second	Maximum packet rate of traffic over the endpoint

IICDdmOpplCpuStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): DDM or Oppl core
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
DDMCpuUsageAvg	real	percent	Average CPU used by DDM cores
DDMCpuUsageMax	counter	percent	Maximum CPU used by DDM cores
DDMCpuUsageMin	counter	percent	Minimum CPU used by DDM cores
OpplCpuUsageAvg	real	percent	Average CPU used by Oppl cores
OpplCpuUsageMax	counter	percent	Maximum CPU used by Oppl cores
OpplCpuUsageMin	counter	percent	Minimum CPU used by Oppl cores
TLrnIdleAvg	real	percent	Average idle time for TOPlearn cores
TLrnIdleMax	counter	percent	Maximum idle time for TOPlearn cores
TLrnIdleMin	counter	percent	Minimum idle time for TOPlearn cores
TMdfCpuUsageAvg	real	percent	Average CPU used by TOPmodify cores
TMdfCpuUsageMax	counter	percent	Maximum CPU used by TOPmodify cores
TMdfCpuUsageMin	counter	percent	Minimum CPU used by TOPmodify cores

TPrsCpuUsageAvg	real	percent	Average CPU used by TOPparse cores
TPrsCpuUsageMax	counter	percent	Maximum CPU used by TOPparse cores
TPrsCpuUsageMin	counter	percent	Minimum CPU used by TOPparse cores
TRsvCpuUsageAvg	real	percent	Average CPU used by TOPresolve cores
TRsvCpuUsageMax	counter	percent	Maximum CPU used by TOPresolve cores
TRsvCpuUsageMin	counter	percent	Minimum CPU used by TOPresolve cores
TSrhCpuUsageAvg	real	percent	Average CPU used by TOPsearch cores
TSrhCpuUsageMax	counter	percent	Maximum CPU used by TOPsearch cores

IicDdmStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ByteCount	counter	errors	Total number of bytes (including overhead) sent to the IIC clients over the backplane.
DefragError	counter	errors	DefragError
DropCount	counter	errors	Total number of messages dropped due to tx buffers being full. This means the IIC clients cannot keep up with the traffic rate.
FrCount	counter	counter	Total number of flow records received.
IoctlError	counter	errors	Number of errors obtaining buffer stats from TCP socket. Causes connection to client to close.
PacketCount	counter	errors	Total number of messages (stats, FRs, and/or pdus) sent to the IIC clients over the backplane.
PduCount	counter	counter	Total number of pdus received.
StatCount	counter	counter	Total ndumber of stat messages received.
WriteError	counter	errors	Number of errors writing to the TCP sockets. Causes connection to client to close.

IICDpiStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC board
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
Count	counter	packets	Total number of packets received or sent by DPI module.
DropCount	counter	packets	Total number of packets not processed by the DPI module due to errors.
totalDpiMissPercentage	counter	percent	Percentage based value for the packets not processed by the DPI module due to flow timeout

IICErrors

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
backplaneErrors	counter	errors	Number of errors in the backplane
fsbAllocFailures	counter	failures	Number of FSB (Flow Status Blocks) allocation failures
hashTableInsertFailures	counter	failures	Number of failures in inserting FSB hash in the FSB hash table. CRITICAL: Should never happen.
highLearnFailures	counter	errors	Number of failures in add/modify EzChip table entry
mediaAllocFails	counter	errors	Number of times the IIC was not able to allocate a Media Element from the FPA pool
mediaFlowAllocFails	counter	errors	Number of times the IIC was not able to allocate a flow for a Media Element
mediaHashFails	counter	errors	Number of times the IIC was not able to insert a Media Element into the Media Hash Table
tcpOosInsertFailures	counter	errors	Number of TCP out-of-sequence element addition failures
tcpSeqNodeAllocFailures	counter	errors	Number of TcpSeqNode element allocation failures

IicEzdbgStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
IcfdErrPktDrop	counter	errors	Number of packets with IDMA or ICFDQ errors.
InvalidMdfPacketType	counter	errors	Number of packets with invalid packet type coming into TOPmodify.
InvalidRfdDir	counter	errors	Number of packets with invalid rfd direction in HD_REG0, detected in TOPmodify.
LoopbackInvalidFrame	counter	errors	Number of packets on the loopback path that did not have a valid loopback message header
NumEscCharFoundGT512	counter	errors	Number of packets where more than 512 escape characters were found.
PktDstInvalid	counter	errors	Number of packets with invalid destination.
Prefetch1BufAllocFail	counter	errors	Number of times we saw RFD buffer allocation failure during cloning and had to discard the frame
Prefetch2BufAllocFail	counter	errors	Number of times we saw RFD buffer allocation failure during cloning and had to discard the frame
Prefetch3BufAllocFail	counter	errors	Number of times we saw RFD buffer allocation failure during http and PPP seq header processing and had to discard the frame
UnexpectedPktMdf	counter	errors	Number of packets in TOPmodify that came thru Regular packet path but did not have Regular Packet Type set.

IICFPAPoolStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
FpaPoolAvail_3_Avg	real	blocks	Average number of available blocks in FPA Pool 3
FpaPoolAvail_3_Max	counter	blocks	Maximum number of available blocks in FPA Pool 3
FpaPoolAvail_3_Min	counter	blocks	Minimum number of available blocks in FPA Pool 3
FpaPoolAvail_4_Avg	real	blocks	Average number of available blocks in FPA Pool 3
FpaPoolAvail_4_Max	counter	blocks	Maximum number of available blocks in FPA Pool 3
FpaPoolAvail_4_Min	counter	blocks	Minimum number of available blocks in FPA Pool 3

IICFRStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
maxFRRate	counter	records	Maximum number of Flow Records generated by the IIC

IicFsppStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
dasaAllocFailures	counter	errors	Software doesn't have enough DASA buffers for the number of packets received. Increase DASA pool count.
frAllocFailures	counter	errors	Number of errors allocating a buffer to generate a FR. Indication of a leak of packet buffers.
fsbProtAllocFailures	counter	errors	Software doesn't have enough memory for protocol state.
numFsbsCreatNoClass	counter	errors	Number of FSB created without a protocol ID.
pduClassAllocError	counter	errors	Number of errors allocating a buffer to send a class. message. Indication of a leak of WQE buffers.
protoMsgAllocFailures	counter	errors	Software doesn't have enough transaction buffers. Increase transaction buffer pool count.
snoopMediaStreams	counter	errors	Total number of media streams that are being captured at the moment.
snoopNonMediaStreams	counter	errors	Total number of non-media streams that are being captured at the moment.
timerFailures	counter	errors	Software doesn't have enough timer buffers for the number of concurrent flows. Increase FSB pool count and/or adjust flow timeouts.
totalNonTcpFlows	counter	errors	Total number of non-TCP flows.
totalPkts	counter	errors	ipv4Pkts + ipv6Pkts
totalTcpFlows	counter	errors	Total number of TCP flows.

IicGtpcStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
abortedSessions	counter	errors	Number of aborted session, due to overload. Indicates s/w limitation in terms of sizing.
lookupAdds	counter	errors	Number of added session lookup entries, added based on TEID on GTP-C.
lookupInsertFails	counter	errors	Number of sessions that failed to be inserted into the hash table. Possible leak or need to increase CArray pool count.
lookupRemoves	counter	errors	Number of removed session lookup entries.
numGsnIdAllocFails	counter	errors	Number of GSN ID allocation failures, need to increase number of GSN IDs.
numGsnIds	counter	errors	Number of GSN IDs learned.
seqLookupAddFails	counter	errors	Number of of times failed to add session lookup entries based on seq number and ip address due to existing entry.
seqLookupAdds	counter	errors	Number of added session lookup entries, added based on seq number and ip address.
seqLookupInsertFails	counter	errors	Number of session lookup entries based on seq number and ip address that failed to be inserted into the hash table.
seqLookupRemoves	counter	errors	Number of removed session lookup entries based on sequence number and ip address.
sessionAllocs	counter	errors	Number of primary GTP sessions allocated.
sessionAllocsFailed	counter	errors	Number of failed session allocation attempts, indicates possible leak of STM pool.
sessionFrees	counter	errors	Number of primary GTP sessions freed. Note that activePrimaryCtx = sessionAllocs - sessionFrees.
timerFailures	counter	errors	Timer startup failures, indicates timer pool has been exhausted. Need to increase buffer count in timer pool.
transAllocFails	counter	errors	Number of transaction allocation failures. Need to increase number of simultaneous transactions.
transEndedSuccess	counter	errors	Number of GTP-C transactions that were successful based on observed response codes.
transStarted	counter	errors	Number of GTP-C transactions started.
ver0Pkts	counter	errors	Number of GTP version 0 packets received.
ver1Pkts	counter	errors	Number of GTP version 1 packets received.
ver2Pkts	counter	errors	Number of GTP version 2 packets received.

IicIKEStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
IPsecNATTotalPkts	counter	errors	Total number of IPsec-NAT packets.
ISAKMPTotalPkts	counter	errors	Total number of ISAKMP packets.

iicIpdefragStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
activeDefrags	counter	errors	Number of reassemblies that are active right now.
buffersInUse	counter	errors	Number of packet buffers in use by the IpDefrag module.
fragListInsertFails	counter	errors	Number of reassemblies aborted b/c of fragment list insert failures. Not expected with proper sizing.
hashTableInsertFails	counter	errors	Number of reassemblies aborted b/c of hashtable insert failures. Not expected with proper sizing.
ipFragAborts	counter	errors	Sum of all *FragAborts
ipFragments	counter	errors	ipv4Fragments + ipv6Fragments
ipPktAborts	counter	errors	Sum of all *PacketAbortts
reallocatedContexts	counter	errors	Number of reassemblies aborted b/c we were out of reassembly contexts.
reallocatedNoBuffers	counter	errors	Number of reassemblies aborted b/c we reached the buffer limit for the IpDefrag module.
successfulDefrags	counter	errors	Number of successful reassemblies.
tooManyFragments	counter	errors	Number of reassemblies aborted b/c of receiving too many fragments on a context.

iicIPsecStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
activeSessions	counter	errors	Number of IPsec simultaneous sessions.
authenticationSuccess	counter	errors	Number of IPsec packets successfully authenticated the payload.
deRegister	counter	errors	Number of Deregistration messages.
decryptionSuccess	counter	errors	Number of IPsec packets successfully deciphered.
encryptedPkts	counter	errors	Number of IPsec encrypted packets.
keyUpdate	counter	errors	Number of times we updated only key for an SA.
reRegister	counter	errors	Number of reRegistrations processed.
registration	counter	errors	Number of Registrations processed.

IicKpiStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ApplMapErrors	counter	errors	Error mapping an application. Indicates software limitation.
IntfMapErrors	counter	errors	Error mapping an interface. Indicates software limitation.
LinkMapErrors	counter	errors	Error mapping a link. Indicates software limitation.
ServerApplMapErrors	counter	errors	Error mapping a server application. Indicates software limitation.
ServerUpdAllocError	counter	errors	Error allocating a buffer to send a server update msg. Indicates a leak in the WQE pool.
StatMsgAllocErrors	counter	errors	Error allocating a stats message buffer. Indicates a leak in the packet pool.

IICOcteonPkoStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): looks like: Port1-1-2-1, Port0-1-2-1
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
AggregateByteCount	counter	bytes	Total number of bytes transmitted by the endpoint
AggregatePacketCount	counter	packets	Total number of packets transmitted by the endpoint
MaxBitRate	counter	bits per second	Maximum bit rate of traffic over the endpoint
maxPacketRate	counter	packets per second	Maximum packet rate of traffic over the endpoint

IICOcteonPortStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key):looks like: Port1-1-2-1, Port0-1-2-1
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
aggregateByteCount	counter	bytes	Total number of bytes transmitted by the endpoint
aggregatePacketCount	counter	packets	Total number of packets transmitted by the endpoint
maxBitRate	counter	bits per second	Maximum bit rate of traffic over the endpoint
maxPacketRate	counter	packets per second	Maximum packet rate of traffic over the endpoint

IicOpplStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
badEZChipPktsRx	counter	errors	Packets received by OPPL (and ignored) that look bad.
badTimerWqes	counter	errors	Timer WQE received by OPPL (and ignored) that look bad.
pkoSendXAUI0Error	counter	errors	Number of times ibase_pkoSend_XAUI0 failed.

IICPortStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC board TODO
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
aggregateByteCount	counter	bytes	Total number of bytes transmitted by the endpoint
aggregatePacketCount	counter	packets	Total number of packets transmitted by the endpoint
maxBitRate	counter	kbps	Maximum bit rate of traffic over the endpoint
maxPacketRate	counter	packets	Maximum packet rate of traffic over the endpoint
routerDupPacketCount	counter	packets	Total number of router duplicate packets transmitted by the endpoint
spanDupPacketCount	counter	packets	Total number of span duplicate packets transmitted by the endpoint

IicPppStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
discardedPkts	counter	errors	Total number of PPP packets discarded due to errors.
loopbackBufAllocFailed	counter	errors	Unable to allocate a loopback buffer from CVMX_FPA_PACKET_POOL.
loopbackBufTxFailed	counter	errors	Unable to transmit a loopback buffer to EZchip.
loopbackPkts	counter	errors	Total number of PDUs loopback to the EZchip.
maxBufferSizeExceeded	counter	errors	Known limitation agreed upon between mgmt and development.
reassemblyCreateFailed	counter	errors	Unable to allocate memory for a reassemble creation.
totalCompletePkts	counter	errors	Total number of complete PPP packets.
totalFragments	counter	errors	Total number of fragmented PPP packets received.
totalSyntheticPkts	counter	errors	Total number of PPP loopback packets received back from EZchip.
unClassifiedPkts	counter	errors	Number of complete PPP packets that were not classified by EZchip
unsupportedType	counter	errors	Number of packets that were IP defragmented for loopback

IicProtoA11cdmaStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
a11CdmaAddFailed	counter	errors	Number of A11 messages where the CDMA Add API call failed
a11DroppedMessages	counter	errors	Number of A11 messages that will be dropped due to errors
a11MaxSO67GreKeysExceeded	counter	errors	Number of A11 messages where number of SO 67 GRE keys exceeded supported size
a11Messages	counter	errors	Number of extracted A11 Messages
CdmaAddGREFail	counter	errors	Total number of failed attepts to add a non-master gre
CdmaAddMasterGREFail	counter	errors	Total number of failed attepts to add the master gre
cdmaAddSessionFail	counter	errors	Total number of failed attempts to add a new session
cdmaSearch	counter	errors	Total number of lookups performed to correlate an A10 GRE with its A11 session
cdmaSearchFail	counter	errors	Total number of failed lookups performed to correlate an A10 GRE with its A11 session
cdmaSessionsAdded	counter	errors	Total number of Sessions allocated
cdmaSessionsDeleted	counter	errors	Total number of Sessions deleted
cdmaTimerStartErrors	counter	errors	cdmaTimerStartBusy + cdmaTimerStartMem + cdmaTimerStartToo
cdmaTunnelsAdded	counter	errors	Total number of Tunnels allocated
cdmaTunnelsDeleted	counter	errors	Total number of Tunnels deleted

IicProtoDiameterStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
diameterBad	counter	errors	sum of diameterBad* + diameterNoData
diameterDiscardCmdCode	counter	errors	Number of discards due to valid but unnecessary cmd code
diameterIntoSync	counter	errors	diameterIntoSync
diameterMessages	counter	errors	diameterMessageSession + diameterMessageNoSession

IicProtoHttpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
httpAborted	counter	errors	Total number of instances when HTTP re-assembly was aborted.
httpClonesErrors	counter	errors	Total number of unsuccessful attempts to clone a packet by the HTTP session state machine.
httpIgnoredTransPkts	counter	packets	Number of HTTP packets ignored for transaction tracking purposes due to pipelining being turned off.
httpMessages	counter	errors	Total number of extracted HTTP messages.
httpNoPipTransPkts	counter	packets	Number of HTTP packets not part of pipelined transactions.
httpOosIgnoredTransPkts	counter	packets	Number of HTTP packets ignored for transaction tracking purposes due to holes in the TCP sequence.
httpPipBuffMaxHits	counter	errors	Number of times the HTTP state machine on the IIC reached the preconfigured maximum amount of 2K buffers allowed for HTTP pipelining.
httpPipTransPkts	counter	packets	Number of HTTP packets that are part of pipelined transactions.
httpUnsupEncoding	counter	errors	Total number of HTTP messages without content length and with not chunked transfer encoding.
httpUnsupLength	counter	errors	Total number of HTTP messages with unsupported length (length is greater than 16 bit value).
httpUnsupportedHdr	counter	packets	Number of unsupported HTTP headers detected.

IicProtoLdapStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ldapAborts	counter	errors	Sum of ldapAbort*.
ldapIntoSync	counter	errors	Number of times LDAP processing went into sync.
ldapMessages	counter	errors	Number of extracted LDAP messages.

IicProtoMsrpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
msrpAborted	counter	errors	Total number of instances when the MSRP message re-assembly was aborted.
msrpCapPktsDropped	counter	errors	Total number of MSRP media packets that were captured but dropped due to bandwidth limitations.
msrpCapPktsToDdm	counter	errors	Total number of MSRP media packets that were captured and delivered to DDM cores.
msrpCapStreams	counter	errors	Total number of MSRP media streams that are being captured at the moment.
msrpCloneErrors	counter	errors	Total number of unsuccessful attempts to clone a packet by the MSRP state machine.
msrpMaxSegLink	counter	errors	Total number of instances when we tried to link more than the maximum number of TCP segments together.
msrpMessages	counter	errors	Total number of extracted MSRP messages.

IicProtoPmipv6Stats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
pmipv6DroppedMessages	counter	errors	pmipv6UnsupportedMessage + pmipv6InvalidMessageLength + pmipv6IdentifierNotFound
pmipv6Messages	counter	errors	Number of extracted S2A Messages

IicProtoRadiusStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
radiusDroppedMsgs	counter	errors	radiusUnsupportedMsg + radiusInvalidMsgLen + radiusInvalidAttrLen
radiusMessages	counter	errors	Number of extracted RADIUS messages
radiusTblAllocError	counter	errors	Number of times a RADIUS transaction table entry was unavailable
radiusTblInsertError	counter	errors	Number of times a RADIUS transaction table entry could not be inserted

IicProtoRtspStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
rtspAborts	counter	errors	rtspAbortSize + rtspCRbitnoLF
rtspAsciiMessages	counter	errors	Number of extracted ASCII-based RTSP messages.
rtspBinaryMessages	counter	errors	Number of extracted binary interleaved frames.
rtspIntoSync	counter	errors	Number of times RTSP processing went into sync.

IicProtoWspwtpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
wspInvalidHeadersLen	counter	errors	Number of WSP messages with invalid headers length (e.g. header length is zero)
wtpAllocFail	counter	errors	Number of failures to allocate memory for wtp segmentation

IicRtpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
rtpActiveAudioStreams	counter	errors	Number of active RTP audio streams.
rtpActiveFlows	counter	errors	Number of active RTP flows.
rtpActiveH264Streams	counter	errors	Number of active RTP video streams which are also H.264 streams.
rtpActiveOtherStreams	counter	errors	Number of active RTP other streams.
rtpActiveStreams	counter	errors	Number of active RTP streams.
rtpActiveVideoStreams	counter	errors	Number of active RTP video streams.
rtpBadTimestamp	counter	errors	Number of times a bad timestamp value (backwards in time) has been seen.
rtpEncryptedStreams	counter	errors	Number of H.264 streams found to be encrypted.
rtpStreamChanges	counter	errors	Number of stream changes due to a media attribute filter taking effect.
rtpTotalAudioStreams	counter	errors	Number of Total RTP audio streams.
rtpTotalFlows	counter	errors	Number of total RTP flows encountered.
rtpTotalH264Streams	counter	errors	Number of Total RTP video streams which are also H.264 streams.
rtpTotalOtherStreams	counter	errors	Number of Total RTP other streams.
rtpTotalVideoStreams	counter	errors	Number of Total RTP video streams.
rtpTotalStreams	counter	errors	Number of Total RTP streams encountered.
rtpVbrOverflow	counter	errors	Do not alarm, if pegged system limitation has been exceeded.

IicSctpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
assocAllocFailures	counter	errors	Software couldn't allocate memory for an association. Increase pool count and/or adjust idle association timeout.
assocTblEntries	counter	errors	Total number of associations in the association search table.
assocTblInsertFails	counter	errors	Total number of times we failed to add an association to search table. Should be zero.
bitmapAllocFailures	counter	errors	Failed to allocate memory for a out of sequence bitmap. Should be zero.
bundledPkts	counter	errors	Total number of SCTP packets that are split into individual chunks.
chunksLostReassembly	counter	errors	Total number of chunks removed in reassembly (all fragments but first).
cloneFailed	counter	errors	Unable to clone a PDU descriptor. DATA chunk dropped.
disregardedPkts	counter	errors	Total number of packets ignored (Chunks that don't carry data and don't affect state)
droppedAddresses	counter	errors	Number of IP addresses dropped from INITs because array was full. Should be zero.
droppedDetection	counter	errors	Total number of packets dropped by association detection.
droppedPkts	counter	errors	droppedNoAssoc + droppedOldVtag + droppedBadVtag + droppedNotAligned
fragmentsDropped	counter	errors	SCTP fragments dropped because not reassembled. DATA chunk dropped.
fragmentsHeld	counter	errors	Total number of SCTP DATA fragments held waiting for reassembly
incompleteInits	counter	errors	Number of INIT chunks not followed immediately by INIT ACKs.
incompleteReassemblies	counter	errors	Number of fragmented chunks that could not be reassembled.
inconsistentAssocs	counter	errors	Current number of associations mapping to multiple links.
linkTblEntries	counter	errors	Total number of entries in the link search table.
linkTblInsertFails	counter	errors	Total number of times we failed to add a link to search table. Should be zero.

monitoredPaths	counter	errors	Current number of monitored SCTP paths.
overrunResets	counter	errors	Number of resets because of excessive bitmap overruns
overruns	counter	errors	Total number of DATA chunks beyond the size of the duplicate bitmap
pathsWithNoAssoc	counter	errors	Current number of SCTP paths that are not monitored b/c we haven't detected association yet.
processedPkts	counter	errors	Total number of SCTP packets processed.
reassemblyCreateFailedSctp	counter	errors	Unable to allocate memory for a reassembly sequence. DATA chunk dropped.
retransmissionResets	counter	errors	Number of resets because of excessive retransmissions.
retransmissions	counter	errors	retransSimple + retransBundled
sackOutOfRange	counter	errors	Number of path mergers rejected because the SACK's TSN was out of range
seqCreateFailed	counter	errors	Unable to allocate memory for a sequence of DATA chunks. DATA chunk dropped.
sequenceErrors	counter	errors	Nonsensical situation detected during sequencing (Can be caused by duplicates or fragmented packets).
streamAddFailed	counter	errors	Unable to allocate memory for a stream. DATA chunk dropped.
timerFailures	counter	errors	Software doesn't have enough timer buffers for the number of concurrent flows. Increase FSB pool count and/or adjust flow timeouts.
totalPkts	counter	errors	Total number of SCTP packets received.
tsnOutOfRange	counter	errors	Number of path mergers rejected because the data chunk TSNs were out of range
vtagResets	counter	errors	Number of resets because of excessive datagrams with the same bad vtag.

IicSigtranStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
isupMessage	counter	errors	Number of ISUP messages.
m3uaDroppedMessages	counter	errors	Number of M3UA messages dropped
m3uaFragmentedMessages	counter	errors	Number of M3UA messages that are fragmented
m3uaMessages	counter	errors	Number of M3UA messages.
m3uaNotClassified	counter	errors	Number of M3UA messages that could not be classified
sccpDropped	counter	errors	sccpShortMessage + sccpInvalidAddrLength + sccpVersionUnsupported + sccpUnsupportedGt + sccpUnsupportedMsgType + sccpItu + sccpInvalidMsgClass
sccpTableInsertErrors	counter	errors	Number of transaction table insert failures in SCCP re-assembly
sccpTotalSegments	counter	errors	Total number of SCCP segments received
suaDroppedMessages	counter	errors	Number of SUA messages being dropped.
suaFragmentedMessages	counter	errors	Number of SUA messages that are fragmented.
suaMessages	counter	errors	Number of SUA messages.
tableEntryAllocFailures	counter	errors	Number of transaction alloc failures in TCAP processing
tableInsertFailures	counter	errors	Number of transaction insert failures in TCAP processing
tcapContNotSupported	counter	errors	Number of TCAP messages received for which CONT msg is not supported
tcapDropped	counter	errors	tcapInvalidLength + tcapMissingTid + tcapUnsupportedTidLength + tcapEndMsgDropped + tcapUnknownMessage | -

IicTcpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
oosCloneFailures	counter	errors	Failure to clone an out-of-sequence segment. Check buffer pools for leaks and/or buffer shortages.
oosInsertCnt	counter	errors	Number of OOS segments buffered. When traffic stops, this value must match oosRemoveCnt.
oosInsertFailures	counter	errors	Failure to insert an out-of-sequence segment. Check buffer pools for leaks and/or buffer shortages.
oosRemoveCnt	counter	errors	Number of OOS segments freed. When traffic stops, this value must match oosInsertCnt.
rsmCloneErrors	counter	errors	Number of unsuccessful attempts to clone a packet by the TCP payload reassembly engine.
rsmMaxSegLink	counter	errors	Do not alarm, stat may be pegged due to well known ports used by unexpected protocols.
rsmMaxSizeExceeded	counter	errors	Do not alarm, stat may be pegged due to well known ports used by unexpected protocols.
seqNodeAllocError	counter	errors	Error allocating a buffer for sequence number tracking. Increase TCP sequence number pool count.
tcpSegmentsToRsm	counter	errors	Number of TCP segments delivered to the TCP payload reassembly engine.
tcpSmResets	counter	errors	sum(upd*InfoInvSeq,invDupSyns,synAfterFpd ,synAckRcvr*,synSentNot*,invPdu*)

IicTunnelFsppStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
activeFlows	counter	errors	Total number of active tunnels
frAllocFailures	counter	errors	Number of errors allocating a buffer to generate a FR. Indication of a leak of packet buffers.
fsbAllocFailures	counter	errors	Software doesn't have enough tunnel FSB buffers for the number of concurrent flows. Increase tunnel FSB pool count and/or adjust flow timeouts.
fsbOutOfSync	counter	errors	EZchip FSB is out-of-sync with Cavium FSB.
fsbSrchFails	counter	errors	FSB search failed for a stats message, may happen but not very often.
hashTableInsertFails	counter	errors	Software doesn't have enough hash table buffers. Indication of a leak of WQE buffers.
hashTableRemoveFails	counter	errors	The search for a tunnel FSB failed after timeout. Indication of an error in the mutual exclusion logic.
timerFailures	counter	errors	Software doesn't have enough timer buffers for the number of concurrent flows. Increase timer pool count and/or adjust flow timeouts
totalPkts	counter	errors	Total number of tunneled packets received.
totalStatsMsgs	counter	errors	Total number of stats msgs received.
totalTunnelErrors	counter	errors	Sum of all tunnel error messges
tunnelUpdateFails	counter	errors	OPPL failed to send a tunnel update message to the tunnel agent.

IicVoipH225Stats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
H225Errors	counter	errors	Sum of h225BBad*
H225Good	counter	errors	Number of times H.225 processing was successful.

IicVoipMegacoStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
megacoCloneError	counter	errors	Number of failures to create a clone packet
megacoCreateError	counter	errors	Number of times a packet creation error is encountered
megacoErrors	counter	errors	Sum of megacoBad*
megacoGoodAscii	counter	errors	Number of text-encoded MEGACO messages properly parsed
megacoGoodBinary	counter	errors	Number of binary-encoded MEGACO messages properly parsed
megacoMaxContextsExceeded	counter	errors	Number of times a request/reply exceeds the maximum number of contexts supported within a transaction
megacoStateAllocError	counter	errors	Number of times a local state allocation error is encountered
megacoTblInsertError	counter	errors	Number of times a transaction table insertion error is encountered
megacoTblReqAdded	counter	errors	Number of request entries added to the MEGACO transaction table
megacoTblReqAllocError	counter	errors	Number of times a request entry allocation error is encountered
megacoTblReqRemoved	counter	errors	Number of request entries removed from the MEGACO transaction table

IicVoipMgcpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
mgcpCloneError	counter	errors	Number of failures to create a clone packet
mgcpDroppedMessages	counter	errors	Number of MGCP messages that were dropped
mgcpMessages	counter	errors	Number of MGCP messages received
mgcpTblInsertError	counter	errors	Number of MGCP messages with table insert failures

IicVoipSipStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
sipErrors	counter	errors	sipSigCompDelimiter + sipStreamNoContentLength + sipAbortKeepAlive + sipMsgNoCallId + sipBadStartLine
sipMsgMessages	counter	errors	sipMsgMessages
sipMsgNat	counter	errors	sipMsgNat
sipMsgSigComp	counter	errors	sipMsgSigComp
sipMsgStun	counter	errors	sipMsgStun
sipStreamKeepAlives	counter	errors	sipStreamKeepAlives
sipStreamMessages	counter	errors	Number of extracted stream-based SIP messages
sipStreamSigComp	counter	errors	Number of extracted stream-based SIP SigComp messages

IpSecMapperClientStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM- DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Thread name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numRecordCreateInIpSecMapper	counter	records	Total number of records created in IpSec mapper
numRecordDeleteInIpSecMapper	counter	records	Total number records deleted in IpSec mapper

ItaBwStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): "For each probe, measures:"
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
itaBwToServer	real	kbps	Outgoing bandwidth used to the Iris Server for sending ITA KPIs. Measure is in kilobits per second.

LteIpmStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Thread name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numIpmFailedSent	counter	messages	Total number of Ipm messages failed to send out
numIpmReceived	counter	messages	Total number of Ipm messages received
numIpmSent	counter	messages	Total number of Ipm messages sent to other app blades
s10IpmReceived	counter	messages	Total number of s10 Ipm messages received
s10IpmSent	counter	messages	Total number of S10 Ipm messages sent to other app blades
s1IpmReceived	counter	messages	Total number of S1ap Ipm messages received
s1IpmSent	counter	messages	Total number of S1ap Ipm messages sent to other app blades
s6IpmReceived	counter	messages	Total number of S6 Ipm messages received
s6IpmSent	counter	messages	Total number of S6 Ipm messages sent to other app blades

LteMapperClientStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY- MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Thread name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numRecordCreatesSentToLteMapper	counter	records	Total number of created records sent to LTE mapper
numRecordUpdatesSentToLteMapper	counter	records	Total number of updated records sent to LTE mapper
numRecordsInLteMapperClient	counter	records	Total number of records in LTE mapper client

MapperServerStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Mapper instance
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numRecordsInMapper	counter	records	Total number of records in mapper database

MemoryUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): blade
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
bufferMemory	real	percent	Percentage of blade total memory in disk cache
freeMBytes	counter	MiBytes	Amount of blade total memory free (including cache)
freeMemory	real	percent	Percentage of blade total memory free
swapsIn	counter	events	Number of VM swaps in (should be 0)
swapsOut	counter	events	Number of VM swaps out (should be 0)
usedMemory	real	percent	Percentage of blade total memory in use

NetUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): ethernet interface
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
drops	counter	events	Number of packet drops on interface
errors	counter	events	Number of errors on interface
mbitsIn	counter	MiBits	volume of total traffic received on interface
mbitsOut	counter	MiBits	volume of total traffic transmitted on interface
packetsIn	counter	packets	Number of packets received on interface
packetsOut	counter	packets	Number of packets transmitted on interface

NtpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): time server host name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
delay	real	millisecond	round trip delay from probe to time server
jitter	real	millisecond	jitter of time
offset	real	millisecond	offset of time between local and estimated server time measurements
poll	counter	second	poll period
reach	counter	none	reachability on octal
stratum	counter	servers	stratum of the time server
when	counter	second	last time probe heard from the time server

PersistentHealthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Mapper instance
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numActiveCtxEntries	counter	records	Total number of time-correId assocation in memory set
numNotCorrelationGtpC	counter	packets	The number of GTP-C packets that are not correlated to the subscriber session records
numNotCorrelationGtpU	counter	packets	The number of GTP-U FR that are not correlated to the subscriber session records
numPersistentSessionContext	counter	records	Total number of Persistent Session Context in memory map
rateRecordWithImsi	real	percentage	Percentage of GTP session record with IMSI

PkWriterStripeStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): looks like: Stripe (PK:DATA:ST:0)
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ActualWritten	counter	KiB	Actual (total) amount of data written
BandwidthAvg	counter	KiB/sec	Average bandwidth (IO rate) while writing.
BandwidthPeak	counter	KiB/sec	Peak bandwidth (IO rate) while writing.
BwPercentOfThrott	real	percentage	Percentage of actual vs. max IO rate allowed for the stripe
WriteTimeAvg	counter	micros	Average duration of a block write IO
WriteTimeMax	counter	micros	Peak duration of a block write IO

ProtoBandWidthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Protocol-thread
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
inAvgBwToProbe	real	KBits/sec	Incoming bandwidth in Average Bits per Second into the probe.
inAvgPpsToProbe	real	PPS	Incoming Average Packets Per Second into the probe.
inBitsToProbe	counter	KBits	Number of bits received by the probe.
inPacketsToProbe	counter	Packets	Number of packets received by the probe.
inPeakBitsToProbe	counter	KBits	The peak bit count received by the probe.
inPeakPacketsToProbe	counter	Packets	The peak 5 second packet count received by the probe.

RtpCodecStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): codec name or payload type and thread number
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numRtpStreams	counter	stream	Number of active RTP streams per codec

S1DecipherStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): codec name or payload type and thread number
numS1CipheredPdu	counter	counter	Count of S1AP Ciphered Pdu
numS1DecipherSuccess	counter	counter	Count of S1AP Decipher Success

S2dServerArchStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): codec name or payload type and thread number
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ArchDurationMinutes	counter	minutes	archive duration (in minutes)

S2dServerStripeStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Stripe id
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ActualRead	counter	KiB	Actual (total) amount of data read
BandwidthAvg	counter	KiB/sec	Average bandwidth (IO rate) while reading
BandwidthPeak	counter	KiB/sec	Peak bandwidth (IO rate) while reading
DasaReadsActual	counter	dasas	Number of direct-access items read
DasaReadsAvg	counter	items/sec	Average number of items per second while reading in direct-access mode
DasaReadsPeak	counter	item/sec	Peak number of items per second while reading in direct-access mode
IoErrors	counter	io errors	Number of IO errors

SessionTrackingStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Protocol-Thread
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
avgRecordDuration	real	Seconds	Duration of session
closedLongSessions	real	Sessions	Closed long call sessions
closedLongSessionsByMaxIdleTime	real	Sessions	Count of sessions timed out due to idleness
closedRecords	real	session records	Count of closed session records
createdLongSessions	real	sessions	Count of created sessions
createdRecords	real	session records	Count of session records created
incompleteRecords	real	records	Count of incomplete records
maxTimeoutRecords	real	records	Count of sesson records exceeding the maxTimeout time
successfulRecords	real	session records	Count of completed records that did not time out
totalOpenSessions	counter	Number of open session records	Accumulated count of open session records since startup

Sr2dReaderStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Subsystem name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
avgQueryTime	real	seconds	Time spent waiting for queries to complete
bytesReadFromDisk	real	bytes	Count of bytes read from the disk
numAtoQueries	counter	queries	Count of queries specifiying only active time index information
numDataFiles_Error	counter	session record log files (SR)	Number of files with read errors
numEtoQueries	counter	queries	Count of queries specifying only end time index information
numIndexFiles_Error	counter	index file count (SR.srIndex)	Number of files with read errors
numMpcQueries	counter	session queries	Number of multiple protocol correlation queries
numQueriesWIndex	counter	queries	Number of queries with index
numQueriesWoDigits	counter	queries	Number of queries without address digits
numReceivedQueries	counter	session queries	Received session query count
numRecords_EncodingError	counter	records	Number of records which were corrupted
numRecords_Found	counter	number	Count of records matching queries
numRecords_ReadError	counter	records	Number of records which could not be read
numRecords_Sent	counter	records	Number of records sent to the server
numSessionRecordIdQueries	counter	queries	Count of queries specifying session record id
numStoQueries	counter	queries	Count of queries having only start time index information

Sr2dTimeSliceManagerStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Subsystem name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numTS_Created	counter	time slices	Number of time slice created
numTS_Deleted	counter	time slices	Number of time slice deleted
oldestTimeSliceTime	counter	GMT	Oldest time slice - time and date

Sr2dWriterProtocols

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Protocol
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
averageSize	real	bytes	Average session summary size
sessionRecords	counter	records	Count of session records

Sr2dWriterStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Thread name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
avgIndicesPerRec	real	database keys	Keys per record
avgRecordSize	real	Bytes	Average size of session summaries
avgWaitTime	real	Seconds	Average time spent waiting for writes
bytesWritten	real	megabytes	Total megabytes written during sample period
highWaitTime	real	Seconds	The highest time taken to write during the sample period
indexInsertions	real	Indices	Count of address digits plus session record ids from all sessions written
indexMemory	counter	bytes	Largest SR2D in-memory index during sample period
lastWriteDate	counter	GMT seconds	Start of timeslice most recently written to
peakRecordSize	counter	bytes	Largest session summary size written during the sample time window
processedRecords	counter	session records	Count of records written to SR2D archive during the sample window
writeErrors	counter	error count	The number of write errors encountered

TrafficProcessorSystemStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): TrafficProcessor
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
aggregateCpuTime	real	percent	Percentage of blade CPU used by the process
generic_current_allocated_bytes	counter	bytes	Number of bytes used by the application. Does not include TCMalloc overhead or memory fragmentation.
generic_heap_size	counter	bytes	Bytes of system memory reserved by TCMalloc
indexerCapacity	real	percent	Percentage of theoretical maximum CPU used by all indexer threads
indexerCpuTime	real	percent	Percentage of process CPU time used by all indexer threads
retrieverCapacity	real	percent	Percentage of theoretical maximum CPU used by all retriever threads
retrieverCpuTime	real	percent	Percentage of process CPU time used by all retriever threads
tcmalloc_current_total_thread_cache_bytes	counter	bytes	A measure of some of the memory TCMalloc is using (for small objects)
tcmalloc_pageheap_free_bytes	counter	bytes	Number of bytes in free, mapped pages in TCMalloc page heap
tcmalloc_pageheap_unmapped_bytes	counter	bytes	Number of bytes in free, mapped pages in TCMalloc page heap
trafficprocessorCapacity	real	percent	Percentage of theoretical maximum CPU used by all trafficprocessor threads
trafficprocessorCpuTime	real	percent	Percentage of process CPU time used by all trafficprocessor threads
vmHWM	counter	bytes	Peak resident set size ("high water mark")
vmPeak	counter	bytes	Peak virtual memory size
vmRSS	counter	bytes	Resident set size
vmSize	counter	bytes	Virtual memory size

TransHealthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Protocol-thread
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
incompleteTransactions	real	transactions	Tracks the number of incomplete (i.e. if a response is received first) transaction per second
transactions	real	transactions per second	Tracks the number of transactions created per second

XdrHealthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): XdrProfileName_ReceiverIP_ReceiverPort-ApplicationId-ThreadId
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numXdrBytes	counter	bytes	Equal to the total size of all messages attempted to be sent as counted in numXdrsGenerated. The size includes only the XDR payload of the TCP messages.
numXdrsDiscarded	counter	xDRs	Count of xDR discards due to sampling
numXdrsDropped	counter	xDRs	Count of dropped xDRs
numXdrsGenerated	counter	xDRs	Count of created xDRs
numXdrsSent	counter	xDRs	Count of xDRs sent
xdrBandwidth	real	kbps	Total bytes sent in xDRs
xdrDiscardedBandwidth	real	kbps	Bandwidth of xDRs discarded due to sampling
xdrDroppedBandwidth	real	kbps	Total bytes in xDRs dropped
xdrsDroppedPerSec	real	xDRs per second	Rate of xDR drops
xdrsPerSec	real	xDRs / second	xDRs processed per second

Long-Term Probe Stats Groups Accessibility per API

The following table shows which probe statistics groups are accessible only from the legacy API and which are accessible from both the legacy and E/H/D/M APIs.

Stats Group	Access via Legacy API?	Access via Entry, Hourly, Daily, Monthly API?
AppUsage	Yes	No
CpuUsage	Yes	Yes
CrxStats	Yes	Yes
DataFeedHealthStats	Yes	Yes
DiskUsage	Yes	Yes
DropStats	Yes	Yes
IICDdmOpplCpuStats	Yes	Yes
IICErrors	Yes	No
IicFsppStats	Yes	No
IICPortStats	Yes	Yes
IicRtpStats	Yes	Yes
MemoryUsage	Yes	Yes
ProtoBandWidthStats	Yes	Yes
S1DecipherStats	Yes	Yes
S2dServerArchStats	Yes	Yes
S2dServerStripeStats	Yes	Yes
SessionTrackingStats	Yes	Yes
Sr2dReaderStats	Yes	No
Sr2dWriterStats	Yes	Yes
TrafficProcessorSystemStats	Yes	Yes
XdrHealthStats	Yes	Yes

AppUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): application process
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
cpuTime	real	percent	Percentage of blade CPU used by process
rsSize	counter	MiBytes	Process virtual memory resident set size
threads	counter	threads	Number of threads running in the process
vmSize	counter	MiBytes	Amount of virtual memory used by process
cpuTimeMax	real	percent	max percentage of blade CPU used by process
rsSizeMax	counter	MiBytes	max process virtual memory resident set size
vmSizeMax	counter	MiBytes	max amount of virtual memory used by process

CpuUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): blade
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
idleTime	real	percent	Percentage of total blade CPU idle
ioWaitTime	real	percent	Percentage of total blade CPU waiting for I/O
systemTime	real	percent	Percentage of total blade CPU in system mode
userTime	real	percent	Percentage of total blade CPU in user mode
idleTimeMin	real	percent	min percentage of total blade CPU idle
ioWaitTimeMin	real	percent	min percentage of total blade CPU waiting for I/O
systemTimeMax	real	percent	max percentage of total blade CPU in system mode
userTimeMax	real	percent	max percentage of total blade CPU in user mode

CrxStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the easurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
controlPlaneBandwidth	real	kbps	Tracks the incoming control plane bandwidth received by this probe in kbps.
numPktDrops	counter	packets	Tracks the number of packets dropped by IIC
pduBandwidth	real	kbps	Tracks the incoming PDU data rate in kbps from IIC
pdusPerSecond	real	pdus per second	Tracks the number of incoming pdus per second from IIC
controlPlaneBandwidth_Max	real	kbps	Tracks the Max incoming control plane bandwidth received by this probe in kbps
pduBandwidth_Max	real	kbps	Tracks the Max incoming PDU data rate in kbps from IIC
pdusPerSecond_Max	real	pdus per second	Tracks the Max number of incoming pdus per second from IIC
totalPdus	counter	packets	Track the total number of incoming pdus from IIC

DataFeedHealthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): ReceiverName-PolicyName-ThreadId
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numDataFeedFrsSent	counter	frs	count of IP flow and Mobile flow records sent
numDataFeedFrsDiscarded	counter	frs	count of IP flow and Mobile flow records discarded
numDataFeedFrsDropped	counter	frs	count of IP flow and Mobile flow records dropped
numDataFeedBytesSent	counter	bytes	count of IP bytes and Mobile bytes sent
numDataFeedBytesDiscarded	counter	bytes	count of IP bytes and Mobile bytes discarded
numDataFeedBytesDropped	counter	bytes	count of IP bytes and Mobile bytes dropped
numBytesOutgoingUncompressed	counter	bytes	count of outgoing bytes before compression
numBytesOutgoingSent	counter	bytes	count of outgoing bytes sent on wire

DiskUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): disk partition
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
freeDisk	real	percent	percentage of partition total space free
freeMBytes	counter	MiBytes	amount of partition total space free
usedDisk	real	percent	percentage of partition total space in use

DropStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC board
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
dropCount	counter	packets	Total number of packets dropped by the hardware element.
dropCount_Max	counter	packets	Max total number of packets dropped by the hardware element in the recording period

IICDdmOpplCpuStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): DDM or Oppl core
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
OpplCpuUsageAvg	real	percent	Average CPU used by Oppl cores
OpplCpuUsageMax	counter	percent	Maximum CPU used by Oppl cores

IICErrors

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
backplaneErrors	counter	errors	Number of errors in the backplane
fsbAllocFailures	counter	failures	Number of FSB (Flow Status Blocks) allocation failures
hashTableInsertFailures	counter	failures	Number of failures in inserting FSB hash in the FSB hash table. **CRITICAL: Should never happen**.
highLearnFailures	counter	errors	Number of failures in add/modify EzChip table entry
mediaAllocFails	counter	errors	Number of times the IIC was not able to allocate a Media Element from the FPA pool
mediaFlowAllocFails	counter	errors	Number of times the IIC was not able to allocate a flow for a Media Element
mediaHashFails	counter	errors	Number of times the IIC was not able to insert a Media Element into the Media Hash Table
tcpOosInsertFailures	counter	errors	Number of TCP out-of-sequence element addition failures
tcpSeqNodeAllocFailures	counter	errors	Number of TcpSeqNode element allocation failures

IicFsppStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
dasaAllocFailures	counter	errors	Software doesn't have enough DASA buffers for the number of packets received. Increase DASA pool count.
frAllocFailures	counter	errors	Number of errors allocating a buffer to generate a FR. Indication of a leak of packet buffers.
fsbProtAllocFailures	counter	errors	Software doesn't have enough memory for protocol state.
numFsbsCreatNoClass	counter	errors	Number of FSB created without a protocol ID.
pduClassAllocError	counter	errors	Number of errors allocating a buffer to send a class. message. Indication of a leak of WQE buffers.
protoMsgAllocFailures	counter	errors	Software doesn't have enough transaction buffers. Increase transaction buffer pool count.
snoopMediaStreams	counter	errors	Total number of media streams that are being captured at the moment.
snoopNonMediaStreams	counter	errors	Total number of non-media streams that are being captured at the moment.
timerFailures	counter	errors	Software doesn't have enough timer buffers for the number of concurrent flows. Increase FSB pool count and/or adjust flow timeouts.
totalNonTcpFlows	counter	errors	Total number of non-TCP flows.
totalPkts	counter	errors	ipv4Pkts + ipv6Pkts
totalTcpFlows	counter	errors	Total number of TCP flows.

IICPortStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC board TODO
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
aggregateByteCount	counter	bytes	Total number of bytes transmitted by the endpoint
aggregatePacketCount	counter	packets	Total number of packets transmitted by the endpoint
maxPacketRate	counter	packets	Maximum packet rate of traffic over the endpoint
byteRate_Max	real	bps	Max byte rate transmitted by the endpoint.
packetRate_Max	real	pps	Max packets rate transmitted by the endpoint

IicRtpStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): IIC
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
rtpActiveFlows	counter	errors	Number of active RTP flows.
rtpActiveStreams	counter	errors	Number of active RTP streams.
rtpActiveStreams_Max	counter	errors	Max number of active RTP streams.

MemoryUsage

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): blade
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
bufferMemory	real	percent	Percentage of blade total memory in disk cache
freeMBytes	counter	MiBytes	Amount of blade total memory free (including cache)
freeMemory	real	percent	Percentage of blade total memory free
swapsIn	counter	events	Number of VM swaps in (should be 0)
swapsOut	counter	events	Number of VM swaps out (should be 0)
usedMemory	real	percent	Percentage of blade total memory in use
bufferMemoryMax	real	percent	Max percentage of blade total memory in disk cache
freeMBytesMin	counter	MiBytes	Min amount of blade total memory free (including cache)
freeMemoryMin	real	percent	Min percentage of blade total memory free
swapsInMax	counter	events	Max number of VM swaps in (should be 0)
swapsOutMax	counter	events	Max number of VM swaps out (should be 0)
usedMemoryMax	real	percent	Max percentage of blade total memory in use

ProtoBandWidthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Protocol-thread
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
inAvgBwToProbe	real	KBits/sec	Incoming bandwidth in Average Bits per Second into the probe.
inAvgPpsToProbe	real	PPS	Incoming Average Packets Per Second into the probe.
inBitsToProbe	counter	KBits	Number of bits received by the probe.
inPacketsToProbe	counter	Packets	Number of packets received by the probe.
inPeakBitsToProbe	counter	KBits	The peak bit count received by the probe.
inPeakPacketsToProbe	counter	Packets	The peak 5 second packet count received by the probe.

S1DecipherStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): codec name or payload type and thread number
numS1CipheredPdu	counter	counter	Count of S1AP Ciphered Pdu
numS1DecipherSuccess	counter	counter	Count of S1AP Decipher Success
numS1CipheredPdu_Max	counter	counter	Max count of S1AP Ciphered Pdu
numS1DecipherSuccess_Max	counter	counter	Max count of S1AP Decipher Success

S2dServerArchStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key):
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ArchDurationMinutes	counter	minutes	archive duration (in minutes)

S2dServerStripeStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Stripe id
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
ActualRead	counter	KiB	Actual (total) amount of data read
BandwidthAvg	counter	KiB/sec	Average bandwidth (IO rate) while reading
BandwidthPeak	counter	KiB/sec	Peak bandwidth (IO rate) while reading
IoErrors	counter	io errors	Number of IO errors

SessionTrackingStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Protocol-Thread
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
closedLongSessions	real	sessions	Closed long call sessions
closedLongSessionsByMaxIdleTime	real	sessions	Count of sessions timed out due to idleness
totalOpenSessions	counter	Number of open session records	Accumulated count of open session records since startup
openSessions_Max	counter	Number of open session records	Max accumulated count of open session records since startup

Sr2dReaderStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Subsystem name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
avgQueryTime	real	seconds	Time spent waiting for queries to complete
bytesReadFromDisk	real	bytes	Count of bytes read from the disk
numAtoQueries	counter	queries	Count of queries specifiying only active time index information
numDataFiles_Error	counter	session record log files (SR)	Number of files with read errors
numEtoQueries	counter	queries	Count of queries specifying only end time index information
numIndexFiles_Error	counter	index file count (SR.srIndex)	Number of files with read errors
numMpcQueries	counter	session queries	Number of Multiple protocol correlation queries
numQueriesWIndex	counter	queries	Number of queries with index
numQueriesWoDigits	counter	queries	Number of queries without address digits
numReceivedQueries	counter	session queries	Received session query count
numRecords_EncodingError	counter	records	Number of records which were corrupted
numRecords_Found	counter	number	Count of records matching queries
numRecords_ReadError	counter	records	Number of records which could not be read
numRecords_Sent	counter	records	Number of records sent to the server
numSessionRecordIdQueries	counter	queries	Count of queries specifying session record id
numStoQueries	counter	queries	Count of queries having only start time index information

Sr2dWriterStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): Thread name
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
avgIndicesPerRec	real	database keys	Keys per record
avgRecordSize	real	bytes	Average size of session summaries
avgWaitTime	real	seconds	Average time spent waiting for writes
bytesWritten	real	megabytes	Total megabytes written during sample period
highWaitTime	real	seconds	The highest time taken to write during the sample period
indexInsertions	real	indices	Count of address digits plus session record ids from all sessions written
indexMemory	counter	bytes	Largest SR2D in-memory index during sample period
lastWriteDate	counter	GMT seconds	Start of timeslice most recently written to
peakRecordSize	counter	bytes	Largest session summary size written during the sample time window
processedRecords	counter	session records	Count of records written to SR2D archive during the sample window
writeErrors	counter	error count	The number of write errors encountered

TrafficProcessorSystemStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): TrafficProcessor
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
aggregateCpuTime	real	percent	Percentage of blade CPU used by the process
vmRSS	counter	bytes	Resident set size
vmSize	counter	bytes	Virtual memory size

XdrHealthStats

Column	Type	Units	Description
ProbeName			Name of the Iris probe
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
PrimaryDimension			Primary dimension (or key): XdrProfileName-ApplicationId-ThreadId
BladeId			Secondary dimension (or key): BladeId (only present in output for 7.12.1 release onward)
numXdrBytes	counter	bytes	Equal to the total size of all messages attempted to be sent as counted in numXdrsGenerated. The size includes only the XDR payload of the TCP messages
numXdrsDropped	counter	xDRs	Count of dropped xDRs
numXdrsGenerated	counter	xDRs	Count of created xDRs
numXdrsSent	counter	xDRs	Count of xDRs sent
xdrDrop_Max	real	xdrs per second	Max rate of xDR drops
xdr_Max	counter	xdrs	Max number of processed xDRs
xdrGen_Max	real	xdrs per second	Max rate of xDR generated

LONG-TERM SERVER STATS GROUPS

System Health includes the following server statistics groups that support Entry (5-minute interval), Hourly, Daily, and Monthly data retention.

Server Stats Group Accessibility per API

The following table shows which server statistics groups are accessible only from the E/H/D/M API and which are accessible from both the legacy and E/H/D/M APIs.

Stats Group	Access via Legacy API?	Access via Entry, Hourly, Daily, Monthly API?
irisOracleOverloadConnectivityStats	No	Yes
irisOraOverloadDbStats	No	Yes
IrisOraIOStats	No	Yes
OAMProperty	No	Yes
OAMTopology	No	Yes
ServerAlarms	No	Yes
serverCoreDumpStats	No	Yes
ServerCpuUsageStats	No	Yes
ServerISA	No	Yes
ServerJVM	No	Yes
ServerDiskPartitionStats	No	Yes
ServerMemUsageStats	No	Yes
System	No	Yes

irisOracleOverloadConnectivityStats

Column	Type	Units	Description
ServerName	string		Name of the Oracle Database server
Application	string		Application name is 'ora'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"irisOracleRdbmsOverloadConnectivityStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
connectionType	connectivity	method	2 Types: OracleInstance, SqlnetConnection
status	status	message	1 (UP) or 0 (DOWN)

Note: If the sum adds up to 11 for the hour, the process was down for one interval.

irisOraOverloadDbStats

Column	Type	Units	Description
ServerName	string		Name of the Oracle Database server
Application	string		Application name is 'ora'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"irisOracleRdbmsOverloadDatabaseStats" or "irisOracleExadataOverloadDatabaseStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
connectionType	connectivity	method	1 Type: DatabaseASMSpace
status	status	message	1 (UP) or 2 (DOWN)
totalMB	real	MB	Total ASM disk space
freeMB	real	MB	Free ASM disk space
usedMB	real	MB	Used ASM disk space
usagePct	real	percent	Usage Percentage of ASM disk space
diskGroupName	string		Disk group name

IrisOraIOStats

Column	Type	Units	Description
ServerName	string		Name of the Oracle Database server or Exadata Appliance server
Application	string		Application name is 'ora'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"irisOracleRdbmsIOStats" or "irisOracleExadataIOStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			1 hour in milliseconds
kpiKeyFieldCount-2	string		Number of key fields following this field. The key fields combine to create a unique object.
instanceNumber	integer		Instance number of database node.For non Exadata, it will be 1. For Exadata, it can be 1-n, depends on the deployment of database.
fileType	string		4 Types: ControlFile, DataFile, LogFile, TempFile
smRead	integer	MB	Number of single block megabytes read
smWrite	integer	MB	Number of single block megabytes written
lgRead	integer	MB	Number of multi-block megabytes read
lgWrite	integer	MB	Number of multi-block megabytes written
smReadReqs	integer	counter	Number of single block read requests
smWriteReqs	integer	counter	Number of single block write requests

smSyncReadReqs	integer	counter	Number of synchronous single block read requests
lgReadReqs	integer	counter	Number of multi-block read requests
lgWriteReqs	integer	counter	Number of multi-block write requests
smReadSvctime	integer	milliseconds	Total service time for single block read requests
smWriteSvctime	integer	milliseconds	Total service time for single block write requests
smSyncReadLatency	integer	milliseconds	Latency for single block synchronous reads
lgReadSvctime	integer	milliseconds	Total service time for multi-block read requests
lgWriteSvctime	integer	milliseconds	Total service time for multi-block write requests
retriesOnError	integer	counter	Number of read retries on error

OAMProperty

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"OAMProperty"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. The key fields combine to create a unique object.
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string	MB	Kpi sample category (eg. JVM, SHELL, etc.)
AvgPropertyCall	double	MB	OAM Avg. set, get, add Property call OAM ET (delta compare with last time measurement)

OAMTopology

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		”OAMTopology“
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. The key fields combine to create a unique object.
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
TopologyUpdateFromG10	integer	counter	OAM Number topology update messages from G10 (delta compare with last time measurement)
NumberOfRemotePropertyUpdateNotification	integer	counter	OAM Number of remote property update notifications (delta compare with last time measurement)

ServerAlarms

Column	Type	Units	Description
ServerName	string		Name of the application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"ServerAlarms"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. The key fields combine to create a unique object.
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
NumberOfAlarmsReceived	integer	counter	Number of alarms received (delta compare with last time measurement)
ClearedAlarms	integer	counter	Cleared alarms (delta compare with last time measurement)

serverCoreDumpStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'server'.
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"serverCoreDumpStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
path	directory	directory	Directory in which core file was found
size	real	KiB	Size of the core file

ServerCpuUsageStats

Column	Type	Units	Description
serverId	integer		ID of the Iris server, which is from SERVER table of healthowner schema
appName	string		Application name is 'tekshs'.
appInstance	integer	counter	always is '1'
statGroup	string		'ServerCpuUsageStats'
statGroupVersion	integer	counter	
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD HH24:MI:SS
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-N	string		Number of key fields following this field. The key fields combine to create a unique object. Is '0'
pct_idle	real	percent	CPU idle time

serverDiskPartitionStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'server'.
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"serverDiskPartitionStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD HH24:MI:SS
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1			Number of key fields following this field. The key fields combine to create a unique object.
partition	partition	mountPoint	Name of the UNIX or Linux partition
utilization	real	percent	Percentage used

ServerISA

Column	Type	Units	Description
ServerName	string		Name of the application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		" "ServerISA"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. The key fields combine to create a unique object.
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
NumberOfCapturesByISAInstance	integer	counter	Number of captures by ISA instance
CaptureRecordCountPerISAInstance	integer	counter	Capture record count (per ISA instance)
CaptureMessageCountPerISAInstance	integer	counter	Capture message count (per ISA instance)

ServerJVM

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		" "ServerJVM"
StatGroupVersion	string	(blank)	Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. The key fields combine to create a unique object.
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101)
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
GarbageCollectionTime	integer		Total garbage collection time (delta compare with last time measurement)
NumberOfGarbageCollectionEvent	integer	counter	Total garbage collection events (delte compare with last time measurement)
JVMThreadCount	integer	counter	Current JVM thread count

ServerMemUsageStats

Column	Type	Units	Description
serverId	integer		ID of the Iris server, which is from SERVER table of healthowner
appName	string		Application name is 'tekshs'.
appInstance	integer	counter	always is '1'
statGroup	string		'ServerMemUsageStats'
StatGroupVersion	integer	counter	
RecordingTime	long		Date/time of the measurement in seconds since epoch
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-N	string		Number of key fields following this field. The key fields combine to create a unique object.Is '0'.
pagesize	integer	KB	Memory page size
memsize	integer	MB	Memory size
freemem	real	KB	Free memory size
freeswap	real	KB	Free swap size

System

Column	Type	Units	Description
ServerName	string		Name of the iris application server
Application	string		Application name is 'AppHealthMonitor'
ApplicationInstance	integer	counter	Keep '0' here since we can identify instance from below "instanceId"
StatGroup	string		"System"
StatGroupVersion	string		Keep '1' here
RecordingTime	long		Epoch time in seconds
RecordingPeriod	long		Time span of the measurement in milliseconds
kpiKeyFieldCount-3	integer		Number of key fields following this field. The key fields combine to create a unique object.
appName	string		Application name that provide the kpi (eg. irisAlarmCollectorEngine)
appInstance	string		Application instance the provide the kpi (eg. alarmColEng11101). For System, it will keep '0'
category	string		Kpi sample category (eg. JVM, SHELL, etc.)
OpenTCPSockets	integer	counter	Number of open TCP sockets used by OAM and other Iris web applications

IPI LONG-TERM STATS GROUPS

System Health includes the following IPI statistics groups that support Entry (5-minute interval), Hourly, Daily, and Monthly data retention.

IPI Stats Group Accessibility per API

The following table shows that IPI stats groups are only accessible through the E/H/D/M API.

Stats Group	Access via Legacy API?	Access via Entry, Hourly, Daily, Monthly API?
ipiHandlerStats	No	Yes
ipiSqlLoaderOverloadDrStats	No	Yes
ipiSqlLoaderOverloadFileStats	No	Yes
ipiTransmitterStats	No	Yes

IpiHandlerStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'ipi'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"ipiHandleStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads. Processes invoked by IPI Pre-Processor will be prepended with "pp_". Processes invoked by IPI Partial Aggregation Engine will be prepended with "pae_".
componentType	string		Type or classification of the component
componentName	sender	process	Representative of the sending process
datafeed	receiver	process	Representative of the downstream receiving process
queueSize	counter	records	Number of records for given connection during the measurement interval
queueCapacity	counter	limit	Max size allowed for a given connection

ipiSqlLoaderOverloadDRStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'ipi'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"ipiSqlLoaderOverloadDrStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-3	string		Number of key fields following this field. The key fields combine to create a unique object.
componentType	string		1 Type: SqlLoaderDRs
componentName	sender	process	Representative of the sending process from the UA Aggregation Engine.
Destination	dr logs	directory	host:port
discardedDRs	counter	DRs	Cumulative number of DRs discarded for UA Aggregation Engine log files.

ipiSqlLoaderOverloadFileStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'ipi'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"ipiSqlLoaderOverloadFileStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in seconds since epoch
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
drLogType	dr logs	directory	Aggregated and Non-Aggregated.
fileType	file type	extension	4 Types: DatFiles, TimeoutFiles, BadFiles
protocol	protocol	directory	Sub-directory of the supported protocol.
interface	interface	directory	Sub-directory of the supported interface.
number5MinFiles	counter	Files	For a given DrType, Protocol and Interface, the number of files older than 5 minutes. Will not report the value of 0 in this field.

ipiTransmitterStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'ipi'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"ipiTransmitterStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads. Processes invoked by IPI Pre-Processor will be prepended with "pp_". Processes invoked by IPI Partial Aggregation Engine will be prepended with "pae_".
componentType	string		Type or classification of the component
componentName	sender	process	Representative of the sending process
datafeed	receiver	process	Representative of the downstream receiving process
dropCount	counter	xDRs	Cumulative number of dropped xDRs from midnight to now (where now is the measurement_time)
xdrCount	counter	xDRs	Cumulative number of dropped XDRs from midnight to now (where now is the measurement_time)

DATACAST LONG-TERM STATS GROUPS

Iris System Health supports the following DataCast Statistics groups that support Entry (5-minute interval), Hourly, Daily, and Monthly data retention.

DATACAST Stats Group Accessibility per API

The following table shows that DataCast stats groups are only accessible through the E/H/D/M API.

Stats Group	Access via Legacy API?	Access via Entry, Hourly, Daily, Monthly API?
dcConnectionQueueSizeStats	No	Yes
dcCorrelationXdrStats	No	Yes
dcMapperXdrStats	No	Yes
dcMediationXdrStats	No	Yes
dcTransmitterXdrStats	No	Yes

dcConnectionQueueSizeStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'dc'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"dcConnectionQueueSizeStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads.
componentType	string		1 Type: Connection
componentName	string		All components within the given statsLog file.
connectionName	string		Configured connection name.
queueSize	counter	records	Number of records for given connection during the measurement interval
queueCapacity	counter	limit	Max size allowed for a given connection

dcCorrelationXdrStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'dc'
ApplicationInstance	integer	count	Keep '1' here
StatGroup	string		"dcCorrelationXdrStats"
StatGroupVersion	integer	count	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-3	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads.
componentType	string		1 Type: Correlation
componentName	string		Correlation component.
DRsDroppedByCorrelation	counter	DRs	Number of DRs dropped by a given correlation type.
DRsReceivedByCorrelation	counter	DRs	Number of DRs received by a given correlation type.

dcMapperXdrStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'dc'
ApplicationInstance	integer	count	Keep '1' here
StatGroup	string		"dcMapperXdrStats"
StatGroupVersion	integer	count	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads.
componentType	string		1 Type: Mapper
componentName	string		Mapper component.
mapperName	string		Configured mapper name.
DRsFailedToMap	counter	DRs	Number of DRs received by a mapper that failed to map.
DRsReceivedByMap	counter	DRs	Number of DRs received by a mapper.

dcMediationXdrStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'dc'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"dcMediationXdrStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads.
componentType	string		3 Types: Datacast_Mediation_Device, MediationDevice, Iris_Mediation_Device
componentName	mediation		Transmitter component name as configured in the XML file
Protocol	string		Protocol, CDR, TDR or Not Applicable (NA)
DRsDroppedAboveLicense	counter	DRs	Number of DRs dropped due to exceeding the licensed value. Protocol objects will display 'NAN' for this field.
DRsReceived	counter	DRs	Number of DRs received by Datacast Mediation component, broken out by protocol where pertinent

dcTransmitterXdrStats

Column	Type	Units	Description
ServerName	string		Name of the Iris Application server
Application	string		Application name is 'dc'
ApplicationInstance	integer	counter	Keep '1' here
StatGroup	string		"dcTransmitterXdrStats"
StatGroupVersion	integer	counter	Keep '1' here
RecordingTime	long		Date/time of the measurement in the format MM/DD/YY, hh:mm
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-4	string		Number of key fields following this field. The key fields combine to create a unique object.
processName	string		Name of the UNIX process that spawned one or more threads.
componentType	string		1 Type: Transmitter
componentName	producer		A Transmitter-Producer hands-off its messages to a Consumer.
destination	string		host:port
DRsDrop	counter	DRs	Number of DRs dropped by Datacast Transmitter (volume=encodeErrors+failConnection+ slowConnection)
DRsSent	counter	DRs	Number of DRs sent by Datacast Transmitter component to downstream Destination/Datafeed

TD140 STATS GROUPS

System Health includes the following TD140 statistics groups that support Entry (5-minute interval), Hourly, Daily, and Monthly data retention.

TD140 Stats Group Accessibility per API

The following table shows that TD140 stats groups are only accessible through the legacy API.

Stats Group	Access via Legacy API?	Access via Entry, Hourly, Daily, Monthly API?
LBBLADEVOLTAGEI	Yes	No
LBBWI	Yes	No
LBEGRESSPORTSI	Yes	No
LBFRAGI	Yes	No
LBG10I	Yes	No
LBGTPCI	Yes	No
LBGTPUI	Yes	No
LBHOI	Yes	No
LBINGRESSPORTSI	Yes	No
LBMEMINFOI	Yes	No
LBMNGMTI	Yes	No
LBOCTPORTI	Yes	No
LBPKISTATSI	Yes	No
LBPKTDROPI	Yes	No
LBPKTSI	Yes	No
LBPORTI	Yes	No
LBPORTSRATEI	Yes	No
LBSESSI	Yes	No
LBTRNSI	Yes	No

LBBLADEVOLTAGEI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBBLADEVOLTAGEI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Blade+number(For example: Blade1)
volt5V	real		5V supply
volt3.3V	real		3.3V supply
volt2.5V	real		2.5V supply
volt1.5V	real		1.5V supply
volt1.2VIPMC	real		1.2V supply
volt1.05VLMP	real		1.05V supply
dpb1Temp	real		DPB 1 temperature reading
Dpb2Temp	real		DPB 2 temperature reading

LBBWI

Column	Type	Units	
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBBWI"
StatGroupVersion	integer	count	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Blade +number(For example:Blade 2)
rxBw	counter	bps	Ingress bandwidth
txBw	counter	bps	Egress bandwidth

LBEGRESSPORTSI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBEGRESSPORTSI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in seconds since epoch
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Egress adress(For example:Egress 1-2)
port type	string		Port type as front/rear
egressGtpV1PktCnt	counter	packets	Total number of GTPV1 packet count.
egressGtpV2PktCnt	counter	packets	Total number of GTPV2 packet count.
egressGtpUPktCnt	counter	packets	Total number of GTPU packet count.
egressNonGtpPktCnt	counter	packets	Total number of non-GTP packet count
egressGtpV1ByteCnt	counter	bytes	Total GTPV1 byte count.
egressGtpV2ByteCnt	counter	bytes	Total GTPV2 byte count.
egressGtpUByteCnt	counter	bytes	Total GTPU byte count.
egressNonGtpByteCnt	counter	bytes	Total non-GTP byte count.
egressSessionCnt	counter	bytes	Total GTP session count V1/V2.
egressPacketCnt	counter	packets	Total egress packet count.
egressByteCnt	counter	bytes	Total egress byte count.
outPktPerPortCnt	counter	packets	Total out packets for that port.
outBytePerPortCnt	counter	bytes	Total out bytes for that port.

LBFRAGI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBFRAGI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
fragments	counter		Total number of IP fragments received
defragSuccess	counter		Total number of successful defragmentations.
defragFailure	counter		Total number of unsuccessful defragmentations.

LBG10I

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	count	Keep '0' here
StatGroup	string		"LBG10I"
StatGroupVersion	integer	count	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		G10Probe-ProbeID(For example:G10Probe-4109)
g10SessCnt	counter		Total session count.
g10PktCnt	counter		Total packet count per G10
g10ByteCnt	counter		Total byte count per G10

LBGTPCI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBGTPCI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
v0GtpPkts	counter	packets	Total number of GTP-C v0 packets processed. Cumulative.
v1GtpPkts	counter	packets	Total number of GTP-C v1 packets processed. Cumulative.
v2GtpPkts	counter	packets	Total number of GTP-C v2 packets processed. Cumulative.
numSessionPkts	counter	packets	Total number of packets that correlate to a known session/create a new session.
numSeqPkts	counter	packets	Total number of packets that are matched to a session based on sequence number.
unknownPkts	counter	packets	Total number of packets that are not matched to a session.

LBGTPUI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBGTPUI"
StatGroupVersion	integer	count	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
gtpUPktsHits	counter	packets	Total number of GTP-U packets that match to a known session.
gtpuPktsMissed	counter	packets	Total number of GTP-U packets that do not match to a known session.

LBHOI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBHOI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object
element	string		Octeon+number(For example:Octeon1)
gtpV1toGtpV2Ho	counter		GTP V1 to V2 handover count
gtpV2toGtpV1Ho	counter		GTP V2 to V1 handover count

LBINGRESSPORTSI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBINGRESSPORTSI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Ingress address(For example:Ingress 2-1)
port type	string		Port type as front/rear
ingressGtpV1PktCnt	counter	packets	Total number of ingress GTPV1 packet count
ingressGtpV2PktCnt	counter	packets	Total number of ingress GTPV2 packet count
ingressGtpUPktCnt	counter	packets	Total number of ingress GTPU packet count
ingressNonGtpPktCnt	counter	packets	Total number of ingress Non-Gtp packet count
ingressGtpV1ByteCnt	counter	bytes	Total number of ingress GTPV1 byte count
ingressGtpV2ByteCnt	counter	bytes	Total number of ingress GTPV2 byte count
ingressGtpUByteCnt	counter	bytes	Total number of ingress GTPU byte count
ingressNonGtpByteCnt	counter	bytes	Total number of ingress Non-Gtp byte count
inPktPerPortCnt	counter	packets	Total number of in packets per port
inBytePerPortCnt	counter	bytes	Total number of byte count per port

LBMEMINFOI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		
StatGroupVersion	integer	counter	
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
sessionTable	real	percent	Percentage utilization of session table
flowTable	real	percent	Percentage utilization of flow table
auditTable	real	percent	Percentage utilization of audit table
resourceTable	real	percent	Percentage utilization of resource table
deFragTable	real	percent	Percentage utilization of defragmentation context table

LBMNGMTI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBMNGMTI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
globalMgntMsgCnt	counter		Total number of global management messages
sessionMgntMsgCnt	counter		Total number of session management messages
sessionMgntAllocate	counter		Total number of session management Allocate messages
sessionMgntFree	counter		Total number of session management free messages
sessionMgntIdle	counter		Total number of session management idle messages
sessionMgntHandover	counter		Total number of session management handover messages
sessionMgntAbort	counter		Total number of session management abort messages
sessionMgntNone	counter		Total number of session management none messages
sessionMgntNotAppl			

LBOCTPORTI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBOCTPORTI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number-Rx or Tx(For example:Octeon1-Rx)
totalFrames	counter	packets	Total number of packets
totalOct	counter	bytes	Total number of bytes count
totalErrFr	counter		Total number of error frames.
uniCast	counter		Total number of unicast messages
mulCast	counter		Total number of multicast messages
bCast	counter		Total number of broadcast messages

LBPKISTATSI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBPKISTATSI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
totalPkts	counter	packets	Number of packets received by PKI in this octeon
totalOcts	counter	octets	Number of octets received by PKI in this octeon.
totalDrpPkts	counter	packets	Number of packets dropped by PKI in this octeon.
totalDrpOcts	counter	octets	Number of octets dropped by PKI in this octeon.

LBPKTDROPI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number (For example:Octeon1)
pktDropGtpV1Cnt	counter	packets	Total number of GTPV1 packet drop count
pktDropGtpV2Cnt	counter	packets	Total number of GTPV2 packet drop count
pktDropGtpUCnt	counter	packets	Total number of GTPU packet drop count
pktDropNonGtpCnt	counter	packets	Total number of Non-GTP packet drop count
pktDropBackoffTmDiscard	counter	packets	Total number of backoff time discard count
pktDropAbortDiscard	counter	packets	Total number of aborted packet drop count
pktDropUnsupportNumVlanTags	counter	packets	Total number of packet drops due to unsupported number of vlan tags.
pktDropUnsupportNumMplsLble	counter	packets	Total number of packet drops due to unsupported number of mpls labels.
pktDropUnsupportPktSize	counter	packets	Total number of packet drops due to unsupported packet size.
pktDropGtpUMissLimitedMode	counter	packets	Total number of GtpU miss limited mode.
pktDropNoEgressPort	counter	packets	Total number of packet drops because of no available egress

pktDropNoG10Probe	counter	packets	Total number of packet drops because of no available G10 probe.
pktDropThrottleGtpC	counter	packets	Total number of packets drop due to throttled GTPC packet.
pktDropOthers	counter	packets	Total number of packet drops others.

LBPKTSI

Note: This stat group is also a long-term stat group.

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBPKTSI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
droppedPkts	counter	packets	Total number of dropped packets
inPkts	counter	packets	Total number of in packets
outPkts	counter	packets	Total number of out packets
nonGtpPkt	counter	packets	Total number of non GTP packets
inByte	counter	bytes	Total number of in bytes count
outByte	counter	bytes	Total number of out byte counts
nonGtpByte	counter	packets	Total number of non GTP packet byte count.

LBPORTI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBPORTI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Port address.(For exampe: Port 2-15)
Rx/Tx	string		
totalFrames	counter	frames	Total number of Ethernet frames.
totalOct	counter	bytes	Total number of bytes (including Ethernet header but not preamble or fcs)
totalErrFr	counter		Total number of frame errors.
oct-64	counter	packets	Total packets 64 bytes or less
oct65_127	counter	packets	Total packets x to z inclusive (per name of stat)
oct128_255	counter	packets	Total packets x to z inclusive (per name of stat)
oct256_511	counter	packets	Total packets x to z inclusive (per name of stat)
oct512_1023	counter	packets	Total packets x to z inclusive (per name of stat)
oct1024_1518	counter	packets	Total packets x to z inclusive (per name of stat)
jabbers	counter		Over load Errors
runt	counter		Packet size error
fcserrs	counter		FCS errors
bw	counter		Traffic bandwidth per port.
DrpCnt	counter		

LBPORTSRATEI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBPORTSRATEI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
Element	string		PortRate address(For example: PortRate 1-1)
port type	string		Port type as front/rear
ingressGtpV1PktRate	counter	packets	Gtp V1 Packets per second in last 5 minutes interval on ingress port
ingressGtpV2PktRate	counter	packets	Gtp V2 Packets per second in last 5 minutes interval on ingress port
ingressGtpUPktRate	counter	packets	GtpU Packets per second in last 5 minutes interval on ingress port
ingressNonGtpPktRate	counter	packets	Non-Gtp Packets per second in last 5 minutes interval on ingress port
ingressGtpV1BitRate	counter	bits	Gtp V1 Bits per second in last 5 minutes interval on ingress port
ingressGtpV2BitRate	counter	bits	Gtp V2 Bits per second in last 5 minutes interval on ingress port
ingressGtpUBitRate	counter	bits	GtpU Bits per second in last 5 minutes interval on ingress port
ingressNonGtpBitRate	counter	bits	Non-Gtp Bits per second in last 5 minutes interval on ingress port
egressGtpV1PktRate	counter	packets	Gtp V1 Packets per second in last 5 minutes interval on egress port
egressGtpV2PktRate	counter	packets	Gtp V2 Packets per second in last 5 minutes interval on egress port
egressGtpUPktRate	counter	packets	GtpU Packets per second in last 5 minutes interval on egress port
egressNonGtpPktRate	counter	packets	Non-Gtp Packets per second in last 5 minutes interval on egress port
egressGtpV1BitRate	counter	bits	Gtp V1 Bits per second in last 5 minutes interval on egress port
egressGtpV2BitRate	counter	bits	Gtp V2 Bits per second in last 5 minutes interval on egress port
egressGtpUBitRate	counter	bits	GtpU Bits per second in last 5 minutes interval on egress port
egressNonGtpBitRate	counter	bits	Non-Gtp Bits per second in last 5 minutes interval on egress port

LBSESSI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBSESSI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
numActSessions	counter		Total number of active session currently being tracked. Not cumulative.
numSesionsAllocated	counter		Total number of sessions opened. Cumulative.
numSessionsFreed	counter		Total number of sessions closed. Cumulative.
numSessionsIdle	counter		Total number of sessions closed due to idle timeout. Cumulative.
numSessionsOverloadAbort	counter		Total number of session aborted due to TD140 over capacity.
numSessionsImsiAbort	counter		Total number of session aborted due to IMSI mismatch.
numSesionsAllocationFailure	counter		Total number of times the session allocation failed.
numSesionsActvGtpV1	counter		Total number of active GTPV1 sessions.
numSesionsActvGtpV2	counter		Total number of active GTPV2 sessions.
numSesionsGtpV1Sess	counter		Total number of GTPV1 sessions allocated.
numSesionsGtpV2Sess	counter		Total number of GTPV2 sessions allocated.
numGtpV1BearerCnt	counter		Total number of GTPV1 bearer count
numGtpV2BearerCnt	counter		Total number of GTPV2 bearer count

LBTRNSI

Column	Type	Units	Description
ServerName	string		Name of the TD140
Application	string		Application name is 'TD140'
ApplicationInstance	integer	counter	Keep '0' here
StatGroup	string		"LBTRNSI"
StatGroupVersion	integer	counter	Keep '2.2.0' here
RecordingTime	long		Date/time of the measurement in the format YYYY-MM-DD hh:mm:ss
RecordingPeriod			Time span of the measurement in milliseconds
kpiKeyFieldCount-1	string		Number of key fields following this field. The key fields combine to create a unique object.
element	string		Octeon+number(For example:Octeon1)
numTransAllocated	counter		Total number of GTP-C request/response transactions.
numTransSuccess	counter		Total number of successful transactions. (Network issue.)
numTransFailed	counter		Total number of failed transactions. (Network issue.)
numTransTimeout	counter		Total number of transactions timeouts. (Network issue.)
numTransAllocFail	counter		Number of transactions for which TD140 was unable to allocate memory.