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Universal Contact Service Private Edition Guide

Metrics

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Learn which metrics you should monitor for Universal Contact Service (UCS) and when to sound the alarm.

Related documentation:

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- [For private edition](#)

UCS provides internal monitoring metrics through a Prometheus endpoint on port 10052.

Common Performance Metrics

| Name (type) | Key | Units | Additional keys | Alarm condition | Description | Common description |
|-----------------------------|---------------------|-------|-----------------------------------|-----------------|--|---|
| ucsx_performance (Gauge) | metric="cpuUsage" | | 'nodeId', 'pid' | > 95 | CPU usage | basic metric, created with starting metrics service, cannot be disabled |
| | metric="loopDelay" | | | | event loop lag | |
| ucsx_internal_queue (Gauge) | metric="queueSize" | | 'nodeId', 'pid', 'endpoint' | | number requests waiting for processing | basic metric, created with starting metrics service, cannot be disabled |
| | metric="queueDelay" | | | > 10000 | request's waiting for processing time | |
| ucsx_timings (Gauge) | metric="cpuTime" | | 'nodeId', 'pid' | | CPU time used by process | basic metric, created with starting metrics service, cannot be disabled |
| | metric="sysTime" | | | | System mode time | |
| | metric="userTime" | | | | User mode time | |
| | metric="upTime" | | | | Process running time | |
| ucsx_memory | metric="rss" | Mb | 'nodeId', 'pid', | > 1024 | Resident Set Size | basic metric, created with |

| Name (type) | Key | Units | Additional keys | Alarm condition | Description | Common description |
|-------------|--------------------|-------|-----------------|-----------------|-------------|--|
| (Gauge) | metric="heapTotal" | | | | | starting metrics service, cannot be disabled |
| | metric="heapUsed" | | | | | |

Database Connection Metrics

| Name (type) | Key | Units | Additional keys | Alarm condition | Description | Common description |
|---------------------|----------------|-------|---|-----------------|---|---|
| ucsx_dbPool (Gauge) | metric="total" | | 'nodeId', 'pid', 'ccId', 'address' | | Total count of connection to particular database (defined by key 'ccId') | basic metric, created with starting call-center-storage service, cannot be disabled, shows usage of connection pool |
| | metric="idle" | | | | Total count of idle connection to particular database (defined by key 'ccId') | |
| | metric="wait" | | | | Total count of connection in 'waiting' state to particular database (defined by key 'ccId') | |
| | metric="max" | | | | Max available connection for this instance of database | |

HTTP Request Metrics

| Name (type) | Key | Units | Additional keys | Additional configuration key | Alarm condition | Description | Common description |
|---|------------|-------|---|--|-----------------|--|-----------------------------------|
| | le="10" | | | | | Count HTTP request's of duration less 10ms | Metrics of HTTP requests duration |
| | le="50" | | | | | Count HTTP request's of duration less 50ms | |
| ucsx_http_request_duration_bucket (Histogram) | ms | | 'nodeId', 'pid', 'endpoint', 'url', 'code', 'method', 'ccId', 'ccName' | /rest-gws/metrics/enabled = false - to disable | > 10000 | Count HTTP request's of duration less 200ms | |
| | le="1000" | | | | | Count HTTP request's of duration less 1000ms | |
| | le="+Inf" | | | | | Count all HTTP request's | |
| ucsx_http_request_duration_sum (Histogram) | ms | | | | | Total duration of all HTTP requests | |
| ucsx_http_request_duration_count (Histogram) | | | | | | Total number of all HTTP requests | |
| ucsx_http_total_requests_count (Counter) | | | 'nodeId', 'pid', 'endpoint' | | | Accumulative counter of all HTTP requests | |
| ucsx_http_active_requests_count (Gauge) | | | 'nodeId', 'pid', 'endpoint' | | | Counter of all incomplete requests | |
| ucsx_http_requests_per_second (Gauge) | requests/s | | 'nodeId', 'pid', 'endpoint' | | | Performance of processing HTTP requests | |

CometD Metrics

| Name (type) | Key | Units | Additional keys | Additional configuration key | Alarm condition | Description | Common description |
|---|---------------|-------|---|--|-----------------|--|-------------------------------------|
| | le="10" | | | | | Count CometD request's of duration less 10ms | |
| | le="50" | | | | | Count CometD request's of duration less 50ms | |
| ucsx_cometd_request_duration_bucket (Histogram) | le="200" ms - | | 'nodeId', 'pid', 'endpoint', 'url', 'code', 'method', 'ccId', 'ccName' | /rest-gws-cometd/metrics/ enabled = false - to disable | > 10000 | Count CometD request's of duration less 200ms | Metrics of CometD requests duration |
| | le="1000" | | | | | Count CometD request's of duration less 1000ms | |
| | le="+Inf" | | | | | Count all CometD request's | |
| ucsx_cometd_request_duration_sum (Histogram) | | ms - | | | | Total duration of all HTTP requests | |
| ucsx_cometd_request_duration_count (Histogram) | | | | | | Total number of all HTTP requests | |
| ucsx_cometd_requests_total (Counter) | | | 'nodeId', 'pid', 'endpoint' | | | Accumulative counter of all CometD requests | |
| ucsx_cometd_active_requests_count (Gauge) | | | 'nodeId', 'pid', 'endpoint' | | | Counter of all incomplete requests | |

Internal Functions Calls Monitoring

| Name (type) | Key | Units | Additional keys | Additional configuration key | Description | Common description |
|--|-------------------------------------|-------|-----------------------------------|---------------------------------------|--|--|
| ucsx_internal_calls_bucket (Histogram) | le="10" | ms | 'nodeId', 'pid', 'function' | /\${serviceName} = false - to disable | Count internal calls request's of duration less 10ms | Metrics of services's methods calls duration |
| | le="50" | | | | Count internal calls of duration less 50ms | |
| | le="200" | | | | Count internal calls of duration less 200ms | |
| | le="1000" | | | | Count internal calls of duration less 1000ms | |
| | le="+Inf" | | | | Count all internal calls | |
| | ucsx_internal_calls_sum (Histogram) | | | | Total duration of all calls of function | |
| ucsx_internal_calls_count (Histogram) | | | | | Total number of all calls of function | |

SQL Monitoring

| Name (type) | Key | Units | Additional keys | Description | Common description |
|-----------------------------|---------|-------|--|---|---|
| ucsx_sql_bucket (Histogram) | le="10" | ms | 'nodeId', 'pid', 'operation', 'ccId', 'ccName' | Count SQL request's of duration less 10ms | Metrics of raw SQL request duration. Key 'operation' might have values: 'update','insert','delete','query' |
| | le="50" | | | | |

| Name (type) | Key | Units | Additional keys | Description | Common description |
|----------------------------|-----------|-------|-----------------|---|--------------------|
| | le="200" | | | Count SQL request's of duration less 200ms | |
| | le="1000" | | | Count SQL request's of duration less 1000ms | |
| | le="+Inf" | | | Count all SQL request's | |
| ucsx_sql_sum (Histogram) | | | | Total duration of all raw SQL requests | |
| ucsx_sql_count (Histogram) | | | | Total number of all raw SQL requests | |

Internal Cache Monitoring

| Name (type) | Key | Units | Additional keys | Description | Common description |
|----------------------|------------------|-------|------------------------|--|---------------------------------------|
| ucsx_cache (Counter) | method="set" | | | Count writes to cache | Metrics of internal application cache |
| | method="get" | | | Count successful reads from cache | |
| | method="delete" | | | Count delete operations from cache | |
| | method="expired" | | 'nodeId', 'pid', 'key' | Count unsuccessful reads from cache due to data expiration | |
| | method="remove" | | | Count remove operation by timer | |
| | method="miss" | | | Count unsuccessful reads from cache due to data absence | |

Elasticsearch Monitoring

| Name (type) | Key | Units | Additional keys | Alarm condition | Description | Common description |
|--|-------------------------------------|-------|--|-----------------|--|---|
| ucsx_elastic_search_bucket (Histogram) | le="10" | ms | 'nodeId', 'pid', 'operation', 'ccId', 'ccName' | | Count ES request's of duration less 10ms | Metrics of ElasticSearch request duration. Key 'operation' can have values: 'read','write'. |
| | le="50" | | | | Count ES request's of duration less 50ms | |
| | le="200" | | | | Count ES request's of duration less 200ms | |
| | le="1000" | | | | Count ES request's of duration less 1000ms | |
| | le="+Inf" | | | | Count all ES request's | |
| | ucsx_elastic_search_sum (Histogram) | | | | Total duration of all ElasticSearch requests | |
| ucsx_elastic_search_count (Histogram) | | | | | Total number of all ElasticSearch requests | |

Session Metrics

| Name (type) | Key | Units | Additional keys | Description | Common description |
|-----------------------|----------------|---------|--|---|---|
| ucsx_sessions (Gauge) | state="active" | counter | 'nodeId', 'pid', 'state', 'session' | Count of sessions that have had some activity within configured interval of time. | Available session types are 'HTTP' and 'cometD' |
| | state="idle" | | | Count of sessions that have not had some activity | |

| Name (type) | Key | Units | Additional keys | Description | Common description |
|-------------|----------------------|-------|-----------------|---|--------------------|
| | | | | within configured interval of time but still alive. | |
| | state="newPerMinute" | | | Count of new opened sessions per last minute | |