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Voice Microservices Private Edition Guide

Voice SIP Proxy Service metrics and alerts

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Find the metrics Voice SIP Proxy Service exposes and the alerts defined for Voice SIP Proxy Service.

Service	CRD or annotations?	Port	Endpoint/Selector	Metrics update interval
Voice SIP Proxy Service	Supports both CRD and annotations	11400	http://:11400/metrics	30 seconds

See details about:

- Voice SIP Proxy Service metrics
- Voice SIP Proxy Service alerts

Metrics

Voice SIP Proxy Service exposes Genesys-defined, SIP Proxy Service-specific metrics as well as some standard Kafka metrics. You can query Prometheus directly to see all the metrics that the SIP Proxy Service exposes. The following metrics are likely to be particularly useful. Genesys does not commit to maintain other currently available SIP Proxy Service metrics not documented on this page.

Metric and description	Metric details	Indicator of
siproxy_requests_total Total number of received requests.	Unit: N/A Type: counter Label: method Sample value:	Traffic
siproxy_rejected_requests_total The total number of rejected requests.	Unit: N/A Type: counter Label: Sample value:	Errors
siproxy_requests_processed_self_total The total number of received requests that were processed by SIP Proxy itself.	Unit: N/A Type: counter Label: method Sample value:	Traffic
siproxy_requests_forwarded_total The total number of forwarded requests.	Unit: N/A Type: counter Label: method, request_direction, sip_node_id Sample value:	Traffic
siproxy_requests_sip_node_resolved_total	Unit: N/A	Errors

Metric and description	Metric details	Indicator of
Total count of sip-node reselection.	Type: counter Label: Sample value:	
siproxy_responses_forwarded_total Total count of forwarded responses.	Unit: N/A Type: counter Label: method, sip_node_id, request_direction Sample value:	Traffic
siproxy_response_latency SIP response latency.	Unit: Type: histogram Label: le, sip_node_id, request_direction, target, node_in_cache Sample value:	Latency
siproxy_register_processed_total Total number of REGISTER requests that SIP Proxy received for processing.	Unit: N/A Type: counter Label: Sample value:	Traffic
siproxy_register_rejected_total Total number of REGISTER requests for processing that were rejected.	Unit: N/A Type: counter Label: Sample value:	Errors
siproxy_calls_per_second_count Current calculated calls per second.	Unit: N/A Type: gauge Label: Sample value:	Saturation
siproxy_active_sip_nodes_count Current number of active SIP nodes.	Unit: N/A Type: gauge Label: Sample value:	
siproxy_sip_nodes_count Current number of discovered SIP nodes.	Unit: N/A Type: gauge Label: Sample value:	
siproxy_tenants_count Current count of discovered tenants.	Unit: N/A Type: gauge Label: Sample value:	
siproxy_consul_record_processing_errors_count Current number of errors while processing records got from Consul.	Unit: N/A Type: counter Label: Sample value:	
siproxy_consul_errors_count	Unit: N/A	

Metric and description	Metric details	Indicator of
Current number of Consul errors.	Type: counter Label: Sample value:	
siproxy_sip_node_is_capacity_available Indicates whether SIP node has available capacity or not.	Unit: Type: gauge Label: sip_node_id Sample value:	
service_version_info Displays the version of Voice SIP Proxy Service that is currently running. In the case of this metric, the labels provide the important information. The metric value is always 1 and does not provide any information.	Unit: N/A Type: gauge Label: version Sample value: service_version_info{version="100.0.1000006"} 1	
siproxy_health_level Health level of the SIP Proxy node: -1 - fail 0 - starting 1 - degraded 2 - pass	Unit: N/A Type: gauge Label: Sample value:	
siproxy_envoy_proxy_status Status of the Envoy proxy: -1 - error 0 - disconnected 1 - connected	Unit: N/A Type: gauge Label: Sample value: 1	
siproxy_config_node_status Status of the Config node connection: 0 - disconnected 1 - connected	Unit: N/A Type: gauge Label: Sample value: 1	
sip_server_transactions_created_total Total number of created server transactions.	Unit: N/A Type: counter Label: Sample value:	Traffic
sip_client_transactions_created_total Total number of created client transactions.	Unit: N/A Type: counter Label: Sample value:	Traffic
sip_server_transactions_deleted_total Total number of deleted server transactions.	Unit: N/A Type: counter Label: Sample value:	Traffic
sip_client_transactions_deleted_total	Unit: N/A	Traffic

Metric and description	Metric details	Indicator of
Total number of deleted client transactions.	Type: counter Label: Sample value:	
sip_client_transactions_count Current number of client transactions.	Unit: N/A Type: gauge Label: Sample value:	Saturation
sip_server_transactions_count Current number of server transactions.	Unit: N/A Type: gauge Label: Sample value:	Saturation
sip_server_transactions_rejected_total Total number of server transactions rejected for internal reasons.	Unit: N/A Type: counter Label: Sample value:	Errors
sip_proxy_contexts_count Current number of active SIP Proxy forwarding contexts.	Unit: N/A Type: gauge Label: Sample value:	Saturation
sip_received_bytes_total Total traffic received, measured in bytes.	Unit: bytes Type: counter Label: transport Sample value:	Traffic
sip_sent_bytes_total Total traffic sent, measured in bytes.	Unit: bytes Type: counter Label: transport Sample value:	Traffic
sip_transport_errors_total Total number of transport errors.	Unit: N/A Type: counter Label: transport, address Sample value:	Errors
sip_stream_transport_wait_drain_total Total number of requests to wait for drain events on stream transports.	Unit: N/A Type: counter Label: Sample value:	
sip_stream_transport_flood_total Total number of flood events on the stream transports.	Unit: N/A Type: counter Label: Sample value:	
http_client_request_duration_seconds	seconds	Latency

Metric and description	Metric details	Indicator of
The time duration between the HTTP client request and the response, measured in seconds.	Type: histogram Label: le, target_service_name Sample value:	
http_client_response_count The number of HTTP client responses received.	Unit: N/A Type: counter Label: target_service_name, status Sample value:	Traffic
log_output_bytes_total The total amount of log output, measured in bytes.	Unit: bytes Type: counter Label: level, format, module Sample value: log_output_bytes_total{level="info",format="txt",module="sipproxy_node@config-manager"} 3175 log_output_bytes_total{level="info",format="txt",module="sipproxy_node@sipproxy-node"} 96 log_output_bytes_total{level="info",format="txt",module="sipproxy_node@sipproxy@sip"} 181 log_output_bytes_total{level="info",format="json",module="sipproxy_node@config-manager"} 4184 log_output_bytes_total{level="info",format="json",module="sipproxy_node@sipproxy-node"} 135 log_output_bytes_total{level="info",format="json",module="sipproxy_node@sipproxy@sip"} 259	
kafka_consumer_recv_messages_total Number of messages received from Kafka.	Unit: Type: counter Label: Sample value:	Traffic
kafka_consumer_error_total Number of Kafka consumer errors.	Unit: Type: counter Label: Sample value:	Errors
kafka_consumer_latency Consumer latency is the time difference between when the message is produced and when the message is consumed. That is, the time when the consumer received the message minus the time when the producer produced the message.	Unit: Type: histogram Label: Sample value:	Latency
kafka_consumer_rebalance_total Number of Kafka consumer rebalance events.	Unit: Type: counter Label: Sample value:	
kafka_consumer_state Current state of the Kafka consumer.	Unit: Type: gauge Label: Sample value:	
kafka_producer_messages_total Number of messages received from	Unit: Type: counter	Traffic

Metric and description	Metric details	Indicator of
Kafka.	Label: Sample value:	
kafka_producer_queue_depth Number of Kafka producer pending events.	Unit: Type: gauge Label: kafka_location Sample value:	Saturation
kafka_producer_queue_age_seconds Age of the oldest producer pending event in seconds.	Unit: seconds Type: gauge Label: kafka_location Sample value:	
kafka_producer_error_total Number of Kafka producer errors.	Unit: Type: counter Label: kafka_location Sample value:	Errors
kafka_producer_state Current state of the Kafka producer.	Unit: Type: gauge Label: kafka_location Sample value:	
kafka_producer_biggest_event_size Biggest event size so far.	Unit: Type: gauge Label: kafka_location, topic Sample value: 231	
kafka_max_request_size Exposed config to compare with biggest event size.	Unit: Type: gauge Label: kafka_location Sample value: 1000000	
kafka_producer_dropped_event_number Number of dropped events.	Unit: number Type: gauge Label: Sample value:	

Alerts

The following alerts are defined for Voice SIP Proxy Service.

Alert	Severity	Description	Based on	Threshold
Too many Kafka pending events	Critical	Too many Kafka producer pending events for pod {{ \$labels.pod }}.	kafka_producer_queue_depth	Too many Kafka producer pending events for service {{

Alert	Severity	Description	Based on	Threshold
		<p>This alert means there are issues with SIP REGISTER processing on this voice-sipproxy.</p> <p>Actions:</p> <ul style="list-style-type: none"> Make sure there are no issues with Kafka or with the {{ \$labels.pod }} pod's CPU and network. 		<p>{{ \$labels.container }} (more than 100 in 5 minutes).</p>
SIP server response time too high	Warning	<p>Actions:</p> <ul style="list-style-type: none"> If the alarm is triggered for multiple sipproxy-nodes, make sure there are no issues on {{ \$labels.sip_node_id }}. If the alarm is triggered only for sipproxy-node {{ \$labels.pod }}, check to see if there is an issue with the service related to the topic (CPU, memory, or network overload). 	sipproxy_response_latency_bucket	<p>SIP response latency for more than 95% of messages forwarded to {{ \$labels.sip_node_id }} is more than 1 second for sipproxy-node {{ \$labels.pod }}.</p>
Pod status failed	Warning	<p>Actions:</p> <ul style="list-style-type: none"> Restart the pod and check to see if there are any issues with the pod after restart. 	kube_pod_status_phase	<p>Pod {{ \$labels.pod }} is in Failed state.</p>
Pod status Unknown	Warning	<p>Pod {{ \$labels.pod }} is in Unknown state.</p>	kube_pod_status_phase	<p>Pod {{ \$labels.pod }} is in Unknown state for 5 minutes.</p>

Alert	Severity	Description	Based on	Threshold
		<p>Actions:</p> <ul style="list-style-type: none"> Restart the pod and check to see if there are any issues with the pod after restart. 		
Pod status Pending	Warning	<p>Pod {{ \$labels.pod }} is in Pending state.</p> <p>Actions:</p> <ul style="list-style-type: none"> Restart the pod and check to see if there are any issues with the pod after restart. 	kube_pod_status_phase	Pod {{ \$labels.pod }} is in Pending state for 5 minutes.
Pod status NotReady	Critical	<p>Pod {{ \$labels.pod }} is in NotReady state.</p> <p>Actions:</p> <ul style="list-style-type: none"> Restart the pod and check to see if there are any issues with the pod after restart. 	kube_pod_status_ready	Pod {{ \$labels.pod }} is in NotReady state for 5 minutes.
Container restarted repeatedly	Critical	<p>Container {{ \$labels.container }} was repeatedly restarted.</p> <p>Actions:</p> <ul style="list-style-type: none"> Check to see if a new version of the image was deployed. Also check for issues with the Kubernetes cluster. 	kube_pod_container_status_restarts_total	Container {{ \$labels.container }} was restarted 5 or more times within 15 minutes.
No sip-nodes available for 2 minutes	Critical	No sip-nodes are available for the pod {{ \$labels.pod }}.	sipproxy_active_sip_nodes_count	No sip-nodes are available for the pod {{ \$labels.pod }} for 2 minutes.

Alert	Severity	Description	Based on	Threshold
		<p>Actions:</p> <ul style="list-style-type: none"> If the alarm is triggered for multiple services, make sure there are no issues with sip-nodes. If the alarm is triggered only for pod {{ \$labels.pod }}, check to see if there is any issues with the pod. 		
sip-node capacity limit reached	Warning	<p>The sip-node {{ \$labels.sip_node_id }} hit capacity limit on {{ \$labels.pod }}.</p> <p>Actions:</p> <ul style="list-style-type: none"> If alarm is triggered for multiple services make sure there is no issues with sip-node {{ \$labels.sip_node_id }}. If alarm is triggered only for pod {{ \$labels.pod }} check if there is any issue with the pod 	siproxy_sip_node_is_capacity_aware	<p>The sip-node {{ \$labels.sip_node_id }} hit capacity limit on {{ \$labels.pod }} for 3 consecutive minutes.</p>
Pod CPU greater than 80%	Critical	<p>Critical CPU load for pod {{ \$labels.pod }}.</p> <p>Actions:</p> <ul style="list-style-type: none"> Check whether the horizontal pod autoscaler has triggered 	container_cpu_usage_seconds_total / container_spec_cpu_period	<p>Container {{ \$labels.container }} CPU usage exceeded 80% for 5 minutes.</p>

Alert	Severity	Description	Based on	Threshold
		<p>and the maximum number of pods has been reached.</p> <ul style="list-style-type: none"> • Check Grafana for abnormal load. • Collect the service logs for pod {{ \$labels.pod }} and raise an investigation ticket. 		
Pod CPU greater than 65%	Warning	<p>High CPU load for pod {{ \$labels.pod }}.</p> <p>Actions:</p> <ul style="list-style-type: none"> • Check whether the horizontal pod autoscaler has triggered and the maximum number of pods has been reached. • Check Grafana for abnormal load. • Collect the service logs for pod {{ \$labels.pod }} and raise an investigation ticket. 	<p>container_cpu_usage_seconds_total</p> <p>container_spec_cpu_period</p>	<p>Container {{ \$labels.container }} CPU usage exceeded 65% for 5 minutes.</p>
Pod memory greater than 80%	Critical	<p>Critical memory usage for pod {{ \$labels.pod }}.</p> <p>Actions:</p> <ul style="list-style-type: none"> • Check whether the horizontal pod autoscaler 	<p>container_memory_working_set_bytes</p> <p>kube_pod_container_resource_requests_memory_bytes</p>	<p>Container {{ \$labels.container }} memory usage exceeded 80% for 5 minutes.</p>

Alert	Severity	Description	Based on	Threshold
		<p>has triggered and the maximum number of pods has been reached.</p> <ul style="list-style-type: none"> • Check Grafana for abnormal load. • Restart the service for pod {{ \$labels.pod }}. 		
Pod memory greater than 65%	Warning	<p>Pod {{ \$labels.pod }} has high memory usage.</p> <p>Actions:</p> <ul style="list-style-type: none"> • Check whether the horizontal pod autoscaler has triggered and the maximum number of pods has been reached. • Check Grafana for abnormal load. • Collect the service logs for pod {{ \$labels.pod }} and raise an investigation ticket 	<p>container_memory_working_set_bytes_kube_pod_container_resource_requests_memory_bytes</p>	<p>Container {{ \$labels.container }} memory usage exceeded 65% for 5 minutes.</p>
Config node fail	Warning	<p>The request to the config node failed.</p> <p>Action:</p> <ul style="list-style-type: none"> • Check if there is any problem with pod {{ \$labels.pod }} and config node. 	<p>http_client_response_count</p>	<p>Requests to the config node fail for 5 consecutive minutes.</p>