SLO Documentation

Service: <Service name>

User Journey 1:

User Details:
Journey Type:
User Goal:
Business Context/Criticality:
Journey Flow (Tasks):

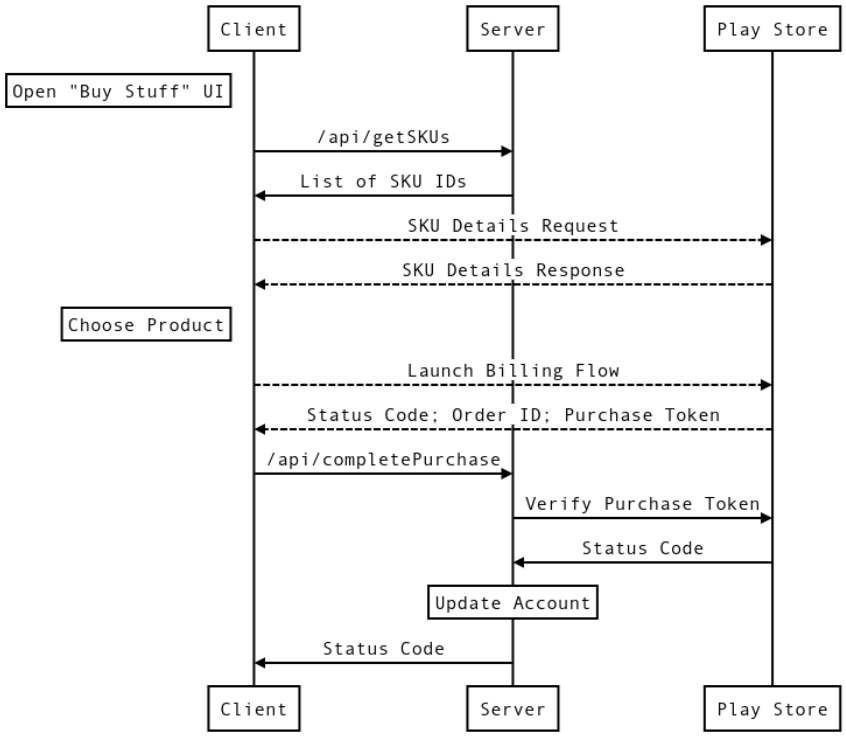
SLI 1:

State	Draft
Version	2023-03-06
Owner	
SLI Type	
SLI Specification	
SLI Implementation	
SLO Target(s)	
Compliance Period	
Clarification and Caveats	

Changelog	

[Example] User Journey: *Customer buys item through cart checkout*

User Details: *e.g. External Customer, new or returning*
Journey Type: *e.g. Request/Response*
User Goal: *e.g. Purchase items by completing cart checkout with items in cart*
Business Context/Criticality: *e.g. This is critical to our revenue and the ultimate goal of most visitors to the site*
Journey Flow (Tasks):



SLI: Availability of fetching SKU data

State	Active
Version	2023-03-01
Owner	jane.doe@example.com
SLI Type	(Latency | **Availability** | Correctness | ...)

SLI Specification	Proportion of POST /api/getSKUs requests that return with a 2XX, 3XX, or 4XX status code as measured by the `example-proj` load balancer

SLI Implementation	**Cloud Operations logs-based metric**
	`---`
	`name: api-getSKU`
	`filter: |-`
	`  resource.type="http_load_balancer"`
	`  httpRequest.requestMethod="GET"`
	`  httpRequest.requestUrl=~".*/api/getSKU$"`
	`  resource.labels.project_id="example-proj"`
	`  resource.labels.backend_service_name="example-bes"`
	`labelExtractors:`
	`  http_status: EXTRACT(httpRequest.status)`
	`metricDescriptor:`
	`  labels:`
	`  - description: HTTP status code`
	`  key: http_status`
	`  valueType: INT64`
	`  metricKind: DELTA`
	`  name:`
	`projects/example-proj/metricDescriptors/logging.googleapis.com/user/api-getSKU`
	`  type: logging.googleapis.com/user/api-getSKU`
	`  unit: '1'`
	`  valueType: INT64`
	
	Cloud Operations SLO
	`---`
	`displayName: 99.9% - Availability of fetching SKU data - Rolling 28 days`
	`goal: 0.999`
	`rollingPeriod: 2419200s`
	`serviceLevelIndicator:`
	`  requestBased:`
	`  goodTotalRatio:`
	`  goodServiceFilter:`
	`  metric.type="logging.googleapis.com/user/api-getSKU"`
	`  resource.type="l7_lb_rule" metric.labels.http_status>="200"`
	`  AND metric.labels.http_status<"500"`
	`  totalServiceFilter:`
	`  metric.type="logging.googleapis.com/user/api-getSKU"`
	`  resource.type="l7_lb_rule"`

SLO Target(s)	99.9% of requests were served successfully
Compliance Period	28 days
Clarification and Caveats	• Request metrics are measured at the load balancer. This measurement may fail to accurately measure cases where client requests don't reach the load balancer. • We only count HTTP 5XX status messages as error codes; everything else is counted as success. • The request URI is intentionally strictly matched and does not include requests with trailing characters (e.g. URI parameters).

	• We do not expect any 1XX status codes.
Changelog	**YYYY-MM-DD - v1.1** Revised to include 4XX status codes as good events as historical analysis has shown these are almost exclusively input errors. **YYYY-MM-DD - v1.0** Proposed SLOs for Cart service approved by SRE, development, and product leadership **YYYY-MM-DD - v0.9** Initial draft of Cart Service SLOs

SLI: Latency of fetching SKU data

State	Active
Version	2023-03-01 - v1.1
Owner	jane.doe@example.com
SLI Type	(**Latency** | Availability | Correctness | ...)
SLI Specification	Proportion of /api/getSKU requests that returned a 200 status code and were served sufficiently fast as measured by the `example-proj` load balancer "Sufficiently fast" is defined as < 500ms or < 800ms
SLI Implementation	`sum(increase(loadbalancing_googleapis_com:https_total_latencies_bucket{ monitored_resource="https_lb_rule", project_id="example-proj" backend_service_name="example-bes" response_code_class!="500" le="$bucket" }[$window])) / ignoring(le) sum(increase(loadbalancing_googleapis_com:https_total_latencies_count{ monitored_resource="https_lb_rule", project_id="example-proj" backend_service_name="example-bes" response_code_class!="500" }[$window])`

	)
	
	Note: $window is defined by the Compliance Period
	
	$bucket (Exponential; bucket params; targets below rounded to the nearest ms) :
	`50th percentile 597.6303958948906`
	`95th percentile 836.68255425284700`

SLO Target(s)	50% of requests are served faster than 598ms 95% of requests are served faster than 837ms
Compliance Period	28 days

Clarification and Caveats	• Latency targets were chosen based on the closest available distribution bucket boundary (`le="597.6303958948906"`).
	◦ Bucket params:
	`{`
	`"numFiniteBuckets": 66,`
	`"growthFactor": 1.4,`
	`"scale": 1`
	`}`
	• Request metrics are measured at the load balancer. This measurement may fail to accurately measure cases where user requests didn't reach the load balancer.

Changelog	**YYYY-MM-DD - v1.1** Revised latency targets downwards based on feasibility analysis of historical data and user expectations **YYYY-MM-DD - v1.0** Proposed SLOs for Cart service approved by SRE, development, and product leadership **YYYY-MM-DD - v0.9** Initial draft of Cart Service SLOs