



# ULB Metrics

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## ULB Metrics Reference

### ULB Agent Metrics Category

#### **egressmanagementpolicy\_customresource\_add\_event\_total**

Description: Total number egressmanagementpolicies custom resource add event received

Sample Query: 'sum(egressmanagementpolicy\_customresource\_add\_event\_total) by (pod)'

#### **egressmanagementpolicy\_customresource\_delete\_event\_total**

Description: Total number egressmanagementpolicies custom resource delete event received

Sample Query: 'sum(egressmanagementpolicy\_customresource\_delete\_event\_total) by (pod)'

#### **egressmanagementpolicy\_customresource\_modify\_event\_total**

Description: Total number egressmanagementpolicies custom resource modify event received

Sample Query: 'sum(egressmanagementpolicy\_customresource\_modify\_event\_total) by (pod)'

#### **loadbalancer\_customresource\_add\_event\_total**

Description: Total number load balancer custom resource add event received

Sample Query: 'sum(loadbalancer\_customresource\_add\_event\_total) by (pod)'

#### **loadbalancer\_customresource\_delete\_event\_total**

Description: Total number load balancer custom resource delete event received

Sample Query: 'sum(loadbalancer\_customresource\_delete\_event\_total) by (pod)'

#### **loadbalancer\_customresource\_modify\_event\_total**

Description: Total number load balancer custom resource modify event received

Sample Query: 'sum(loadbalancer\_customresource\_modify\_event\_total) by (pod)'

#### **loadbalancer\_pod\_add\_event\_ignored\_total**

Description: Total number load balancer pod add event received ignored

Sample Query: 'sum(loadbalancer\_pod\_add\_event\_ignored\_total) by (pod)'

#### **loadbalancer\_pod\_add\_event\_total**

Description: Total number load balancer pod add event received

Sample Query: 'sum(loadbalancer\_pod\_add\_event\_total) by (pod)'

#### **loadbalancer\_pod\_delete\_event\_ignored\_total**

Description: Total number load balancer pod delete event received ignored

Sample Query: 'sum(loadbalancer\_pod\_delete\_event\_ignored\_total) by (pod)'

#### **loadbalancer\_pod\_delete\_event\_total**

Description: Total number load balancer pod delete event received

Sample Query: 'sum(loadbalancer\_pod\_delete\_event\_total) by (pod)'

#### **loadbalancer\_pod\_modify\_event\_ignored\_total**

Description: Total number load balancer pod modify event received ignored

Sample Query: 'sum(loadbalancer\_pod\_modify\_event\_ignored\_total) by (pod)'

#### **loadbalancer\_pod\_modify\_event\_total**

Description: Total number load balancer pod modify event received

Sample Query: 'sum(loadbalancer\_pod\_modify\_event\_total) by (pod)'

#### **node\_add\_event\_ignored\_total**

Description: Total number node add event ignored

Sample Query: 'sum(node\_add\_event\_ignored\_total) by (pod)'

Labels:

- Label: component

Label Description: The component specifies node event type

Example: neighbor

#### **node\_add\_event\_total**

Description: Total number node add event received

Sample Query: 'sum(node\_add\_event\_total) by (pod)'

Labels:

- Label: `component`

Label Description: The component specifies node event type

Example: `neighbor`

#### **node\_delete\_event\_ignored\_total**

Description: Total number node delete event ignored

Sample Query: `'sum(node_delete_event_ignored_total) by (pod)'`

Labels:

- Label: `component`

Label Description: The component specifies node event type

Example: `neighbor`

#### **node\_delete\_event\_total**

Description: Total number node delete event received

Sample Query: `'sum(node_delete_event_total) by (pod)'`

Labels:

- Label: `component`

Label Description: The component specifies node event type

Example: `neighbor`

#### **node\_modify\_event\_ignored\_total**

Description: Total number node modify event ignored

Sample Query: `'sum(node_modify_event_ignored_total) by (pod)'`

Labels:

- Label: `component`

Label Description: The component specifies node event type

Example: `neighbor`

#### **node\_modify\_event\_total**

Description: Total number node modify event received

Sample Query: `'sum(node_modify_event_total) by (pod)'`

Labels:

- Label: `component`

Label Description: The component specifies node event type

Example: `neighbor`

**pod\_add\_event\_ignored\_total**

Description: Total number pod add event ignored

Sample Query: 'sum(pod\_add\_event\_ignored\_total) by (pod)'

**pod\_add\_event\_total**

Description: Total number pod add event received

Sample Query: 'sum(pod\_add\_event\_total) by (pod)'

**pod\_delete\_event\_ignored\_total**

Description: Total number pod delete event ignored

Sample Query: 'sum(pod\_delete\_event\_ignored\_total) by (pod)'

**pod\_delete\_event\_total**

Description: Total number pod delete event received Sample

Query: 'sum(pod\_delete\_event\_total) by (pod)'

**pod\_modify\_event\_ignored\_total**

Description: Total number pod modify event ignored

Sample Query: 'sum(pod\_modify\_event\_ignored\_total) by (pod)'

**pod\_modify\_event\_total**

Description: Total number pod modify event received

Sample Query: 'sum(pod\_modify\_event\_total) by (pod)'

**serviceoutboundroute\_customresource\_add\_event\_ignored\_total**

Description: Total number service outbound route custom resource add event received ignored

Sample Query: 'sum(serviceoutboundroute\_customresource\_add\_event\_ignored\_total) by (pod)'

**serviceoutboundroute\_customresource\_add\_event\_total**

Description: Total number service outbound route custom resource add event received

Sample Query: 'sum(serviceoutboundroute\_customresource\_add\_event\_total) by (pod)'

**serviceoutboundroute\_customresource\_delete\_event\_ignored\_total**

Description: Total number service outbound route custom resource delete event received ignored

Sample Query: 'sum(serviceoutboundroute\_customresource\_delete\_event\_ignored\_total) by (pod)'

**serviceoutboundroute\_customresource\_delete\_event\_total**

Description: Total number service outbound route custom resource delete event received

Sample Query: 'sum(serviceoutboundroute\_customresource\_delete\_event\_total) by (pod)'

**serviceoutboundroute\_customresource\_modify\_event\_ignored\_total**

Description: Total number service outbound route custom resource modify event received ignored

Sample Query: 'sum(serviceoutboundroute\_customresource\_modify\_event\_ignored\_total) by (pod)'

**serviceoutboundroute\_customresource\_modify\_event\_total**

Description: Total number service outbound route custom resource modify event received

Sample Query: 'sum(serviceoutboundroute\_customresource\_modify\_event\_total) by (pod)'

**svc\_byte\_count**

Description: Total number of bytes per service ip address

Sample Query: 'sum(svc\_byte\_count) by (pod\_ip)'

Labels:

- Label: `svc_ip`  
Label Description: The service ip address defined in EMP or LB CR  
Example: 192.0.2.1
- Label: `protocol`  
Label Description: The service protocol defined in EMP or LB CR  
Example: TCP, UDP
- Label: `direction`  
Label Description: The direction of the packet  
Example: IN, OUT
- Label: `svc_name`  
Label Description: The name of EMP or LB CR  
Example: emp-tcp-v4
- Label: `pod_ip`  
Label Description: The ip address of the pod  
Example: 192.0.2.1
- Label: `pod_name`  
Label Description: The name of the pod  
Example: udp-client-1
- Label: `pod_port`  
Label Description: The port used by pod to send receive packets  
Example: 55000

**svc\_packet\_count**

Description: Total number of packets per service ip address

Sample Query: `'sum(svc_packet_count) by (svc_ip)'`

Labels:

- Label: `svc_ip`  
Label Description: The service ip address defined in EMP or LB CR  
Example: 192.0.2.1
- Label: `protocol`  
Label Description: The service protocol defined in EMP or LB CR  
Example: TCP, UDP
- Label: `direction`  
Label Description: The direction of the packet  
Example: IN, OUT
- Label: `svc_name`  
Label Description: The name of EMP or LB CR  
Example: emp-tcp-v4
- Label: `pod_ip`  
Label Description: The ip address of the pod  
Example: 192.0.2.1
- Label: `pod_name`  
Label Description: The name of the pod  
Example: udp-client-1
- Label: `pod_port`  
Label Description: The port used by pod to send receive packets  
Example: 55000

## ULB Operator Metrics Category

**egressmanagementpolicies\_custom\_resource\_add\_fail\_total**

Description: Total number egressmanagementpolicies custom resource add request received Failed

Sample Query: `'sum(egressmanagementpolicies_custom_resource_add_fail_total) by (CrName)'`

Labels:

- Label: `NameSpace`  
Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: `Kind`

Label Description: Denote whether the resource is LB CR or EMP CR

Example: EgressManagementPolicy, LoadBalancer

- Label: `CrName`

Label Description: Name of the CR

Example: example-lb-cr

- Label: `SvcName`

Label Description: Service name

Example: service-1

- Label: `PodName`

Label Description: Pod name

Example: pod-1, pod-2

- Label: `Error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **egressmanagementpolicies\_custom\_resource\_add\_success\_total**

Description: Total number egressmanagementpolicies custom resource add request received Success

Sample Query: 'sum(egressmanagementpolicies\_custom\_resource\_add\_success\_total) by (CrName)'

Labels:

- Label: `NameSpace`

Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: `Kind`

Label Description: Denote whether the resource is LB CR or EMP CR

Example: EgressManagementPolicy, LoadBalancer

- Label: `CrName`

Label Description: Name of the CR

Example: example-lb-cr

- Label: `SvcName`

Label Description: Service name

Example: service-1

- Label: `PodName`

Label Description: Pod name

Example: pod-1, pod-2

- Label: `Error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **egressmanagementpolicies\_custom\_resource\_delete\_fail\_total**

Description: Total number egressmanagementpolicies custom resource delete request received Failed

Sample Query: `'sum(egressmanagementpolicies_custom_resource_delete_fail_total) by (CrName)'`

Labels:

- Label: `NameSpace`

Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: `Kind`

Label Description: Denote whether the resource is LB CR or EMP CR

Example: EgressManagementPolicy, LoadBalancer

- Label: `CrName`

Label Description: Name of the CR

Example: example-lb-cr

- Label: `SvcName`

Label Description: Service name

Example: service-1

- Label: `PodName`

Label Description: Pod name

Example: pod-1, pod-2

- Label: `Error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **egressmanagementpolicies\_custom\_resource\_delete\_success\_total**

Description: Total number egressmanagementpolicies custom resource delete request received Success

Sample Query: `'sum(egressmanagementpolicies_custom_resource_delete_success_total) by (CrName)'`

## Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: `example-namespace`
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: `EgressManagementPolicy`, `LoadBalancer`
- Label: `CrName`  
Label Description: Name of the CR  
Example: `example-lb-cr`
- Label: `SvcName`  
Label Description: Service name  
Example: `service-1`
- Label: `PodName`  
Label Description: Pod name  
Example: `pod-1`, `pod-2`
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: `services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2`

**egressmanagementpolicies\_custom\_resource\_modify\_fail\_total**

Description: Total number egressmanagementpolicies custom resource modify request received Failed

Sample Query: `'sum(egressmanagementpolicies_custom_resource_modify_fail_total) by (CrName)'`

## Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: `example-namespace`
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: `EgressManagementPolicy`, `LoadBalancer`
- Label: `CrName`  
Label Description: Name of the CR  
Example: `example-lb-cr`

- Label: `SvcName`  
Label Description: Service name  
Example: service-1
- Label: `PodName`  
Label Description: Pod name  
Example: pod-1, pod-2
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **egressmanagementpolicies\_custom\_resource\_modify\_success\_total**

Description: Total number egressmanagementpolicies custom resource modify request received Success

Sample Query: 'sum(egressmanagementpolicies\_custom\_resource\_modify\_success\_total) by (CrName)'

Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: example-namespace
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: EgressManagementPolicy, LoadBalancer
- Label: `CrName`  
Label Description: Name of the CR  
Example: example-lb-cr
- Label: `SvcName`  
Label Description: Service name  
Example: service-1
- Label: `PodName`  
Label Description: Pod name  
Example: pod-1, pod-2
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

**loadbalancer\_custom\_resource\_add\_fail\_total**

Description: Total number loadbalancer custom resource add request received Failed

Sample Query: 'sum(loadbalancer\_custom\_resource\_add\_fail\_total) by (CrName)'

Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: example-namespace
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: EgressManagementPolicy, LoadBalancer
- Label: `CrName`  
Label Description: Name of the CR  
Example: example-lb-cr
- Label: `SvcName`  
Label Description: Service name  
Example: service-1
- Label: `PodName`  
Label Description: Pod name  
Example: pod-1, pod-2
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

**loadbalancer\_custom\_resource\_add\_success\_total**

Description: Total number loadbalancer custom resource add request received Success

Sample Query: 'sum(loadbalancer\_custom\_resource\_add\_success\_total) by (CrName)'

Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: example-namespace
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: EgressManagementPolicy, LoadBalancer

- Label: `CrName`  
Label Description: Name of the CR  
Example: example-lb-cr
- Label: `SvcName`  
Label Description: Service name  
Example: service-1
- Label: `PodName`  
Label Description: Pod name  
Example: pod-1, pod-2
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

#### **loadbalancer\_custom\_resource\_delete\_fail\_total**

Description: Total number loadbalancer custom resource delete request received Failed

Sample Query: 'sum(loadbalancer\_custom\_resource\_delete\_fail\_total) by (CrName)'

Labels:

- Label: `NameSpace`  
Label Description: The namespace where custom resource is added  
Example: example-namespace
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: EgressManagementPolicy, LoadBalancer
- Label: `CrName`  
Label Description: Name of the CR  
Example: example-lb-cr
- Label: `SvcName`  
Label Description: Service name  
Example: service-1
- Label: `PodName`  
Label Description: Pod name  
Example: pod-1, pod-2
- Label: `Error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **loadbalancer\_custom\_resource\_delete\_success\_total**

Description: Total number loadbalancer custom resource delete request received Success

Sample Query: 'sum(loadbalancer\_custom\_resource\_delete\_success\_total) by (CrName)'

Labels:

- Label: `Namespace`

Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: `Kind`

Label Description: Denote whether the resource is LB CR or EMP CR

Example: EgressManagementPolicy, LoadBalancer

- Label: `CrName`

Label Description: Name of the CR

Example: example-lb-cr

- Label: `SvcName`

Label Description: Service name

Example: service-1

- Label: `PodName`

Label Description: Pod name

Example: pod-1, pod-2

- Label: `Error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **loadbalancer\_custom\_resource\_modify\_fail\_total**

Description: Total number loadbalancer custom resource modify request received Failed

Sample Query: 'sum(loadbalancer\_custom\_resource\_modify\_fail\_total) by (CrName)'

Labels:

- Label: `Namespace`

Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: `EgressManagementPolicy`, `LoadBalancer`
- Label: `CrName`  
Label Description: Name of the CR  
Example: `example-lb-cr`
- Label: `SvcName`  
Label Description: Service name  
Example: `service-1`
- Label: `PodName`  
Label Description: Pod name  
Example: `pod-1`, `pod-2`
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: `services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2`

#### **loadbalancer\_custom\_resource\_modify\_success\_total**

Description: Total number loadbalancer custom resource modify request received Success

Sample Query: `'sum(loadbalancer_custom_resource_modify_success_total) by (CrName)'`

Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: `example-namespace`
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: `EgressManagementPolicy`, `LoadBalancer`
- Label: `CrName`  
Label Description: Name of the CR  
Example: `example-lb-cr`
- Label: `SvcName`  
Label Description: Service name  
Example: `service-1`
- Label: `PodName`

Label Description: Pod name

Example: pod-1, pod-2

- Label: `error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **service\_delete\_total\_not\_egressmanagementpolicies\_owner**

Description: Total number of service delete request whose owner is not EMP crd

Sample Query: `'sum(service_delete_total_not_egressmanagementpolicies_owner) by (CrName)'`

Labels:

- Label: `Namespace`

Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: `kind`

Label Description: Denote whether the resource is LB CR or EMP CR

Example: EgressManagementPolicy, LoadBalancer

- Label: `CrName`

Label Description: Name of the CR

Example: example-lb-cr

- Label: `SvcName`

Label Description: Service name

Example: service-1

- Label: `PodName`

Label Description: Pod name

Example: pod-1, pod-2

- Label: `error`

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **service\_delete\_total\_not\_loadbalancer\_owner**

Description: Total number of service delete request whose owner is not LB crd

Sample Query: `'sum(service_delete_total_not_loadbalancer_owner) by (CrName)'`

Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: `example-namespace`
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: `EgressManagementPolicy`, `LoadBalancer`
- Label: `CrName`  
Label Description: Name of the CR  
Example: `example-lb-cr`
- Label: `SvcName`  
Label Description: Service name  
Example: `service-1`
- Label: `PodName`  
Label Description: Pod name  
Example: `pod-1`, `pod-2`
- Label: `Error`  
Label Description: Any issues encountered while processing the custom resource LB or EMP  
Example: `services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2`

### **service\_modify\_total\_not\_egressmanagementpolicies\_owner**

Description: Total number of service modify request whose owner is not EMP crd

Sample Query: `'sum(service_modify_total_not_egressmanagementpolicies_owner) by (CrName)'`

Labels:

- Label: `Namespace`  
Label Description: The namespace where custom resource is added  
Example: `example-namespace`
- Label: `Kind`  
Label Description: Denote whether the resource is LB CR or EMP CR  
Example: `EgressManagementPolicy`, `LoadBalancer`
- Label: `CrName`  
Label Description: Name of the CR  
Example: `example-lb-cr`
- Label: `SvcName`

Label Description: Service name

Example: service-1

- Label: PodName

Label Description: Pod name

Example: pod-1, pod-2

- Label: Error

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

### **service\_modify\_total\_not\_loadbalancer\_owner**

Description: Total number of service modify request whose owner is not LB crd

Sample Query: 'sum(service\_modify\_total\_not\_loadbalancer\_owner) by (CrName)'

Labels:

- Label: NameSpace

Label Description: The namespace where custom resource is added

Example: example-namespace

- Label: Kind

Label Description: Denote whether the resource is LB CR or EMP CR

Example: EgressManagementPolicy, LoadBalancer

- Label: CrName

Label Description: Name of the CR

Example: example-lb-cr

- Label: SvcName

Label Description: Service name

Example: service-1

- Label: PodName

Label Description: Pod name

Example: pod-1, pod-2

- Label: Error

Label Description: Any issues encountered while processing the custom resource LB or EMP

Example: services testudpemp-pod-1 is forbidden: exceeded quota: service-quota, requested: services=1, used: services=2, limited: services=2

