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# Turbonomic 7.22.2 REST API Changes

June 10, 2020

This document describes issues that result in changes to the REST API. It is a running list of changes that accumulates these changes until the next release of the API Programming Guide. When we release a new version of the programming guide, it will include these changes. At that time, the list will start with new change to the API.

Because the API is a full reflection of the Turbonomic product, some changes to the product necessarily cause changes in the API. This can include bug fixes and improvements to the product. For example, we might add new commodities that you can get for a given entity type. Or a bug fix might change the data that is returned by an API request. We strive to make these changes backward-compatible whenever possible.

## REST API Changes

- Fix Version: 7.22.0

### **Customer Issue 108434,108988**

**Improvement:** When searching for entities or creating groups, you can create a filter by Resource Group. With this release, you can now use REGEX expressions for the filter criteria.

- Fix Version: 7.22.1

**Improvement:** The following search filters are now available for Containers, Container Pods, Container Specs, Namespace, and Workload Controller entities:

- `containersByNamespace`
- `contianerPodsByNamespace`
- `containerSpecsByName`
- `containerSpecsByName`
- `namespacesByName`
- `workloadControllersByName`
- `workloadControllersByNamescape`
- `workloadControllersByKind`

Additionally, the following search filters were refactored to return expected results:

- containersByPodName
- containerPodsbyVMName
- Fix Version: 7.22.1

**Improvement:** The new setting `containerRateOfResize` was added to the `marketsettingsmanager`.

This setting contains the global resize rate for Container entities.

- Fix Version: 7.22.1

**Improvement:** This release improves the support for API searches. When searching a scope of a given `ServiceProvider`, the API returns associated entities, actions, and aspects. Search also returns a `virtualDiskAspect` for Delete actions on virtual volumes.

- Fix Version: 7.22.0

**Improvement:** The API now includes support for the CSP (Cloud Service Provider) filter type in Stats calls.

- Fix Version: 7.21.5

**Improvement:** To support requirements in the user interface, and to streamline internal data usage, the API must change the naming it uses for commodities in Action DTOs.

For example, the following RISK object in the action DTO shows a commodity in the `reasonCommodity`:

```
"risk": {
  &nbsp;&nbsp;&nbsp;"subCategory": "Performance Assurance",
  &nbsp;&nbsp;&nbsp;"description": "Storage Provisioned congestion in Storage vsanDatastore",
  &nbsp;&nbsp;&nbsp;"severity": "CRITICAL", "importance": 0.0,
  &nbsp;&nbsp;&nbsp;"reasonCommodity": "StorageProvisioned"
}
```

The names change as follows:

Old Value	New Value
CLUSTER	ClusterCommodity
THREADS	Threads
CPU_ALLOCATION	CPUAllocation
NUMBER_CONSUMERS	NumberConsumers
FLOW_ALLOCATION	FlowAllocation
Q1_VCPU	Q1VCPU
STORAGE_PROVISIONED	StorageProvisioned
LICENSE_COMMODITY	LicenseCommodity

Old Value	New Value
STORAGE_AMOUNT	StorageAmount
Q16_VCPU	Q16VCPU
Q32_VCPU	Q32VCPU
SAME_CLUSTER_MOVE_SVC	SameClusterMoveSvc
Q3_VCPU	Q3VCPU
SLA_COMMODITY	SLACommodity
CROSS_CLUSTER_MOVE_SVC	CrossClusterMoveSvc
NUMBER_CONSUMERS_PM	NumberConsumersPM
STORAGE_ALLOCATION	StorageAllocation
Q8_VCPU	Q8VCPU
SPACE	Space
Q6_VCPU	Q6VCPU
POWER	Power
MEM	Mem
STORAGE_LATENCY	StorageLatency
Q7_VCPU	Q7VCPU
COOLING	Cooling
PORT_CHANEL	PORT_CHANNEL
VCPU	VCPU
QN_VCPU	QNVCPU
CPU_PROVISIONED	CPUProvisioned
RIGHT_SIZE_SVC	RightSizeSVC
MOVE	Move
Q2_VCPU	Q2VCPU
Q5_VCPU	Q5VCPU
SWAPPING	Swapping
SEGMENTATION	SegmentationCommodity
FLOW	Flow
DATASTORE	DatastoreCommodity
CROSS_CLOUD_MOVE_SVC	CrossCloudMoveSvc

Old Value	New Value
RIGHT_SIZE_DOWN	RightSizeDown
IO_THROUGHPUT	IOThroughput
CPU	CPU
BALLOONING	Ballooning
VDC	VDCCommodity
Q64_VCPU	Q64VCPU
CONNECTION	Connection
MEM_PROVISIONED	MemProvisioned
STORAGE	Storage
NET_THROUGHPUT	NetThroughput
NUMBER_CONSUMERS_STORAGE	NumberConsumersStorage
TRANSACTION	Transaction
MEM_ALLOCATION	MemAllocation
DSPM_ACCESS	DSPMAccessCommodity
RESPONSE_TIME	ResponseTime
VMEM	VMem
ACTION_PERMIT	ActionPermit
DATACENTER	DataCenterCommodity
APPLICATION	ApplicationCommodity
NETWORK	NetworkCommodity
Q4_VCPU	Q4VCPU
STORAGE_CLUSTER	StorageClusterCommodity
EXTENT	Extent
ACCESS	Access
RIGHT_SIZE_UP	RightSizeUp
VAPP_ACCESS	VAppAccess
STORAGE_ACCESS	StorageAccess
VSTORAGE	VStorage
DRS_SEGMENTATION	DrsSegmentationCommodity
DB_MEM	DBMem

Old Value	New Value
TRANSACTION_LOG	TransactionLog
DB_CACHE_HIT_RATE	DBCACHEHitRate
HOT_STORAGE	HotStorage
COLLECTION_TIME	CollectionTime
BUFFER_COMMODITY	BufferCommodity
SOFTWARE_LICENSE_COMMODITY	SoftwareLicenseCommodity
VMPM_ACCESS	VMPMAccessCommodity
HA_COMMODITY	HACommodity
NETWORK_POLICY	NetworkPolicy
HEAP	Heap
DISK_ARRAY_ACCESS	DISK_ARRAY_ACCESS
SERVICE_LEVEL_CLUSTER	ServiceLevelCluster
PROCESSING_UNITS	ProcessingUnits
HOST_LUN_ACCESS	HOST_LUN_ACCESS
COUPON	Coupon
TENANCY_ACCESS	TenancyAccess
LICENSE_ACCESS	LICENSE_ACCESS
TEMPLATE_ACCESS	TemplateAccess
NUM_DISK	NumDisk
ZONE	Zone
ACTIVE_SESSIONS	ActiveSessions
POOL_CPU	PoolCPU
POOL_MEM	PoolMem
POOL_STORAGE	PoolStorage
IMAGE_CPU	ImageCPU
IMAGE_MEM	ImageMem
IMAGE_STORAGE	ImageStorage
INSTANCE_DISK_SIZE	InstanceDiskSize
INSTANCE_DISK_TYPE	InstanceDiskType
BURST_BALANCE	BurstBalance

Old Value	New Value
TEMPLATE_FAMILY	Unknown
DESIRED_COUPON	DesiredCoupon
VCPU_REQUEST	VCPURequest
VMEM_REQUEST	VMemRequest
VCPU_REQUEST_QUOTA	VCPURequestQuota
VMEM_REQUEST_QUOTA	VMemRequestQuota
NETWORK_INTERFACE_COUNT	NetworkInterfaceCount
BICLIQUE	Biclique
VCPU_LIMIT_QUOTA	VCPULimitQuota
VMEM_LIMIT_QUOTA	VMemLimitQuota
UNKNOWN	Unknown

- Fix Version: 7.21.5

**Improvement:** When you request actions, if one or more of the entities in the scope of your request no longer exists in the topology, the Actions DTO for such entities will contain minimal information about the entities.

For earlier releases, the request would fail because the call could not return full information about the entity. However, there are circumstances where such a scope is valid for an actions request. For example, you can request actions history for entities that did exist within the time period of your request.

- **Known Issue:** When using the POST /stats request, including the `numStorages` statistic in the filter causes some other statistics to not appear, resulting in a partial response.

Do not use the `numStorages` statistic filter. This statistic *will* be returned when other filters or no filters are used.

- **Known Issue:** To help you visualize and interact with the REST API resources, Turbonomic includes the open source tool, SwaggerUI. For REST API developers, if you use the SwaggerUI to try out API calls, if the API call returns an error (for example, your call uses incorrect syntax), under some circumstances SwaggerUI does not display the error. The field for the returned data is empty. This appears to be a problem with the Swagger UI tool.

- Fix Version: 7.22.0

Fix Version: 7.22.1

**Fixed:** Under some circumstances, the Headroom charts can fail to show complete data. When this occurs, the charts can fail to show data for a 2-hour time frame or for a 1-year time frame. In addition, the charts can fail to show data for all the resources they monitor.

This fix addresses the restriction only one stat snapshot per cluster is returned by the API. The cluster stats endpoints can now:

- Return more than one snapshot
  - Return projected stats
  - Return total headroom
  - Sort by total headroom utilization
- Fix Version: 7.22.0

**Fixed:** As part of security updates, the API no longer includes the following obsolete SAML endpoints:

- `saml`
- `saml/idpmetadata`
- `saml/keystore`
- Fix Version: 7.21.5

Fix Version: 7.22.0

#### **Customer Issue 110627**

**Fixed:** For API developers, the POST method to get stats does not always return the full set of data that you request. If you include a filter to return a count of entities (for example `numVMs`), along with other types of stats, the count of entities returns zero.

- Fix Version: 7.21.5

#### **Customer Issue 110207**

**Fixed:** For API development, when you edit a workload placement policy via the PUT method, the API returns an empty `PolicyApiDto` object. The API should return an object that reflects the modified policy.

- Fix Version: 7.22.0

**Fixed:** For filtered STATS requests, the API now supports the `relatedEntityType` filter.