

Category	API	Parameters	Optional	FusionSphere	Hybrid Cloud	Solution
Compute API v2 (SUPPORTED)						
API versions	List API versions			Y1	Y	
Limits	List limits			Y1	Y	
Extensions	List extensions			Y1	Y	
	Get extension			Y1	Y	
Servers	List servers			Y	Y	
	Create server	security_groups	Y	Y	Y	Create VM + Run Container
		user_data	Y	Y	Y	
		availability_zone	Y	Y	Y	
		imageRef	N	Y	Y	
		flavorRef	N	Y	Y	
		networks:uuid	Y	Y	Y	
		networks:port	Y	Y	Y	
		networks:fixed_ip	Y	Y	Y	
		metadata	Y	Y	Y	
		personality	Y	Y	Y	容器支持直接修改文件
		block_device_mapping_v2	Y	Y	Y	挂载启动盘看到的数据和FusionSphere上看到的不一
		device_name	Y	Y	Y	
		source_type	Y	Y	Y	
		destination_type	Y	Y	Y	
		delete_on_termination	Y	Y	Y	
		guest_format	Y	Y	Y	指定磁盘文件类型 (ephemeral or swap)
		boot_index	Y	Y	Y	
		config_drive	Y	Y	N	
		key_name	Y	Y	Y	
		os:scheduler_hints	Y	Y	N	只有一个host，不存在host调度选择

		OS-DCF:diskConf	Y	Y	Y	镜像需要记录实际占用大小
	List details for servers			Y	Y	
	Get server details			Y	Y	
	Update server			Y	Y	刷新数据库记录
	Delete server			Y	Y	删除容器+虚拟机
Server metadata	Show server metadata			Y1	Y	
	Create or replace server metadata items			Y1	Y	
	Update server metadata items			Y1	Y	
	Show server metadata item details			Y1	Y	
	Create or update			Y1	Y	
	Delete server metadata item			Y1	Y	
Server addresses	List addresses			Y1	Y	
	List addresses			Y1	Y	
Server actions	Change password			Y1	Y	
	Reboot server			Y	Y	
	Rebuild server			Y1	Y	替换镜像重新创建虚拟机（如果使用volume启动虚拟机，则没有任何变化）
	Resize server			Y1	N	指定flavor迁移虚拟机（当前级联方案，被级联层只有一个host，此处会直接报错，需要修改nova-api代码
	Confirm resized server			Y1	N	如果resize成功，虚拟机状态变为VERIFY_RESIZE，Confirm resize后，虚拟机状态变为ACTIVE
	Revert resized server			Y1	N	如果resize失败，可以revert resize，重新回滚

	Create image			Y	Y	使用docker的导出镜像功能
Flavors	List flavors			Y	Y	
	List details for flavors			Y	Y	
	Get flavor details			Y	Y	
Images	List images			Y1	Y	
	List images details			Y1	Y	
	Get image details			Y1	Y	
	Delete image			Y1	Y	
Image metadata	Show image metadata			Y1	Y	
	Create or replace image metadata			Y1	Y	
	Update image metadata items			Y1	Y	
	Show image metadata item details			Y1	Y	
	Create or update image metadata item			Y1	Y	
	Delete image metadata item			Y1	Y	
Compute API v2 extensions (SUPPORTED)						
Servers with block device mapping format (servers)	List servers			Y	Y	
	Create server			Y	Y	
Servers with configuration drive (servers)	Create server with configuration drive			Y	N	

	Get server information with configuration drive			Y	N	
	Get server details with configuration drive			Y	N	
Servers console (servers)	Get console			Y	Y	
Servers console output (servers)	Get console output for an instance			Y1	Y	
Servers extended attributes (servers)	List servers with extended server attributes			Y1	Y	
	Show extended server attributes			Y1	Y	
Servers with extended availability zones (servers)	Show server			Y	Y	
	List details for servers			Y	Y	
Servers extended status (servers)	Show server extended status			Y	Y	
	List extended status for servers			Y	Y	
Servers with IP type (servers)	Show IP type			Y	Y	
	List servers with IP type			Y	Y	

Servers multiple create (servers)	Create multiple servers			Y1	Y	
	Show server information			Y1	Y	
	Get server details			Y	Y	
Servers start and stop (servers, action)	Start server			Y	Y	
	Stop server			Y	Y	
Servers and images with disk config (servers, images)	Create server			Y	Y	
	Show server information			Y	Y	
	Update server			Y	Y	
	Resize server			Y1	N	
	Rebuild server			Y1	Y	
	List servers			Y	Y	
	Get image information			Y1	Y	
	List images			Y1	Y	
Servers availability zones (servers, os-availability-zone)	Create server with availability zone			Y	Y	
	List availability zones			Y1	Y	
	List availability zones with details			Y1	Y	
	Show availability zone information			Y1	Y	

Servers instance actions (servers, os-instance-actions)	List server actions			Y1	Y	查询虚拟机操作历史记录
	Get action details			Y1	Y	查询虚拟机操作详情
Servers password (servers, os-server-password)	Get server password			Y1	Y	
	Clear server password			Y1	Y	清除metadata server中的 administartor password
Servers virtual interfaces (servers, os-virtual-interfaces)	List virtual interfaces			Y1	Y	
	Show virtual interface and attached network			Y1	Y	
Servers with volume attachments (servers, os-volume_attachments)	Attach volume			Y	Y	
	List volume attachments			Y1	Y	
	Show volume attachment details			Y1	Y	
	Detach volume			Y	Y	
Server boot from volume (os-volumes_boot)	Create server			Y	Y	

Flavors create and delete (flavors)	Create flavor			Y1	Y	
	Delete flavor			Y1	Y	
Flavors with disabled attribute (flavors)	Get flavor disabled status details			Y1	Y	
	List flavors with flavor disabled status			Y1	Y	
Flavors with extended attributes (flavors)	Create flavor with extra data			Y1	Y	
	Get flavor extra data details			Y1	Y	
	List flavors with extra data			Y1	Y	
Flavors with rxtx_facto r extended attribute (flavors)	Create flavor with rxtx_factor			Y1	Y	
	Get flavor with rxtx factor			Y1	Y	
	Get flavor Details with rxtx factor			Y1	Y	
Flavors with extra- specs (flavors, os-extra- specs)	List flavor extra specs			Y1	Y	
	Create flavor extra specs			Y	Y	
	Get flavor extra spec details			Y1	Y	

	Update flavor extra specs			Y1	Y	
	Delete flavor extra specs			Y1	Y	
Flavors access (flavors, os-flavor- access)	List flavors with access type			Y1	Y	
	Create private flavor			Y1	Y	
	Show flavor access type			Y1	Y	
	List tenants with access to private flavor			Y1	Y	
	Add access to private flavor			Y1	Y	
	Delete access from private flavor			Y1	Y	
Flavors swap (flavors, os-flavor- swap)	List flavor extra specs			Y1	Y	
	Create flavor extra specs			Y1	Y	
Limits with project usage (limits)	Get limits			Y1	Y	
Limits with project usage for administra tors (limits)	Get customer limits			Y1	Y	
Attach interfaces (os- interface)	Create interface			Y1	Y	
	List interfaces			Y1	Y	



	Show attached interface information			Y1	Y	
	Detach interface			Y1	Y	
Keypairs (os-keypairs)	List keypairs			Y	Y	
	Create or import keypair			Y	Y	
	Delete keypair			Y	Y	
	Show keypair information			Y	Y	
Migrations (os-migrations)	Get migrations			Y1	Y	
Quota class (os-quota-class-sets)	Show quota			Y1	Y	
	Update quota			Y1	Y	
Quota sets (os-quota-sets)	Show quotas			Y	Y	
	Update quotas			Y	Y	
	Delete quotas			Y1	Y	
	Get default quotas			Y	Y	
	Show quotas for user			Y1	Y	
	Update quotas for user			Y1	Y	
	Delete quotas for user			Y1	Y	
	Show quota details for user			Y1	Y	
Manage services (os-services)	List services			Y1	Y	

	Enable scheduling for a service			Y1	Y	
	Disable scheduling for a service			Y1	Y	
	Log disabled service information			Y1	Y	
	List disabled services			Y1	Y	
	Delete service			Y1	Y	
Usage reports (os-simple-tenant-usage)	List usage information for all tenants			Y1	Y	
	Get tenant usage information			Y1	Y	
Host aggregates (os-aggregates)	List aggregates			Y1	Y	
	Create aggregate			Y1	Y	
	Delete aggregate			Y1	Y	
	Get aggregate details			Y1	Y	
	Update aggregate			Y1	Y	
	Set aggregate metadata			Y1	Y	
	Add host to aggregate			Y1	Y	
	Remove host from aggregate			Y1	Y	
Hosts (os-hosts)	List hosts			Y1	Y	
	Show host information			Y1	Y	
	Update host			N	N	
	Start host			N	N	

	Shut down host			N	N	
	Reboot host			N	N	
Servers rescue and unrescue (servers, action)	Rescue server			N	N	proxy没有该接口(营救一个故障虚拟机的数据。指定密码以及营救镜像创建一个虚拟机，用这个虚拟机再去恢复数据。)
	Unrescue server			N	N	proxy没有该接口（回滚）
Servers shelve (servers, action)	Shelve server			N	N	proxy没有该接口（搁置一个虚拟机。停止虚拟机，并做快照）
	Remove a shelved instance			N	N	proxy没有该接口（删除虚拟机）
	Restore shelved server			N	N	proxy没有该接口（恢复搁置的虚拟机）
Servers with mac_addr extended attribute (servers)	Create server with OS-EXT-IPS-MAC:mac_addr extended attribute					
Hypervisors (os-hypervisors)	List hypervisors			N	N	一个被级联层对应一个proxy也就是一个hypervisor host，该接口与预想结果不一致
	Show hypervisor information			N	N	
	Show statistics for hypervisors			N	N	
	Show hypervisor up time			N	N	
	List instances for hypervisors			N	N	
Hypervisor with status (os-hypervisor-status)	Show hypervisor information			N	N	
Server groups (os-server-groups)	List server groups			Y1	Y	

	Create server group			Y1	Y	服务器组，策略用于指定发放虚拟机是否在同一个hypervisor内（通过hint指定），hypervisor信息通过nova show serverid 查询 hostId字段
	Show server group details			Y1	Y	
	Delete server group			Y1	Y	
Servers diagnostics (servers, diagnostics)	Get server diagnostics			N	N	proxy不支持
Servers with scheduler hints (servers)	Create server with scheduler hints			Y	N	
Servers deferred delete (servers, action)	Force delete server			Y1	Y	默认只有管理员才能执行该操作，直接将虚拟机从磁盘上删除。
	Restore server			Y1	Y	默认只有管理员才能执行该操作，如果nova配置了reclaim_instance_interval，则虚拟机是被假删除，在周期内还可以通过restore恢
Guest agents (os-agents)	List agents			Y1	N	
	Create agent			Y1	N	
	Delete agent			Y1	N	
	Update agent			Y1	N	
Servers administra	Pause server					
	Unpause					
	Suspend server					
	Resume server					
	Migrate server					

	Reset networking on server					
	Inject network information					
	Lock server					
	Unlock server					
	Create server backup					
	Live-migrate server					
	Reset server state					
	Evacuate server					
	Add floating IP address					
Bare metal nodes (os-baremetal-nodes)	Add bare metal node					
	List bare metal nodes					
	Add interface to bare metal node					
	Delete interface from bare metal node					
	Show bare metal node details					
Root certificates (os-certificates)	Create root certificate					
	Show root certificate details					
Cloudpipe (os-cloudpipe)	List cloudpipes					
	Create cloudpipe					
	Update cloudpipe					

Coverage reports (os-coverage)	Get coverage report					
	Start coverage report					
	Start combined coverage report					
	Stop coverage report					
Network extended attributes (os-extended-networks)	Create network					
	List networks					
	Show network information					
Fixed IPs (os-fixed-ips)	Show fixed IP information					
	Reserve or release a fixed IP					
Floating IP DNS records (os-floating-ip-dns)	List DNS domains					
	Create or update DNS domain					
	Delete DNS domain					
	Create or update DNS entry					
	Find unique DNS entry					
	Delete DNS entry					
	List DNS entries					

Floating IP pools (os-floating-ip-pools)	List floating IP pools					
Floating IPs (os-floating-ips)	List floating IPs					
	Allocate floating IP					
	Show floating IP information					
	Deallocate floating IP					
	Add floating IP					
	Remove floating IP					
Floating IPs bulk (os-floating-ips-bulk)	List floating IPs					
	Create floating IPs					
	Bulk-delete floating IPs					
	List floating IPs by host					
Networks (os-networks)	Create network					
	List networks					
	Add network					
	Show network information					
	Delete network					
	Associate host					
	Disassociate host					
	Disassociate network					
	Disassociate project					

Security groups (os-security-groups)	List security groups					
	List security groups by server					
	Create security group					
	Show security group information					
	Update security group					
	Delete security group					
Rules for security group (os-security-group-rules)	Create security group rule					
	Delete security group rule					
Rules for default security group (os-security-group-default-rules)	List default security group rules					
	Create default security group rule					
	Show default security group rule information					
	Delete default security group rule					



Images with size attribute (images)	List details for images					
	Get image details					
Volume extension (os- volumes, os- snapshots)	List volumes					
	Create volume					
	List details for volumes					
	Show volume information					
	Delete volume					
	List volume types					
	Show volume type					
	Create snapshot					
	List snapshots					
	List details for snapshots					
	Show snapshot					
	Delete snapshot					