

Using the CloudStack API

For information about how the APIs work, and tips on how to use them, see the [Developer's Guide](#).

All APIs

Commands available through the developer API URL and the integration API URL.

(A) implies that the command is asynchronous.
(D) implies that the command is deprecated.
(*) implies element has a child.

Tungsten

- addTungstenFabricNetworkGatewayToLogicalRouter(A)
- addTungstenFabricPolicy(A)
- applyTungstenFabricPolicy(A)
- applyTungstenFabricTag(A)
- configTungstenFabricService
- createTungstenFabricAddressGroup(A)
- createTungstenFabricApplicationPolicySet(A)
- createTungstenFabricFirewallPolicy(A)
- createTungstenFabricFirewallRule(A)
- createTungstenFabricLogicalRouter(A)
- createTungstenFabricManagementNetwork(A)
- createTungstenFabricPolicy(A)
- createTungstenFabricProvider
- createTungstenFabricPublicNetwork
- createTungstenFabricServiceGroup(A)
- createTungstenFabricTag(A)
- createTungstenFabricTagType(A)
- deleteTungstenFabricAddressGroup(A)
- deleteTungstenFabricApplicationPolicySet(A)
- deleteTungstenFabricFirewallPolicy(A)
- deleteTungstenFabricFirewallRule(A)
- deleteTungstenFabricLogicalRouter(A)
- deleteTungstenFabricPolicy(A)
- deleteTungstenFabricServiceGroup(A)
- deleteTungstenFabricTag(A)
- deleteTungstenFabricTagType(A)
- listTungstenFabricApplicationPolicySet(A)
- listTungstenFabricFirewallPolicy
- listTungstenFabricFirewallRule
- listTungstenFabricBHealthMonitor
- listTungstenFabricLogicalRouter
- listTungstenFabricNetwork
- listTungstenFabricPolicy
- listTungstenFabricPolicyRule
- listTungstenFabricProviders
- listTungstenFabricServiceGroup
- listTungstenFabricTag
- listTungstenFabricTagType
- listTungstenFabricVm
- removeTungstenFabricNetworkGatewayFromLogicalRouter(A)
- removeTungstenFabricPolicy(A)
- removeTungstenFabricPolicyRule(A)
- removeTungstenFabricTag(A)
- synchronizeTungstenFabricData
- updateTungstenFabricBHealthMonitor(A)

Network

- addNetworkServiceProvider(A)
- addTrafficMonitor
- addTrafficType(A)
- createGuestNetworkIpv6Prefix(A)
- createIpv4SubnetForGuestNetwork(A)
- createNetwork
- createNetworkPermissions
- createPhysicalNetwork(A)
- createServiceInstance(A)
- createStorageNetworkIpRange(A)
- dedicatePublicIpRange
- deleteGuestNetworkIpv6Prefix(A)
- deleteIpv4SubnetForGuestNetwork(A)
- deleteNetwork(A)
- deleteNetworkServiceProvider(A)
- deletePhysicalNetwork(A)
- deleteStorageNetworkIpRange(A)
- deleteTrafficMonitor
- deleteTrafficType(A)
- listGuestNetworkIpv6Prefixes
- listIpv4SubnetsForGuestNetwork(A)
- listNetworkIsolationMethods
- listNetworkPermissions
- listNetworkProtocols
- listNetworkServiceProviders
- listNetworks
- listPhysicalNetworks
- listStorageNetworkIpRange
- listSupportedNetworkServices
- listTrafficMonitors
- listTrafficTypeImplementors
- listTrafficTypes
- migrateNetwork(A)
- releasePublicIpRange
- removeNetworkPermissions
- resetNetworkPermissions
- restartNetwork(A)
- updateNetwork(A)
- updateNetworkServiceProvider(A)
- updatePhysicalNetwork(A)
- updateStorageNetworkIpRange(A)
- updateTrafficType(A)

Virtual Machine

- addNicToVirtualMachine(A)
- addVirtualMachineServiceToKubernetesCluster(A)
- assignVirtualMachine
- assignVirtualMachineToBackupOffering(A)
- changeServiceForVirtualMachine(D)
- cleanVmReservations(A)
- createVMSchedule
- deleteVMSchedule
- deployVirtualMachine(A)
- destroyVirtualMachine(A)
- expungeVirtualMachine(A)
- getVmPassword
- getVirtualMachineUserData
- importUnmanagedInstance(A)
- importVm(A)
- listImportVmTasks
- listUnmanagedInstances
- listVMSchedule
- listVirtualMachines
- listVirtualMachinesMetrics
- listVirtualMachinesUsageHistory
- listVmsForImport
- migrateVirtualMachine(A)
- migrateVirtualMachineWithVolume(A)
- rebootVirtualMachine(A)
- recoverVirtualMachine
- removeNicFromVirtualMachine(A)
- removeVirtualMachineFromBackupOffering(A)
- removeVirtualMachinesFromKubernetesCluster(A)
- resetPasswordForVirtualMachine(A)
- resetSSHKeyForVirtualMachine(A)
- resetUserDataForVirtualMachine
- restoreVirtualMachine(A)
- revertToVMSnapshot(A)
- scaleVirtualMachine(A)
- startVirtualMachine(A)
- stopVirtualMachine(A)
- unmanageVirtualMachine(A)
- updateDefaultNicForVirtualMachine(A)
- updateVMSchedule
- updateVirtualMachine

Load Balancer

- addNetscalerLoadBalancer(A)
- assignCertToLoadBalancer(A)
- assignToGlobalLoadBalancerRule(A)
- assignToLoadBalancerRule(A)
- configureNetscalerLoadBalancer(A)
- createGlobalLoadBalancerRule(A)
- createBHealthCheckPolicy(A)
- createBSticknessPolicy(A)
- createLoadBalancer(A)
- createLoadBalancerRule(A)
- deleteGlobalLoadBalancerRule(A)
- deleteBHealthCheckPolicy(A)
- deleteBSticknessPolicy(A)
- deleteLoadBalancer(A)
- deleteLoadBalancerRule(A)
- deleteNetscalerLoadBalancer(A)
- deleteServicePackageOffering
- deployNetscalerVpx(A)
- getLoadBalancerSslCertificate
- listGlobalLoadBalancerRules
- listBHealthCheckPolicies
- listBSticknessPolicies
- listLoadBalancerRuleInstances
- listLoadBalancerRules
- listLoadBalancers
- listNetscalerLoadBalancerNetworks
- listNetscalerLoadBalancers
- listRegisteredServicePackages
- removeCertFromLoadBalancerRule(A)
- removeFromLoadBalancerRule(A)
- stopNetscalerVpx(A)
- updateGlobalLoadBalancerRule(A)
- updateBHealthCheckPolicy(A)
- updateBSticknessPolicy(A)
- updateLoadBalancer(A)
- updateLoadBalancerRule(A)

Volume

- assignVolume
- attachVolume(A)
- changeOfferingForVolume(A)
- checkVolume(A)
- createVolume(A)
- deleteVolume
- destroyVolume(A)
- detachVolume(A)
- extractVolume(A)
- getPathForVolume
- getUploadParamsForVolume
- getVolumeScalName
- importVolume(A)
- listVolumes
- listVolumesForImport
- listVolumesUsageHistory
- migrateVolume(A)
- recoverVolume
- resizeVolume(A)
- restoreVolumeFromBackupAndAttachToVm(A)
- unmanageVolume(A)
- updateVolume(A)
- uploadVolume(A)

Project

- activateProject(A)
- addAccountToProject(A)
- addUserToProject(A)
- createProject(A)
- createProjectRole
- createProjectRolePermission
- deleteAccountFromProject(A)
- deleteProject(A)
- deleteProjectInvitation(A)
- deleteProjectRole
- deleteProjectRolePermission
- deleteUserFromProject(A)
- listProjectAccounts
- listProjectInvitations
- listProjectRolePermissions
- listProjectRoles
- listProjects
- suspendProject(A)
- updateProject(A)
- updateProjectInvitation(A)
- updateProjectRole
- updateProjectRolePermission

AutoScale

- createAutoScalePolicy(A)
- createAutoScaleVmGroup(A)
- createAutoScaleVmProfile(A)
- createCondition(A)
- createCounter(A)
- deleteAutoScalePolicy(A)
- deleteAutoScaleVmGroup(A)
- deleteAutoScaleVmProfile(A)
- deleteCondition(A)
- deleteCounter(A)
- disableAutoScaleVmGroup(A)
- enableAutoScaleVmGroup(A)
- listAutoScalePolicies
- listAutoScaleVmGroups
- listAutoScaleVmProfiles
- listConditions
- listCounters
- updateAutoScalePolicy(A)
- updateAutoScaleVmGroup(A)
- updateAutoScaleVmProfile(A)
- updateCondition(A)

Zone

- addVmwareDc
- createIpv4SubnetForZone(A)
- createZone
- dedicateIpv4SubnetForZone(A)
- dedicateZone(A)
- deleteIpv4SubnetForZone(A)
- deleteZone
- disableHAForZone(A)
- enableHAForZone(A)
- listDedicatedZones
- listIpv4SubnetsForZone
- listVmwareDcVms
- listVmwareDcs
- listZones
- releaseDedicatedZone(A)
- releaseIpv4SubnetForZone(A)
- removeVmwareDc
- updateIpv4SubnetForZone(A)
- updateVmwareDc
- updateZone

VPN

- addVpnUser(A)
- createRemoteAccessVpn(A)
- createVpnConnection(A)
- createVpnCustomerGateway(A)
- createVpnGateway(A)
- deleteRemoteAccessVpn(A)
- deleteVpnConnection(A)
- deleteVpnCustomerGateway(A)
- deleteVpnGateway(A)
- listRemoteAccessVpns
- listVpnConnections
- listVpnCustomerGateways
- listVpnGateways
- listVpnUsers
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- resetVpnConnection(A)
- updateRemoteAccessVpn(A)
- updateVpnConnection(A)
- updateVpnCustomerGateway(A)
- updateVpnGateway(A)

Image Store

- addImageStore
- addImageStoreS3
- addSecondaryStorage
- addSwift
- createSecondaryStagingStore
- createSecondaryStorageSelector
- deleteImageStore
- deleteSecondaryStagingStore
- downloadImageStoreObject(A)
- listImageStoreObjects
- listImageStores
- listSecondaryStagingStores
- listSecondaryStorageSelectors
- listSwifts
- migrateResourceToAnotherSecondaryStorage(A)
- migrateSecondaryStorageData(A)
- removeSecondaryStorageSelector
- updateCloudToUseObjectStore
- updateImageStore
- updateSecondaryStorageSelector

Host

- addHost
- cancelHostAsDegraded(A)
- cancelHostMaintenance(A)
- configureHAForHost(A)
- declareHostAsDegraded(A)
- deleteHost
- disableHAForHost(A)
- enableHAForHost(A)
- findHostsForMigration
- listDedicatedHosts
- listHostHAProviders
- listHostHAResources
- listHostTags
- listHosts
- prepareHostForMaintenance(A)
- reconnectHost(A)
- releaseHostReservation(A)
- startRollingMaintenance(A)
- updateHost
- updateHostPassword

Firewall

- createEgressFirewallRule(A)
- createFirewallRule(A)
- createIpv6FirewallRule(A)
- createPortForwardingRule(A)
- createRoutingFirewallRule(A)
- deleteEgressFirewallRule(A)
- deleteFirewallRule(A)
- deleteIpv6FirewallRule(A)
- deletePortForwardingRule(A)
- deleteRoutingFirewallRule(A)
- listEgressFirewallRules
- listFirewallRules
- listIpv6FirewallRules
- listPortForwardingRules
- listRoutingFirewallRules
- updateEgressFirewallRule(A)
- updateFirewallRule(A)
- updateIpv6FirewallRule(A)
- updatePortForwardingRule(A)
- updateRoutingFirewallRule(A)

Configuration

- addLdapConfiguration
- deleteCnConfiguration
- deleteLdapConfiguration
- getApiLimit
- getHypervisorGuestOsNames(A)
- listCapabilities
- listCnConfigurations
- listConfigurationsGroups
- listConfigurations
- listDeploymentPlanners
- listHypervisorCapabilities
- listHypervisors
- listLdapConfigurations
- quotaListEmailConfiguration
- registerCnConfiguration
- resetApiLimit
- resetConfiguration
- updateConfiguration
- updateHypervisorCapabilities

Backup and Recovery

- addBackupRepository
- createBackup(A)
- createBackupSchedule
- createVmFromBackup(A)
- deleteBackup(A)
- deleteBackupOffering
- deleteBackupRepository
- deleteBackupSchedule
- importBackupOffering(A)
- listBackupOfferings
- listBackupProviderOfferings
- listBackupProviders
- listBackupRepositories
- listBackupSchedule
- listBackups
- restoreBackup(A)
- updateBackupOffering
- updateBackupRepository
- updateBackupSchedule

User

- createUser
- deleteUser
- disableUser(A)
- enableUser
- getUser
- getUserKeys
- importLdapUsers
- listLdapUsers
- listUserTwoFactorAuthenticatorProviders
- listUsers
- lockUser
- moveUser
- registerUserKeys
- setUpUserTwoFactorAuthentication
- updateUser
- validateUserTwoFactorAuthenticationCode
- verifyOAuthCodeAndGetUser

Quota

- quotaBalance
- quotaConfigureEmail
- quotaCredits
- quotaCreditsList
- quotaEmailTemplateList
- quotaEmailTemplateUpdate
- quotaEnabled
- quotaPreserveVariablesList
- quotaStatement
- quotaSummary
- quotaTariffCreate
- quotaTariffDelete
- quotaTariffList
- quotaTariffUpdate
- quotaUpdate
- quotaValidateActivationRule

Storage Pool

- cancelStorageMaintenance(A)
- changeStoragePoolScope(A)
- createStoragePool
- deleteStoragePool
- enableStorageMaintenance(A)
- findStoragePoolsForMigration
- listAffectedVmsForStorageScopeChange
- listStoragePoolObjects
- listStoragePools
- listStoragePoolsMetrics
- listStorageProviders
- listStorageTags
- syncStoragePool(A)
- updateStorageCapabilities
- updateStoragePool

Kubernetes Service

- addKubernetesSupportedVersion
- addNodesToKubernetesCluster(A)
- createKubernetesCluster(A)
- deleteKubernetesCluster(A)
- deleteKubernetesSupportedVersion(A)
- getKubernetesClusterConfig
- getUploadParamsForKubernetesSupportedVersion(A)
- listKubernetesClusters
- listKubernetesSupportedVersions
- removeNodesFromKubernetesCluster(A)
- scaleKubernetesCluster(A)
- startKubernetesCluster(A)
- stopKubernetesCluster(A)
- updateKubernetesSupportedVersion
- upgradeKubernetesCluster(A)

GPU

- createGpuCard
- createGpuDevice
- createVgpuProfile
- deleteGpuCard
- deleteGpuDevice
- deleteVgpuProfile
- discoverGpuDevices
- listGpuCards
- listGpuDevices
- listVgpuProfiles
- manageGpuDevice
- unmanageGpuDevice
- updateGpuCard
- updateGpuDevice
- updateVgpuProfile

VPC

- createPrivateGateway(A)
- createStaticRoute(A)
- createVPC(A)
- deletePrivateGateway(A)
- deleteVPC(A)
- deleteVPC(A)
- listPrivateGateways
- listStaticRoutes
- listVPCs
- migrateVPC(A)
- restartVPC(A)
- updateVPC(A)

Template

- copyTemplate(A)
- createTemplate(A)
- deleteTemplate(A)
- extractTemplate(A)
- getUploadParamsForTemplate
- listTemplatePermissions
- listTemplates
- prepareTemplate
- registerTemplate
- updateTemplate
- updateTemplatePermissions
- upgradeRouterTemplate

Snapshot

- archiveSnapshot(A)
- copySnapshot(A)
- createSnapshot(A)
- createSnapshotPolicy
- deleteSnapshot(A)
- deleteSnapshotPolicies
- extractSnapshot(A)
- getVolumeSnapshotDetails
- listSnapshotPolicies
- listSnapshots
- revertSnapshot(A)
- updateSnapshotPolicy(A)

Shared FileSystem

- changeSharedFileSystemDiskOffering(A)
- changeSharedFileSystemServiceOffering(A)
- createSharedFileSystem(A)
- destroySharedFileSystem(A)
- expungeSharedFileSystem(A)
- listSharedFileSystemProviders
- listSharedFileSystems
- recoverSharedFileSystems
- restartSharedFileSystem(A)
- startSharedFileSystem(A)
- stopSharedFileSystem(A)
- updateSharedFileSystem

Guest OS

- addGuestOs(A)
- addGuestOsMapping(A)
- addOsCategory
- addOsCategory
- deleteOsCategory
- listGuestOsMapping
- listOsCategories
- listOsTypes
- removeGuestOs(A)
- removeGuestOsMapping(A)
- updateGuestOs(A)
- updateGuestOsMapping(A)
- updateOsCategory

Cluster

- addCluster
- dedicateCluster(A)
- deleteCluster
- disableHAForCluster(A)
- executeClusterOpsPlan(A)
- generateClusterOpsPlan
- listClusterOpsPlan
- listClusters
- listDedicatedClusters
- releaseDedicatedCluster(A)
- updateCluster

Account

- createAccount
- deleteAccount(A)
- disableAccount(A)
- enableAccount
- isAccountAllowedToCreateOfferingsWithTag
- ldapCreateAccount
- linkAccountToLdap
- listAccounts
- listAndSwitchSamlAccount
- lockAccount
- markDefaultZoneForAccount(A)
- updateAccount

Role

- createRole
- createRolePermission
- deleteRole
- deleteRolePermission
- disableRole
- enableRole
- importRole
- listRolePermissions
- listRoles
- updateRole
- updateRolePermission

ISO

- attachIso(A)
- copyIso(A)
- deleteIso(A)
- detachIso(A)
- extractIso(A)
- getUploadParamsForIso
- listIsoPermissions
- listIscs
- registerIso
- updateIso
- updateIsoPermissions

Extension

- addCustomAction
- createExtension
- deleteCustomAction
- deleteExtension
- listCustomActions
- listExtensions
- registerExtension
- runCustomAction(A)
- unregisterExtension
- updateCustomAction
- updateExtension

Authentication

- authorizeSamlSso
- forgotPassword
- getSpmetadata
- listIdsps
- listSamlAuthorization
- login
- logout
- oauthlogin
- resetPassword
- samlSso
- samlSso

System VM

- changeServiceForSystemVm
- destroySystemVm(A)
- listSystemVms
- listSystemVmUsageHistory
- migrateSystemVm(A)
- patchSystemVm(A)
- rebootSystemVm(A)
- scaleSystemVm(A)
- startSystemVm(A)
- stopSystemVm(A)

Router

- changeServiceForRouter
- configureVirtualRouterElement(A)
- createVirtualRouterElement(A)
- destroyRouter(A)
- getRouterHealthCheckResults
- listRouters
- listVirtualRouterElements
- rebootRouter(A)
- startRouter(A)
- stopRouter(A)

Pod

- createManagementNetworkIpRange(A)
- createPod
- dedicatePod(A)
- deleteManagementNetworkIpRange(A)
- deletePod
- listDedicatedPods
- listPods
- releaseDedicatedPod(A)
- updatePod
- updatePodManagementNetworkIpRange(A)

Network ACL

- createNetworkACL(A)
- createNetworkACLList(A)
- deleteNetworkACL(A)
- deleteNetworkACLList(A)
- listNetworkACLLists
- listNetworkACLs
- moveNetworkACLItem(A)
- replaceNetworkACLList(A)
- updateNetworkACLItem(A)
- updateNetworkACLList(A)

Certificate

- issueCertificate(A)
- listCAProviders
- listCaCertificate
- listTemplateDirectDownloadCertificates
- provisionCertificate(A)
- provisionTemplateDirectDownloadCertificate
- revokeCertificate(A)
- revokeTemplateDirectDownloadCertificate
- uploadCustomCertificate(A)
- uploadTemplateDirectDownloadCertificate

Baremetal

- addBaremetalDhcp(A)
- addBaremetalHost
- addBaremetalPxeKickStartServer(A)
- addBaremetalPxePingServer(A)
- deleteBaremetalRct(A)
- deleteBaremetalDhcp
- listBaremetalPxeServers
- listBaremetalRct
- listBaremetalProvisionDone(A)

Out-of-band Management

- changeOutOfBandManagementPassword(A)
- configureOutOfBandManagement
- disableOutOfBandManagementForCluster(A)
- disableOutOfBandManagementForHost(A)
- disableOutOfBandManagementForZone(A)
- enableOutOfBandManagementForHost(A)
- enableOutOfBandManagementForHost(A)
- enableOutOfBandManagementForZone(A)
- issueOutOfBandManagementPowerAction(A)

Management Server

- cancelMaintenance
- cancelShutdown
- listManagementServers
- listManagementServersMetrics
- prepareForMaintenance
- prepareForShutdown
- readyForShutdown
- removeManagementServer
- loginShutdown

VLAN

- createVlanIpRange
- dedicateGuestVlanRange
- deleteVlanIpRange
- listDedicatedGuestVlanRanges
- listGuestVlans
- listVlanIpRanges
- releaseDedicatedGuestVlanRange(A)
- updateVlanIpRange

Security Group

- authorizeSecurityGroupEgress(A)
- authorizeSecurityGroupIngress(A)
- createSecurityGroup
- deleteSecurityGroup
- listSecurityGroups
- revokeSecurityGroupEgress(A)
- revokeSecurityGroupIngress(A)
- updateSecurityGroup

Object Store

- addObjectStoragePool
- createBucket(A)
- deleteBucket
- deleteObjectStoragePool
- listBuckets
- listObjectStoragePools
- updateBucket
- updateObjectStoragePool

Domain

- createDomain
- deleteDomain(A)
- linkDomainToLdap
- listDomainChildren
- listDomains
- moveDomain
- unlinkDomainFromLdap
- updateDomain

Metrics

- listClustersMetrics
- listHostMetrics
- listHostsMetrics
- listInfrastructure
- listUsageServerMetrics
- listVolumesMetrics
- listZonesMetrics

NAT

- createPortForwardingRule(A)
- deletePortForwardingRule(A)
- disableStaticNat(A)
- enableStaticNat
- listPortForwardingRules

Alert

- archiveAlerts
- deleteAlert
- generateAlert(A)
- listAlertTypes
- listAlerts

Affinity Group

- createAffinityGroup(A)
- deleteAffinityGroup(A)
- listAffinityGroupTypes
- listAffinityGroups
- updateVMAffinityGroup(A)

User Data

- deleteUserData
- linkUserDataToTemplate
- listUserData
- registerUserData

Usage

- generateUsageRecords
- listUsageRecords
- listUsageTypes
- removeRawUsageRecords

SSH Key Pair

- createSSHKeyPair
- deleteSSHKeyPair
- listSSHKeyPairs
- registerSSHKeyPair

Resource Metadata

- addResourceDetail(A)
- listDetailOptions
- listResourceDetails
- removeResourceDetail(A)

Region

- addRegion
- listRegions
- removeRegion
- updateRegion

OAuth

- deleteOAuthProvider
- listOAuthProvider
- registerOAuthProvider
- updateOAuthProvider

Nicira NVP

- deleteNiciraNvpDevice(A)
- deleteNiciraNvpDevice(A)
- listNiciraNvpDeviceNetworks
- listNiciraNvpDevices

Network Offering

- createNetworkOffering
- deleteNetworkOffering
- listNetworkOfferings
- updateNetworkOffering

Event

- archiveEvents
- deleteEvents
- listEventTypes
- listEvents

Netris

- addNetrisProvider
- deleteNetrisProvider
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Brocade VCS

- addBrocadeVcsDevice(A)
- deleteBrocadeVcsDevice(A)
- listBrocadeVcsDeviceNetworks
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Annotations

- addAnnotation
- listAnnotations
- removeAnnotation
- updateAnnotationVisibility

Resource Tags

- createTags(A)
- deleteTags(A)
- listTags

SolidFire

- getSolidFireAccountId
- getSolidFireVolumeAccessGroupIds
- getSolidFireVolumeSize

SSL Certificates

- deleteSslCert
- listSslCerts
- uploadSslCert

OpenDaylight Controller

- addOpenDaylightController(A)
- deleteOpenDaylightController(A)
- listOpenDaylightControllers

IP Quarantine

- listQuarantinedIps
- removeQuarantinedIps
- updateQuarantinedIps

Stratosphere SSP

- addStratosphereSap
- deleteStratosphereSap

BigSwitch BCF

- addBigSwitchBcfDevice(A)
- deleteBigSwitchBcfDevice(A)
- listBigSwitchBcfDevices