SDS-Discover REST APIs

Revision 0.1

Thursday, December 18, 2014

API Call	SDS Client Command	REST API Request (URLs prefixed with /v1/{tenant_id})	REST API Response
Create backend (synonymous with storage system) w/out capabilities	sdsclient backend-create foo	url: /backends, method: POST, args: {'body': {'storage_backend': {'name': u'foo', 'capability_specs': {}}}}	Response code: 200 {u'storage_backend': {u'capability_specs_id': None, u'name': u'foo', u'config_specs_id': None, u'id': u'97cd66fe-a7fb-467c-82a0-91f56250cf3b'}}
Create backend with capabilities (NOTE – there is no call for config specs)	sdsclient backend-create foo backend="test" pool="replication"	url: /backends, method: POST, args: {'body': {'storage_backend': {'name': u'foo', 'capability_specs': {u'pool': u'replication', u'backend': u'test'}}}}	{u'storage_backend': {u'capability_specs_id': u'f9c247cd-a1a1-4519-9def-fd40ff0548fe', u'name': u'foo', u'config_specs_id': None, u'id': u'e0631465-5465-414e-b1de-fce93e16b0e1'}}
List backends (summary) with or without search options	sdsclient backend-list	url: /backends, method: GET, args: {}	Response code: 200 {u'storage_backends': [{u'capability_specs_id': None, u'name': u'foo', u'config_specs_id': None, u'id': u'97cd66fe-a7fb-467c-82a0-91f56250cf3b'}]})
List	sdsclient	url: /backends/detail,	Response code: 200

| backends (details) with or without search options | backend-list --detail 1 name='ceph' | method: GET, args: {} Or /backends/detail?name=ceph, method: GET, args: {} | {u'storage_backends': [{u'tiers': [{u'name': u'swift-backup', u'deleted': False, u'created_at': u'2014-10-28T00:09:16.000000', u'updated_at': u'2014-10-28T00:09:18.000000', u'capability_specs_id': u'76c8bdde-dbd5-4b08-8664-ed6da6e0212d', u'capability_specs': {u'tiercap': u'replication 2'}, u'storage_backend_id': u'91edb388-14b4-4df1-b284-6936340243be', u'deleted_at': None, u'id': u'be25e483-0dc5-4fc4-914e-674cd2a7c649'}], u'name': u'foo', u'deleted': False, u'created_at': u'2014-10-28T00:09:07.000000', u'config_specs': {u'cfg1': u'test2'}, u'updated_at': u'2014-10-28T00:09:12.000000', u'config_specs_id': u'c06575ca-8fd3-4568-9632-db923f74e350', u'capability_specs_id': u'd3541e02-b2fe-438e-b65d-bd7f6cf62b4e', u'capability_specs': {u'cap1': u'test2'}, u'deleted_at': None, u'id': u'91edb388-14b4-4df1-b284- |
| | backend-list --detail 1 | method: GET, args: {} | |

			6936340243be'}]]
Get backend information (detailed) for a given backend id	sdsclient backend-show 91edb388-14b4-4df1-b284-6936340243be	/backends/91edb388-14b4-4df1-b284-6936340243be, method: GET, args: {}	Response code: 200 {u'storage_backend': {u'tiers': [{u'name': u'swift-backup', u'deleted': False, u'created_at': u'2014-10-28T00:09:16.000000', u'updated_at': u'2014-10-28T00:09:18.000000', u'capability_specs_id': u'76c8bdde-dbd5-4b08-8664-ed6da6e0212d', u'capability_specs': {u'tiercap': u'replication 2'}, u'storage_backend_id': u'91edb388-14b4-4df1-b284-6936340243be', u'deleted_at': None, u'id': u'be25e483-0dc5-4fc4-914e-674cd2a7c649'}], u'name': u'foo', u'deleted': False, u'created_at': u'2014-10-28T00:09:07.000000', u'config_specs': {u'cfg1': u'test2'}, u'updated_at': u'2014-10-28T00:09:12.000000', u'config_specs_id': u'c06575ca-8fd3-4568-9632-db923f74e350', u'capability_specs_id': u'd3541e02-b2fe-438e-b65d-bd7f6cf62b4e', u'capability_specs': {u'cap1': u'test2'}, u'deleted_at':

			None, u'id': u'91edb388-14b4-4df1-b284-6936340243be'}}
Delete backend for a given UUID	sdsclient backend-delete a7b63f57-82e8-46de-9fbe-ffb44140950f	url: /backends/a7b63f57-82e8-46de-9fbe-ffb44140950f, method: DELETE, args: {}	Response code: 202
Set capabilit ies for a given backend name	sdsclient backend-capability-set foo cap1="test2" cap2="test3"	url: /backends/9689caa5-a41a-4308-9c60-2f41df714bf9/capability_spec s, method: POST, args: {'body': {'capability_specs': {u'cap1': u'test2', u'cap2': u'test3'}}}	Response code: 200 {u'capability_spec s': {u'cap1': u'test2', u'cap2': u'test3'}}
Get capabilit ies for a given backend name	sdsclient backend-capability-get foo	url: /backends/9689caa5-a41a-4308-9c60-2f41df714bf9/capability_spec s, method: GET, args: {}	Response code: 200 {u'capability_spec s': {u'id': u'9689caa5-a41a-4308-9c60-2f41df714bf9', u'name': u'foo', u'capability_specs ': {u'cap1': u'test2', u'cap2': u'test3'}}}
Delete capabilit ies for a given backend name and capabilit y param	sdsclient backend-capability-keys-delete foo cap2	url: /backends/9689caa5-a41a-4308-9c60-2f41df714bf9/capability_spec s/cap2, method: DELETE, args: {}	Response code: 202 None
Set configura tion for a given backend name	sdsclient backend-config-set foo cfg1="test2" cfg2="test3"	url: /backends/9689caa5-a41a-4308-9c60-2f41df714bf9/config_specs, method: POST, args: {'body': {'config_specs': {u'cfg2': u'test3', u'cfg1': u'test2'}}}	Response code: 200 {u'config_specs': {u'cfg2': u'test3', u'cfg1': u'test2'}}

Get configuration for a given backend name	sdsclient backend-config-get foo	url: /backends/9689caa5-a41a-4308-9c60-2f41df714bf9/config_specs, method: GET, args: {}	Response code: 200 {u'config_specs': {u'config_specs': {u'cfg2': u'test3', u'cfg1': u'test2'}, u'id': u'9689caa5-a41a-4308-9c60-2f41df714bf9', u'name': u'foo'}}
Delete configuration for a given backend name and config param	sdsclient backend-config-keys-delete foo cfg2	url: /backends/9689caa5-a41a-4308-9c60-2f41df714bf9/config_specs/cfg2, method: DELETE, args: {}	Response code: 202 None
Create a tier within a storage system (optionally you can specific capabilities too)	sdsclient backend-tier-create foo swift-backup	url: /tiers, method: POST, args: {'body': {'storage_tier': {'capability_specs': {}, 'backend_name': u'foo', 'tier_name': u'swift-backup'}}}	Response code: 200 {u'storage_tier': {u'storage_backend_id': u'9689caa5-a41a-4308-9c60-2f41df714bf9', u'capability_specs_id': None, u'name': u'swift-backup', u'id': u'c734c72e-4f43-42d3-945f-82c6459522e7'}}
List backend tiers (summary)	sdsclient backend-tier-list	url: /tiers, method: GET, args: {}	Response code: 200 {u'storage_tiers': [{u'storage_backend_id': u'9689caa5-a41a-4308-9c60-2f41df714bf9', u'capability_specs_id': None, u'name': u'swift-backup', u'id': u'c734c72e-4f43-42d3-945f-82c6459522e7'}]}
List backend tiers (detailed	sdsclient backend-tier-list --detail 1 name='rbd'	/tiers/detail?name=rbd, method: GET, args: {}	Response code: 200 {u'storage_tiers': [{u'name': u'rbd', u'deleted': False, u'created_at':

)			u'2014-10-28T00:09:23.000000', u'updated_at': None, u'capability_specs_id': u'ece358c8-9386-4bc6-b803-4832dbda6c51', u'capability_specs': {u'min_size': u'1', u'used_kb': u'0', u'type': u'replicated', u'size': u'2'}, u'storage_backend_id': u'fbfff5a2-55db-46f3-9ae0-ca3ad95ae2e4', u'deleted_at': None, u'id': u'2be5e4a5-39e2-4a65-9412-e093d60774c0'}]}
Show backend tiers (detailed) for a given tier id	sdsclient backend-tier-show 2be5e4a5-39e2-4a65-9412-e093d60774c0	/tiers/2be5e4a5-39e2-4a65-9412-e093d60774c0, method: GET, args: {}	Response code: 200 {u'storage_tier': {u'name': u'rbd', u'deleted': False, u'created_at': u'2014-10-28T00:09:23.000000', u'updated_at': None, u'capability_specs_id': u'ece358c8-9386-4bc6-b803-4832dbda6c51', u'capability_specs': {u'min_size': u'1', u'used_kb': u'0', u'type': u'replicated', u'size': u'2'}, u'storage_backend_id': u'fbfff5a2-55db-46f3-9ae0-ca3ad95ae2e4', u'deleted_at': None, u'id': u'2be5e4a5-39e2-4a65-9412-e093d60774c0'}}
Delete backend tier for	sdsclient backend-tier-delete	url: /tiers/c734c72e-4f43-42d3-945f-82c6459522e7, method: DELETE, args: {}	Response code: 202 None

a given tier uuid	c734c72e-4f43-42d3-945f-82c6459522e7		
Set capabilities for a given tier name	sdsclient backend-tier-capability-set swift-backup tiercap="replication 2" factor="2"	url: /tiers/28dfd241-e7de-438b-97e9-655d66d921b0/capability_specs, method: POST, args: {'body': {'capability_specs': {u'tiercap': u'replication 2', u'factor': u'2'}}}	Response code: 200 {u'capability_specs': {u'tiercap': u'replication 2', u'factor': u'2'}}
Get list of capabilities for a given tier name	sdsclient backend-tier-capability-get swift-backup	url: /tiers/28dfd241-e7de-438b-97e9-655d66d921b0/capability_specs, method: GET, args: {}	Response code: 200 {u'capability_specs': {u'storage_backend_id': u'9689caa5-a41a-4308-9c60-2f41df714bf9', u'id': u'28dfd241-e7de-438b-97e9-655d66d921b0', u'name': u'swift-backup', u'capability_specs': {u'tiercap': u'replication 2', u'factor': u'2'}}}
Delete specific capability of a given tier	sdsclient backend-tier-capability-keys-delete swift-backup tiercap2	url: /tiers/28dfd241-e7de-438b-97e9-655d66d921b0/capability_specs/tiercap2, method: DELETE, args: {}	Response code: 202 None
Discover storage systems and automatically store discovered systems, tiers, configura	sdsclient --debug discover '192.168.56.7' 'ceph' user='sdsclient' fsid='53253609-3146-41ee-bc2c-9dcd4fdc21db'	url: /discover, method: POST, args: {'body': {'storage_discover': {'storage_type': u'ceph', 'ip_cidr': u'192.168.56.7', 'metadata': {u'user': u'sdsclient', u'fsid': u'53253609-3146-41ee-bc2c-9dcd4fdc21db'}}}}	Response code: 200 {u'storage_discover': {u'tiers': [{u'name': u'data', u'capability_specs': {u'min_size': 1, u'used_kb': 0, u'type': u'replicated', u'size': 2}}, {u'name': u'metadata',

tion and capabilit ies into database			u'capability_specs ': {u'min_size': 1, u'used_kb': 0, u'type': u'replicated', u'size': 2}}, {u'name': u'rbd', u'capability_specs ': {u'min_size': 1, u'used_kb': 0, u'type': u'replicated', u'size': 2}}, {u'name': u'os-volumes', u'capability_specs ': {u'min_size': 1, u'used_kb': 32769, u'type': u'replicated', u'size': 2}}, {u'name': u'os-images', u'capability_specs ': {u'min_size': 1, u'used_kb': 0, u'type': u'replicated', u'size': 2}}, {u'name': u'os-backups', u'capability_specs ': {u'min_size': 1, u'used_kb': 0, u'type': u'replicated', u'size': 2}}, {u'name': u'backup-ec-pool', u'capability_specs ': {u'used_kb': 0, u'type': u'erasure', u'erasure_code_pro file': u'backup-ec-profile', u'stripe_width': 4160, u'backup-ec-profile': {u'directory': u'/usr/lib/x86_64-linux-gnu/ceph/erasure-code', u'k': u'10', u'technique':

| | | | u'reed_sol_van', u'm': u'3', u'plugin': u'jerasure'}}}], u'config_specs': {u'version': u'0.69.0', u'monitors': [{u'name': u'ceph1', u'rank': 0, u'addr': u'192.168.56.7:6789/0'}, {u'name': u'ceph2', u'rank': 1, u'addr': u'192.168.56.8:6789/0'}], u'fsid': u'53253609-3146-41ee-bc2c-9dcd4fdc21db', u'user': u'sdsclient'}, u'name': u'ceph', u'capability_specs': {u'used_kb': 9798488, u'avail_kb': 28261160, u'total_kb': 40120704}}}) |