

SecureVault API Reference

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Overview

The SecureVault API allows you to programmatically manage secrets, authentication, and policies. All API endpoints use JSON for request and response bodies.

Base URL

`https://api.securevault.novatech.com/v1`

Authentication

Token Authentication

Include your token in the `Authorization` header:

```
curl -H "Authorization: Bearer $VAULT_TOKEN" \
  https://api.securevault.novatech.com/v1/secret/data/myapp
```

AppRole Authentication

```
# Step 1: Get token from AppRole
curl -X POST https://api.securevault.novatech.com/v1/auth/approle/login \
  -d '{"role_id": "abc123", "secret_id": "xyz789"}'

# Response:
{
  "auth": {
    "client_token": "hvs.TOKEN...",
    "lease_duration": 3600,
```

```
        "renewable": true
    }
}

# Step 2: Use token for subsequent requests
curl -H "Authorization: Bearer hvs.TOKEN..." \
    https://api.securevault.novatech.com/v1/secret/data/myapp
```

Secrets

Read Secret

GET /v1/secret/data/{path}

Request:

```
curl -H "Authorization: Bearer $TOKEN" \
    https://api.securevault.novatech.com/v1/secret/data/myapp/config
```

Response:

```
{
  "request_id": "abc123",
  "data": {
    "data": {
      "username": "admin",
      "password": "secret123"
    },
    "metadata": {
      "created_time": "2024-07-25T10:00:00Z",
      "version": 3
    }
  }
}
```

Create/Update Secret

POST /v1/secret/data/{path}

Request:

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
-H "Content-Type: application/json" \
-d '{"data": {"username": "admin", "password": "newpass"}}' \
https://api.securevault.novatech.com/v1/secret/data/myapp/config
```

Response:

```
{
  "request_id": "def456",
  "data": {
    "created_time": "2024-07-25T10:05:00Z",
    "version": 4
  }
}
```

Patch Secret

```
PATCH /v1/secret/data/{path}
```

Request:

```
curl -X PATCH -H "Authorization: Bearer $TOKEN" \
-H "Content-Type: application/merge-patch+json" \
-d '{"data": {"password": "updated"}}' \
https://api.securevault.novatech.com/v1/secret/data/myapp/config
```

Delete Secret

```
DELETE /v1/secret/data/{path}
```

Soft delete (recoverable):

```
curl -X DELETE -H "Authorization: Bearer $TOKEN" \
https://api.securevault.novatech.com/v1/secret/data/myapp/config
```

Permanent delete:

```
curl -X DELETE -H "Authorization: Bearer $TOKEN" \
https://api.securevault.novatech.com/v1/secret/metadata/myapp/config
```

List Secrets

```
LIST /v1/secret/metadata/{path}
```

Request:

```
curl -X LIST -H "Authorization: Bearer $TOKEN" \
https://api.securevault.novatech.com/v1/secret/metadata/myapp
```

Response:

```
{
  "request_id": "ghi789",
  "data": {
    "keys": ["config", "database", "api-keys"]
  }
}
```

Read Secret Version

```
GET /v1/secret/data/{path}?version={n}
```

```
curl -H "Authorization: Bearer $TOKEN" \
"https://api.securevault.novatech.com/v1/secret/data/myapp/config?version=2"
```

Undelete Secret

```
POST /v1/secret/undelete/{path}
```

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
-d '{"versions": [3, 4]}' \
https://api.securevault.novatech.com/v1/secret/undelete/myapp/config
```

Dynamic Secrets

Database Credentials

```
GET /v1/database/creds/{role}
```

Request:

```
curl -H "Authorization: Bearer $TOKEN" \
      https://api.securevault.novatech.com/v1/database/creds/myapp-role
```

Response:

```
{
  "request_id": "jkl012",
  "lease_id": "database/creds/myapp-role/abc123",
  "lease_duration": 3600,
  "renewable": true,
  "data": {
    "username": "v-approle-myapp-abc123",
    "password": "A1b2C3d4E5f6G7h8"
  }
}
```

AWS Credentials

```
GET /v1/aws/creds/{role}
```

Response:

```
{
  "lease_id": "aws/creds/developer-role/xyz789",
  "lease_duration": 3600,
  "data": {
    "access_key": "AKIAIOSFODNN7EXAMPLE",
    "secret_key": "wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY",
    "security_token": null
  }
}
```

Leases

Renew Lease

```
POST /v1/sys/leases/renew
```

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
      -d '{"lease_id": "database/creds/myapp-role/abc123"}' \
      https://api.securevault.novatech.com/v1/sys/leases/renew
```

Revoke Lease

POST /v1/sys/leases/revoke

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
-d '{"lease_id": "database/creds/myapp-role/abc123"}' \
https://api.securevault.novatech.com/v1/sys/leases/revoke
```

Transit (Encryption)

Encrypt

POST /v1/transit/encrypt/{key}

Request:

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
-d '{"plaintext": "c2VjcmVOIGRhdGE="}' \
https://api.securevault.novatech.com/v1/transit/encrypt/my-key
```

Response:

```
{
  "data": {
    "ciphertext": "vault:v1:8SDd3WHD0jf7mq69CyCqYjBXAiQQAVZ..."
  }
}
```

Decrypt

POST /v1/transit/decrypt/{key}

Request:

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
-d '{"ciphertext": "vault:v1:8SDd3WHD0jf7mq69CyCqYjBXAiQQAVZ..."}' \
https://api.securevault.novatech.com/v1/transit/decrypt/my-key
```

Response:

```
{  
  "data": {  
    "plaintext": "c2VjcmVOIGRhdGE="  
  }  
}
```

PKI

Issue Certificate

POST /v1/pki/issue/{role}

Request:

```
curl -X POST -H "Authorization: Bearer $TOKEN" \  
-d '{  
  "common_name": "api.example.com",  
  "alt_names": "api2.example.com",  
  "ttl": "720h"  
}' \  
https://api.securevault.novatech.com/v1/pki/issue/web-server
```

Response:

```
{  
  "data": {  
    "certificate": "-----BEGIN CERTIFICATE-----",  
    "private_key": "-----BEGIN RSA PRIVATE KEY-----",  
    "ca_chain": ["-----BEGIN CERTIFICATE-----"],  
    "serial_number": "12:34:56:78:90:ab:cd:ef",  
    "expiration": 1735689600  
  }  
}
```

Revoke Certificate

POST /v1/pki/revoke

```
curl -X POST -H "Authorization: Bearer $TOKEN" \  
-d '{"serial_number": "12:34:56:78:90:ab:cd:ef"}' \  
https://api.securevault.novatech.com/v1/pki/revoke
```

Policies

Read Policy

```
GET /v1/sys/policies/acl/{name}
```

Response:

```
{
  "data": {
    "name": "developer",
    "policy": "path \"secret/data/myapp/*\" {\n      capabilities = [\"read\", \"list\"]\n    }\n  }
```

Create/Update Policy

```
POST /v1/sys/policies/acl/{name}
```

```
curl -X POST -H "Authorization: Bearer $TOKEN" \
-d '{
  "policy": "path \"secret/data/myapp/*\" {\n    capabilities = [\"read\", \"list\"]\n  }'
https://api.securevault.novatech.com/v1/sys/policies/acl/developer
```

List Policies

```
LIST /v1/sys/policies/acl
```

Delete Policy

```
DELETE /v1/sys/policies/acl/{name}
```

Token Management

Lookup Token

```
POST /v1/auth/token/lookup-self
```

Response:

```
{  
    "data": {  
        "accessor": "abc123",  
        "creation_time": 1721908800,  
        "creation_ttl": 2764800,  
        "display_name": "user-jane@novatech.com",  
        "expire_time": "2024-08-25T10:00:00Z",  
        "policies": ["default", "developer"]  
    }  
}
```

Renew Token

POST /v1/auth/token/renew-self

Revoke Token

POST /v1/auth/token/revoke-self

Audit

List Audit Events

GET /v1/sys/audit-hash/{path}

Error Codes

Code	Description
200	Success
204	Success (no content)
400	Bad request
403	Permission denied
404	Not found
429	Rate limited
500	Internal error
503	Service unavailable

Error Response Format

```
{  
  "errors": [  
    "permission denied"  
  ]  
}
```

Rate Limits

Endpoint Type	Limit
Read operations	1000/minute
Write operations	100/minute
Authentication	50/minute
List operations	500/minute

Rate limit headers:

```
X-RateLimit-Limit: 1000  
X-RateLimit-Remaining: 950  
X-RateLimit-Reset: 1721909000
```

SDKs

Official SDKs available:

Language	Package
JavaScript	@novatech/securevault
Python	novatech-securevault
Go	github.com/novatech/securevault-go
Java	com.novatech:securevault-java
Ruby	novatech-securevault

JavaScript Example

```
const SecureVault = require('@novatech/securevault');

const client = new SecureVault({
  address: 'https://api.securevault.novatech.com',
  token: process.env.VAULT_TOKEN
});

const secret = await client.read('secret/data/myapp/config');
console.log(secret.data.data.password);
```

Python Example

```
import securevault

client = securevault.Client(
    url='https://api.securevault.novatech.com',
    token=os.environ['VAULT_TOKEN']
)

secret = client.secrets.kv.v2.read_secret_version(
    path='myapp/config'
)
print(secret['data']['data']['password'])
```

Related Documents: CLI Reference (PRD-SV-050), Getting Started (PRD-SV-001), SDKs (PRD-SV-060)