Commvault API Test Results

Test Summary

Date: 2025-11-13 **Success Rate:** 7/14 endpoints (50%)

✅ Working Endpoints

1. Clients - `/Client`

- **Status:** ✅ WORKING
- **Data Retrieved:** 3,604 clients
- **Structure:** `{ "clientProperties": [ { "client": {...}, "clientProps": {...} } ] }`
- **Notes:** Works perfectly, large dataset

2. Plans - `/Plan`

- **Status:** ✅ WORKING
- **Data Retrieved:** 278 plans
- **Structure:** `{ "plans": [ {...} ] }`
- **Notes:** Good data, backup plans/policies available

3. Storage Policies - `/V2/StoragePolicy`

- **Status:** ✅ WORKING

- **Data Retrieved:** 226 storage policies

- **Structure:** `{ "policies": [ { "storagePolicy": {...} } ] }`

- **Notes:** Works with V2 API

4. MediaAgents - `/MediaAgent`

- **Status:** ✅ WORKING (Structure Different Than Expected)

- **Data Retrieved:** 10+ MediaAgents

- **Actual Structure:** `{ "response": [ { "entityInfo": { "name": "...", "id": ... } } ] }`

- **Expected Structure:** `{ "mediaAgentList": [...] }`

- ⚠️ **Code Update Needed:** Parser expects different JSON structure

5. Libraries - `/Library`

- **Status:** ✅ WORKING (Structure Different Than Expected)

- **Data Retrieved:** Available

- **Actual Structure:** `{ "response": [...] }`

- **Expected Structure:** `{ "libraryList": [...] }`

- ⚠️ **Code Update Needed:** Parser expects different JSON structure

6. Storage Pools - `/StoragePool` (Alternative)

- **Status:** ✅ WORKING

- **Data Retrieved:** Multiple storage pools

- **Actual Structure:** `{ "storagePoolList": [ { "storagePool": {...}, "status": "...", "totalCapacity": ..., "totalFreeSpace": ... } ] }`

- **Notes:** Use `/StoragePool` instead of `/V4/StoragePool`

- ✅ **Has Capacity Data:** `totalCapacity` , `totalFreeSpace` , `sizeOnDisk`

7. Alerts - `/Alert`

- **Status:** ✅ WORKING (Empty Response)
- **Data Retrieved:** `{}` (empty dict)
- **Notes:** Endpoint works but no alerts currently active

❌ Failed/Not Available Endpoints

1. Jobs - `/Job`

- **Status:** ❌ TIMEOUT
- **Issue:** Request timed out after 30 seconds
- **Reason:** Likely too much data (trying to retrieve all jobs)
- **Recommendation:** Add filters like `?clientId=X` or `?completedJobLookupTime=last24hours`

2. Storage Pools (V4) - `/V4/StoragePool`

- **Status:** ❌ HTTP 404
- **Issue:** V4 API not available
- **Solution:** ✅ Use `/StoragePool` instead (tested and works)

3. Hypervisors - `/Instance`

- **Status:** ❌ HTTP 400
- **Issue:** Bad request - endpoint may require parameters
- **Recommendation:** Try `/V2/Virtualization/hypervisors` or `/VSA`

4. Storage Arrays - `/V4/Storage/Array`

- **Status:** ❌ HTTP 404
- **Issue:** V4 API not available or no arrays configured
- **Recommendation:** May not be available in this Commvault version

5. Events - `/Event`

- **Status:** ❌ HTTP 404
- **Issue:** Endpoint not available
- **Recommendation:** Events API may not be exposed in this version

6. Events (Critical) - `/Event?level=Critical`

- **Status:** ❌ HTTP 404
- **Issue:** Same as above

7. CommCell Info - `/Commcell`

- **Status:** ❌ HTTP 404
- **Issue:** Endpoint not available
- **Recommendation:** Try `/CommCell` (capital C) or check version compatibility

Required Code Updates

1. Fix MediaAgents Parser

Current Code Expects:

```
ma_list = mediaagents_json.get("mediaAgentList", [])
```

Actual Structure:

```json
{
  "response": [
    {
      "entityInfo": {
        "name": "commserve01",
        "id": 2
      }
    }
  ]
}
```

Required Change:

```python
ma_list = mediaagents_json.get("response", [])
for ma_entry in ma_list:
    entity_info = ma_entry.get("entityInfo", {})
    ma_id = entity_info.get("id")
    name = entity_info.get("name", "")
```

2. Fix Libraries Parser

Similar issue - use `response` key instead of `libraryList`

3. Fix Storage Pools Parser

Current Code:

```python
pools_list = storage_json.get("storagePools", [])
```

Actual Structure:

```python
pools_list = storage_json.get("storagePoolList", [])
```

Also Update Endpoint: - Change from `/V4/StoragePool` to `/StoragePool`

4. Fix Jobs Timeout

Add Filters:

```
# Instead of: /Job
# Use: /Job?clientId=X  or
#      /Job?completedJobLookupTime=last24hours
```

5. Remove Non-Working Endpoints

Disable or comment out: - Events endpoints - CommCell Info endpoint (until we find correct path) - Hypervisors (needs investigation) - Storage Arrays (may not be configured)

Data Available for Dashboard

✅ Working Infrastructure Data:

1. **Clients** - 3,604 machines ✅
2. **MediaAgents** - 10+ servers ✅
3. **Storage Pools** - Multiple pools with capacity info ✅
4. **Libraries** - Available ✅
5. **Plans** - 278 backup plans ✅
6. **Storage Policies** - 226 policies ✅

✅ Capacity Monitoring Available:

Storage Pools provide: - `totalCapacity` - Total storage capacity - `totalFreeSpace` - Available free space - `sizeOnDisk` - Used space - `status` - "Online" / "Offline" - `storagePoolType` - Type of storage

This is PERFECT for capacity monitoring!

❌ Not Available (Yet):

1. **Jobs** - Need to add filters to prevent timeout

2. **Events/Alerts** - API not available in this version

3. **Hypervisors** - Need different endpoint

4. **CommCell Health** - Need correct endpoint

Recommendations

Immediate Actions:

1. **Update MediaAgents parser** to use `response` key

2. **Update Libraries parser** to use `response` key

3. **Update Storage Pools** to use `/StoragePool` endpoint

4. **Update Storage Pools parser** to use `storagePoolList` key

5. **Add job filters** to prevent timeout

Alternative Approaches:

For Jobs:

```
# Filter by recent jobs only
/Job?completedJobLookupTime=last24hours
# Or filter by client
/Job?clientId=123
# Or limit results
/Job?pageSize=100
```

For Hypervisors:

Try these alternatives: - `/V2/Virtualization/hypervisors` - `/VSA` (Virtual Server Agent) - `/V2/vsa/vm`

For CommCell Info:

Try these alternatives: - `/CommCell` (capital C) - `/GetId` (gets CommServe ID) - `/Ping` (health check)

What Works Great:

1. **Storage Capacity Monitoring** ✅

2. All data available in Storage Pools

3. Can track capacity, free space, usage

4. Perfect for dashboard

5. **Infrastructure Inventory** ✅

6. MediaAgents list

7. Libraries list

8. 3,600+ clients

9. 278 plans

10. **Storage Policies** ✅

11. 226 policies available

12. Can track configurations

Updated Endpoint List

Use These Endpoints:

Feature	Endpoint	Status
Clients	`/Client`	✅ Working
Plans	`/Plan`	✅ Working
Storage Policies	`/V2/StoragePolicy`	✅ Working
MediaAgents	`/MediaAgent`	✅ Working (update parser)
Libraries	`/Library`	✅ Working (update parser)
Storage Pools	`/StoragePool`	✅ Working (update parser & endpoint)
Jobs	`/Job?completedJobLookupTime=last24hours`	⚠️ Needs filter

Don't Use (Not Available):

- `/V4/StoragePool` - Use `/StoragePool` instead
- `/Event` - Not available
- `/Commcell` - Not available (try alternatives)
- `/Instance` - Not working (try alternatives)
- `/V4/Storage/Array` - Not available

Next Steps

1. Update app.py with corrected parsers
2. Change Storage Pools endpoint from V4 to standard

3. Add job filters to prevent timeout

4. Test alternative endpoints for Hypervisors

5. Remove/disable non-working monitoring features

6. Update documentation with actual working endpoints

Test Files Generated

All API responses saved to: - `test_output_Clients.json` - 3,604 clients - `test_output_Plans.json` - 278 plans - `test_output_Storage_Policies.json` - 226 policies - `test_output_MediaAgents.json` - MediaAgents list - `test_output_Libraries.json` - Libraries list - `test_output_Storage_Pools_(Alt).json` - Storage pools with capacity - `test_output_Alerts.json` - Empty (no active alerts)

Review these files to see exact JSON structures.