New Features Implementation Summary

Overview

Two major features have been added to enhance API monitoring and MediaAgent management:

1. **API GET Requests Rolling Window Card** - Live view of all API requests with status codes and timing
2. **Selectable MediaAgents List** - Interactive MediaAgent view with detailed information panel

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🚀 Feature 1: API GET Requests Card

Visual Design:

- **Blue gradient background** (#1e3c72 to #2a5298)
- **Positioned below Activity Log** - Second card in right sidebar
- **Rolling window** - Shows last 30 API requests
- **Request details displayed**:
- HTTP Method (GET, POST)
- Endpoint path

- Status code (color-coded)
- Retrieved item count
- Request duration in milliseconds
- Timestamp

Color Coding:

- 🔵 **Success (200-299)** - Cyan (#00d4ff)
- 🔴 **Error (400+)** - Pink (#ff6b9d)

Example Display:

```
GET  /Client         200  Retrieved: 3,604 items | Duration: 1,245ms
GET  /MediaAgent     200  Retrieved: 10 items | Duration: 523ms
GET  /StoragePool    200  Retrieved: 8 items | Duration: 892ms
POST /Login          200  Duration: 345ms
```

📁 Files Modified for API Requests Card:

1. templates/base.html

Changes: - Split activity sidebar into two cards (50vh each) - Added `.api-requests-card` CSS styling - Added `.requests-log` styles for scrolling - Added `.request-entry` styles for log entries - Added `.request-method`, `.request-endpoint`, `.request-status` badges - Added API Requests card HTML structure below Activity Log

New CSS Classes:

```
.api-requests-card       /* Blue gradient card container */
.requests-log            /* Scrollable request log area */
.request-entry           /* Individual request entry */
```

```
.request-method          /* GET/POST badge */
.request-endpoint        /* Endpoint path text */
.request-status          /* Status code badge (200, 404, etc.) */
.request-details         /* Timestamp and metrics */
```

2. app.py

New Function:

```
def log_api_request(method, endpoint, status_code, count=None, duration=None):
    """Log API GET/POST requests to session"""
    # Stores in session['api_requests']
    # Keeps last 30 entries
    # Determines success/error status class
```

Request Logging Added To: - `authenticate_commvault()` - Logs POST /Login with duration - `fetch_data()` route: - GET /Client - with count and duration - GET /MediaAgent - with count and duration - GET /StoragePool - with count and duration - (Can be added to other endpoints as needed)

Example Usage:

```
import time
start_time = time.time()
response = requests.get(f"{base_url}/Client", headers=headers)
duration = int((time.time() - start_time) * 1000)

log_api_request('GET', '/Client', response.status_code, count=3604, duration=duration
```

📡 Feature 2: Selectable MediaAgents List

Interactive Features:

- **Clickable rows** - Click any MediaAgent to view details
- **Visual selection** - Selected row highlighted with blue background
- **Detail panel** - Sticky sidebar showing full MediaAgent information
- **Responsive design** - Stacks vertically on mobile
- **Smooth animations** - Hover effects and slide transitions

Detail Panel Shows:

- MediaAgent ID
- Status badge (Online/Offline)
- Host Name
- OS Type
- Available Space
- Total Space
- Last Fetch Time
- Description (if available)

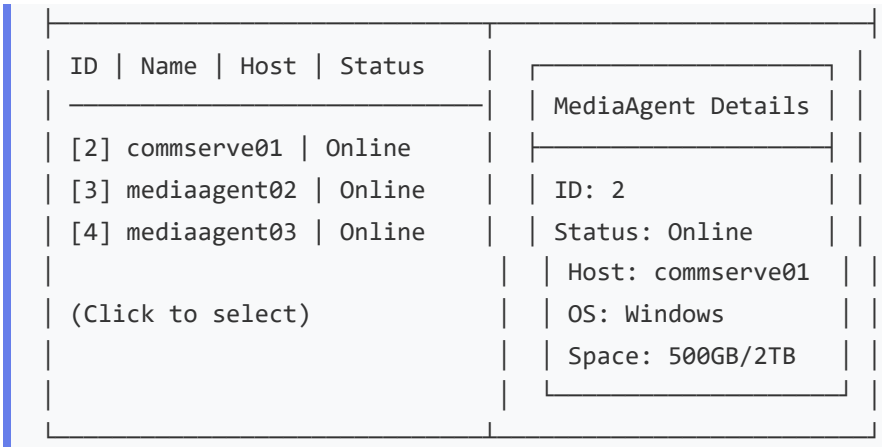
📁 Files Created/Modified for MediaAgents:

1. templates/mediaagents.html ✨ NEW

Features: - Two-column layout (list + detail) - Selectable table rows with hover effects - Detail card with gradient background - JavaScript for row selection and detail display - Mobile-responsive design

Layout:

```
┌──────────────────────────────────────────────────────┐
│ Navigation                                           │
```



Key Code:

```
function selectMediaAgent(row, data) {
    // Highlights selected row
    row.classList.add('selected');

    // Updates detail panel with all MediaAgent info
    detailCard.innerHTML = `<h3>${data.mediaAgentName}</h3>...`;
}
```

2. app.py

New Route:

```
@app.route("/mediaagents")
def view_mediaagents():
    """View MediaAgents with detailed information panel"""
    # Fetches all MediaAgent data from database
    # Converts to dictionary format for JSON serialization
    # Renders mediaagents.html template
```

SQL Query:

```
SELECT
    mediaAgentId,
    mediaAgentName,
```

```
    hostName,
    osType,
    status,
    availableSpace,
    totalSpace,
    lastFetchTime
FROM mediaagents
ORDER BY mediaAgentName
```

3. templates/dashboard.html

Updated: - Changed MediaAgents navigation link from `/view/mediaagents` to `/mediaagents` - Now points to new dedicated MediaAgents page with selection feature

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🎨 CSS Styling Highlights

API Requests Card:

```
/* Blue gradient background */
background: linear-gradient(135deg, #1e3c72 0%, #2a5298 100%);

/* Success badge - bright cyan */
.request-status.success {
    background: #00d4ff;
    color: #000;
}

/* Error badge - pink */
.request-status.error {
    background: #ff6b9d;
    color: #fff;
}
```

MediaAgent Selection:

```
/* Hover effect on rows */
.mediaagent-row:hover {
    background: #e3f2fd !important;
    transform: translateX(5px);
    transition: all 0.2s;
}

/* Selected row */
.mediaagent-row.selected {
    background: #bbdefb !important;
    border-left: 4px solid #667eea;
}

/* Detail card gradient */
.detail-card {
    background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);
    border-radius: 10px;
    padding: 25px;
    color: white;
}
```

🚀 How to Use

API GET Requests Card:

1. Start the Flask app: `python app.py`
2. Navigate to any page
3. Look at the right sidebar
4. **Top card** - Activity Log (black)
5. **Bottom card** - API Requests (blue)
6. Perform data fetch from home page
7. Watch requests appear in real-time with:

8. HTTP method and endpoint
9. Status code
10. Item count retrieved
11. Request duration

Selectable MediaAgents:

1. Navigate to **MediaAgents** page:
2. From Dashboard → MediaAgents link
3. Or directly: `http://localhost:5000/mediaagents`
4. **View all MediaAgents** in table format
5. **Click any row** to view details:
6. Row highlights in blue
7. Detail panel updates on right
8. Shows all MediaAgent information
9. **Mobile-friendly**:
10. Detail panel moves below table
11. Smooth scroll to detail card

📊 Benefits

API Requests Card:

✅ **Transparency** - See every API call made ✅ **Performance Monitoring** - Track request duration ✅ **Debugging** - Identify slow or failing endpoints ✅ **Success Tracking** - Visual status code feedback ✅ **Historical View** - Last 30 requests preserved

Selectable MediaAgents:

✅ **Better UX** - Interactive, not just static table ✅ **Detailed Info** - All fields in organized panel ✅ **Quick Access** - One click to see all details ✅ **Visual Feedback** - Clear selection highlighting ✅ **Mobile Ready** - Responsive design

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🔧 Technical Implementation

Session Storage:

API Requests:

```
session['api_requests'] = [
    {
        'method': 'GET',
        'endpoint': '/Client',
        'status_code': 200,
        'status_class': 'success',
        'count': 3604,
        'duration': 1245,
        'timestamp': '10:15:26'
    },
    ...
]
```

Data Flow: 1. API call made in `app.py` 2. `log_api_request()` stores in session 3. Template renders from `session['api_requests']` 4. JavaScript updates counts (future enhancement)

MediaAgent Selection:

Data Flow: 1. Route `/mediaagents` queries database 2. Converts rows to dictionaries 3. Template renders as JSON in data attributes 4. JavaScript `selectMediaAgent()` reads

data 5. Updates detail panel with innerHTML

📝 Code Statistics

Lines Added/Modified:

File	Lines Added	Purpose
base.html	~120 lines	API Requests card styling + HTML
app.py	~40 lines	Request logging function + route
mediaagents.html	~230 lines	Complete new template
dashboard.html	1 line	Link update

Total: ~391 lines of code

🎯 Next Steps (Optional Enhancements)

API Requests Card:

1. **Filter by method** - Show only GET or POST
2. **Filter by status** - Show only errors
3. **Export logs** - Download request history as CSV
4. **Average duration** - Calculate avg response time
5. **Real-time updates** - WebSocket for live updates

MediaAgents:

1. **Search/Filter** - Search by name or status
2. **Bulk actions** - Select multiple MediaAgents
3. **Refresh button** - Re-fetch single MediaAgent data
4. **Historical trends** - Show space usage over time
5. **Alerts** - Highlight MediaAgents with low space

✨ Summary

Features Delivered: - ✅ API GET Requests rolling window card - ✅ Selectable MediaAgents list - ✅ Detailed MediaAgent information panel - ✅ Request duration tracking - ✅ Status code visualization - ✅ Interactive row selection - ✅ Responsive mobile design

Technologies Used: - Flask session storage - Jinja2 templating - Vanilla JavaScript - CSS animations - Gradient designs

Ready to use! Both features are fully functional and integrated into the application.

🖼️ Visual Preview

Before:

- Static activity log only
- Basic MediaAgents table view
- No request tracking

After:

- **Two monitoring cards** (Activity + Requests)
- **Interactive MediaAgents** with detail panel
- **Complete request logging** with metrics
- **Professional UI** with animations

The application now provides comprehensive visibility into API operations and infrastructure management!