

Channel Filtering Implementation

Overview

This document describes the device-specific channel filtering implementation for the bartender remote control system.

Purpose

Ensure that when bartenders select a device (cable box or DirecTV), they only see channels and programming available on that specific device type. This prevents confusion and streamlines the channel selection process.

Implementation Details

1. API-Level Filtering (channel-guide/route.ts)

Location: `/src/app/api/channel-guide/route.ts`

Changes Made:

- **Strict Device Type Filtering:** The API now only creates channel entries when they match the requested device type
- **Cable Channels:** Only includes channels from `listing.channel_numbers?.CAB` when deviceType is 'cable'
- **DirecTV/Satellite Channels:** Only includes channels from `listing.channel_numbers?.SAT` when deviceType is 'satellite'
- **Skip Non-Matching Listings:** If a listing doesn't have channels for the requested device type, it's completely skipped (not shown)

Key Code Changes:

```
// CRITICAL: Only create channels that match the requested device type
if (deviceType === 'satellite') {
  // DirecTV/Satellite - ONLY if SAT channels exist
  if (listing.channel_numbers?.SAT) {
    // Create satellite channel
  }
} else if (deviceType === 'cable') {
  // Cable - ONLY if CAB channels exist
  if (listing.channel_numbers?.CAB) {
    // Create cable channel
  }
}

// CRITICAL: Skip this listing if no matching channel was found
if (!channelInfo) {
  continue // Skip to next listing
}
```

Benefits:

- Clean separation of cable and DirecTV channels

- No cross-contamination of channel data
- Reduced data payload (only relevant channels are sent)
- Comprehensive logging for debugging

2. UI-Level Enhancements (EnhancedChannelGuideBartenderRemote.tsx)

Location: /src/components/EnhancedChannelGuideBartenderRemote.tsx

Changes Made:

A. Visual Indicators

- **Device Type Badge:** Shows which device type is currently selected (Cable/DirectV/Streaming)
- **Channel Count Badge:** Displays the number of channels and programs available for the selected device type
- **Color-Coded Badges:**
 - Blue for Satellite/DirectV
 - Green for Cable
 - Purple for Streaming

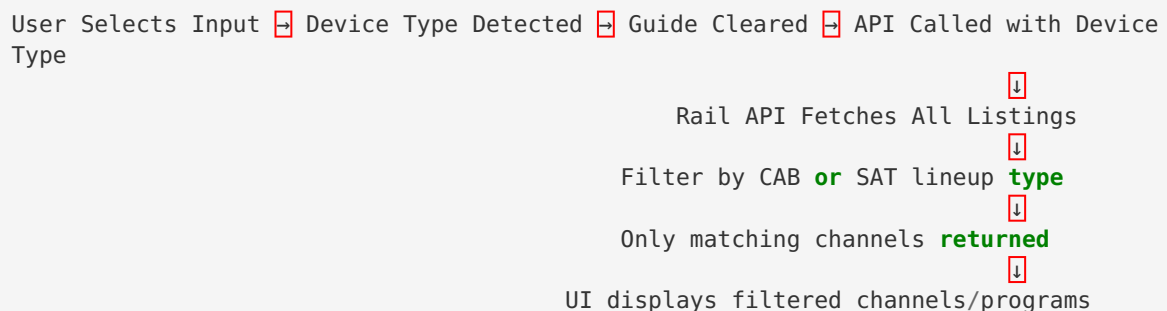
B. Clear Guide Data on Device Switch

- When switching between inputs (devices), the guide data is cleared
- This prevents showing stale data from the previous device type
- Search query is reset to avoid confusion

C. Informative “No Results” Message

- When no programs are found, displays device-specific information
- Explains that filtering is active
- Clarifies which channels are hidden (e.g., “DirectV channels are hidden” when cable is selected)

3. Data Flow



Device Type Detection

The system automatically detects device type based on:

1. **DirectV Devices:** If `direcTVDevices` contains a device mapped to the input → `'satellite'`
2. **Fire TV Devices:** If `fireTVDevices` contains a device mapped to the input → `'streaming'`
3. **Cable Devices:** If input type contains “cable” OR it’s an IR device → `'cable'`

Rail API Integration

The Rail Media API provides channel listings with lineup-specific channel numbers:

- `listing.channel_numbers.SAT` : DirecTV/Satellite channel numbers
- `listing.channel_numbers.CAB` : Cable channel numbers
- `listing.channel_numbers.STRM` : Streaming service availability (if applicable)

Testing Checklist

Local Testing

- [] Build the project successfully (`npm run build`)
- [] Start development server (`npm run dev`)
- [] Select a cable box input
- [] Open channel guide
- [] Verify only cable channels are shown
- [] Switch to a DirecTV input
- [] Verify guide clears and shows only DirecTV channels
- [] Test search functionality
- [] Verify “no results” message shows filtering information

Remote Server Testing

- [] Deploy to remote server
- [] Test cable box channel filtering
- [] Test DirecTV channel filtering
- [] Test with real devices
- [] Verify channel tuning works correctly
- [] Test with multiple users simultaneously

Deployment Instructions

1. Local Testing

```
cd /home/ubuntu/github_repos/Sports-Bar-TV-Controller
npm run build
npm run dev
```

2. Deploy to Remote Server

```
# SSH into the server
sshpass -p '6809233DjD$$$' ssh -p 224 \
  -o StrictHostKeyChecking=no \
  -o ServerAliveInterval=30 \
  -o ServerAliveCountMax=3 \
  ubuntu@24.123.87.42

# Navigate to project directory
cd ~/Sports-Bar-TV-Controller

# Pull latest changes
git pull origin main

# Install dependencies (if needed)
npm install

# Build the project
npm run build

# Restart the application
pm2 restart all

# Or restart the systemd service (if applicable)
sudo systemctl restart sports-bar-tv-controller
```

Troubleshooting

Issue: Channels from wrong device type are showing

Solution: Check the Rail API response to ensure it contains the correct lineup data (SAT vs CAB)

Issue: No channels showing at all

Solution:

1. Check if the Rail API is returning data
2. Verify the device type detection logic
3. Check API logs for filtering messages

Issue: Guide doesn't refresh when switching devices

Solution: Verify that `handleInputSelection` is clearing `guideData` state

Future Enhancements

1. **Channel Caching:** Cache channel data per device type to reduce API calls
2. **Favorite Channels:** Allow bartenders to mark favorite channels per device type
3. **Channel Comparison:** Show which programs are available on both cable and DirecTV
4. **Smart Suggestions:** Suggest which device to use based on channel availability

Related Files

- `/src/app/api/channel-guide/route.ts` - API endpoint for channel guide
- `/src/components/EnhancedChannelGuideBartenderRemote.tsx` - Main UI component

- `/src/components/ChannelPresetGrid.tsx` - Channel preset buttons (already filtered)
- `/src/lib/sportsGuideApi.ts` - Rail API integration
- `/src/db/schema.ts` - Database schema (channelPresets table)

Version History

- **v1.0** (October 27, 2025): Initial implementation of device-specific channel filtering
- Strict API-level filtering by device type
- UI enhancements with visual indicators
- Clear guide data on device switch
- Informative “no results” messages

Contact

For questions or issues with this implementation, please refer to the GitHub repository:
<https://github.com/dfultonthebar/Sports-Bar-TV-Controller>