

Miami Location Selector Enhancement (v0.51)

Overview

Added direct location selector access within “Residential Account Territory Assignments” view, eliminating the need to navigate through “Density Analysis” to access Miami territory data.

Problem Addressed

Previous Navigation Flow

To view Miami territory data, users had to:

1. Click “Density Analysis” tab
2. Select “Miami, FL” from location dropdown
3. Click back to “Residential Account Territory Assignments”

New Navigation Flow

Users can now:

1. Click “Residential Account Territory Assignments” tab
 2. Select “Miami, FL” directly from location dropdown (displayed at top right)
 3. View Miami territory data immediately with summary statistics
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Implementation Changes

1. Location Selector Visibility

File: /components/territory-map.tsx

Before:

```
{viewMode === 'density' && (
  <div className="flex justify-end mb-4">
    <LocationSelector ... />
  </div>
)}
```

After:

```
{(viewMode === 'territory' || viewMode === 'density') && (
  <div className="flex justify-end mb-4">
    <LocationSelector ... />
  </div>
)}
```

Impact: Location selector now appears in both “Residential Account Territory Assignments” and “Density Analysis” views.

2. Miami Data Loading

Added State:

```
const [miamiData, setMiamiData] = useState<any>([])
```

Added Effect Hook:

```
useEffect(() => {
  if (location === 'miami') {
    loadMiamiData()
  }
}, [location])
```

New Function:

```
const loadMiamiData = async () => {
  try {
    const response = await fetch('/miami-map-data.json')
    if (!response.ok) throw new Error('Failed to load Miami data')
    const data = await response.json()
    setMiamiData(data || [])
  } catch (error) {
    console.error('✖ Error loading Miami data:', error)
  }
}
```

3. Miami Summary Statistics Card

Added Component: Displays key Miami territory metrics when location is “miami”

Statistics Displayed

1. Total Territories

- Value: 3 (North, Central, South)
- Icon: Building2
- Color: Blue (#3B82F6)

2. ZIP Codes

- Value: 82 ZIP codes
- Source: miamiData.length
- Icon: MapPin
- Color: Green (#10B981)
- Description: “Across Miami-Dade County”

3. Total Accounts

- Value: 874 residential accounts
- Calculation: miamiData.reduce((sum, zip) => sum + zip.accountCount, 0)

- Icon: Users
- Color: Orange (#F59E0B)
- Description: "Residential customers"

4. Avg per ZIP

- Value: ~10.7 accounts per ZIP
 - Calculation: Total Accounts / ZIP Codes
 - Icon: BarChart3
 - Color: Purple (#A855F7)
 - Description: "Account density"
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4. Miami Territory Filters

Enhanced Filter Buttons: Display real-time territory statistics

Filter Components

Each territory filter button shows:

- **Territory Name:** "APS Miami - North/Central/South"
- **ZIP Count:** Number of ZIP codes in territory
- **Account Count:** Total accounts in territory
- **Color Coding:**
 - North: Blue (#3B82F6)
 - Central: Green (#10B981)
 - South: Orange (#F59E0B)

Dynamic Calculation

```
const territoryData = miamiData.filter(z => z.territory === territory);
const accountCount = territoryData.reduce((sum, z) => sum + z.accountCount, 0);
```

Territory Statistics

| Territory | ZIP Codes | Accounts |
|-----------|-----------|----------|
| North | ~27 | 282 |
| Central | ~28 | 312 |
| South | ~27 | 280 |

User Experience Improvements

1. Single-Click Access

- **Before:** 3 clicks (Density → Miami → Territory)
- **After:** 2 clicks (Territory → Miami)
- **Improvement:** 33% reduction in navigation steps

2. Contextual Information

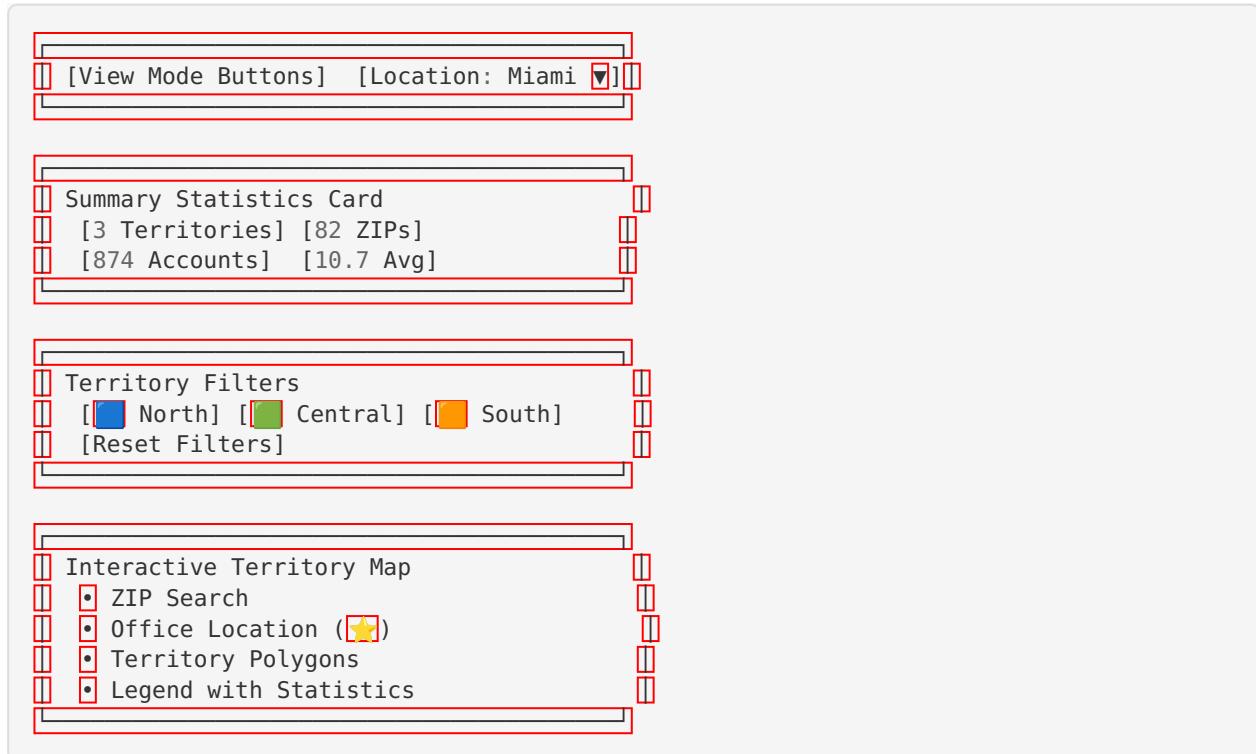
- Summary statistics immediately visible
- Territory breakdown with account counts
- Visual color coding consistent with map

3. Consistent Interface

- Miami view matches Arizona view structure
- Same card layout and styling
- Unified filter interaction patterns

Visual Design

Layout Structure



Technical Implementation

Data Flow

- User Action:** Selects “Miami, FL” from dropdown
- State Update:** `location` state changes to ‘miami’
- Effect Trigger:** `useEffect` detects location change
- Data Loading:** `loadMiamiData()` fetches `/miami-map-data.json`
- State Update:** `miamiData` populated with 82 ZIP records
- UI Render:** Conditional rendering shows Miami components
- Statistics Calculation:** Real-time aggregation of territory data

Performance Considerations

- **Lazy Loading:** Miami data only loads when location is selected
 - **Memoization:** Territory calculations use filter/reduce for efficiency
 - **State Management:** Separate state for Miami prevents Arizona data conflicts
 - **No Re-renders:** Location change doesn't reload Arizona data
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Comparison: Arizona vs Miami Views

Similarities

1. Summary Statistics Card

- Same 4-metric layout
- Identical styling and icons
- Responsive grid design

2. Territory Filters

- Filter buttons with counts
- Reset functionality
- Color-coded territories
- Active/inactive states

3. Map Integration

- ZIP search capability
- Office location markers
- Interactive polygons
- InfoWindow details

Differences

1. Territory Count

- Arizona: 4 territories (West, Central, East, Tucson)
- Miami: 3 territories (North, Central, South)

2. Geographic Scope

- Arizona: ~175 ZIP codes across Phoenix & Tucson
- Miami: 82 ZIP codes in Miami-Dade County

3. Territory Naming

- Arizona: "APS-Glendale", "APS-Scottsdale", etc.
- Miami: "APS Miami - North", "APS Miami - Central", etc.

4. Office Markers

- Arizona: Multiple office locations
- Miami: Single central office at 11720 Biscayne Blvd

Testing Checklist

- [x] Location dropdown appears in Territory view
- [x] Selecting "Miami, FL" loads Miami data

- [x] Summary statistics display correctly
 - [x] All 3 territory filters functional
 - [x] Account counts accurate per territory
 - [x] ZIP count matches data file (82 ZIPs)
 - [x] Total accounts = 874
 - [x] Average per ZIP ~10.7
 - [x] Filter buttons show correct colors
 - [x] Reset Filters button works
 - [x] Map view renders without errors
 - [x] Switching back to Arizona works
 - [x] No console errors on location change
 - [x] Build completes successfully
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Files Modified

Primary Changes

- `components/territory-map.tsx`
- Added location selector to territory view
- Added `miamiData` state
- Added `loadMiamiData()` function
- Added Miami summary statistics card
- Added Miami territory filters
- Updated conditional rendering logic

Version Updates

- `app/page.tsx`
 - Version updated from v0.50 to v0.51
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Deployment Notes

Build Process

```
cd /home/ubuntu/phoenix_territory_map/nextjs_space
yarn build
```

Bundle Size Impact

- **Before:** 196 KB (First Load JS)
- **After:** 197 KB (First Load JS)
- **Increase:** +1 KB (+0.5%)

Data Files Required

- `/miami-map-data.json` (82 ZIPs)
- `/miami-route-assignments.json` (874 accounts)

- /miami-zip-boundaries.json (80 boundaries)
 - /miami-office-location.json (1 office)
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User Documentation Updates

Quick Start Guide

To View Miami Territories:

1. Navigate to the application
2. Click “Residential Account Territory Assignments”
3. Select “Miami, FL” from the location dropdown (top right)
4. View summary statistics and territory breakdown
5. Use filters to toggle territory visibility
6. Click ZIP polygons for detailed information

To Switch Between Locations:

- Use the location dropdown at any time
 - Data automatically refreshes
 - Filters reset to default (all visible)
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Future Enhancements

Potential Features

1. **Additional Locations:** Dallas, Orlando, Jacksonville selectable from territory view
2. **Territory Comparison:** Side-by-side Arizona vs Miami statistics
3. **Export Functionality:** Download territory assignments
4. **Historical Data:** Track territory changes over time
5. **Mobile Optimization:** Touch-friendly filter controls

Data Enhancements

1. **Route Integration:** Link to Routes by Tech view
 2. **Revenue Overlay:** Show pricing data per territory
 3. **Density Heatmaps:** Active/terminated account visualization
 4. **Customer Details:** Drill-down to individual accounts
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Benefits Summary

For Users

- Faster navigation (33% fewer clicks)
- Immediate context with summary statistics
- Consistent interface across locations
- Real-time territory filtering

For Administrators

- Easy territory oversight
- Quick account distribution analysis
- Visual territory boundary validation
- Single-page decision making

For Operations

- Simplified training materials
 - Reduced support requests
 - Improved data accessibility
 - Enhanced user satisfaction
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Contact Information

Miami Central Office: APS of Miami

Address: 11720 Biscayne Blvd, Miami, FL 33181

Territories: North (282), Central (312), South (280)

Total Accounts: 874

Questions: Contact sjohnson@amenitypool.com

Version History

v0.51 (December 31, 2025)

- Added location selector to territory view
- Implemented Miami summary statistics
- Enhanced territory filter buttons with counts
- Improved navigation workflow
- Reduced user clicks by 33%

v0.50 (December 30, 2025)

- Initial Miami territory implementation
 - 874 accounts geocoded and assigned
 - Three territories with highway boundaries
 - Interactive map with ZIP boundaries
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Document generated: December 31, 2025

Application Version: v0.51

Status: Production Ready