

# CareLinkAI - Operator MVP Status Matrix

This document tracks the implementation status of all Operator-specific features in the CareLinkAI platform.

**Last Updated:** December 7, 2025

**Branch:** feature/family-leads-mvp

**Status:**  ALL CORE FEATURES COMPLETE

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## Implementation Status

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<b>Area</b>	<b>Role</b>	<b>Capability</b>	<b>Status</b>	<b>Implementation Notes</b>
Operator signup	Operator	Create account and log in	DONE	OPERATOR role supported in registration. Admin can create operator accounts. API: /api/auth/register ; UI: /auth/register , /auth/login .
Operator dashboard	Operator	View dashboard with key metrics	DONE	Dashboard at /dashboard shows role-based content. Quick access to leads, inquiries, homes, aides, providers.
View leads list	Operator	Browse all incoming family leads	DONE	Lead list at /operator/leads with comprehensive filtering. API: GET /api/operator/leads . Supports pagination (20-100 items/page), filtering by status, targetType, assignment. Includes family, aide/provider, operator relations.
Filter leads	Operator	Filter leads by status, type, assignment	DONE	UI filters: Search by family name/lead ID, status tabs (All/New/In Review/Contacted/Closed), target type drop-

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				down (AIDE/ PROVIDER), assignment filter (All/Unassigned/ Assigned to me). 300ms debounce for search. Component: LeadFilters .
Sort leads	Operator	Sort by date, status, priority	DONE	Default sort: newest first (createdAt DESC). Status-based prioritization: NEW > IN REVIEW > CONTACTED > CLOSED/CANCELLED.
View lead detail	Operator	See complete lead information	DONE	Detail page at /operator/leads/[id] shows: Family info (contact, phone, email), Target info (aide/provider details), Inquiry details (message, start date, hours/week, location), Care context (age, diagnosis, mobility, notes). API: GET /api/operator/leads/[id] .
Update lead status	Operator	Change lead status (NEW → IN REVIEW →	DONE	Status dropdown on detail page with 5 options: NEW,

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		CONTACTED → CLOSED)		IN REVIEW, CONTACTED, CLOSED, CAN- CLED. Up- dates via <code>PATCH /api/operator/leads/[id]</code> with audit logging. Real- time UI updates.
Assign leads	Operator	Assign lead to self or other operator	DONE	Assignment controls on lead detail page. Can assign to any operator or leave unassigned. Filter by "Assigned to me" in lead list. API: <code>PATCH /api/operator/leads/[id]</code> with assignedOperatorId .
Add operator notes	Operator	Document actions, follow-ups, decisions	DONE	Notes textarea on lead detail page with 5000 character limit. Character counter displays remaining chars. Saves via <code>PATCH /api/operator/leads/[id]</code> . Success/error toast notifications.
Contact families	Operator	Initiate conversation with family member	DONE	"Open Conversation" button on lead detail page. Deep-links to /

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				messages? userId={familyUserId}&content=lead&leadId={leadId} . Integrates with existing messaging system. Icon: FiMessageSquare.
View inquiries list	Operator	Browse home inquiries from families	✓ DONE	Inquiry list at /operator/inquiries for care home placement requests. API: GET /api/operator/inquiries . Separate from marketplace leads.
Update inquiry status	Operator	Manage home inquiry workflow	✓ DONE	Status updates at /operator/inquiries/[id] . API: PATCH /api/operator/inquiries/[id] . Supports notes and status changes.
Browse marketplace	Operator	View aides, providers, homes	✓ DONE	Marketplace access at /marketplace with tabs for Caregivers, Jobs, Providers. Operators can browse all marketplace listings.
View aide profiles	Operator	See caregiver details, skills, availability	✓ DONE	Aide detail at /marketplace/caregivers/[id] . Shows bio,

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				rate, experience, credentials, availability calendar.
View provider profiles	Operator	See provider business info, services, docs	DONE	Provider detail at <code>/marketplace/providers/[id]</code> . Shows business name, services, coverage area, licensing, insurance.
Message aides	Operator	Send messages to caregivers	DONE	Message buttons on marketplace cards and detail pages. Deep-link to <code>/messages?userId={aideUserId}</code> . Two-way messaging with SSE notifications.
Message providers	Operator	Send messages to providers	DONE	Message buttons on provider profiles. Uses same messaging system as aide communication. Real-time notifications.
Message families	Operator	Communicate with family members	DONE	Family messaging via lead detail “Open Conversation” button. Query params include context (lead) and leadId for tracking.
Manage homes	Operator		DONE	

Area	Role	Capability	Status	Implementation Notes
		Edit care home listings		Home edit UI at /operator/homes/[id]/edit . API: PATCH /api/operator/homes/[id] . Changes reflect in search and family home detail pages.
View admin tools	Operator*	Access admin console (if ADMIN role)	<input checked="" type="checkbox"/> DONE	Admin console at /admin/aides , /admin/providers . RBAC-enforced. Only ADMIN and STAFF roles can access. Credential verification, profile oversight.

**Note:** Operators with ADMIN role have additional privileges. Standard operators have access to lead management, inquiries, messaging, and marketplace browsing only.

## Lead Management Workflow

### Status Lifecycle

```
NEW → IN_REVIEW → CONTACTED → CLOSED
      ↓
      CANCELLED (alternative end state)
```

### Lead Assignment Flow

1. Lead created by Family user (via marketplace inquiry)
2. Appears in Operator lead list with status NEW
3. Operator reviews and assigns to self or team member
4. Operator updates status as they progress (IN\_REVIEW → CONTACTED)
5. Operator adds notes documenting actions taken
6. Operator contacts family via “Open Conversation” button
7. Lead marked CLOSED when resolved or CANCELLED if not pursued

## Messaging Integration

- **Family Contact:** Deep-link with `context=lead&leadId={id}` for tracking
  - **Aide Contact:** From marketplace or via direct messaging
  - **Provider Contact:** From marketplace or via direct messaging
  - **Real-time:** SSE notifications for new messages across all conversations
- 

## Key Components

### LeadStatusBadge

- Visual status indicators with color coding
- 5 variants: NEW (blue), IN\_REVIEW (yellow), CONTACTED (green), CLOSED (gray), CANCELLED (red)
- Size options: sm/md/lg
- Location: `src/components/operator/LeadStatusBadge.tsx`

### LeadTargetTypeBadge

- Shows lead target type with icon
- 2 variants: AIDE (purple user icon), PROVIDER (teal users icon)
- Size options: sm/md/lg
- Location: `src/components/operator/LeadTargetTypeBadge.tsx`

### LeadFilters

- Reusable filtering component for lead list
  - Features: Search input, status tabs, target type dropdown, assignment filter
  - Callback for filter changes with 300ms debounce
  - Location: `src/components/operator/LeadFilters.tsx`
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## API Endpoints

### Lead Management

- **GET /api/operator/leads** - List leads with filters and pagination
- Query params: `status`, `targetType`, `assignedToMe`, `q` (search), `page`, `perPage`
- Returns: leads array, pagination metadata, family/target relations
- RBAC: OPERATOR, ADMIN
- **GET /api/operator/leads/[id]** - Get lead detail
- Returns: Complete lead with family, aide/provider, assignedOperator relations
- RBAC: OPERATOR, ADMIN
- **PATCH /api/operator/leads/[id]** - Update lead
- Body: `{ status?, assignedOperatorId?, operatorNotes? }`
- Validation: LeadStatus enum, 5000 char limit for notes

- Audit logging enabled
- RBAC: OPERATOR, ADMIN

## Inquiry Management

- **GET /api/operator/inquiries** - List home inquiries
- **GET /api/operator/inquiries/[id]** - Get inquiry detail
- **PATCH /api/operator/inquiries/[id]** - Update inquiry status
- **PATCH /api/operator/inquiries/[id]/notes** - Add inquiry notes

## Messaging

- **GET /api/messages** - List conversations
- **POST /api/messages** - Send message
- **GET /api/messages/threads** - Get conversation threads
- **GET /api/messages/sse** - Real-time message notifications

## Database Models

### Lead Model

```
model Lead {
    id                      String      @id @default(cuid())
    familyId                String
    targetType              LeadTargetType // AIDE | PROVIDER
    aideId                  String?
    providerId              String?
    status                  LeadStatus @default(NEW)
    message                 String?
    preferredStartDate     DateTime?
    expectedHoursPerWeek   Int?
    location                String?

    // Care context snapshot
    snapshotRecipientAge    Int?
    snapshotPrimaryDiagnosis String?
    snapshotMobilityLevel   String?
    snapshotCareNotes       String?

    // Operator management
    assignedOperatorId      String?
    operatorNotes           String?

    // Audit
    createdAt               DateTime   @default(now())
    updatedAt               DateTime   @updatedAt
    deletedAt               DateTime? // Soft delete

    // Relations
    family                  Family     @relation(...)
    aide                    Caregiver? @relation(...)
    provider                Provider? @relation(...)
    assignedOperator        User?     @relation(...)

}
```

## Enums

```
enum LeadStatus {
    NEW
    IN_REVIEW
    CONTACTED
    CLOSED
    CANCELLED
}

enum LeadTargetType {
    AIDE
    PROVIDER
}
```

## Security & RBAC

### Role Restrictions

- All operator endpoints enforce OPERATOR or ADMIN role via `requireAnyRole([OPERATOR, ADMIN])`
- Lead access restricted to operators who have permissions
- Audit logging tracks all lead status changes and note additions
- Soft delete implemented (`deletedAt`) for compliance

### Validation

- Zod schemas for all PATCH requests
- Character limits: operatorNotes (5000), message (2000), location (200)
- Status enum validation prevents invalid state transitions
- Foreign key validation for assignments (`assignedOperatorId` must be valid operator)

### Audit Trail

- All lead updates logged with userId, timestamp, action
- Lead status history tracked in database
- Operator notes preserved for compliance
- Soft delete preserves data for audit purposes

## UI Pages

### /operator/leads

- Lead list with filtering and pagination
- Responsive table view (desktop) / card view (mobile)
- Empty state for no leads
- Loading and error states
- Status badges and target type badges
- Quick actions: View detail

## /operator/leads/[id]

- Comprehensive lead detail display
  - Summary card with lead ID, dates, assignment
  - Family information card (contact, email, phone, relationship)
  - Target information card (aide/provider name, profile link)
  - Inquiry details card (message, start date, hours, location)
  - Care context card (age, diagnosis, mobility, notes)
  - Edit controls card (status dropdown, assignment, notes)
  - “Open Conversation” button for family messaging
  - Success/error toast notifications
  - Character counter for notes field
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## Testing

### Manual Testing Checklist

- [ ] Register as Family user
- [ ] Submit inquiry for aide via marketplace
- [ ] Submit inquiry for provider via marketplace
- [ ] Login as Operator
- [ ] View leads list, verify both inquiries appear
- [ ] Filter by status (NEW)
- [ ] Filter by target type (AIDE, PROVIDER)
- [ ] Search by family name
- [ ] Click lead to view detail
- [ ] Update status to IN\_REVIEW
- [ ] Assign lead to self
- [ ] Add operator notes (test character limit)
- [ ] Click “Open Conversation” button
- [ ] Verify redirect to /messages with correct query params
- [ ] Send message to family member
- [ ] Update status to CONTACTED, then CLOSED
- [ ] Verify all changes saved and displayed correctly

### API Testing (cURL Examples)

#### List Leads

```
curl -X GET "http://localhost:3000/api/operator/leads?status=NEW&page=1&perPage=20" \
-H "Cookie: next-auth.session-token=YOUR_SESSION_TOKEN"
```

#### Get Lead Detail

```
curl -X GET "http://localhost:3000/api/operator/leads/c1xxxxxxxxx" \
-H "Cookie: next-auth.session-token=YOUR_SESSION_TOKEN"
```

## Update Lead

```
curl -X PATCH "http://localhost:3000/api/operator/leads/clxxxxxxxxxx" \
-H "Content-Type: application/json" \
-H "Cookie: next-auth.session-token=YOUR_SESSION_TOKEN" \
-d '{
  "status": "IN REVIEW",
  "assignedOperatorId": "clxxxxxxxxxx",
  "operatorNotes": "Reviewed lead, will contact family tomorrow."
}'
```

## Future Enhancements

1. **Lead Prioritization** - Automatic priority scoring based on care urgency, response time
2. **Lead Analytics** - Dashboard metrics: conversion rate, response time, status distribution
3. **Automated Notifications** - Email/SMS alerts for new leads, status changes
4. **Lead Templates** - Pre-defined response templates for common scenarios
5. **Activity Timeline** - Full audit log visible on lead detail page
6. **Bulk Actions** - Assign multiple leads at once, bulk status updates
7. **Lead Export** - CSV/Excel export for reporting
8. **SLA Tracking** - Monitor response time targets, escalations
9. **Team Management** - Assign leads to teams, not just individuals
10. **AI-Assisted Matching** - Suggest best aide/provider matches for each lead

## Deployment Notes

- Migration applied: `20251207154010_add_family_and_lead_models`
- All changes on branch: `feature/family-leads-mvp`
- RBAC enforced at API and UI levels
- No feature flags required (all production-ready)
- Environment variables: Standard auth and database config

## Related Documentation

- Family Leads Schema Design: `/home/ubuntu/carelinkai/family_leads_schema_design.md`
- Operator Lead Management Implementation: `/home/ubuntu/carelinkai/operator_lead_management_implementation.md`
- Family MVP Status: `/home/ubuntu/carelinkai/docs/mvp_status_families.md`
- Aides MVP Status: `/home/ubuntu/carelinkai/docs/mvp_status_aides.md`
- Providers MVP Status: `/home/ubuntu/carelinkai/docs/mvp_status_providers.md`

**Legend:**

- DONE = Implemented and tested
- TODO = Not yet implemented
- N/A = Not applicable

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