📘 USER & ENTERPRISE MANAGEMENT — FINAL SPEC v1.1

Status: 🔒 LOCKED
Owner: Super Admin (Founder)
Scope: User management, enterprise management, demo systems, AI narration, BTE integration
Compatibility: 2030-ready, AI-native, solo-founder scalable

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1 SYSTEM INTENT (WHY THIS EXISTS)

This system is designed to:

1. Support **both PLG (individual)** and **enterprise-led adoption**
2. Prove value via **behavioral evidence**, not claims
3. Scale to **10,000+ enterprises** with **one founder**
4. Make **AI explain reality**, not invent it
5. Allow **continuous vertical experimentation** without polluting real data

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2 ACTORS & ROLES (FINAL)

2.1 Role Hierarchy

Role	Scope	Authority
SUPER_ADMIN	Global	Absolute
ENTERPRISE_ADMIN	One enterprise	Managerial
ENTERPRISE_USER	One workspace	Execution
INDIVIDUAL_USER (REAL)	Personal	Execution
INDIVIDUAL_USER (DEMO_SYSTEM)	Personal	Testing

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3 USER TYPES & CREATION PATHS

3.1 Individual User — REAL (Self-Serve)

Created by: User via frontend
Purpose: PLG funnel, bottom-up adoption

- Gets personal workspace
- NBA guidance enabled
- BTE tracked (real signals)
- Demo by policy (config-driven)

3.2 Individual Demo User — SYSTEM (Super Admin)

Created by: Super Admin
Purpose:

- Vertical testing
- Sub-vertical validation
- Persona/policy QA
- Sales demos
- Internal simulations

Key Properties

- Not tied to any enterprise
- Excluded from revenue & conversion analytics
- Included in QA telemetry
- Cannot convert automatically

3.3 Enterprise Admin

Created by: Super Admin
Purpose: Manage enterprise execution, not AI

Capabilities:

- Invite / disable enterprise users
- Upload campaigns & templates
- View AI briefs & evidence
- Monitor team execution

Restrictions:

- Cannot modify personas
- Cannot modify policies
- Cannot view raw telemetry

3.4 Enterprise User

Created by: Enterprise Admin or Super Admin
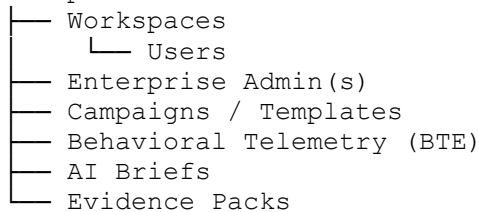**Purpose:** Execute sales workflows

Capabilities:

- Discovery / Enrichment / Outreach / Follow-up / Decision (as per vertical)
- NBA consumption
- Task execution

Restrictions:

- No user management
- No exports (unless policy allows)

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4 ENTERPRISE MODEL (FINAL)

```
Enterprise
├── Workspaces
│    └── Users
├── Enterprise Admin(s)
├── Campaigns / Templates
├── Behavioral Telemetry (BTE)
├── AI Briefs
└── Evidence Packs
```

Enterprise is:

- Tenant boundary
- Billing boundary
- Evidence boundary
- AI narration boundary

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5 DATABASE SCHEMA (RENAMED & FINAL)

5.1 Enterprises

```
CREATE TABLE enterprises (
  id UUID PRIMARY KEY,
  name VARCHAR(255),
  domain VARCHAR(255),
  industry VARCHAR(100),
```

```
  type VARCHAR(20) CHECK (type IN ('REAL','DEMO')),
  status VARCHAR(20),
  plan VARCHAR(50),
  demo_expires_at TIMESTAMP,
  metadata JSONB,
  created_at TIMESTAMP DEFAULT NOW()
);
```

5.2 Workspaces

```
CREATE TABLE workspaces (
  id UUID PRIMARY KEY,
  enterprise_id UUID REFERENCES enterprises(id),
  name VARCHAR(255),
  is_default BOOLEAN,
  settings JSONB
);
```

5.3 Users

```
CREATE TABLE users (
  id UUID PRIMARY KEY,
  email VARCHAR(255) UNIQUE,
  enterprise_id UUID,
  workspace_id UUID,
  role VARCHAR(50) CHECK (
    role IN (
      'SUPER_ADMIN',
      'ENTERPRISE_ADMIN',
      'ENTERPRISE_USER',
      'INDIVIDUAL_USER'
    )
  ),
  is_demo BOOLEAN DEFAULT false,
  demo_type VARCHAR(20), -- SYSTEM | ENTERPRISE
  demo_expires_at TIMESTAMP,
  status VARCHAR(20),
  metadata JSONB
);
```

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6 DEMO POLICY SYSTEM (NO HARD-CODING)

6.1 Demo Policy Table

```
CREATE TABLE demo_policies (
  id UUID PRIMARY KEY,
  scope VARCHAR(30) CHECK (
    scope IN (
      'INDIVIDUAL_REAL',
```

```
      'INDIVIDUAL_SYSTEM',
      'ENTERPRISE'
    )
  ),
  max_duration_days INTEGER,
  idle_expiry_hours INTEGER,
  max_users INTEGER,
  max_actions_per_day INTEGER,
  allow_exports BOOLEAN,
  allow_automation BOOLEAN,
  created_by UUID,
  updated_at TIMESTAMP
);
```

6.2 Demo Evaluation Logic

- Read from `demo_policies`
- Evaluated hourly or on event
- Expiry reasons logged
- No constants anywhere in code

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7 STAGE GRAPH SYSTEM (FLEXIBLE, VERTICAL-AWARE)

7.1 Canonical Stage Vocabulary

```
DISCOVERY
ENRICHMENT
OUTREACH
FOLLOW_UP
DECISION
EXECUTION
```

7.2 Stage Graph Definition

```
CREATE TABLE os_stage_graphs (
  id UUID PRIMARY KEY,
  vertical_id UUID,
  stages JSONB,
  transitions JSONB
);
```

- Each vertical defines its own graph
- Some flows may skip stages
- DECISION is a **stage**, not an engine

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8   ENGINE RESPONSIBILITIES (FINAL)

Component	Role
Discovery Engine	Unknown identification
Enrichment Engine	Context expansion
Outreach Engine	Execution
Follow-up Engine	Sequencing
BTE	Observation + signal derivation
NBA	Deterministic action selection
SIVA Intelligence	Reasoning + narration

🚫 **No Decision Engine exists**
Decision is handled via **policy + NBA + SIVA reasoning**

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9   BEHAVIORAL TELEMETRY ENGINE (BTE)

What BTE Does

- Tracks execution behavior
- Computes derived signals
- Produces evidence

What BTE NEVER Does

- Never decides
- Never acts
- Never learns autonomously
- Never writes to core entities

Example Signals

- Hesitation index
- Execution velocity
- Follow-through rate
- Idle decay
- Missed opportunity count

All signals are **tagged**:

```
REAL | DEMO_SYSTEM | DEMO_ENTERPRISE
```

🔟 AI NARRATION (MANDATORY)

Super Admin AI Brief

- Portfolio health
- At-risk enterprises
- Demo misuse
- Product friction signals

Enterprise Admin AI Brief

- Team execution summary
- Where users stall
- What to coach next
- Evidence-backed explanations

Enterprise / Individual User

- Inline NBA reasoning
- Execution tips
- No hallucinations

AI **never hides evidence**.

1️⃣1️⃣ FRONT-END NAVIGATION

Super Admin

```
Users
 ├── Individual (Real)
 ├── Individual (Demo)
 ├── Enterprise Users
 └── Admins

Enterprises
 ├── All
 ├── Demo
 ├── At-Risk
 └── Evidence Packs

Control Plane
 ├── Verticals
 ├── Sub-Verticals
 ├── Personas
 ├── Policies
 └── Regions
```

```
System Intelligence
├── BTE
├── Thresholds
└── Drift Signals

Settings
├── Demo Policies
├── Feature Flags
└── Security
```

Enterprise Admin

```
Overview (AI Brief)
Teams
Users
Campaigns
Evidence
```

Individual / Enterprise User

```
Dashboard
Tasks / NBA
Execution History
Insights
```

1 2 SECURITY & GOVERNANCE

- Enterprise-level RLS enforced everywhere
- Demo users isolated
- All actions audited
- Demo expiry irreversible without Super Admin
- No cross-enterprise data leaks possible

1 3 SUCCESS GUARANTEES

Dimension	Guarantee
Scale	10k enterprises, 100k users
Ops	Solo founder manageable
Trust	Deterministic replay
AI	Evidence-first
UX	No clutter, no confusion

Dimension	Guarantee
Future	Vertical-agnostic

🔒 FINAL LOCK STATEMENT

Enterprise replaces tenant everywhere
Demo behavior is config-driven
Individual Demo Users are first-class
Stages are graph-defined
BTE observes, NBA decides, AI explains
No hard-coding, no silent magic