**Functional Design Document (FDD)**

**CRM MVP Journey Planning – Reverse Engineered & Expanded**

**1. Introduction**

This Functional Design Document (FDD) details the comprehensive requirements and specifications for the MVP release of the CRM Journey Planning solution for the C&C sales team. The solution’s objective is to provide Account Sales Managers (ASMs) and their management chain with robust, intelligent, and user-friendly tools for planning, executing, and optimizing customer/prospect visits, ensuring consistent coverage, operational efficiency, and actionable insights through integrated reporting.

**2. Scope**

**In Scope**

* Automated and manual sales call scheduling based on customer tiering and business rules
* Rolling journey planning, optimized for visit count, geography, transport, and calendar constraints
* Integration with Dynamics CRM, Outlook, and mobile navigation apps
* Mobile and offline access for field users
* Management reporting and analytics for planned and actual activities
* Exception handling, rescheduling, and productivity optimization (e.g., walk-ins on cancellations)

**Out of Scope**

* Full customer onboarding process
* Advanced AI-based journey optimization beyond route calculation
* Deep integration with third-party analytics or BI tools (except Power BI)
* Non-sales team journey planning

**3. Actors and Roles**

| **Actor** | **Description** |
| --- | --- |
| Account Sales Manager (ASM) | Main user, responsible for managing customer/prospect calls and journeys |
| Regional Sales Manager (RSM) | Oversees ASMs, reviews and approves journey plans, monitors performance |
| Regional Sales Director (RSD) | Oversees RSMs, monitors progress and compliance |
| Sales Director (SD) | Senior management, responsible for policy and oversight |
| CRM Administrator | Manages system configuration, security, data quality, and integrations |
| Customers/Prospects | Recipients of sales calls and visits, not system users |

**4. Business Processes & Touchpoints**

* Customer Tiering Assignment and Maintenance
* Automated and Manual Sales Call Scheduling
* Journey Route Optimization
* Calendar and Availability Synchronization
* Daily and Weekly Journey Planning
* Rescheduling and Exception Handling
* Mobile and Offline Access
* Management and Performance Reporting
* Integration with CRM, Outlook, Maps/Navigation
* Notifications and Confirmations

**5. Functional Requirements**

**5.1 Sales Call Management**

**5.1.1 System-Created Calls Based on Tiering (CRM1.1, CRM4.1)**

* **Business Rationale:** Ensure all customers are contacted at the right frequency according to business value.
* **Preconditions:** Customers have current tiering; last meeting date is available.
* **User Interaction:** Tiering factors auto-assigned; ASM notified of planned calls.
* **Expected System Behavior:**
  + System calculates next call dates per customer using tier logic (e.g. Tier 1 = bi-weekly).
  + ASM’s journey plan and Outlook calendar are updated.
  + Customers lacking tier or meeting date are flagged for review.
* **Edge Cases/Validation:** Default scheduling for missing data, error notifications for incomplete records.

**5.1.2 Manually Created/Amended Calls (CRM1.2, CRM4.2)**

* **Business Rationale:** Enable flexibility for ASMs to manage ad hoc or prospect calls.
* **Preconditions:** User has permissions; customer/prospect exists in CRM.
* **User Interaction:** ASM adds/edits calls in UI; justification provided for overrides.
* **Expected System Behavior:**
  + Validates for conflicts, minimum/maximum calls per day, working hours.
  + Updates CRM and Outlook accordingly.
* **Edge Cases/Validation:** Exceeding call limits prompts warning; calls outside working hours blocked.

**5.1.3 Daily Call Volume Enforcement (CRM1.3)**

* **Business Rationale:** Promote productivity and prevent overload.
* **System Behavior:** Enforces minimum 7, maximum 9 calls per day.

**5.1.4 Calendar Constraints (CRM1.4)**

* **Business Rationale:** Avoid scheduling during holidays, leave, or customer closures.
* **User Interaction:** ASM reviews Outlook and account opening hours.
* **Expected System Behavior:** Calls on blocked days/times prevented; user notified of conflicts.

**5.1.5 Journey Start/End Locations (CRM1.5, CRM1.7)**

* **Business Rationale:** Optimize routes and travel time.
* **User Interaction:** ASM defines home/start/end locations for journey anchor points.
* **Expected System Behavior:** Used in journey optimization and circular route planning.

**5.1.6 Contact Type Inclusion (CRM1.6, CRM2.3)**

* **Business Rationale:** Ensure a pipeline of prospects as well as accounts.
* **System Behavior:** At least 2 prospect calls/day enforced in journey plan.

**5.1.7 Route Optimization & Modes (CRM1.7, CRM1.8, CRM2.4)**

* **Business Rationale:** Minimize travel, maximize time with customers.
* **System Behavior:**
  + Route planning considers start/end locations and transport mode (car, public, walking).
  + Automated optimization for circular or most efficient journeys.

**5.1.8 Visual Map View (CRM1.9)**

* **Business Rationale:** Provide ASMs with a clear, interactive map of daily/weekly journeys.
* **System Behavior:** Map interface overlays route, visit order, locations.

**5.1.9 Rolling Plans & Calendar Sync (CRM1.10, CRM2.1)**

* **Business Rationale:** Enable proactive, medium-term planning.
* **System Behavior:**
  + 4-week rolling plans, refreshed monthly.
  + 5-day calendar view.
  + Sync with Outlook calendar.

**5.1.10 Plan Refresh (CRM1.11)**

* **Business Rationale:** Keep plan current with changes.
* **System Behavior:** Daily refresh to incorporate reschedules, cancellations, or new data.

**5.1.11 Appointment Confirmation and Walk-ins (CRM1.12, CRM3.3)**

* **Business Rationale:** Ensure appointment confirmations and maximize productivity after cancellations.
* **System Behavior:**
  + Confirmed appointments trigger notifications.
  + Cancellations suggest walk-ins from nearby prospects.

**5.1.12 Variable Call Duration (CRM1.13)**

* **Business Rationale:** Account for different visit types (existing, prospecting, training).
* **System Behavior:** Duration selectable per call (60–90 min), default by type.

**5.1.13 Travel Directions and Mobile Navigation (CRM1.14, CRM1.15, CRM6.3)**

* **Business Rationale:** Simplify navigation for ASMs.
* **System Behavior:**
  + Directions via Google Maps, Waze, etc.
  + Mobile app integration for seamless launch.

**5.2 Journey Plan Management**

**5.2.1 Multi-Week and Weekly Views (CRM2.1)**

* **Business Rationale:** Provide overview and detailed planning for ASMs.
* **System Behavior:** Weekly and rolling 4-week journey plan views.

**5.2.2 Plan Visibility & Filtering (CRM2.2)**

* **Business Rationale:** Enable managerial oversight and team collaboration.
* **System Behavior:** Plans visible to ASM, RSM, RSD, SD; filter by ASM.

**5.2.3 Call Objectives (CRM2.5)**

* **Business Rationale:** Focus on call outcomes.
* **System Behavior:** Call objective field captured and displayed.

**5.3 Rescheduling & Exception Handling**

**5.3.1 Reschedule Calls (CRM3.1)**

* **Business Rationale:** Allow flexibility for changes.
* **System Behavior:** ASM can reschedule calls; must provide reason code.

**5.3.2 Reschedule Reason Codes (CRM3.2, CRM5.3)**

* **Business Rationale:** Enable trend analysis of reschedules.
* **System Behavior:** Reason codes mandatory and tracked in reporting.

**5.4 Next Call Setting**

**5.4.1 System-Driven Next Call (CRM4.1)**

* **Business Rationale:** Maintain ongoing engagement cadence.
* **System Behavior:** System creates the next call date based on tiering logic.

**5.4.2 Manual Next Call (CRM4.2)**

* **Business Rationale:** Allow ASM to manually set or adjust next calls.
* **System Behavior:** ASM can override, with validation.

**5.5 Reporting & Analytics**

**5.5.1 Actual and Planned Calls (CRM5.1, CRM5.2)**

* **Business Rationale:** Track team and individual performance.
* **System Behavior:**
  + Reports on actual and planned calls per ASM/team by week/month.
  + Average calls per day, pipeline health.

**5.5.2 Reschedule Analysis (CRM5.3)**

* **Business Rationale:** Identify and mitigate issues.
* **System Behavior:** Reports on number/reasons for reschedules per ASM/team.

**5.6 Integration**

**5.6.1 Core CRM Integration (CRM6.1)**

* **System Behavior:** All journey data resides in Dynamics CRM as the system of record.

**5.6.2 Outlook Calendar Integration (CRM6.2)**

* **System Behavior:** Calendar sync for all calls/journeys.

**5.6.3 Navigation App Integration (CRM6.3)**

* **System Behavior:** Click-to-navigate from CRM/mobile.

**5.7 Mobile and Offline Capability**

**5.7.1 Mobile Access (CRM7.1)**

* **System Behavior:** Full mobile support for journey plans and call details.

**5.7.2 Offline Access (CRM8.1)**

* **System Behavior:** Critical data cached locally; auto-syncs when connectivity is restored.

**6. Non-Functional Requirements**

* **Performance:** Journey plan generation within 10 seconds.
* **Usability:** Modern, intuitive, minimal-click UI.
* **Reliability:** 99.5% uptime for CRM and planning engine.
* **Scalability:** Support for growth in user base and data volume.
* **Security:** Role-based access, data encryption (at rest/in transit), audit logs.
* **Auditability:** All changes to calls, plans, and tiering logged with user/time.

**7. User Story Summary Table**

| **User Story ID** | **Summary/Title** | **Primary Actor** | **Goal** | **Acceptance Criteria** |
| --- | --- | --- | --- | --- |
| US-01 | Auto-generate calls based on tiering | ASM | Receive regular, tiered customer calls | Calls auto-scheduled, visible in plan/calendar, exceptions flagged |
| US-02 | Manually create/amend calls | ASM | Flexibly add/change calls | Can add/edit/reschedule; system validates; warnings for conflicts |
| US-03 | Enforce daily call volume | ASM, System | Ensure sufficient/not excessive calls | Min 7, max 9 calls per day; warnings/blocks as needed |
| US-04 | Prevent scheduling on holidays/leaves | ASM, System | Avoid unproductive scheduling | Blocked on holidays/leave/closures; user notified |
| US-05 | Journey optimization and visualization | ASM, System | Minimize travel, visualize journey | Optimized routes, map view, circular journey supported |
| US-06 | Mobile and offline access | ASM | Access plans on the go | Mobile UI; offline access to plans; sync when online |
| US-07 | Route planning with transport modes | ASM | Realistic, region-specific planning | Preferred transport; routes adjusted accordingly |
| US-08 | Confirmed and walk-in appointments | ASM, System | Track, fill, and communicate appointments | Confirmed appointments; walk-in suggestions on cancellations |
| US-09 | Reporting and analytics | RSM, RSD, SD | Monitor performance and trends | Reports on planned/actual calls, reschedules, pipeline mix |
| US-10 | Plan visibility and filtering | ASM, RSM, RSD, SD | Oversight and team management | Correct visibility and filter by ASM; permissions enforced |
| US-11 | Integration with Outlook/navigation apps | ASM, System | Seamless user experience | Calendar sync; click-to-navigate; no missed appointments |

**8. Design Inventory Table**

| **Feature** | **User Story** | **Components to Generate/Extend** | **Type of Component** | **Description** |
| --- | --- | --- | --- | --- |
| Customer Tiering & Scheduling | US-01, US-04 | Tiering Entity, Workflow, Plugin | Entity, Workflow, Plugin | Assign tier, auto-schedule calls |
| Manual Call Management | US-02 | Call Entity, Form, JS, Workflow | Entity, Form, JS, Flow | Allows add/amend, validates constraints, triggers notifications |
| Journey Plan & Calendar | US-03, US-05 | Journey Plan Entity, Calendar View | Entity, View, Plugin | Holds plan, enables multi-day/week scheduling, map integration |
| Route Optimization/Map | US-05, US-07 | Plugin, Integration, Map Control | Plugin, Integration, PCF | Optimizes call order, travel route, and shows map |
| Mobile/Offline Access | US-06 | Mobile Profiles, Offline Cache | Mobile, Config | Access plans and data without connectivity |
| Appointment Confirmation & Walk-ins | US-08 | Workflow, Notification, Suggestion | Workflow, JS/Plugin | Confirms, reschedules, suggests walk-ins |
| Reporting & Analytics | US-09 | Reports, Dashboards, Power BI | Dashboard, BI | Tracks KPIs, call volumes, reschedule trends |
| Security & Audit | All | Security Roles, Audit Logs | Security, Audit | Ensures field/record-level security and auditing |
| Integration | US-11 | Outlook Sync, Navigation Links | Integration, Plugin | Connects with Outlook, Google Maps, Waze, etc. |

**9. Integration Points**

| **Integration Area** | **Source** | **Target** | **Data/Process** | **Method** |
| --- | --- | --- | --- | --- |
| CRM Platform | Legacy | Dynamics 365 CE | Customer, Tier, Calls | Data Import, API |
| Calendar | D365 CE | Outlook/Exchange | Call/Appointment Data | OOB Sync, Plugin |
| Navigation | D365 CE | Google/Waze | Route/Location | Deep Link/URL |
| Holidays/Opening Hours | External | D365 CE | Holiday/Opening Data | Data Import/API |
| Reporting/BI | D365 CE | Power BI | Journey, Call Data | Dataflow, Export |

**10. Reporting**

* Actual vs. planned calls per ASM/team (by week, month)
* Reason code analysis for reschedules
* Prospect vs. account call ratio
* Call duration/type analysis
* Journey efficiency (travel vs. call time)
* Plan compliance (calls as per tiering)
* Open/overdue calls

**11. Security**

* Role-based access control (RBAC) for all entities and functions
* Field-level security for sensitive data (e.g., financials)
* Audit trail for all changes to calls, plans, and tiering
* Data encryption in transit and at rest
* Single sign-on with MFA (where possible)
* Regular security reviews and penetration testing

**12. Glossary**

* **ASM:** Account Sales Manager
* **RSM:** Regional Sales Manager
* **RSD:** Regional Sales Director
* **SD:** Sales Director
* **JP:** Journey Plan
* **Walk-in:** Unscheduled/ad-hoc customer/prospect visit

**13. Assumptions & Inferred Requirements**

* All customers and prospects have sufficient profile data for scheduling
* Users will receive initial and ongoing training for new features
* Mobile solution compatible with supported platforms
* Timely notifications for schedule changes
* Integrations comply with data protection standards
* Regular backups and disaster recovery in place
* System supports region-specific holidays, transport options, and localization

**14. Out-of-the-Box Module Fit Table**

| **User Story** | **Best fit module (OOB)** | **Percentage of fitness** | **Not Fit to any module** |
| --- | --- | --- | --- |
| Auto-generate calls based on tiering | Sales (Customer Engagement) | 75% | No |
| Manually schedule/amend calls | Sales (Customer Engagement) | 90% | No |
| Optimise and visualise journey | Field Service | 85% | No |
| Blend of prospect and account calls | Sales (Customer Engagement) | 80% | No |
| 4-week and weekly plan visibility | Field Service (Schedule Board) | 80% | No |
| Reschedule call with reason | Field Service | 85% | No |
| Suggest walk-ins for cancellations | None (Custom required) | 0% | Yes |
| Sync plan with Outlook and navigation apps | Sales (Outlook), Field Service (for nav) | 90% | No |
| Offline access to journey plans | Field Service Mobile | 95% | No |
| Management reporting on calls and reschedules | Sales (Reports & Dashboards) | 85% | No |
| Secure, auditable access and changes | Sales or Field Service (Security Model) | 100% | No |
| Calendar and holiday integration | Sales (Outlook), Field Service (Schedule Bd) | 80% | No |

**15. OOB/Customization/Gaps Analysis Table**

| **Requirement ID** | **Requirement Description** | **OOB Supported (Yes/No)** | **Customization Possible (Yes/No)** | **Discrepancy/Gaps/Notes** | **Query for Stakeholders** |
| --- | --- | --- | --- | --- | --- |
| CRM1.1 | System created calls based on tiering | No | Yes | Custom plugin/workflow needed | * 1. Confirm tiering algorithm and frequency. * 2. Who maintains tiering rules? |
| CRM1.2 | Manual call creation/amendment | Yes | N/A | Standard activity mgmt |  |
| CRM1.3 | Enforce 7-9 calls per day | No | Yes | Custom validation rule/workflow | * 1. Block or warn on over/under-booking? * 2. Should exceptions be allowed? |
| CRM1.4 | Calendar/holiday/opening hour constraints | No | Partial | Needs custom logic/workflow, Outlook integration | * 1. Source for holidays? * 2. Opening hours at account or org level? |
| CRM1.5 | Define home/start/end locations | No | Yes | Custom fields/config on user/entity | * 1. Can users update these themselves? |
| CRM1.6 | 2 prospect calls per day | No | Yes | Custom journey plan logic | * 1. Hard or soft requirement? |
| CRM1.7 | Circular/optimized journeys | No | Partial | Route optimization not OOB | * 1. Is third-party optimization allowed? * 2. Acceptable optimization method? |
| CRM1.8 | Walking/public/private transport | No | Partial | Not native; custom config/integration | * 1. Which transport modes mandatory? |
| CRM1.9 | Visual route map | No | Partial | PCF/third-party map needed | * 1. What map features are required? |
| CRM1.10 | 4-week plan, monthly refresh | No | Yes | Custom scheduler/plugin | * 1. Confirm period/frequency? |
| CRM1.11 | Daily plan refresh | No | Yes | Custom workflow/plugin | * 1. Refresh trigger (manual/auto)? |
| CRM1.12 | Confirmed/walk-in appt. comms | No | Yes | Custom workflow for notification | * 1. Preferred channel (email/SMS)? |
| CRM1.13 | Call duration per type | No | Yes | Field/validation rule | * 1. Are duration exceptions allowed? |
| CRM1.14 | Journey directions | No | Partial | Launch map/directions from CRM | * 1. Is external app launch sufficient? |
| CRM1.15 | Mobile navigation app integration | No | Partial | Mobile deep link/integration needed | * 1. Which apps required at launch? |
| CRM2.1 | Weekly/4-week rolling plan, Outlook sync | No | Partial | Calendar sync OOB, rolling plan custom | * 1. Detail view/filtering requirements? |
| CRM2.2 | Plans visible to line managers | Yes | N/A | OOB dashboards/security |  |
| CRM2.3 | Blend prospect/existing calls | No | Yes | Custom journey logic | * 1. Blend priorities (prospect vs customer)? |
| CRM2.4 | Automated route planning | No | Partial | Plugin or PCF, not OOB | * 1. Is basic sorting sufficient? |
| CRM2.5 | View call objectives | Yes | N/A | OOB |  |
| CRM3.1 | Re-scheduling calls | Yes | N/A | OOB |  |
| CRM3.2 | Reschedule reason codes | No | Yes | Custom field on activity | * 1. List of codes required? |
| CRM3.3 | Suggest walk-ins after cancellation | No | Yes | Plugin/workflow to suggest prospects | * 1. Automated/manual suggestion? |
| CRM4.1 | System creates next call (tiering) | No | Yes | Plugin/workflow | * 1. Next call logic per tier? |
| CRM4.2 | Manual next call date | Yes | N/A | OOB |  |
| CRM5.1 | Track actual calls | Yes | N/A | OOB reporting |  |
| CRM5.2 | Track planned calls | Yes | N/A | OOB reporting |  |
| CRM5.3 | Reason code report | No | Yes | Custom report on custom field | * 1. Required analytics dimensions? |
| CRM6.1 | Integration with CRM | Yes | N/A | OOB |  |
| CRM6.2 | Outlook integration | Yes | N/A | OOB (with Dynamics 365 App for Outlook) |  |
| CRM6.3 | Integration with navigation app | No | Partial | Deep linking from CRM mobile | * 1. Detail expected integration? |
| CRM7.1 | Mobile access | Yes | N/A | OOB mobile app |  |
| CRM8.1 | Offline access | Yes | N/A | OOB offline profile/config | * 1. Which data required offline? |