

Recommended Solution Strategy for ParkM

Proposed Project Timeline

Priority	Focus Area	Timeline	Dependencies
1	Email Classification & Auto-Tagging	Week 1-3	OpenAI API integration
2	In-Workflow Guidance System	Week 2-5	Priority 1 data
3	Refund Automation + ParkM.app API	Week 3-6	Priority 1 data
4	Unified Agent Desktop	Week 5-8	Priority 3 API
5	Progressive Automation (2 phases)	Week 7-10	Priorities 1-4

Total Timeline: 10 weeks with parallel execution

Parallel Execution: Multiple priorities overlap - requires coordinated team effort

Critical Path: ParkM.app API integration (Priority 3) unlocks Priority 4

Quick Wins: Priority 1 delivers immediate value

Priority 1: Intelligent Email Triage & Classification System

Timeline: Week 1-3

Problem it solves: New CSRs struggling to understand what customers are asking for; 3-month training time; process inconsistencies; refund/cancellation requests require specific eligibility checks

Solution:

- Build an AI-powered email classifier that runs immediately upon email receipt in Zoho Desk
- Automatically tags emails with: intent (refund/cancellation/account update/inquiry), complexity level (simple/moderate/complex), language, urgency
- Extract key entities: move-out dates, license plates, charge amounts, dates (critical for 30-day refund window)
- Auto-detect missing information (license plate, bank statement) and flag for agent

follow-up

- Routes emails to specialized queues based on classification:
- **Accounting/Refunds Queue:** Refund requests with move-out date within 30-day window
- **Quick Updates Queue:** Simple cancellations (no refund) or missing info requests
- **Auto-Resolution Queue:** Status inquiries, simple questions
- **Escalations Queue:** Complex issues, angry customers, legal threats
- Adds confidence scores to help agents understand email clarity

Why this first:

- Non-invasive - doesn't change CSR workflow, just enhances it
- Immediate value - reduces decision fatigue and routing errors
- Foundation for future automation - classification data informs what to automate next
- Low risk - no customer-facing automation yet
- Directly supports refund/cancellation process workflow (30-day window validation)

Estimated impact: 30-40% reduction in training time; 50% reduction in escalations from misrouted tickets; 70% faster routing of refund-eligible requests to accounting

Priority 2: Dynamic In-Workflow Guidance System

Timeline: Week 2-5

Problem it solves: CSRs missing steps in refund/cancellation process; "nothing in the flow that reminds them right now"; inconsistent application of 30-day refund window; forgetting to update ticket status

Solution:

- **Contextual guidance overlay** within Zoho Desk based on ticket classification:
- **Refund requests:** Step-by-step checklist from refund-cancellation-process.pdf:
 1. Search parkm.app by email
 2. Review Vehicles and Permits tab
 3. Check if permit already canceled
 4. Verify last transaction date in Payments and Transactions
 5. Validate move-out date within 30-day window
 6. Cancel permit (Actions → Cancel → Cancel Now → Send Email)
 7. Submit refund to accounting or send denial with T&C
- **Missing info requests:** Template for requesting license plate + bank statement screenshot
- **Account updates:** Validation prompts before sending response
- **Smart forms** (can be implemented with basic Zoho features initially, enhanced with API later)
- **Real-time validation:**
- "Did you verify the move-out date is within 30 days?"

- "Did you cancel the permit in parkm.app before closing?"
- "Did you update the ticket status to 'Waiting on Accounting'?"
- **Knowledge base snippets** appear inline based on ticket context

Technical Dependencies:**

- Priority 1 classification data
- Zoho Desk extension/widget development
- Custom UI components in ticket view

Why second:

- Directly addresses Katie's acute pain point about missing steps
- Can start with Zoho's built-in workflow features before API integration
- Prevents errors before they happen vs. fixing them after
- Reduces cognitive load on part-time workers
- Standardizes application of refund eligibility rules
- Creates process compliance data to identify automation candidates
- Lower technical complexity than full API integration

Estimated impact: 60-70% reduction in training time; 40% reduction in escalations; 25% faster ticket resolution; 90% reduction in missed process steps

Priority 3: Refund Process Automation & Validation

Timeline: Week 3-6

Problem it solves: 20% of customers request refunds; manual eligibility checking; accounting handoff delays; CSR confusion on 30-day refund window; high-volume repetitive workflow

Solution:

- **ParkM.app API Integration** (critical foundation):
- Build authenticated API client for parkm.app system
- Implement endpoints for:
 - * Customer account lookup by email
 - * Vehicles and Permits data retrieval
 - * Payments and Transactions history access
 - * Last charge date and amount extraction
 - * Permit status checking (active/canceled)
 - * Permit cancellation automation (Actions → Cancel → Cancel Now → Send Email)
- Handle authentication, rate limiting, and error cases
- Cache frequently accessed data to minimize API calls
- **Automated eligibility validation** based on refund-cancellation-process.pdf workflow:
 - Extract move-out date from email (via Priority 1 classifier)
 - Query parkm.app API for last charge date
 - Calculate if within 30-day refund window

- Flag permit cancellation status (already canceled vs. needs cancellation)
- Detect missing information (license plate not in system, no payment history)
- **Auto-generated refund submission emails** to accounting@parkm.com with:
 - Resident email (from parkm.app account data)
 - Refund amount (from last transaction via API)
 - Reason for refund (move-out date + charge date)
 - Permit details (license plate, community name)
- **Smart templates** for common scenarios:
 - Refund approved (auto-populated with 5-day timeline)
 - Refund denied (with Terms & Conditions attachment)
 - Missing information (license plate or bank statement request)
- **Accounting workflow integration:**
 - Update ticket status to "Waiting on Accounting" automatically
 - Reopen ticket when accounting replies
 - Track refund processing time and volume
- **Automated refund validation** for straightforward cases:
 - AI validates all eligibility criteria automatically via parkm.app API:
 - * Move-out date extracted and within 30 days of last charge
 - * Permit already canceled or customer confirms cancellation intent
 - * Single permit only (no multi-permit complexity)
 - * No dispute or legal language detected
 - Auto-generates refund submission to accounting with all required details
 - Notifies customer that refund is being processed (5-day timeline)
 - Tracks status and follows up automatically when accounting completes
- **Human approval still required for financial transactions** (accounting reviews before processing)

Technical Dependencies:

- Priority 1 classification data (move-out dates, refund intent detection)
- ParkM.app API access and documentation
- OAuth or API key authentication setup
- Test environment for parkm.app integration

Why third:

- Requires significant external API integration work
- Directly addresses 20% of all support volume (refund requests)
- Eliminates manual date math and eligibility confusion
- Reduces accounting back-and-forth delays
- Leverages Priority 1 classification data (move-out dates, intents)
- High ROI - impacts both CSR efficiency and customer satisfaction
- Enables enhanced Priority 2 guidance with real parkm.app data

Estimated impact: 60-80% time savings on refund request processing; 90% reduction in eligibility errors; 40% faster refund cycle time

Priority 4: Unified Agent Desktop

Timeline: Week 5-8

Problem it solves: Context switching between Zoho Desk and parkm.app; inefficiency during refund/cancellation processing; data lookup delays; manual permit cancellation steps

Solution:

- **Custom Zoho Desk extension** that embeds parkm.app data directly in ticket view:
- Customer account details (email, permit count, status)
- Vehicles and Permits tab (license plates, active/canceled status)
- Payments and Transactions tab (last charge date, amount, refund history)
- Move-out date and refund eligibility indicator (30-day window calculation)
- **Bi-directional API integration** with parkm.app (read and write operations)
- **Single-screen workflow:** ticket on left, customer permit data on right
- **One-click actions** without leaving Zoho:
- Cancel permit (executes: Actions → Cancel → Cancel Now → Send Email)
- Submit refund to accounting (auto-generates email with resident email + amount + reason)
- Reverse charges (for accounting users)
- Update vehicle information
- **Status automation:** Auto-update ticket status based on action (e.g., "Waiting on Accounting" after refund submission)

Technical Dependencies:

- Priority 3 parkm.app API integration (must be complete)
- Zoho Desk Extension SDK/Widget framework
- parkm.app write API endpoints (permit cancellation, vehicle updates)

Why fourth:

- Technical dependency - requires parkm.app API integration work (Priority 3)
- Significant efficiency gains once implemented (eliminates app switching)
- Enables faster execution of refund/cancellation workflow
- Improves CSR satisfaction and retention
- Foundation for Priority 5 automation

Estimated impact: 35-40% faster ticket resolution; 50% reduction in context-switching delays; improved CSR satisfaction; enables one-click refund processing

Priority 5: Progressive Automation for High-Volume Simple Cases

Timeline: Week 7-10 (phased rollout)

Problem it solves: Simple account updates and refund requests; scaling challenges;

repetitive refund/cancellation workflow; CSR time spent on straightforward cases

Solution:

Phase 1: Simple cancellation requests (no refund, customer already moved out) - 2 weeks

- AI detects "just cancel my permit" intents
- Validates account found in parkm.app via API
- Auto-cancels permit if already past move-out date and no refund mentioned
- Sends confirmation email to customer
- CSR reviews in batch daily for quality assurance

Phase 2: Vehicle updates (vehicle changes where there's only one permit) - 1.5 weeks

- AI validates request clarity and completeness (license plate clearly stated)
- Auto-updates permit in parkm.app via API if unambiguous
- Sends confirmation email to customer
- Human review for ambiguous cases

Why this approach:**

- Handles real volume reduction (refunds = 20% of all tickets)
- Maintains quality and brand protection through human oversight
- Starts with lower-risk cancellations before financial transactions
- Uses data from earlier phases to identify best automation candidates
- Follows proven refund-cancellation-process.pdf workflow

Estimated impact: 25-35% reduction in CSR workload on simple tasks; 60-70% time savings on vehicle updates; supports 2x growth with same team size

Implementation Phasing Recommendation

Phase 1: Email Classification & Refund Intelligence

Priorities: 1 (Email Classification)

- Quick wins with immediate measurable impact
- Builds foundation for refund automation
- Reduces escalations and routing errors immediately
- Extracts critical data (move-out dates, 30-day window validation)

Phase 2: Workflow Guidance & Process Compliance

Priorities: 2 (Workflow Guidance)

- Prevents missed steps in refund/cancellation process
- Reduces training time for new CSRs
- Standardizes application of business rules

- Creates compliance data for automation candidates
- Can start with Zoho native features before API work

Phase 3: Refund Process Automation

Priorities: 3 (Refund Automation)

- Addresses 20% of all support volume
- Eliminates manual eligibility checking
- Accelerates accounting handoff
- High ROI and immediate time savings
- Requires ParkM.app API integration

Phase 4: Unified Agent Desktop

Priorities: 4 (Unified Desktop)

- Streamline CSR workflow (eliminate app switching)
- Single-pane-of-glass experience
- One-click permit cancellation and refund submission
- Foundation for full automation

Phase 5: Progressive Automation

Priorities: 5 (Progressive Automation)

- Start with simple cancellations (no refund)
- Expand to vehicle updates
- Finally automate straightforward refunds (with accounting approval)
- Continuously improve based on data and feedback

Why NOT Start with Full Refund Automation

1. **Complexity:** Multi-step approval process per refund-cancellation-process.pdf (account lookup, permit check, 30-day validation, accounting handoff, status tracking)
2. **Risk:** Even at \$10/permit, errors damage brand reputation and customer trust
3. **Prerequisites:** Need classification and workflow systems first to:
 - Extract move-out dates reliably
 - Validate 30-day refund window accurately
 - Detect edge cases (multiple permits, disputes, already-canceled permits)
 - Gather data on automation candidates
4. **Better ROI:** Start with intelligence/validation layer (Priorities 1-2) to assist CSRs, then move to full automation (Priority 5) once proven

5. **Human oversight:** Financial transactions require accounting approval - automation should streamline submission, not bypass approval
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Key Success Metrics to Track

- Time to resolution per ticket type
- Escalation rate by CSR and by ticket type
- Training time for new CSRs to independence
- Customer satisfaction scores
- CSR confidence scores by ticket type
- Automation accuracy rates
- Volume handled per CSR (capacity metric)