

STEP 40: Executive Stakeholder Summary Workspace

Overview

The **Executive Stakeholder Summary Workspace** is a comprehensive AI-powered feature that enables buyers to generate, edit, and manage professional executive summaries for stakeholder communication. This workspace provides rich text editing capabilities, version management, tone/audience customization, and seamless export functionality.

Key Features

1. AI-Powered Summary Generation

- **OpenAI Integration:** Leverages GPT-4o to generate context-aware executive summaries
- **Data Aggregation:** Automatically pulls data from RFP details, supplier responses, evaluation matrices, opportunity scores, decision briefs, and scoring matrices
- **Customizable Generation:** Supports tone (Professional, Persuasive, Analytical) and audience (Executive, Technical, Procurement) variations
- **Graceful Fallback:** Provides structured fallback summaries if AI generation fails

2. Rich Text Editor

- **WYSIWYG Editor:** React Quill-based rich text editor with formatting toolbar
- **Autosave Functionality:** Automatically saves edits every 3 seconds of inactivity
- **Manual Editing:** Full control over generated content with immediate visual feedback
- **HTML Content Storage:** Summaries stored as HTML for rich formatting preservation

3. Version Management

- **Multiple Versions:** Create and maintain multiple summary versions per RFP
- **Official Version Marking:** Designate one version as the “official” stakeholder summary
- **Clone Functionality:** Duplicate existing summaries to create new editable versions
- **Version History:** Track creation dates, authors, and generation metadata

4. Export Capabilities

- **PDF Export:** Export summaries as formatted HTML documents for distribution
- **Print-Ready Format:** Professional layout with metadata, headers, and branding
- **Shareable Output:** Generate stakeholder-ready documents for executive reviews

5. Activity Logging

- **Comprehensive Tracking:** All summary operations logged to activity feed
- **Event Types:** GENERATED, EDITED, FINALIZED, CLONED, DELETED, EXPORTED
- **Audit Trail:** Complete visibility into summary lifecycle for compliance

Architecture

Database Schema

ExecutiveSummaryDocument Model

```
model ExecutiveSummaryDocument {
  id                String    @id @default(cuid())
  rfpId             String
  rfp               RFP       @relation(fields: [rfpId], references: [id], onDelete: Cascade)
  authorId          String
```

```

author          User          @relation(fields: [authorId], references: [id])

// Content fields
title           String        @default("Executive Summary")
content         String        @db.Text
tone            String        @default("professional")
audience       String        @default("executive")

// Version tracking
version         Int           @default(1)
isOfficial      Boolean       @default(false)
clonedFromId    String?

// Auto-generated metadata
generatedAt     DateTime?
autoSaveAt      DateTime?

createdAt       DateTime @default(now())
updatedAt       DateTime @updatedAt

@@index([rfpId])
@@index([authorId])
@@index([isOfficial])
}

```

Relations: - **rfp:** Many-to-one relationship with RFP - **author:** Many-to-one relationship with User - Cascade delete when RFP is deleted

API Endpoints

1. GET /api/dashboard/rfps/[id]/executive-summaries

- **Purpose:** List all executive summaries for an RFP
- **Returns:** Array of summaries ordered by official status, version, and creation date
- **Security:** Buyer-only access, RFP ownership validation

2. POST /api/dashboard/rfps/[id]/executive-summaries/generate

- **Purpose:** Generate new AI-powered summary
- **Input:** { tone, audience, title }
- **Returns:** Newly created summary with AI-generated content
- **Security:** Buyer-only, OpenAI API integration

3. GET /api/dashboard/rfps/[id]/executive-summaries/[summaryId]

- **Purpose:** Fetch specific summary
- **Returns:** Summary with author details
- **Security:** Ownership validation

4. PATCH /api/dashboard/rfps/[id]/executive-summaries/[summaryId]

- **Purpose:** Update summary content (manual edits)
- **Input:** { content, title }
- **Returns:** Updated summary
- **Security:** HTML sanitization, buyer-only access

5. **DELETE** `/api/dashboard/rfps/[id]/executive-summaries/[summaryId]`
 - **Purpose:** Delete a summary version
 - **Returns:** Success confirmation
 - **Security:** Cannot delete last official version
6. **POST** `/api/dashboard/rfps/[id]/executive-summaries/[summaryId]/autosave`
 - **Purpose:** Autosave edited content without version change
 - **Input:** { content }
 - **Returns:** Autosave timestamp
 - **Security:** Silent failure on error to avoid interrupting user workflow
7. **POST** `/api/dashboard/rfps/[id]/executive-summaries/[summaryId]/save-final`
 - **Purpose:** Mark summary as official version
 - **Returns:** Updated summary with isOfficial=true
 - **Security:** Unmarks all other summaries as official (only one official per RFP)
8. **POST** `/api/dashboard/rfps/[id]/executive-summaries/[summaryId]/clone`
 - **Purpose:** Clone summary to create new editable version
 - **Returns:** New summary with incremented version number
 - **Security:** Links to original via clonedFromId
9. **GET** `/api/dashboard/rfps/[id]/executive-summaries/[summaryId]/pdf`
 - **Purpose:** Export summary as formatted HTML document
 - **Returns:** HTML file with professional styling
 - **Security:** Activity logging of export events

Frontend Components

Executive Summary Workspace (`app/dashboard/rfps/[id]/executive-summary/page.tsx`) **Layout:** - **Sidebar:** Version list with official badge, creation dates, and selection - **Toolbar:** Tone/audience selectors, generate/clone/export/delete buttons - **Editor:** React Quill rich text editor with autosave indicator - **Title Input:** Editable summary title field

Key Functions: - `fetchSummaries()`: Load all summaries for current RFP - `handleGenerate()`: Trigger AI summary generation - `handleAutoSave()`: Debounced autosave (3-second delay) - `handleSaveFinal()`: Mark as official version - `handleClone()`: Create copy of current summary - `handleExportPDF()`: Open PDF export in new window - `handleDelete()`: Remove summary with confirmation - `selectSummary()`: Switch between different versions

State Management: - `summaries`: Array of all summaries - `selectedSummary`: Currently active summary - `content`: Editor content (HTML) - `tone`, `audience`: Generation parameters - `autoSaving`, `lastSaved`: Autosave status indicators

Summary Composer Engine (`lib/executive-summary/composer.ts`)

Core Function: `generateExecutiveSummary()`

Process Flow: 1. Fetch RFP with all related data (responses, contacts, evaluations, scores) 2. Gather context using `gatherRFPContext()`: - Basic RFP metadata (title, description, budget, dates) - Supplier engagement metrics - Opportunity score and breakdown - Evaluation criteria and scoring - Top suppliers with pricing - Decision brief and comparison narratives 3. Build prompt using `buildPrompt()`: - Format context as structured markdown - Include generation instructions - Specify tone and audience requirements

4. Call OpenAI API: - Model: GPT-4o - Temperature: Varies by tone (0.3-0.8) - Max tokens: 2000 - System prompt tailored to audience 5. Return generated content or fallback

Tone Temperature Settings: - **Analytical:** 0.3 (deterministic, data-focused) - **Professional:** 0.5 (balanced) - **Persuasive:** 0.8 (creative, compelling)

Audience System Prompts: - **Executive:** High-level strategic insights, concise, ROI-focused - **Technical:** Detailed implementation considerations, architecture, security - **Procurement:** Cost analysis, vendor evaluation, contract terms

Fallback Strategy: - Structured HTML template with available data - Sections: Overview, Key Metrics, Suppliers, Scores, Next Steps - Ensures users always get a usable summary

Demo Mode Integration

Pre-Populated Summaries: 1. **Executive Summary (v1):** Professional tone, executive audience, marked as official - Comprehensive overview with strategic recommendation - ROI analysis and financial impact - Risk assessment and next steps - Created 3 days ago in demo timeline

2. **Technical Deep Dive (v2):** Analytical tone, technical audience

- Architecture evaluation
- Security & compliance analysis
- AI/ML capabilities comparison table
- Performance benchmarks
- Created 1 day ago in demo timeline

Activity Log Entries: - EXECUTIVE_SUMMARY_GENERATED: First summary created - EXECUTIVE_SUMMARY_FINALIZED: Official version marked

Security & Access Control

Buyer-Only Access

- All API endpoints validate `session.user.id` matches RFP owner
- Supplier portal users cannot access executive summary features
- Demo mode users can only access demo RFPs

HTML Sanitization

- `sanitizeHTMLContent()` removes `<script>`, `<iframe>`, and event handlers
- Prevents XSS attacks while preserving rich formatting
- Applied on all content updates

Ownership Validation

- Every endpoint verifies RFP belongs to authenticated user
- Cascade delete ensures orphaned summaries are removed with RFP
- Author tracking for audit purposes

Integration with Existing Features

Data Sources

- **RFP Details:** Title, description, budget, dates, priority
- **Supplier Responses:** Submission count, pricing, readiness
- **Evaluation Matrix:** Criteria and scoring data
- **Opportunity Score:** Confidence indicators
- **Decision Brief:** Strategic recommendations
- **Scoring Matrix:** Requirement-level evaluations

- **Comparison Narrative:** Supplier analysis

Activity Feed

- All summary operations appear in RFP activity log
- Filterable by event category (EXECUTIVE_SUMMARY)
- Color-coded (orange) for visual distinction

Option 3 Indicator

- Workspace header includes Option3Indicator component
- Highlights AI-powered generation capability
- Consistent with platform-wide Option 3 branding

User Workflows

Generate New Summary

1. Navigate to RFP detail page
2. Click “Executive Summary” button in top toolbar
3. Select tone (Professional/Persuasive/Analytical)
4. Select audience (Executive/Technical/Procurement)
5. Click “Generate Summary”
6. AI generates content based on RFP data
7. Summary appears in editor for review/editing

Edit Existing Summary

1. Select summary from sidebar version list
2. Edit content in rich text editor
3. Changes autosave every 3 seconds
4. Manual save via “Save” button (if implemented)
5. “Last saved” timestamp displays at bottom

Manage Versions

1. View all versions in sidebar
2. Official version marked with green checkmark
3. Click version to load in editor
4. Clone any version to create new editable copy
5. Mark version as official via “Mark as Official” button
6. Delete old versions via trash icon

Export for Distribution

1. Select summary to export
2. Click “Export” button
3. HTML document opens in new window
4. Print or save as PDF using browser
5. Share with stakeholders via email or document system

Performance Considerations

Autosave Optimization

- 3-second debounce prevents excessive API calls
- Silent failure ensures editor remains responsive

- Timestamp indicator provides user confidence

Version Management

- Pagination could be added for RFPs with 20+ summaries
- Official version always shown first in list
- Efficient indexing on `rfpId` and `isOfficial`

AI Generation

- Average generation time: 3-5 seconds
- Fallback ensures users never wait indefinitely
- Error handling gracefully degrades to template

Testing

Manual Test Cases

1. Summary Generation

- ☒ Generate summary with Professional/Executive settings
- ☒ Generate summary with Analytical/Technical settings
- ☒ Generate summary with Persuasive/Procurement settings
- ☒ Verify AI pulls correct RFP data
- ☒ Test fallback when OpenAI fails

2. Editing & Autosave

- ☒ Edit content in rich text editor
- ☒ Verify autosave triggers after 3 seconds
- ☒ Check “Last saved” timestamp updates
- ☒ Refresh page and verify changes persist

3. Version Management

- ☒ Create multiple summaries for same RFP
- ☒ Mark different versions as official
- ☒ Verify only one official version at a time
- ☒ Clone summary and verify new version created
- ☒ Delete non-official version

4. Export

- ☒ Export summary to HTML
- ☒ Verify formatting preserved
- ☒ Check metadata displayed correctly
- ☒ Print/save as PDF from browser

5. Security

- ☒ Non-owner cannot access other user’s summaries
- ☒ Supplier user redirected or receives error
- ☒ HTML sanitization removes malicious code
- ☒ Cascade delete works when RFP deleted

6. Demo Mode

- ☒ Demo RFP has pre-populated summaries
- ☒ Official summary marked correctly
- ☒ Activity log includes summary events
- ☒ Generate new summary in demo mode

Future Enhancements

Version 2.0 Roadmap

- ☐ **Collaborative Editing:** Real-time co-editing with other buyers
- ☐ **Comments & Annotations:** Inline comments for team review
- ☐ **Approval Workflow:** Multi-step approval process for official versions
- ☐ **Email Distribution:** Send summaries directly from platform
- ☐ **Template Library:** Pre-built summary templates by industry/RFP type
- ☐ **Diff View:** Compare changes between versions
- ☐ **AI Regeneration:** Re-generate sections with updated data
- ☐ **Custom Branding:** Company logo and color scheme in exports
- ☐ **PDF Generation:** Server-side PDF rendering (Puppeteer/jsPDF)
- ☐ **Scheduling:** Auto-generate summaries on RFP stage changes

Integration Opportunities

- **SharePoint/Box:** Direct upload to document management systems
- **Slack/Teams:** Notifications when summaries finalized
- **DocuSign:** E-signature workflow for approval
- **PowerPoint Export:** Generate slide deck from summary

Troubleshooting

Common Issues

Issue: Summary not generating - **Cause:** OpenAI API key missing or invalid - **Solution:** Check OPENAI_API_KEY in .env, verify API quota - **Fallback:** System provides template-based summary

Issue: Autosave not working - **Cause:** Network issues or API errors - **Solution:** Check browser console, verify API endpoint reachability - **Mitigation:** Autosave fails silently to avoid interrupting workflow

Issue: Cannot mark as official - **Cause:** Summary already marked as official - **Solution:** Already official versions show “Official” badge (disabled button)

Issue: Export shows broken formatting - **Cause:** HTML content contains unsupported tags - **Solution:** Use built-in editor toolbar, avoid pasting from external sources

Issue: Deleted summary still appears - **Cause:** Browser cache - **Solution:** Refresh page, clear cache if issue persists

Conclusion

The **Executive Stakeholder Summary Workspace** represents a significant advancement in FYNDR’s RFP management capabilities. By combining AI-powered content generation with intuitive version management and rich text editing, buyers can efficiently create professional executive communications that drive stakeholder alignment and accelerate decision-making.

Key Benefits: - **Time Savings:** Generate comprehensive summaries in seconds - **Audience Targeting:** Tailor content for different stakeholder groups - **Data Integration:** Automatically incorporate RFP metrics and analysis - **Version Control:** Maintain summary history and official versions - **Easy Distribution:** Export professional documents for sharing - **Security:** Buyer-only access with comprehensive audit logging

This feature completes the end-to-end RFP management lifecycle, from supplier engagement through evaluation to executive reporting—all within a unified, AI-enhanced platform.

Implementation Date: December 2, 2025

Version: 1.0

Status: Production Ready