

Product Requirements Document (PRD): NexusComm - The Unified Communication Hub

Document Version: 1.0 **Date:** October 21, 2025 **Product Manager:** Gemini AI **Product Name:** NexusComm (Working Title)

1. Vision & Goals

1.1 Product Vision

To create the definitive, secure, single-pane-of-glass application that consolidates all personal, professional, and social digital communications, allowing users to manage complex multi-identity, multi-region communication without switching apps.

1.2 Business Goals

1. Achieve high daily active user (DAU) engagement by eliminating app-switching fatigue.
2. Establish a scalable architecture capable of supporting over 10 major communication protocols.
3. Maintain the highest standards of data security and account segregation.

2. Problem Statement

Modern individuals frequently manage multiple identities across various communication platforms (e.g., personal vs. professional, multiple regional phone numbers, different social personas). This fragmentation leads to:

1. **Context Switching:** Users waste time and mental effort constantly jumping between 5-10 different applications.
2. **Missed Communications:** Critical messages are overlooked due to cluttered, segregated inboxes.
3. **Inefficient Multi-Channel Engagement:** Replying to a single contact across their various channels (WhatsApp, email, SMS) requires opening multiple apps.

NexusComm solves this by unifying the inbox into a single, intelligent stream.

3. Target Audience

- **Professionals/Entrepreneurs:** Individuals managing communications across multiple business/personal identities (e.g., using a UK number for business and a South African number for personal life).
- **Frequent Travelers:** Users who rely on regional SIMs/eSIMs (like the SA, MAU, and UK numbers mentioned) and local social media accounts.
- **High-Volume Communicators:** Users with multiple email addresses, social accounts, and messaging platforms who require immediate, centralized message triage.

4. Scope and Features

4.1 Key In-Scope Features (MVP)

Feature ID	Feature Name	Description	Accounts Supported	Priority
UC-101	Unified Inbox	A single, chronologically sorted feed for all incoming messages from all connected platforms.	All Connected	High
UC-102	Thread Consolidation	Group messages from the same contact into a single conversation thread, even if they originated from different channels (e.g., Contact X's SMS + WhatsApp messages appear together).	SMS, WhatsApp, Email, Instagram DM, LinkedIn DM	High
UC-103	Contextual Reply	Allow the user to reply directly within the unified thread. The app must automatically or manually select the correct outgoing channel (e.g., replying to a WhatsApp message goes via WhatsApp).	SMS, WhatsApp, Email, Instagram DM, LinkedIn DM	High
UC-104	Multi-Account Send	When initiating a new message, the user can select the <i>outbound identity/number</i> (e.g., the SA WhatsApp number) and the <i>channel</i> (WhatsApp, SMS, Email).	All Messaging/Email	High
UC-105	Custom	Users can define	All Connected	Medium

Feature ID	Feature Name	Description	Accounts Supported	Priority
	Identity/Filter	custom filters/views, e.g., filter the inbox to only show messages associated with the "UK Business" profile or "Personal SA" profile.		
UC-106	Real-time Sync & Notifications	Immediate fetching and display of new messages, with customizable, consolidated notification settings.	All Connected	High

4.2 Required Platform Integrations (Phase 1)

Platform Category	Specific Accounts Required	Integration Detail
Messaging	3 x WhatsApp accounts (SA, MAU, UK numbers), 3 x SMS/MMS Inboxes (via phone forwarding or carrier API)	Must handle real-time receipt and sending of text/media.
Email	Multiple Gmail accounts, Multiple Outlook/Exchange accounts	Must support OAuth and IMAP/SMTP for secure login and message handling.
Social	2 x Instagram accounts (Direct Messages)	Focus only on DM functionality (not feeds or stories).
Professional	1 x LinkedIn account (InMail/DMs)	Focus only on Direct Messaging/InMail.
Other (Future)	Telegram, Facebook Messenger, Slack, etc.	Must be planned for scalable API integration.

4.3 Out-of-Scope (Phase 1)

1. **Full CRM/Sales Features:** No integrated pipelines, lead management, or deep sales analytics.
2. **Platform-Specific Media Features:** No support for viewing Instagram Stories, live video on WhatsApp, or platform-specific payment features.
3. **End-to-End Encryption Bypass:** NexusComm must respect and rely on the native encryption of platforms like WhatsApp; it cannot intercept E2E messages without authorization.

5. User Stories

ID	Persona	Action/Goal	Benefit
US-01	Entrepreneur	As an entrepreneur, I want to see all communication from my primary client, John Doe, in one thread (even though he uses my SA WhatsApp and my Gmail), so I don't lose context.	UC-102
US-02	Traveler	As a traveler, I want to use my new Airalo eSIM number (SMS) for data and my MAU number for voice/calls , while still receiving all messages in one place, so I can manage my regional connectivity efficiently.	UC-104, UC-106
US-03	User	As a user, I want to filter my unified inbox to only show messages from my UK/Professional accounts (UK WhatsApp, Outlook, LinkedIn), so I can quickly triage my work messages before checking personal ones.	UC-105
US-04	User	As a user, when I receive an Instagram DM, I want to reply directly from the NexusComm app , and have the message sent instantly via the correct Instagram account.	UC-103

6. Technical Requirements & Architecture

6.1 Architecture Overview

The app will require a secure, cloud-based backend service (the "NexusComm Gateway") to manage API connections, message queuing, and real-time syncing, while ensuring the data is securely displayed on a mobile-first application (iOS/Android).

6.2 Data Security & Privacy (CRITICAL)

- **Account Isolation:** User credentials (passwords, API keys, auth tokens) must be stored using industry-standard, high-level encryption (AES-256) and never stored locally in plaintext.
- **GDPR/Privacy:** The architecture must be compliant with global data privacy regulations, ensuring users have full control over data deletion and retention.
- **Data Minimization:** Only necessary metadata (sender, timestamp, message content) should be stored/cached for the unified view.

6.3 API Strategy

- **Official APIs Only:** NexusComm will only use official, publicly documented APIs (e.g., WhatsApp Business API, Instagram Graph API, Google/Microsoft OAuth for Email) to maintain stability and compliance.
- **Rate Limiting:** The backend must implement robust rate-limiting and exponential backoff strategies to avoid API blocks from integrated platforms.

6.4 Mobile Development

- **Platform:** Native iOS and Android development (or cross-platform framework like React Native/Flutter for consistency).
- **Offline Access:** Messages (content and history) should be cached locally to allow for reading conversations when offline.

7. Success Metrics

Metric	Definition	Target (Phase 1)
DAU/MAU Ratio	Percentage of Monthly Active Users who use the app daily.	> 50%
App-Switching Reduction	Average number of times a user opens external communication apps (measured via user survey).	Decrease by 75%
Channel Coverage	Percentage of the user's total incoming communications routed through NexusComm.	> 90%
Reply Latency	Time between a user tapping "Send" in NexusComm and the message appearing on the destination platform.	< 2 seconds
API Error Rate	Percentage of failed API calls (messages that fail to send/receive).	< 0.5%

8. Development Phases (High Level)

Phase	Focus Area	Deliverables
Phase 1	Core Unified Inbox	Unified Inbox (UC-101), Thread

Phase	Focus Area	Deliverables
		Consolidation (UC-102), SMS/WhatsApp/Gmail/Outlook Integration.
Phase 2	Social & Professional	Instagram DM, LinkedIn DM Integration, Contextual Reply (UC-103), Advanced Filtering (UC-105).
Phase 3	Advanced Features	Additional integrations (Telegram, Slack), customizable automation/pre-set replies.