

FUNCTIONAL SOFTWARE REQUIREMENTS SPECIFICATION (FSRS)

WA CLOUD – WHATSAPP CLOUD AUTOMATION SAAS PLATFORM

Version: 1.0

Document Type: Functional Software Requirements Specification (FSRS)

Audience: QA Engineers, Test Analysts, UAT Teams, Product Owners, Developers

1. PURPOSE

This Functional Software Requirements Specification (FSRS) defines the expected behavior, workflows, validations, permissions, business rules, and acceptance criteria for the WA Cloud platform.

The purpose of this document is to provide a definitive reference for:

- Functional Testing
 - User Acceptance Testing (UAT)
 - Regression Testing
 - Test Case Development
 - QA Automation
 - Feature Verification
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2. PRODUCT OVERVIEW

Product Name

WA Cloud (WhatsApp Cloud Automation SaaS Platform)

Product Purpose

WA Cloud enables businesses to automate WhatsApp communications using the Meta WhatsApp Cloud API through a no-code automation platform.

The platform provides:

- WhatsApp messaging automation
- Contact management
- Campaign management
- Wallet-based billing
- Company verification
- Live chat operations
- Workflow automation builder
- Modular business extensions

3. USER ROLES

FR-ROLE-001 Super Admin

Description

Global platform administrator.

Permissions

- Manage companies
- Manage modules
- Approve/reject verifications
- Audit wallet transactions
- Access all tenant data
- Configure system settings

Restrictions

- Cannot delete own account
- Cannot change own email
- Cannot downgrade own role

FR-ROLE-002 Owner

Description

Primary tenant administrator.

Permissions

- Manage company settings
- Manage billing
- Recharge wallet
- Configure WhatsApp integration
- Manage users
- Manage campaigns
- Manage automations
- Manage contacts
- Manage templates
- Access inbox

Restrictions

- No access to global administration
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FR-ROLE-003 Customer

Permissions

- Interact through WhatsApp

Restrictions

- No dashboard access
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4. AUTHENTICATION REQUIREMENTS

FR-001 Login

Description

The system shall authenticate valid users.

Preconditions

- User account exists
- User account is active

Inputs

- Email
- Password

Validation Rules

- Email required
- Password required

Success Criteria

- User redirected to dashboard

Failure Criteria

- Invalid credentials error displayed

Acceptance Criteria

- Valid credentials grant access
 - Invalid credentials deny access
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FR-002 Logout

Description

The system shall terminate active sessions.

Success Criteria

- Session destroyed
 - User redirected to login
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5. COMPANY VERIFICATION REQUIREMENTS

FR-003 Submit Verification Documents

Roles

Owner

Inputs

- PDF documents
- JPG documents

Validation Rules

- Maximum file size: 2MB
- Allowed formats:
 - PDF
 - JPG

Workflow

1. Upload document
2. Status becomes Pending Review
3. Notify Super Admin

Acceptance Criteria

- Document stored successfully
 - Verification queue updated
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FR-004 Approve Verification

Roles

Super Admin

Preconditions

Status = Pending Review

Workflow

1. Review submission
2. Click Approve
3. Update verification progress
4. Mark company verified if requirements met

Expected Result

Company status becomes Verified

FR-005 Reject Verification

Roles

Super Admin

Inputs

- Rejection reason
- Reviewer notes

Validation

- Rejection reason required

Expected Result

- Status becomes Rejected
 - Owner receives notification
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6. WALLET & BILLING REQUIREMENTS

FR-006 View Wallet Balance

Roles

Owner

Expected Result

Current balance displayed.

FR-007 Recharge Wallet

Roles

Owner

Supported Gateways

- Razorpay
- Cashfree

Validation Rules

Minimum amount = 100

Workflow

1. Enter amount
2. Select gateway
3. Initialize transaction
4. Verify payment
5. Credit wallet

Acceptance Criteria

Balance increases after successful payment.

FR-008 View Transaction History

Roles

Owner

Expected Result

System displays:

- Credits
 - Debits
 - Date
 - Amount
 - Reference
-

7. WHATSAPP CONFIGURATION REQUIREMENTS

FR-009 Configure WhatsApp Account

Roles

Owner

Inputs

- Access Token
- Phone Number ID
- Business Account ID

Acceptance Criteria

Configuration saved successfully.

FR-010 Sync Templates

Roles

Owner

Manager

Workflow

1. Connect Meta account
2. Retrieve templates
3. Store templates locally

Expected Result

Templates available for campaigns.

8. CONTACT MANAGEMENT REQUIREMENTS

FR-011 Import Contacts

Input

CSV File

Expected Result

Contacts imported successfully.

FR-012 Export Contacts

Roles

Owner

Super admin in impersonation mode

Output

CSV File

FR-013 Manage Contact Groups

Actions

- Create group
- Update group

- Delete group
 - Assign contacts to group
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9. CAMPAIGN MANAGEMENT REQUIREMENTS

FR-015 Create Campaign

Roles

Owner

Inputs

- Campaign Name
 - Template/Message
 - Recipient Group/Selected contacts/Contacts uploaded from CSV(same csv template for contact upload)
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FR-016 Schedule Campaign

Roles

Owner

Inputs

- Date
- Time

Expected Result

Campaign queued.

FR-017 Execute Campaign

Preconditions

- Active template/Message
- Recipient group exists
- Wallet balance sufficient

Workflow

1. Validate balance
2. Retrieve contacts
3. Process recipients
4. Send messages
5. Update statistics

Statuses

- Draft
 - Scheduled
 - Running
 - Completed
 - Failed
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FR-018 Retry Failed Messages

Roles

Owner

Expected Result

Previously failed messages reprocessed.

10. AUTOMATION BUILDER REQUIREMENTS

FR-019 Create Automation

Roles

Owner

Inputs

- Flow Name
- Nodes
- Connections

Expected Result

Automation saved.

FR-020 Supported Triggers

The system shall support:

- Keyword trigger
 - Webhook trigger
 - Contact creation trigger
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FR-021 Condition Nodes

The system shall evaluate conditions before continuing execution.

FR-022 Delay Nodes

The system shall pause execution for configured durations.

FR-023 Webhook Nodes

The system shall send outbound HTTP requests.

FR-024 Simulation Mode

The system shall allow automation testing before activation.

11. CHAT INBOX REQUIREMENTS

FR-025 View Conversations

Roles

Owner

Expected Result

Conversation list displayed.

FR-026 Send Messages

Roles

Owner

Supported Types

- Text
 - Media
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FR-027 Assign Conversations

Roles

Owner

Expected Result

Conversation ownership updated.

12. BUSINESS RULES

BR-001 Low Balance Lock

If wallet balance falls below the configured threshold, campaign execution shall be blocked.

BR-002 Verification Restrictions

Unverified companies shall operate under restricted limits.

BR-003 Wallet Credit Rule

Wallet balance shall only be credited after successful payment verification.

BR-004 Module Access Rule

Users shall only access modules enabled for their company.

13. NOTIFICATION REQUIREMENTS

NR-001 Payment Failure Alert

Trigger:
Payment failure

Recipient:
Owner

Channel:
Email

NR-002 Verification Rejection Alert

Trigger:
Verification rejection

Recipient:
Owner

Channels:

- Email
 - Dashboard
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14. STATE TRANSITIONS

Campaign States

Draft → Scheduled

Scheduled → Running

Running → Completed

Running → Failed

Failed → Retrying

Retrying → Completed

15. ACCEPTANCE CRITERIA

The platform shall be considered functionally compliant when:

1. Users can authenticate successfully.
 2. Verification workflows function correctly.
 3. Wallet funding is processed securely.
 4. WhatsApp templates synchronize successfully.
 5. Contacts can be imported and exported.
 6. Campaigns can be created and executed.
 7. Automations execute according to configured logic.
 8. Chat conversations can be managed.
 9. Role-based permissions are enforced.
 10. Business rules are consistently applied.
 11. Notifications are delivered correctly.
 12. State transitions occur only through valid workflows.
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