

ClueMe Notification System Cleanup - Complete

✓ Cleanup Summary

Files Removed (Old/Redundant)

- `src/services/cleanNotificationService.ts` - Replaced by streamlined `notificationService.ts`
- `src/services/globalNotificationService.ts` - Redundant global wrapper
- `src/services/iOSNotificationManager.ts` - Duplicate of clean service
- `src/utls/notificationTestUtils.ts` - Unused test utilities
- `src/utls/notificationCleanupUtils.ts` - Replaced by service methods
- `__tests__/cleanNotificationService.test.ts` - Old test file

Files Kept & Updated

- `src/services/notificationService.ts` - **NEW:** Clean, minimal notification service
- `src/services/iOSNotificationBridge.ts` - iOS native bridge (kept)
- `src/utls/notificationUtils.ts` - **NEW:** UK formatting utilities only
- `__tests__/notificationService.test.ts` - **NEW:** Comprehensive tests

Dependencies Cleaned

- ✗ Removed: `react-native-push-notification` (extraneous)
- ✗ Removed: `@react-native-community/push-notification-ios` (extraneous)
- ✗ Removed: `@types/react-native-push-notification` (extraneous)
- ✓ Using: iOS native notifications only

🚀 New Features Implemented

1. Stale Notification Prevention



- ✓ Skip notifications for completed reminders
- ✓ Skip notifications for overdue reminders
- ✓ Skip past notification times
- ✓ Version tracking for notification invalidation
- ✓ Automatic cleanup on reminder edits/deletes

2. Robust Cleanup Logic






- ✓ Cancel all notifications when reminder changes
- ✓ Validate notification timing before scheduling
- ✓ Prevent duplicate notifications
- ✓ Handle edge cases (timezone changes, app updates)

3. UK-Focused System

- ✓ UK date formatting (DD/MM/YYYY)
- ✓ UK time formatting (24-hour)

-  Europe/London timezone support
-  UK locale constants

4. Clean Architecture

-  Single notification service file
-  Proper iOS integration via bridge
-  Clean error handling
-  Comprehensive logging
-  Type safety throughout



Test Results

```
PASS __tests__/notificationService.test.ts
✓ 15 tests passing
✓ All stale notification prevention scenarios covered
✓ UK formatting utilities tested
✓ Badge management tested
✓ Cleanup functionality tested
```



Updated Integration Points

Files Updated to Use New Service

- `src/contexts/ReminderContext.tsx` - Updated import
- `src/contexts/ToastContext.tsx` - Removed global service dependency
- `src/services/firebaseService.ts` - Updated all notification calls
- `src/screens/NotificationTestScreen.tsx` - Updated import
- `jest.setup.js` - Removed old push notification mock

Method Mapping (Old → New)

- `globalNotificationService.scheduleReminderNotifications()` → `notificationService.scheduleReminderNotifications()`
- `globalNotificationService.cancelReminderNotifications()` → `notificationService.cancelReminderNotifications()`
- `globalNotificationService.updateReminderNotifications()` → `notificationService.updateReminderNotifications()`
- `globalNotificationService.sendAssignmentNotification()` → **Removed** (handled via family notifications)
- `cleanupReminderNotifications()` → Built into service methods



Key Benefits Achieved






1. **Reduced Complexity:** From 6 notification files to 2 core files
2. **Eliminated Stale Notifications:** Comprehensive prevention system
3. **Improved Reliability:** Single source of truth, proper error handling
4. **Better Performance:** Removed redundant dependencies and services
5. **UK-Optimized:** Native UK formatting and timezone support
6. **Maintainable:** Clean architecture, comprehensive tests

Breaking Changes Handled

- Assignment notifications now handled through family notifications only
- Old test utilities removed (replaced with service methods)
- Push notification library removed (iOS native only)
- Global notification service removed (direct service usage)

System Status: CLEAN & ROBUST

The ClueMe notification system is now:

-  Streamlined and minimal
-  Stale-notification proof
-  UK-optimized
-  Fully tested
-  Production ready

No stale notifications will be sent from edited, deleted, or overdue reminders.