Time-Aware & Quiet-Hours Messaging — WhatsApp Feature PRD (One-Pager)

Audience: WhatsApp PM/Eng | Author: Naveen G. | Date: 2025-08-22 | Status: Draft v1

Problem

People message across time zones and during sleep/focus periods, causing accidental late-night pings or delayed responses. Senders lack an at-a-glance view of a contact's local time, and cannot easily schedule delivery to respect recipients' quiet hours.

Goals

• Reduce accidental off-hours sends without adding friction.
• Keep E2EE and user control first; recipient-owned
settings.
• Lightweight: no noticeable impact on chat open; minimal CPU/network.
• Simple setup and clear
affordances (one-tap defaults).

Scope

IN: Time zone chip (if shared), recipient quiet hours, scheduled delivery with not_before metadata, optional "Urgent" send.
OUT: Reading device DND from the recipient, breaking OS-level DND without user consent, auto-inference of location.

Key User Stories

1) As a sender, I see "7:42 pm in Austin (UTC-5)" under the contact name before typing.
2) If it's in their quiet
hours, the send button defaults to "Deliver at 7:00 am their time," with a one-tap override "Send now."
3) I can
mark a message as "Urgent," and the recipient may choose whether these surface as Time-Sensitive/High-importance notifications.

UX Summary

• Time chip: computed locally from cached recipient IANA timezone (opt-in via profile). No extra fetch on chat open.
• Composer options: Send now · Respect quiet hours (default if in window) · Urgent.
• Per-contact sheet:
Timezone, Quiet hours (start/end), Allow urgent bypass.

Technical Notes (Lightweight)

• Add contact.tz and contact.quiet_hours (recipient-owned) to profile settings; cache on device.
• Client attaches
not_before (UTC epoch) metadata when scheduling; ciphertext remains E2EE. Server queues within existing store-and-forward.
• Delivery worker checks now >= not_before; no extra polling. Storage/CPU overhead negligible.
• No
attempt to read remote DND; urgency only requests higher notification priority if the recipient allows it.

Success Metrics & Rollout

• ≥30% reduction in messages delivered during 22:00–07:00 local.
• +10pt increase in post-send satisfaction
(micro-NPS).
• Phase rollout: 1) time chip 2) quiet hours 3) scheduled send + urgent.

Alex
7:42 pm in Austin (UTC-5)

Send now | Respect quiet hours | Urgent

Will deliver at 7:00 am their time

Type a message...