CloudWinks

CLOUDWINKS · FOUNDATION APPS

BigTalk

Technical brief

BigTalk is the common communications layer for CloudWinks apps. Its product design brings message queues, provider routing and incoming problem reports together, giving teams one place to connect communication with business activity.

1. Architecture in brief

Flutter submits queue items through the platform API; the C# server owns queue claims, routing and provider execution. BigTalkQueueProcessor uses leases and recovery; BigTalkMessageProcessor contains email/SMS provider adapters. Twilio and SendGrid are infrastructure dependencies as well as direct-integration alternatives.

2. Service boundary and intake

The incoming error-service design has three paths: an API call, inbound email and inbound SMS. BigTalk converts each channel's report into the agreed error model and routes it to Murphy. CosmosCall/TheIntegrator provide the shared connection/mapping boundary where appropriate. Receiving errors and sending notifications remain separate responsibilities.

3. Data handled

Queue records contain message and recipient/template data, routing decisions, priority/timing, attempts, outcomes and provider receipts. Incoming reports associate source application, sender, message and Murphy record. Retention, permitted content and redaction belong to the channel and customer policy rather than being inferred from a message's transport.

4. Integrations and ownership

KeyKook resolves provider credentials. Conductor enqueues scheduled communications. Murphy owns error capture/review. Provider adapters perform email and SMS delivery, while the shared queue handles claim/retry behavior and observable outcomes. Business apps submit work without owning their own background delivery processor. TjingTjing sends payslip notices (email or push with an expiring, KeyKook-authenticated link and no amounts; an encrypted PDF attachment is optional). Zibit sends text and push notices by channel preference, with no marketing without opt-in. TheBoss queues process notices.

5. Security and access

Queue handling includes atomic claims, lease recovery, retry classification/backoff and held/dead-letter outcomes. Provider credentials stay server-side through KeyKook. Incoming channel design includes sender verification, app/customer authorization, duplicate/replay controls, rate limits and retention. SMS has a toll-free approval dependency; outbound activation and notification consent have separate controls.

Competitive context

ALTERNATIVE	ITS FOCUS	CLOUDWINKS PRODUCT FOCUS
Twilio Messaging	Messaging APIs for texts and other channels.	Shared routing, queue controls and CloudWinks business context.
SendGrid Email API	Email delivery through a provider API.	One app-facing communications layer instead of repeated provider integration.

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