

TarangAI Documentation

Layman Overview

What it is:

TarangAI is the invisible *wave/transport layer* that carries signals, context, and memory between your tools, AI agents, and services. It works quietly in the background, making sure the right information flows to the right place.

Value:

- Delivers memory/context where it's needed automatically.
- Ensures smooth coordination between different AIs and tools.
- Invisible but essential — like plumbing in a house.

Analogy:

Think of TarangAI as the **phone system** or **Wi-Fi network** of the AI ecosystem — you don't see it, but without it, nothing connects.

Technical Overview

Core Responsibilities:

- Transport: reliable delivery of memory bundles, events, and signals.
- Routing: ensures the right context reaches the right tool/agent.
- Buffering & Backpressure: manages bursts of activity.
- Auditing Hooks: streams available to FluxMind for debugging and governance.

Building Blocks:

- Stream Router.
- Buffer Manager.
- Delivery Guarantees (retry, acknowledgments).
- APIs to SmritiOS, Ninaivalaigal+eM, Pragna, FluxMind.

Architecture Diagram

flowchart LR

Producers[Tools / IDE / CLI] --> Buf[Stream Buffer]

Buf --> Router[TarangAI Router]

Router --> NV[Ninaivalaigal+eM]

Router --> PR[Pragna]

Router --> SM[SmritiOS]

Router --> FM[FluxMind]

Sequence Flow (Transport)

sequenceDiagram

participant Tool as Tool/IDE/CLI

participant Buf as TarangAI Buffer

participant Router as TarangAI Router

participant NV as Ninaivalaigal+eM

Tool->>Buf: Emit signal/context

Buf->>Router: Pass buffered event

Router->>NV: Deliver to memory+eM

Router->>OtherAgents: Deliver to SmritiOS/Pragna
Router-->>Tool: Acknowledgment

Data Model (Simplified)

```
classDiagram
class Event { id; type; payload; timestamp }
class Buffer { id; capacity; queue }
class Route { id; source; destination; retries }
Event --> Buffer
Buffer --> Route
```

Slide-style Summary (Layman)

- TarangAI = Invisible pipes
- Delivers memory and signals to the right place
- Works silently in the background
- Without it, nothing connects

Slide-style Summary (Technical)

- Event/Stream Router
- Buffer and delivery guarantees
- Interfaces with Ninaivalaigal+eM, SmritiOS, Pragna, FluxMind
- Auditing hooks for FluxMind