

Privacy & Security Architecture

Last Updated: January 2026

1. Overview

At Traxos, your financial privacy is our absolute priority. We utilize a **"Masked Identity"** architecture to ensure that your personal financial data never leaves your device in a readable format.

When you interact with Traxos AI, our system performs **Client-Side Pseudonymization**. This means your sensitive data (names, bank details, exact balances) is replaced with cryptographic placeholders *before* it is sent to the AI model. The AI processes the structure of your data without ever knowing who you are or exactly how much money you possess.

2. Dynamic Context & Data Minimization

To optimize performance and ensure data privacy, Traxos AI utilizes a **Dynamic Context Engine**. This system intelligently filters the financial data sent to the AI based on the user's specific query.

A. Query-Based Timeframe Selection

The system adjusts the scope of data retrieval based on your intent:

- **Default (e.g., "Balance?"):** Processes data from the 1st of the **current month** to Now.
- **"Last Month":** Processes data from the 1st of the **previous month** to Now.
- **"History" / "All":** Accesses data **from the beginning of time** (your entire financial history) to ensure accurate lifetime totals.

B. Transaction Truncation Protocol

To prevent context overflow, the system distinguishes between *calculation access* and *visible data*:

- **Full Scope Calculation:** When you ask for "History," the system accesses your **entire dataset from the beginning** to calculate 100% accurate figures for Total Income, Total Expenses, and Net Worth.
- **List Limitation:** While the totals are derived from your full history, the specific list of transactions sent to the AI is strictly limited to the **Last 10 Transactions**.

Example: If you have 5 years of data, the AI will know your *Total Lifetime Spending* (calculated from thousands of records) but will only see the *text details* of your 10 most recent purchases. This provides the "Big Picture" without exposing unnecessary history.

C. Persistent Data Fields

The following data points are **always included** in every request to ensure the AI maintains a complete financial context:

- Current Account Balances
- Active Goals
- Outstanding Debts & Credits

3. Data Payload Inspection

To ensure transparency, we provide a side-by-side comparison of the data payload. This demonstrates exactly what information remains on your device versus what is transmitted to the secure AI cloud.

A. What the AI Receives (Masked Payload)

System Identity: Traxos AI

User Identity: [[PERSON_1]]

Financial Snapshot:

- **Income:** [[AMT_8]]
- **Expenses:** [[AMT_9]]
- **Total Balance:** [[AMT_2]]

Account Structure:

- **Account 1:** [[ACCT_3]] ([[ACCT_4]]) — Balance: [[AMT_5]]
- **Account 2:** [[ACCT_6]] ([[ACCT_4]]) — Balance: [[AMT_7]]

Active Dues:

- **Debts (I Owe):** [[PERSON_10]] is owed [[AMT_11]] (Due: [[DATE_12]])
- **Credits (Owes Me):** [[PERSON_13]] owes [[AMT_14]] (Due: [[DATE_15]])

B. What You See (Decoded Local Data)

*This data is stored strictly on your local device/database. The AI **never** sees these values.*

System Identity: Traxos AI

User Identity: John Doe

Financial Snapshot:

- **Income:** ₹1,200
- **Expenses:** ₹0
- **Total Balance:** ₹6,363

Account Structure:

- **Account 1:** Primary Bank (Savings) — Balance: ₹3,000
- **Account 2:** Secondary Bank (Current) — Balance: ₹3,363

Active Dues:

- **Debts (I Owe):** Friend A is owed ₹60 (Due: 31 Jan 2026)
- **Credits (Owes Me):** Salary Batch 2 owes ₹1,000 (Due: 7 Feb 2026)

4. Privacy Mapping Legend

The following tables illustrate the "decoding" process that happens locally on your device. The AI operates using only the **Placeholder**, while you see the **Real Value**.

AI Placeholder	Real Value (Encrypted Locally)	Data Type
[[PERSON_1]]	John Doe	User Name
[[AMT_2]]	₹6,363	Net Worth
[[AMT_8]]	₹1,200	Period Income
[[AMT_9]]	₹0	Period Expenses

Identity & Overview

AI Placeholder	Real Value (Encrypted Locally)	Notes
[[ACCT_3]]	Primary Bank	Institution Name
[[ACCT_6]]	Secondary Bank	Institution Name
[[AMT_5]]	₹3,000	Account Balance
[[AMT_7]]	₹3,363	Account Balance

Banking Details

AI Placeholder	Real Value (Encrypted Locally)	Context
[[PERSON_10]]	Friend A	Personal Debt
[[PERSON_13]]	Salary Batch 2	Income Source
[[PERSON_21]]	Client X	Freelance Client

Transaction Partners

5. Security Guarantees

By strictly adhering to this masking protocol, Traxos guarantees:

1. **Zero-Knowledge Processing:** The AI model providers cannot build a financial profile of you because they never receive your real identity or transaction partners.
2. **Context Preservation:** The AI retains the ability to give smart advice (e.g., *"You have 2 accounts"* or *"Your debt is due soon"*) without needing to know the specific bank or person involved.
3. **Local Decryption:** The "re-hydration" of data (turning `[[AMT_2]]` back into ₹6,363) happens explicitly in your browser, ensuring the final response is readable only by you.

See the Security in Action How can you be sure your data is safe? The table below proves it. We have captured a real moment in the app to show you exactly what happens behind the scenes. On one side, you will see the **Private Data** visible only to you. On the other, you will see the **Masked Data** that the AI actually receives. Notice how every private detail (like "John Doe" or "₹6,363") is completely replaced by a secure code (like `[[PERSON_1]]` or `[[AMT_2]]`), proving that Traxos AI never sees your real financial life.

The "Masked" Payload (Safe for AI)

(This page shows what the AI actually sees. Copy this exactly.)

Model Configuration

- **Model:** Model.gguf
- **Parameters:** Temperature 0.1, Max Tokens 200, Stream enabled

User Identity

- **Masked Name:** [[PERSON_1]]

Financial Data (December 2025)

- **Income:** [[AMT_8]]
- **Expenses:** [[AMT_9]]
- **Total Balance:** [[AMT_2]]

Account Breakdown

- **Total Accounts:** 2
- **Account 1:** [[ACCT_3]] ([[ACCT_4]]) with balance [[AMT_5]]
- **Account 2:** [[ACCT_6]] ([[ACCT_4]]) with balance [[AMT_7]]

Debts and Credits

- **Debts (I Owe):** [[PERSON_10]] is owed [[AMT_11]] due on [[DATE_12]]
- **Credits (Owed to Me):**
 - [[PERSON_13]]: [[AMT_14]] due [[DATE_15]]
 - [[PERSON_16]]: [[AMT_14]] due [[DATE_17]]
 - [[PERSON_18]]: [[AMT_19]] due [[DATE_20]]
 - [[PERSON_21]]: [[AMT_22]] due [[DATE_23]]
 - [[PERSON_21]]: [[AMT_24]] due [[DATE_12]]
 - [[PERSON_25]]: [[AMT_14]] due [[DATE_26]]
 - [[PERSON_21]]: [[AMT_22]] due [[DATE_27]]
 - [[PERSON_21]]: [[AMT_24]] due [[DATE_23]]

Recent Transactions

- [[DATE_28]]: [[PERSON_29]] ([[AMT_24]])
- [[DATE_28]]: [[PERSON_30]] ([[AMT_22]])

Goals

- **Status:** None

The "Real" Data (Sanitized Example)

(This page shows the user's private data that stays on the device. All personal names have been replaced with generic placeholders.)

Model Configuration

- **Model:** Model.gguf
- **Parameters:** Temperature 0.1, Max Tokens 200, Stream true

User Identity

- **User Name:** John Doe

Financial Data (1 Jan 2026 to Now)

- **Total Balance:** ₹6,363
- **Income:** ₹1,200
- **Expenses:** ₹0

Account Breakdown

- **Total Accounts:** 2
 - Primary Bank (Bank): ₹3,000
 - Secondary Bank (Bank): ₹3,363

Debts and Credits

- **DEBTS (I Owe):**
 - Friend A: ₹60 (Due: 31 Jan 2026)
- **CREDITS (Owes Me):**
 - Salary Batch 2: ₹1,000 (Due: 7 Feb 2026)
 - Salary Batch 3: ₹1,000 (Due: 7 Mar 2026)
 - Salary Batch 4: ₹1,500 (Due: 7 Apr 2026)
 - Client X: ₹400 (Due: 18 Jan 2026)
 - Client X: ₹800 (Due: 31 Jan 2026)
 - Salary Batch 1: ₹1,000 (Due: 10 Jan 2026)
 - Client X: ₹400 (Due: 11 Jan 2026)
 - Client X: ₹800 (Due: 18 Jan 2026)

Recent Transactions

- **4 Jan 2026:** Received payment from Client X: Project Deliverable A (₹800)
- **4 Jan 2026:** Received payment from Client Y: Afternoon Shift (₹400)

Goals

- **Status:** [None]

Placeholder	Real Value (Sanitized)	Meaning
[[PERSON_1]]	John Doe	User Name
[[AMT_2]]	₹6,363	Total Balance
[[AMT_8]]	₹1,200	Income (Selected Period)
[[AMT_9]]	₹0	Expenses (Selected Period)

Table 1: Identity & Financial Overview

Placeholder	Real Value (Sanitized)	Notes
[[ACCT_3]]	Primary Bank	Bank Name 1
[[ACCT_6]]	Secondary Bank	Bank Name 2
[[ACCT_4]]	Bank	Account Type Label
[[AMT_5]]	₹3,000	Balance of Account 1
[[AMT_7]]	₹3,363	Balance of Account 2

Table 2: Account Breakdown

Placeholder	Real Value (Sanitized)	Notes
[[PERSON_10]]	Friend A	Creditor Name
[[AMT_11]]	₹60	Debt Amount
[[DATE_12]]	31 Jan 2026	Due Date

Table 3: Debts (Money You Owe)

Placeholder	Real Value (Sanitized)	Notes
[[PERSON_13]]	Salary Batch 2	Payer Name
[[AMT_14]]	₹1,000	Common Amount (Repeated)
[[DATE_15]]	7 Feb 2026	Due Date
[[PERSON_16]]	Salary Batch 3	Payer Name
[[DATE_17]]	7 Mar 2026	Due Date
[[PERSON_18]]	Salary Batch 4	Payer Name
[[AMT_19]]	₹1,500	Amount
[[DATE_20]]	7 Apr 2026	Due Date
[[PERSON_21]]	Client X	Payer Name (Repeated)
[[AMT_22]]	₹400	Amount (Repeated)
[[AMT_24]]	₹800	Amount (Repeated)

Table 4: Credits (Money Owed to You)

Placeholder	Real Value (Sanitized)	Notes
[[DATE_28]]	4 Jan 2026	Transaction Date
[[PERSON_29]]	Payment from Client X	Description 1
[[PERSON_30]]	Payment from Client Y	Description 2

Table 5: Recent Transactions