WHITE PAPER: CUSTOMER DATA SCOPE

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TAXONOMY, BOUNDARIES, AND MULTI-TENANT ISOLATION ARCHITECTURE

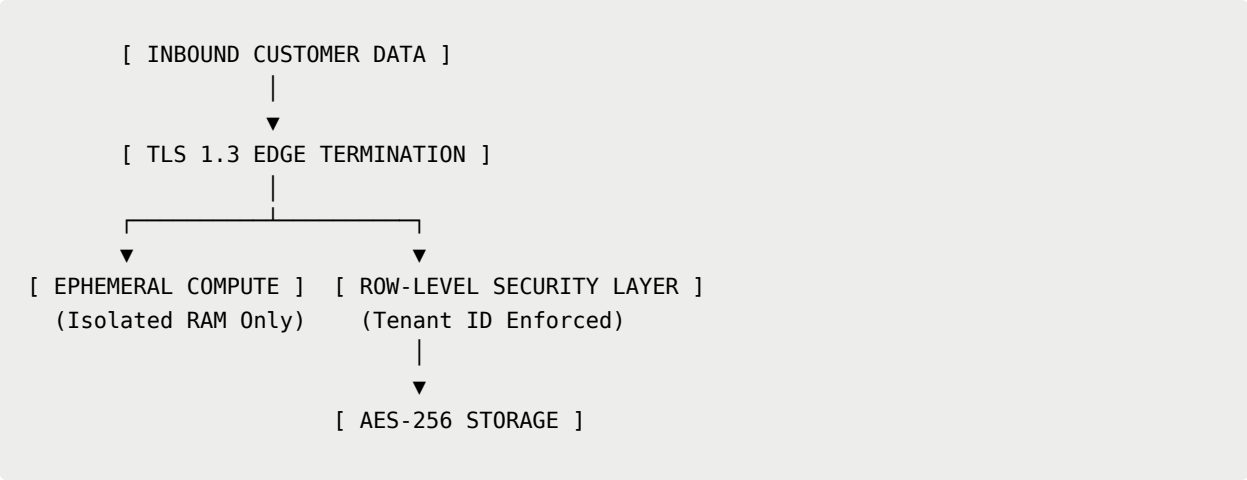
Executive Summary

At Synaptic Integrations , Customer Data is treated as a highly isolated asset class. This document outlines the physical and logical boundaries built into our platform, guaranteeing that tenant data streams remain segregated, unreadable to external actors, and completely separate from our core machine learning training sets.

1. Data Classification Matrix

We categorize Customer Data into three distinct operational states:

- **Data at Rest:** Encrypted using industry-standard **AES-256** at the storage layer. Database volumes, row-level entries, and object storage buckets use unique, per-tenant keys managed via decentralized hardware security modules (HSMs).
- **Data in Transit:** Force-routed through **TLS 1.3** transport pipelines with modern, secure cipher suites. Any connection attempt using legacy protocols (such as TLS 1.0 or 1.1) is blocked at the edge.
- **Data in Use:** Processed within volatile, ephemeral application memory spaces. No raw data is ever written to temporary unencrypted scratch disks during active processing.



2. Logical Multi-Tenant Separation

We do not rely on simple software filters to separate tenant databases. Our platform enforces strict isolation strategies:

- **Row-Level Security (RLS):** Every database query automatically includes a hardcoded, validated `TenantID` token extracted directly from the user's secure authentication profile. This token cannot be modified or bypassed by the front-end application layer.
- **Query Sandboxing:** Application connection strings use low-privilege service accounts limited strictly to the tenant's specific data partition, neutralizing any risks of SQL injection or cross-tenant data leaks.

3. Machine Learning Containment Bounds

Our core design principle is clear: **Your data belongs to you.**

- Customer data inputs, custom prompts, and operational metrics are completely excluded from general model training loops.
- All context windows are ephemeral; they are wiped clean from system memory immediately after a transaction completes.