

Integration Guide

Version 1.0 — January 2025

Entity: HACS.UCO / Global Brain Core

Scope: Nervo API • Core Clones • GPay • GBT • HolmsAttic • Background Engine

1. Introduction

This Integration Guide provides a complete, practical, technical overview of how to integrate:

- **The Global Brain Core**
- **Personal Core Clones**
- **Nervo API**
- **HolmsAttic**
- **Background Engine (v2)**
- **GPay financial interface**
- **GBT valuation module**

The guide is intended for enterprises, developers, robotics teams, and infrastructure engineers integrating Core-based cognitive units into products, devices, or internal systems.

2. System Overview

2.1 Core Structure

Each Core Clone consists of:

- **NervoBus** — central orchestration and reasoning pipeline
- **Semantic Flow Engine** — meaning processing
- **HolmsAttic** — fractal memory
- **Background Engine** — autonomous task processes
- **Profile Layer** — identity and configuration
- **GPay** — financial interface

- **GBT Module** — valuation engine
- **Nervo API** — external integration interface

Each instance is isolated, persistent, and customizable.

3. Creating a Core Clone

3.1 Clone Creation Flow

1. User or enterprise requests a Core Clone.
2. Licensed server initializes a **new Core Unit**:
 - Generates unique Core ID
 - Allocates isolated HolmsAttic
 - Creates Nervo API keys
 - Starts background processes
 - Links GPay wallet structure
3. Core begins boot sequence and introduces itself to the user.

3.2 File Structure Generated

```
/cores/<CORE_ID>/  
  config.yaml  
  memory/  
    attic.db  
    working.json  
  background/  
    processes.json  
  logs/  
    system.log  
  api/  
    keys.json
```

4. Nervo API Integration

4.1 Base Endpoint

POST /nervo/<core_id>/process

Payload:

```
{
  "core_id": "CORE123",
  "message": "Create a marketing plan for product X",
  "context": {}
}
```

Response:

```
{
  "response": "Here's your marketing plan...",
  "actions": [],
  "memory_updates": []
}
```

4.2 Authentication

Each Core Unit has its own keypair:

X-Nervo-Key: <CORE_API_KEY>

X-Nervo-Signature: <HMAC-SHA256>

4.3 Common Use Cases

- Chatbots
 - Robotics
 - Automation pipelines
 - CRM and support systems
 - IoT device control
 - Analysis engines
 - Voice assistants
-

5. Memory Layer Integration (HolmsAttic)

5.1 Writing to Memory

POST /nervo/<core_id>/memory/remember

Payload:

```
{
  "zone": "brand_social",
  "data": { "post": "New campaign idea..." }
}
```

5.2 Reading Memory

GET /nervo/<core_id>/memory/fetch?zone=brand_social&limit=10

5.3 Zone Types

- brand_social
 - marketing_flows
 - finance_profile
 - core_personal
-

6. Background Engine Integration

Background Engine automatically runs tasks like:

- profile building
- social posting
- marketing strategy generation
- content refresh
- semantic refinement
- GBT valuation updates

Developers can register callbacks from Core Clone config.

7. GPay Integration

7.1 Wallet Linking (User)

Users may link:

- exchange accounts (API keys)
- cold wallets
- sub-accounts

via secure chat workflow.

7.2 Core Wallet

Each Core Clone has its own operational wallet for:

- service payments
- GBT handling
- internal transactions

7.3 Crypto Operations via Chat

Users can perform:

- send USDT
- receive
- check balances
- buy GBT
- sell GBT

All via conversational commands.

8. GBT Integration

8.1 Obtaining Price

GET /nervo/<core_id>/gbt/price

8.2 Buying GBT

POST /nervo/<core_id>/gbt/buy

8.3 Selling GBT

POST /nervo/<core_id>/gbt/sell

8.4 Internal Balance

Each user has: - GBT balance

- USDT balance
 - purchase history
 - valuation graph
-

9. Embedding Core in Products

9.1 Robots

- mount Core API on the robot's control loop
- give robot sensors → stream into Core
- Core outputs control instructions or planning

9.2 Websites & SaaS

- Core Clone can run customer support
- build marketing content
- automate onboarding funnels

9.3 Mobile Apps

- embed Nervo API for on-device chat
 - let users have a personal digital brain
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10. Deployment Patterns

1. Cloud SaaS Mode

Core runs on enterprise servers and serves many endpoints.

2. Local Edge Mode

Core runs on robot/IoT hardware.

3. Hybrid Mode

Memory in cloud, execution local.

11. Monitoring & Logging

Endpoints:

```
GET /nervo/<core_id>/health
GET /nervo/<core_id>/metrics
GET /nervo/<core_id>/background/processes
```

12. Security Guidelines

- rotate API keys every 30 days
 - store keys encrypted
 - log all financial operations
 - limit permissions on linked wallets
 - isolate environments
-

13. Example Integration (Full Stack)

Frontend: - React/Next.js chat UI
- Real-time balance dashboard

Backend: - Node/Go service calling Nervo API
- GPay integration
- Memory visualization

Database: - PostgreSQL
- Redis for queueing

14. Support & Updates

Enterprises receive: - update channels
- security patches
- access to Core improvements
- ability to request custom behavior

15. Acceptance

Using this integration guide signifies agreement with: - Enterprise Licensing Terms
- GBT Purchase Terms
- AI Safety and Use Guidelines
- Experimental Core Participation Agreement