Architecture Vision

From Idea to High-Load System

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Why GPT-Wrappers Die in Production

Most AI projects begin with excitement: "Look, ChatGPT wrote an email!" But when this prototype collides with reality, it breaks.

Typical problems:

- **Ambiguity:** A lack of clear, regulated processes that can be easily translated into an IT system.
- **Latency:** Users will not wait 15 seconds for a response.
- **Data Security:** There are categories of data that have no right to leave the company's information perimeter.
- **Legacy:** The solution must interact with dozens of systems, half of which lack a coherent API and/or operate on ancient protocols.
- **Hallucinations:** Neural network operations are non-deterministic; the exact same input data can generate different responses.

At **DIVO**, we build **Intelligent Systems**—engineering solutions where the neural network is merely one module wrapped in rigid logic and secure infrastructure.

The DIVO Framework

We always start with architecture. Our process transforms an abstract idea into a clear action plan in just 2-3 weeks.

Step 1. Turning Business Pain into Technical Strategy

A ready-made technical specification (TZ) is often impossible in AI projects. Therefore, we study the client's current systems (Legacy) and business goals first.

We collaboratively design the target process by answering two questions:

1. Exactly which routines are we offloading to AI?

2. How do we fit this into the current IT landscape without disrupting established business processes?

Result: A roadmap that accounts for real system limitations.

Step 2. Low-Cost Hypothesis Testing Before Expensive Development

Before writing complex code and touching databases, we verify if AI is capable of solving the task in principle. We take data samples (or generate synthetic equivalents) and run them through models in an isolated environment.

Result: Confirmation that the technology works, or an adjustment of expectations without wasting budget on full-scale development.

Step 3. Designing an Architecture Where Data Leaks Are Impossible

We create a system that addresses the new cybersecurity challenges created by neural network modules.

All data destined for neural networks is classified by criticality. Depending on the classification, we select the appropriate interaction method (public services / private cloud / isolated module). Input and output data from these modules must validate against pre-approved JSON/XML schemas. AI agents are granted strictly those rights and permissions necessary for their specific work.

Result: The AI module performs its assigned task and is incapable of any other actions,

eliminating the possibility of malicious use.

Step 4. Preparing the Solution for Scaling Under Real Load

AI may work slowly, and Legacy systems may have throughput limitations, but the system must handle the entire flow of users.

System component interaction is built asynchronously; calls to Legacy components occur strictly through buffer adapters with regulated throughput capacity.

Result: We protect old systems from being overloaded by AI modules, ensuring the stability of the entire perimeter even during peak loads.

Step 5. Production Deployment

Launch proceeds through stages:

1. **Shadow Mode:** We compare the system's decisions against human decisions.
2. **Pilot:** AI assists a limited group of employees.
3. **Prod:** The system is rolled out to everyone, continuously learning from user feedback.

Result: Predictable performance quality and zero risk of business stoppage.

How We Work

We offer a transparent process where you pay for the result of each stage.

- **Technical Audit (2 weeks):** Steps 1 and 2.
    - *Deliverable:* Technical Architecture Document (TAD) and budget estimation.
- **PoC (Proof of Concept) (4 weeks):** Step 3.
    - *Deliverable:* A prototype built on real data to verify response quality.
- **Production (3-6 months):** Steps 4 and 5.
    - *Deliverable:* Microservices development, CI/CD setup, load testing, and monitoring implementation.

DIVO Engineering Team

If you are ready to build a system that will work for years and scale effectively, we are ready to be your technology partner.

Contact us to discuss your architecture:

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Book a Consultation: Click here to schedule a call