Legacy Systems Modernization for **Data Platforms & BI**

Is your **platform holding** you back?

You don't always need to rebuild from scratch – **modernization can reduce costs by 40-60%**

Our Offer Is Designed for Companies That:

➔ Work with **complex datasets and outdated search/reporting architectur**e.

➔ Need **faster data processing, better infrastructure, and lower operational costs**.

➔ Prefer a **low entry threshold** – we start with **code analysis** and **PoC (USD 1,250–3,800)**

What Problems Do We Solve in Data Platforms?

➔ **Unstructured or outdated databases** – legacy data architecture slows down development and complicates feature rollout.

➔ **Slow search and analytics** – traditional search engines can't handle millions of records efficiently.

➔ **Manual reporting** – fragmented data makes real-time reporting impossible and increases operational workload.

➔ **Rigid systems** – every change requires costly workarounds due to hardcoded logic and inflexible infrastructure.

➔ **Scaling limitations** – your platform can't keep up with the growing number of users or data volume.

➔ **Non-compliant dashboards** – with the WCAG 2.1 regulation effective from June 2025, outdated dashboards may fall short on accessibility.

Why Trust Us?

We stand out thanks to **years of experience working with legacy systems** - we've completed over 100 modernization projects.

Instead of pointing fingers, we focus on creating a practical action plan and **modernizing your existing systems step by step**.

How We Work,
Without Disrupting Your Data Flows

→ **We start with your data structure and use cases.**
What's slow? What's missing? Where's the risk?

→ **We standardize before scaling.**
We restructure your database layer and cloud architecture to unlock real-time processing.

→ **We modernize without rewriting everything.**
We isolate outdated parts and use techniques like the strangler pattern to bring in new logic safely.

→ **We enable search and reporting at scale.**
We implement Elasticsearch and custom reporting engines tailored to your use cases - with WCAG 2.1 readiness where applicable.

→ **We bring clarity to your stack.**
From day one, we introduce CI/CD, restructure environments, and streamline documentation.

On the following pages we present selected project:

Rebuilding a Legacy System into a Scalable Data Platform for Firm Prospects

Industry: LegalTech / Databases / Business Intelligence

Technologies: Elasticsearch, Cloud infrastructure, Microservices

Project scope: Overhaul of a legacy data processing system into a scalable BI platform

RESULT:

Modern platform for growth

- **Process automation** and faster data access.

- **Lower operating costs** thanks to up-dated infrastructure.

- **Growth-ready foundation** – built for future scalability.

- **Competitive edge** – with advanced analytics and predictive reporting.
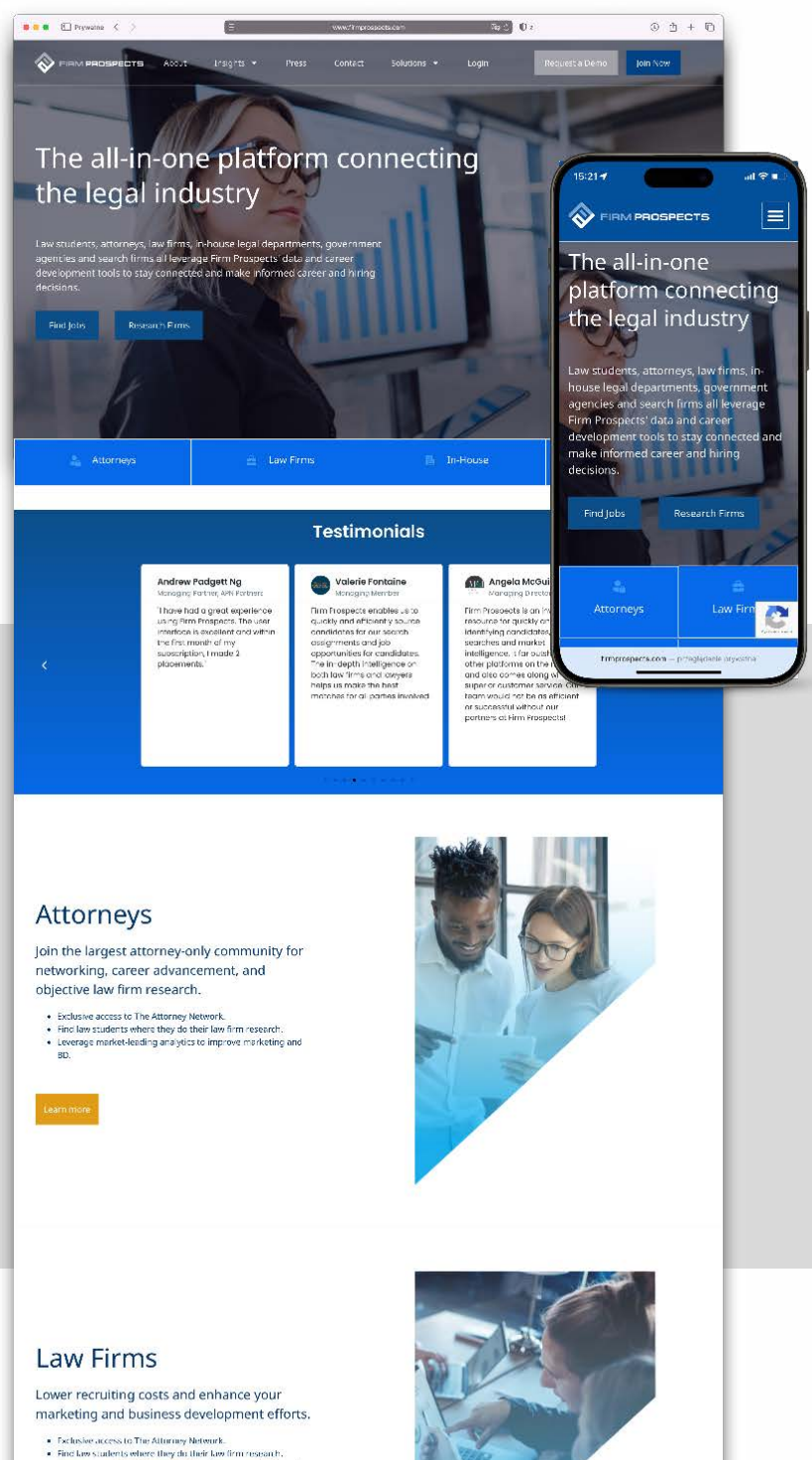
CHALLENGE:

Unstructured database and legacy limits

- **Disorganized data** – hindered per-formance, scaling, and new feature development.

- **Outdated architecture** – limited data availability and innovation.

- **Manual reporting** – slow and re-source-heavy processes.

- **Scalability issues** – infrastructure couldn't handle growing data vol-umes.

KEY CHANGES:

Full-scale modernization

- **Normalized data structure** – enabled streamlined data search, reporting, and visualization.

- **Elasticsearch deployment** – fast, scalable data search.

- **Cloud migration** – enhanced security, flexibility, and tool integration.

- **Real-time reporting engine** – PDF reports and live dashboards.

- **Frontend and backend overhaul** – improved usability and development speed.

Our Approach That Works

REAL EXPERTISE

We specialize in systems that manage complex datasets - from internal BI tools to SaaS data platforms.

ACTIONABLE RECOMMENDATIONS

We evaluate your stack across:

- data structure and database performance,
- search architecture and user journeys,
- infrastructure costs and scalability,
- reporting flows and dashboard logic,
- opportunities for AI-based features and predictions.

Our Specialties

Pre-modernization consulting
and architecture analysis.

Legacy database
refactoring and normalization.

Search engine
modernization (Elasticsearch)

BI integration - real-time dashboards,
PDF generation, user roles.

Frontend revamp - speed, usability,
and accessibility compliance.

How We Care for Our Code?

→ **Consistent coding standards** – clean structure
and easy scalability.

→ **CI/CD automation** – testing, static analysis, and
seamless deployment.

→ **Security at every stage** – vulnerabilities are
eliminated during development to minimize risk.

→ **Accessibility by design** – dashboards and platforms
can be adapted to meet **WCAG 2.1 standards**.

What We Don't Do?

• We don't provide quotes without **code access
and clear business goals**.

• We don't work with **technologies outside
our scope** or **closed systems that can't be
modified or safely maintained**.

How Collaboration Works?

Tangible results within the first month

our QA and modernization efforts deliver noticeable benefits early on, providing a solid foundation for further system development.

We start with a Proof of Concept (USD 1,250–3,800), which includes a complete cost estimate and recommendations for next steps - with no obligation for long-term commitment. This phase gives you a clear analysis to help plan your next actions and budget.

1. **10 hours with a Solution Architect** – free workshops covering business needs, challenge mapping, and a draft action plan.

2. **Technical audit** – current system evaluation and business needs analysis.

3. **Bringing your project up to Polcode standards:**
- ➔ improved local environment,
- ➔ full technical documentation,
- ➔ error monitoring and proactive incident management,
- ➔ project coordination and internal knowledge base.

4. **Modernization strategy** – refactoring plan, code optimization, and new feature development.

5. **Implementation & monitoring** – ongoing technical support throughout the project.

Show Us Your Dataset

If your search is slow, reports are manual, and infrastructure's **cracking under load**

we'll help you modernize **fast and smart**.

Contact:

E-mail: sales@polcode.com
www.polcode.com

Resources

Learn More About Modernization

Legacy Software Modernization – a Guide for Enterprises

AI-Generated Code: Say Hello to Legacy 2.0

Legacy Modernization Strategies and Approaches for 2025

PART 1
Signs Your E-Commerce Business Needs a Platform Migration

PART 2
Choosing the Right Platform for Migration: Why Magento 2?

PART 3
Preparing for Migration
How to Assess Your Current E-Commerce Platform

PART 4
Strategic Planning for Migration
Understanding Risks, Goals, and Opportunities

PART 5
The Migration Process
Setting Up, Data Import, and Go-Live on Magento 2

PART 6
Post-Migration Strategies for Long-Term Success
on Your New E-Commerce Platform

Migrating legacy applications to the cloud – how to do it right

Integrating AI and ML into you Legacy System

Modernizing a Heritage E-commerce Platform for Craftsmanship Enthusiasts

SecureBancard Audit: Modernizing a Legacy Payment Processing System