



# THE GRADUAL TRANSFORMATION: HOW ALPHATEC MIGRATED 500,000 LINES OF CODE WITHOUT STOPPING INNOVATION

# THE CLAIMS MANAGEMENT SPECIALISTS

Alphatec Software Ltd has carved out a distinctive position in the UK software market: they're the company that makes enterprise-grade claims and incident management accessible to organizations of all sizes. As a small, agile SaaS company, they've built ClaimControl—a platform trusted by international brokers, large corporations, local government agencies, and third-party claims handlers across the globe.

Operating across diverse sectors, including housing, logistics, and construction, Alphatec serves everyone from massive international enterprises to small claims handlers. Their secret? Pricing and functionality that scales to meet different organizational needs without sacrificing the robust capabilities that large institutions require.

But Alphatec's real differentiator isn't just their software—it's their pragmatic approach to technology challenges. When they faced one of the most daunting migration projects imaginable, they didn't panic, didn't stop innovating, and didn't accept that small companies can't tackle significant technical challenges.

## THE HALF-MILLION LINE CHALLENGE

### THE SCALE OF THE PROBLEM

Most companies would look at migrating 500,000 lines of code from AngularJS to Angular and see an insurmountable obstacle. For a small UK-based team, the math seemed impossible:

#### The Traditional Migration Playbook:

- » Freeze all feature development for 12-18 months
- » Dedicate entire development team to migration
- » Accept that customers would receive no new features during transition
- » Hope nothing breaks catastrophically during the cutover
- » Risk losing competitive position while standing still

#### The Alphatec Reality:

- » Small development team that couldn't be split into parallel tracks
- » Customers expecting continuous innovation and new features
- » Competitive market requiring ongoing product development
- » Limited budget for external resources
- » Growing security and compliance requirements from enterprise clients

"We have been using HeroDevs for several years and first worked with them to help us migrate a product with circa 500,000 lines of code from AngularJS to Angular. The size of the project meant that we had to figure out how to run the application with a mix of both Angular and AngularJS without conflicts." — Alphatec Software

## THE HYBRID APPLICATION PUZZLE

The technical challenge went beyond just rewriting code. Alphatec needed to solve a problem that few companies successfully navigate: running a hybrid application that seamlessly combined Angular and AngularJS components without conflicts, instability, or degraded performance.

This wasn't academic—it was essential to their business survival. Without the ability to migrate incrementally while continuing feature development, they faced a choice between security/modernization and business growth. For a small, agile company competing against larger players, accepting either option meant accepting failure.

## THE MIGRATION JOURNEY

### A VISUAL TIMELINE

#### PHASE-BY-PHASE TRANSFORMATION STRATEGY

Rather than a big-bang migration, Alphatec and HeroDevs developed a strategic phased approach that allowed continuous progress without business disruption:

#### THE ALPHATEC-HERODEVS MIGRATION JOURNEY

##### YEAR 1: FOUNDATION & HYBRID ARCHITECTURE

###### Q1: Partnership & Assessment

- HeroDevs team integration with Alphatec developers
- Codebase analysis: 500,000 lines of AngularJS
- Migration strategy development

###### Q2-Q3: Hybrid Framework Foundation

- Never-Ending Support implementation for security
- Hybrid Angular/AngularJS architecture established
- Developer training on migration patterns
- Feature development continues: 3 major releases

###### Q4: Early Module Migration

- First critical modules migrated to Angular
- Validation of hybrid approach
- Customer-facing features delivered: 2 new capabilities

##### YEAR 2: ACCELERATED MIGRATION

###### Q1-Q2: Core Components Transformation

- Claims processing engine migration
- Incident management workflows updated

- Developer team fully upskilled
- Product roadmap maintained: 4 feature releases

#### ⌚ Q3: Integration Layer Modernization

- API integrations updated
- Third-party system connections migrated
- Enterprise client requirements met

#### ⌚ Q4: Final Phase Components

- Remaining AngularJS components migrated
- Security compliance fully validated
- New customer acquisition enabled

### YEAR 3: COMPLETION & OPTIMIZATION

- Complete migration to Angular
- Hybrid architecture sunset
- Enhanced performance and security posture
- Expanded market opportunities
- Development velocity increased

### THROUGHOUT ENTIRE JOURNEY:

- ✓ Zero business disruption
- ✓ Continuous feature development
- ✓ Ongoing customer satisfaction
- ✓ Security maintained via Never-Ending Support
- ✓ Team capability building at every stage

This timeline illustrates what made Alphatec's approach revolutionary: they never stopped moving forward while fundamentally rebuilding their platform.

## THE PARTNERSHIP MODEL

### EMBEDDED EXPERTISE

### BEYOND VENDOR SERVICES: TRUE COLLABORATION

What set the HeroDevs engagement apart wasn't just technical capability—it was the collaborative model. Rather than treating migration as a project to be outsourced and forgotten, HeroDevs embedded consultants directly into Alphatec's development team.

#### The Xander Factor

HeroDevs consultant Xander became more than just an external expert—he became an integral part of the Alphatec team, working alongside their developers day-to-day. This embedded approach delivered benefits far beyond just completing the migration.

## Knowledge Transfer in Action

Every code review, every architectural decision, every problem solved became a teaching moment. Alphatec's developers didn't just watch the migration happen—they learned how to execute complex framework transitions.

## Contextual Problem Solving

Because Xander worked within the team rather than from the outside, he understood Alphatec's specific business context, customer requirements, and competitive pressures. Solutions weren't generic—they were tailored to Alphatec's reality.

## Sustained Capability Building

Long after the migration was completed, Alphatec's team retained the skills and knowledge to manage their modern Angular application independently.

"HeroDevs provided us with consultants to work as part of our development team to upskill our developers and assist us in migrating to the latest versions of frameworks while still providing that hybrid capability throughout the transition. This expertise helped us massively, and I'm not sure the outcome would have been possible without the assistance of HeroDevs and, in particular, Xander."

— Alphatec Software

## THE NEVER-ENDING SUPPORT SAFETY NET

While the embedded consulting provided forward momentum, the Never-Ending Support program provided the safety net that made incremental migration viable. Throughout the multi-year journey, Alphatec's AngularJS components remained secure and compliant, even as they gradually replaced them with Angular code.

This security foundation was critical for several reasons:

- » **Customer Confidence:** Enterprise clients conducting IT security assessments received assurance that even legacy components remained protected.
- » **Compliance Requirements:** Local government and corporate clients required continuous security compliance—the migration timeline couldn't compromise this.
- » **Business Development:** New customer opportunities couldn't be declined due to framework security concerns.
- » **Development Focus:** The team could concentrate on migration work rather than firefighting security issues.

"The Never-Ending support program allows us to migrate/update frameworks over time while still developing our product's features and capabilities. We are not of a size that would allow us to have an entirely separate dev team to build a new version in parallel." — Alphatec Software

## THE SMALL COMPANY ADVANTAGE

### AGILITY MEETS EXPERTISE

#### REDEFINING WHAT SMALL TEAMS CAN ACHIEVE

Alphatec's journey challenges the conventional wisdom about what small software companies can accomplish. The traditional narrative says that massive technical undertakings require massive teams and budgets. Alphatec proved otherwise.

- » **Strategic Resource Multiplication:** Rather than trying to build every capability in-house, Alphatec strategically partnered with HeroDevs to access world-class expertise exactly when and how they needed it.
- » **Focused Investment:** The embedded consultant model meant Alphatec paid for outcomes and knowledge transfer, not just labor hours.
- » **Capability Retention:** Unlike traditional consulting engagements, where knowledge walks out the door when the project ends, Alphatec's team gains permanent capability that continues to deliver value.

### BUSINESS CONTINUITY AS COMPETITIVE ADVANTAGE

While competitors might have frozen development for extensive migrations, Alphatec maintained its innovation pace. This continuity became a competitive differentiator:

- ✓ **Customer Commitment Fulfilled:** Existing customers continued receiving new features and improvements throughout the migration.
- ✓ **Market Responsiveness:** Alphatec could respond to market opportunities and customer requests without artificial constraints.
- ✓ **Revenue Preservation:** No need to explain to customers why feature development had stopped or to accept reduced contract values due to development freezes.
- ✓ **Team Morale:** Developers worked on meaningful feature development alongside migration work, rather than grinding through months of pure technical debt.

## RESULTS

### TRANSFORMATION WITHOUT DISRUPTION

#### QUANTIFIABLE ACHIEVEMENTS

The partnership between Alphatec and HeroDevs delivered measurable results across multiple dimensions:

##### Migration Efficiency

- » Dramatically reduced conversion timeframe compared to traditional big-bang approaches
- » 500,000+ lines of code successfully migrated while maintaining application stability
- » Zero business disruption throughout multi-year transformation

## THE SMALL COMPANY ADVANTAGE

### Team Development

- » Entire development team upskilled in modern Angular development patterns
- » Permanent capability gained for ongoing framework maintenance and evolution
- » Knowledge retention, ensuring long-term independence

### Business Continuity

- » Continuous feature development throughout migration period
- » New product capabilities delivered on schedule despite concurrent migration
- » Customer satisfaction maintained with no service interruptions

### Market Position Strengthened

- » IT assessment questionnaires passed with flying colors for new customer opportunities
- » Framework support requirements met for enterprise and government clients
- » Security assurance provided for compliance-focused sectors
- » Competitive positioning enhanced through continuous innovation

"HeroDevs helped us dramatically reduce the conversion timeframe, upskill our development team, carry on business as usual during the migration/update, allowing us to build new features into the application, and meet the requirements of new customers in terms of IT Assessment Questionnaires, required support of all frameworks, and assurance on security." — Alphatec Software

## THE COMPOUNDING BENEFITS

Beyond the immediate results, Alphatec gained advantages that continue compounding over time:

- » **Technical Agility:** With their team now skilled in modern framework migration patterns, they're positioned to handle future technology evolution efficiently.
- » **Customer Trust:** Successfully executing such a massive transformation without disrupting service strengthened customer confidence in Alphatec's technical sophistication.
- » **Competitive Differentiation:** While competitors struggled with legacy technology or froze development for migrations, Alphatec demonstrated it could do both simultaneously.
- » **Talent Attraction:** Developers want to work on modern technology stacks. Alphatec's successful migration enhanced its ability to attract and retain technical talent.

## LESSONS FOR SMALL SOFTWARE COMPANIES

## THE INCREMENTAL MIGRATION PLAYBOOK

Alphatec's experience offers a proven playbook for other small software companies facing daunting technical modernization:

- 1 **Reject False Choices:** Don't accept the premise that you must choose between innovation and modernization. With the right approach and partners, you can pursue both simultaneously.
- 2 **Embrace Hybrid Architectures:** Running mixed old/new technology during transition isn't a compromise—it's a strategic advantage that enables business continuity.
- 3 **Invest in Knowledge Transfer:** Choose partners who teach rather than just deliver. The learning your team gains becomes permanent capability.
- 4 **Secure the Foundation:** Never-Ending Support or similar programs ensure security doesn't become a crisis while you're modernizing.
- 5 **Maintain Customer Focus:** Your customers don't care about your technical debt. Keep delivering value to them while you fix the foundation.

## WHEN TO CONSIDER THE ALPHATEC APPROACH

The Alphatec model works particularly well when:

- » Legacy codebase is substantial (hundreds of thousands of lines), making big-bang migration infeasible
- » Team size is constrained, preventing parallel development tracks
- » Customer expectations require continuous innovation despite technical challenges
- » Competitive pressure demands maintaining development velocity
- » Budget constraints rule out massive consulting engagements
- » Knowledge retention matters more than outsourced execution

## THE PARTNERSHIP SELECTION CRITERIA

Alphatec's success wasn't just about choosing to migrate incrementally—it was about choosing the right partner. Their experience suggests several critical factors:

- » **Embedded Capability:** Look for partners willing to work within your team, not just deliver from the outside.
- » **Teaching Orientation:** Prioritize partners who transfer knowledge rather than hoarding expertise.
- » **Hybrid Expertise:** Ensure partners have proven experience with mixed-framework architectures, not just migrations.
- » **Flexible Engagement Models:** Seek partners who adapt to your constraints rather than forcing you into their standard processes.
- » **Long-term Perspective:** Choose partners interested in your success beyond the current project.

## LOOKING FORWARD

## BUILT TO EVOLVE

### THE MODERN ALPHATEC PLATFORM

Today, Alphatec operates on a modern Angular foundation that positions them for continued growth and evolution. But more importantly, they possess something even more valuable: a team that knows how to manage technological change without sacrificing business momentum.

The successful migration opened new opportunities:

- » **Enterprise Market Expansion:** With modern framework and proven security practices, Alphatec can confidently pursue larger enterprise opportunities.
- » **Faster Innovation Cycles:** Modern architecture and improved developer productivity enable more rapid feature development.
- » **Scalability Foundation:** The new technical foundation supports Alphatec's growth ambitions without fundamental limitations.
- » **Technology Evolution Readiness:** Their team now has the skills and confidence to manage future framework evolution proactively.

### THE CONTINUOUS IMPROVEMENT MINDSET

Perhaps the most significant outcome of the Alphatec-HeroDevs partnership wasn't the migration itself—it was the mindset shift it enabled. Alphatec no longer views major technical challenges as existential threats requiring heroic all-hands efforts. Instead, they see them as manageable initiatives that can be tackled incrementally while maintaining business focus.

This shift in perspective—from reactive firefighting to proactive evolution—may be the most valuable result of the entire engagement.

# FOR SOFTWARE LEADERS FACING SIMILAR CHALLENGES

## The Alphatec Framework for Technical Transformation

If your company faces a daunting technical modernization while resource-constrained, consider the Alphatec approach:

### Assessment Phase

- 1 Honestly evaluate your team's capability gaps
- 2 Quantify the cost of both migration and maintaining status quo
- 3 Identify what capabilities you need to retain internally vs. access through partnership
- 4 Define what business continuity means for your specific situation

### Partner Selection

- 1 Prioritize knowledge transfer over simple delivery
- 2 Seek embedded working models rather than arms-length consulting
- 3 Verify expertise in hybrid architectures and incremental migration
- 4 Ensure cultural fit with your team and working style

### Execution Strategy

- 1 Establish clear phases with business value delivered at each stage
- 2 Maintain parallel tracks of migration and feature development
- 3 Measure both technical progress and business outcomes
- 4 Celebrate learning and capability building alongside code completion

### Success Metrics

- 1 Team skill development, not just code migrated
- 2 Customer satisfaction maintenance throughout transition
- 3 Business opportunity capture despite technical challenges
- 4 Long-term capability gained for future evolution

## The Small Company Superpower

Alphatec's story demonstrates that small software companies possess a potential superpower: the ability to move quickly, make decisive partnership decisions, and transform fundamentally without the bureaucracy that slows larger organizations.

The key is recognizing that "small" doesn't mean "limited"—it means "focused." By focusing on core competencies and strategically partnering for specialized expertise, small companies can accomplish technical feats that seem reserved for much larger organizations.

Alphatec didn't become a big company to solve a big problem. They stayed small, stayed focused, partnered strategically, and solved it anyway.