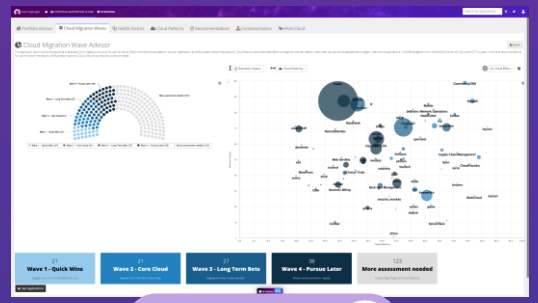
# Rapid insights into your custom-developed applications for faster modernization to/on AWS

## CAST Highlight

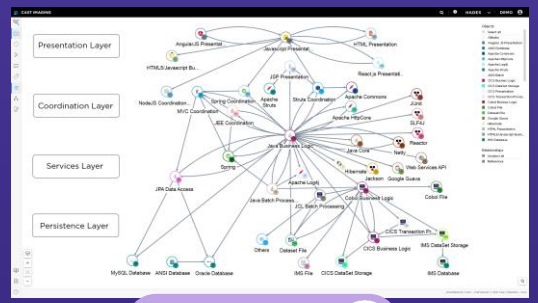


1-min demo

### Migration & modernization plan for 100s of applications

- R segmentation, four mig & mod waves,
- Cloud maturity, cloud blockers, remediation effort estimates, .NET and VMware dependencies, recommended AWS native services
- Technical debt, opensource risks, sustainability

## CAST Imaging




1-min demo

### Architecture map of a complex application & database system

- Helps architects and developers understand the current architecture, make impact analysis, speed up and de-risk modernization strategy.

CAST for AWS page

Amazon Q

Combine with AWS Transform

### Get out of migration & modernization "analysis paralysis"

- Factual, accurate, actionable insights on 100s of apps in 1-2 weeks
- Derived from looking "inside" applications, in-depth, deterministically
- Non-intrusive: production untouched, code never leaves customer repos

### Supports most modernization pathways thanks to coverage of 50+ languages, 12+ databases, 100s of frameworks

- Company/LoB-wide mig & mod
- VMware to cloud native
- Containerization
- Microsoft modernization
- Mainframe modernization
- Multi-tech modernization
- Database modernization
- Mono-to-micro fragmentation

AWS Services Partners, AWS teams

**Get CAST software & services fully funded by AWS***

- Speed up the Assess phase: migration & modernization planning 3x-4x faster
- Convert more to Migrate & Modernize thanks to data building confidence
- Show a modernization path when plain lift-and-shift not wanted or to modernize on IaaS
- Better size and de-risk SOW, get productivity gain, execute >25% faster

Simple! Just add CAST to your ACE/Salesforce opportunity

AWS Partner page

AWS internal page

* Subject to post-modernization ARR >$125k, complementary to MAP and other AWS benefits

# AWS+CAST App Modernization Case Studies

## HR ISV in NAMER

### Microsoft Modernization

**Challenge**

- Customer wanted to modernize an application of 2 millions lines of code on .NET and other technologies already running on AWS.
- *"The application is a **black box** for others than the engineers who originally worked on it."*

**Solution**

- CAST Imaging automatically generated a detailed architecture map and detected dependencies in **1 week instead of 10 months** by 2 senior experts manually to *"identify how to break the monolith in a safe way and leverage cloud-native services for better performances."*
- On top, the customer expects to accelerate the monolith to microservices modernization from **2 years to 1.5 years**.

## Railway Company in NAMER

### Mainframe Modernization

**Challenge**

- Customer wants to modernize 17 partly-documented mainframe applications.
- *"To build a modernization roadmap, we need to understand complex code and dependencies on 40+ year old undocumented applications."*

**Solution**

- CAST Imaging and Highlight automatically discovered the inner workings of the applications – including intra-app, app-to-app, app-to-data dependencies – in **3-4 weeks, instead of 10 weeks** in a manual discovery bringing less confidence and accuracy.
- Additionally, the partner expects to **gain 30% time** in migration & modernization execution.

## Major Global Insurance Company in Europe

### Multi-tech mass modernization

**Challenge**

- Customer wanted to migrate & modernize 87 custom applications developed on multiple technologies to AWS.
- *"We want to **modernize** applications on cloud, not migrate servers."*

**Solution**

- CAST Highlight automatically identified the cloud maturity, dependencies and generated a migration & modernization **roadmap in 2 weeks for the 87 applications, instead of 1.5 months per application manually**.
- Customer expects to migrate & modernize each application in an average of **3 weeks instead of 4-5 months** thanks to upstream identification of containerization roadblocks and PaaS services.

# AWS+CAST App Modernization Case Studies

## Leading eCommerce Company in Asia

### Mass containerization

**Challenge**

- The large number of 265 apps developed over a decade created an "**analysis paralysis**" in figuring out where to start the journey to AWS. The extensive use of open source added to the migration risk.

**Solution**

- CAST Highlight was used to analyze the cloud maturity and open-source risks of the 265 applications.
- VP of Engineering: "*It took **3-4 weeks instead of 3-4 months** to identify dependencies in code and **1.5-2 months instead of 3-4 months** to execute the migration. All 265 applications have now been migrated to AWS.*"

## Global Insurance Company in Europe

### Mass multi-tech modernization

**Challenge**

- Customer has 47 applications over 6 business units to migrate to AWS. The complexity and risks are high as the applications are partly documented and sit on more than 55 millions of lines of code over multiple technologies: Cobol, Java, JSP, JavaScript, Typescript.

**Solution**

- The SI partner leveraged CAST Highlight to automatically analyze the applications, segment them in 4 migration & modernization waves, identify cloud blockers in code, size the remediation effort.
- SI partner: "*Assessment of all applications would have taken **4-5 months without CAST;** it took **3 weeks with CAST**. We saved the effort of 2 people in each of the 4 squads for 4.5 months*," i.e., **600 person-days saved**.

## Major Bank in LATAM

### Mass Microsoft Modernization

**Challenge**

- Customer wants to modernize 102 applications in .NET, C#, VB and Java on AWS. The applications are many and partly documented, preventing the customer to segment and prioritize them to get into an actionable plan.

**Solution**

- CAST Highlight automatically analyzed the entire portfolio of applications.
- Customer Cloud Project Manager: "*Time to assess a complex, undocumented application: **1 month without CAST, 40 minutes with CAST**. Expected time to execute migration & modernization: **1 year without CAST, 7 months with CAST**.*"
- AWS Sales Manager: "*Customer is now in control of the modernization/migration and can manage effectively the partners and teams involved.*"

# Noventiq delivers a migration and modernization plan to AWS in one week

NOVENTIQ
Global expertise, local outcomes

"Thanks to CAST Highlight, we cut assessment effort by 40 % and delivered hard facts to the table."

AWS Cloud Specialist

**4**
**applications**

Spanning TypeScript, JavaScript, C#, ASP.NET and T-SQL

**1**
**week**

to build a migration & modernization plan

## Challenge

Noventiq's client is a regional subsidiary of a global electronics and entertainment conglomerate that aims to modernize four on-premises applications built with legacy .NET technologies, totaling nearly 600,000 lines of code.

By partnering with AWS, the client plans to leverage native cloud services to achieve greater agility in rolling out new features, reduce total cost of ownership, improve performance, enhance scalability, and strengthen operational resilience.

## Solution

Noventiq partnered with CAST, using CAST Highlight to automatically analyze its portfolio for containerization and cloud maturity and identify target AWS cloud-native services, enabling a wave-based segmentation approach. Open-source risks were also assessed to mitigate obsolete components and IP exposures before modernizing to AWS.

Additionally, software health and Green insights were leveraged to quantify transformation progress, drive continuous improvement, and reduce application carbon footprints.

## Results

With insights from CAST Highlight into the client's application portfolio, Noventiq proposed three migration waves – starting with minimal-effort updates based on cloud maturity and moving to broader modernization. They identified legacy .NET components requiring migration to .NET Core and selected AWS cloud-native services for each wave.

Software composition insights also helped the partner assess technical triggers, gauge urgency, and plan a targeted modernization to AWS.

# SoftServe plans legacy application modernization to AWS in two weeks with CAST Highlight

softserve

"With CAST, the assessment was completed in two weeks versus the months it would have otherwise taken."

Ruslan Kusov
Cloud CoE Director

**5.2 million**

lines of code on legacy .NET/JavaScript/SQL, including 2M+ in C#

**2 weeks**

to conduct a complex application modernization assessment

## Challenge

SoftServe's Client, a leading SaaS provider of integrated risk management solutions, needed to modernize its flagship product comprised of 5.2 million lines of code and migrate it from on-premises to AWS to improve agility, reliability, and security. The client engaged SoftServe to develop a comprehensive modernization business case, transitioning a legacy .NET monolith to microservices on AWS with modern DevOps practices.

The challenge was exacerbated by scarce documentation and minimal help from client experts.

## Solution

SoftServe chose CAST technology to automate an application modernization assessment and evaluate the current state of the Client's platform.

CAST Highlight automatically analyzed the application's extensive codebase and delivered comprehensive insights on modernizing the legacy .NET system on AWS. Intelligence included critical container blockers, required fixes, and precise effort estimates. Ideal AWS native service recommendations helped accelerate the transition process.

## Results

In two weeks, CAST Highlight's cloud and container insights fueled an assessment report for SoftServe's client modernization project to move from a legacy .NET system.

The rapid analysis demonstrated SoftServe's ability to quickly understand an unfamiliar application and build positive momentum for change.

SoftServe delivered the modernization project, enabling the client to transform its application into a future-proof base for its SaaS business.

# Softserve jumpstarts a stalled AWS modernization project with CAST

softserve

"CAST insights, combined with Softserve's SAMP, convinced the client to begin planning and budgeting for the modernization project."

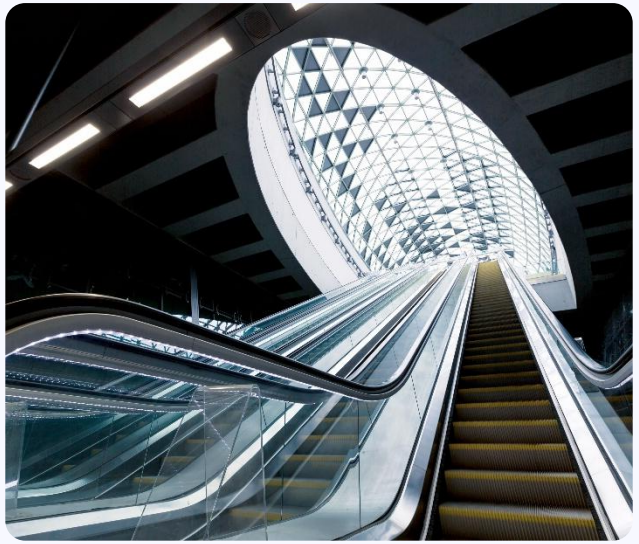
Ruslan Kusov
Cloud CoE Director

**1.6 million**

lines of code spanning ASP.NET, C#, VB.NET, HTML/JS, and T-SQL

**$500,000 saved**

annually with the modernization of a .NET application



## Challenge

SoftServe's client, a North America-based healthcare technology provider, aimed to modernize one of its key .NET monoliths running on EC2 to .NET Core, to safely and securely integrate it into its fully AWS-hosted platform.

Lacking sufficient knowledge and resources to manually assess the application, the company engaged SoftServe to conduct a comprehensive assessment, develop a detailed modernization roadmap, and evaluate the ROI of the migration – setting the stage for a successful transition.

## Solution

SoftServe leveraged both CAST Highlight and CAST Imaging to support two key areas of the modernization project: containerization and UI modernization. With CAST Highlight, they uncovered more than 130 blockers that had the potential to impede the containerization process and identified objects that were incompatible with .NET Core.

With CAST Imaging, SoftServe mapped the dependencies of stored procedures containing much of the application's business logic.

## Results

SoftServe and CAST experts completed the "Assess and Architect" phase on the application in three weeks, presenting findings to the platform engineering team who then began planning & budgeting for modernization.

Thanks to CAST's insights, SoftServe started the "Build and Deploy" phase using its Application Modernization Platform (SAMP), resulting in a modernization project that saved the Client $500,000 annually in infrastructure, development, and operations costs.

# European FinTech group modernizes its core business applications to AWS to drive European growth

Wealth management FinTech serving 4,600 clients

"CAST provided the clear, actionable insights we needed to modernize our portfolio and align our migration strategy."

Head of Engineering

atyos

"CAST Highlight's speed and completeness helps our clients realize value faster with AWS Cloud and reduces time-to-market."

Julien Baillagou
Cloud & DevOps Architect

Days versus months

to build a modernization plan for 4.7M+ lines of code across 15+ technologies

## Challenge

The customer is launching a modernization program to accelerate European development by moving a diverse software portfolio to AWS. With wide-ranging levels of technological maturity, they seek support to harmonize and optimize their systems.

AWS caught their attention for the transition, offering scalable and secure solutions. By leveraging native cloud services, the customer aims to transform infrastructure and applications, ensuring agility and future readiness.

## Solution

AWS proposed a partnership with Atyos, an AWS partner, to leverage CAST Highlight for defining the architecture and cloud environments using containerization and a SaaS approach, and CAST Imaging to map the applications' inner workings.

Atyos automatically analyzed cloud maturity, assessed open-source risks, and segmented the portfolio for structured migration and modernization. They also examined maps of containerization blockers to evaluate the impact of code changes.

## Results

CAST Highlight automatically identified AWS recommendations for faster native cloud applications, helping the customer capture value quickly and cut time-to-market. Combined with CAST Imaging's detailed architecture mappings, Atyos delivered custom migration plans for a seamless cloud move, significantly boosting agility and competitiveness.

Harnessing Atyos' architectural studies, the customer prioritized modernizations to tackle technical challenges, significantly spurring business growth and efficiency.

# TEKsystems builds an AWS migration & modernization roadmap for a legacy black-box application

TEKsystems Own change

"With CAST, we built a fact-based strategy and tailored recommendations for the customer's decision makers – winning their trust."

Ankit Aggarwal
Customer Success Leader - Engagement Manager

**2**
**applications**

spanning C#, HTML, JavaScript, .NET and SQL-Server database

**5**
**weeks**

deadline easily met for the migration & modernization roadmap

## Challenge

As part of application modernization, the Client partnered with TEKsystems to conduct a discovery of two critical customer-facing legacy applications. They needed actionable data and insights from technical analysis to shape their architecture modernization roadmap. This roadmap aimed to containerize the apps and identify key elements for migrating from SQL-Server to Amazon Aurora PostgreSQL.

For TEKsystems, these were black-box applications completely unknown to them.

## Solution

To address these challenges, TEKsystems teamed with the CAST team, which used CAST Highlight to automatically pinpoint containerization blockers and offer remediation guidance. They also leveraged CAST Imaging to map the existing architecture and craft a detailed database migration plan. CAST and TEKsystems then jointly met in working sessions to align these insights with the organization's target architecture, delivering fact-based support for their modernization recommendations.

## Results

Leveraging automatically generated CAST insights, TEKsystems swiftly located coding patterns and objects that would impede containerization and fail under .NET Core, demonstrating why the applications could not run unchanged on Linux. They isolated database objects, flagged SQL unsuitable for PostgreSQL and produced a fact-based "Migration Viability Assessment" for both systems.

Delivered within the client's five-week deadline, the plan secured the client's trust.

# Simple, non-intrusive, rapid process, fully funded by AWS

**Pre-requisites**

- Customer has access to application source code (i.e. not COTS apps), made of technologies covered by CAST
- Customer application owners agree to scan code locally and answer few questions per application, with an empowered SPOC to orchestrate
- Qualified project for migration & modernization to/on AWS with post-mod ARR > $125k

## 1. Scoping

- AWS team or Services Partner requests CAST for your migration & modernization project.
- A scoping call with CAST is organized to understand your business objectives and applications in scope.
- The Customer SPOC, AWS/Partner, CAST agree on a target delivery date.

## 2. CAST Analysis

By consultant from CAST (or Partner or ProServe if trained)

- If need be: security/legal clearance**

CAST Highlight

- Consultant guides customer app owners to scan their apps locally with the CAST Highlight Code Reader or CLI and answer 9 business questions.
- Consultant uploads metadata files in CAST Highlight (SaaS on AWS)

CAST Imaging

- Customer app owner assembles source code, config files and other app artefacts.
- Consultant deploys CAST Imaging instance on machine on AWS or prem provisioned by customer, onboards app artefacts.

Typically 1-2 weeks for a few hundreds of applications/tens of millions of lines of code from the moment source code and application artefacts are ready.

## 3. Outputs

- CAST Consultant presents key findings and recommendations and provides detailed PPT report.
- AWS/Partner requestor can get access to CAST UI to get more details, within license period.

** Legal clearance: through zero-dollar SOW.
Security: no appliance or agent deployed in production. Only static code analysis, in customer's local environment. Code never leaves customer repo.
Details here for CAST Highlight, here for CAST Imaging.