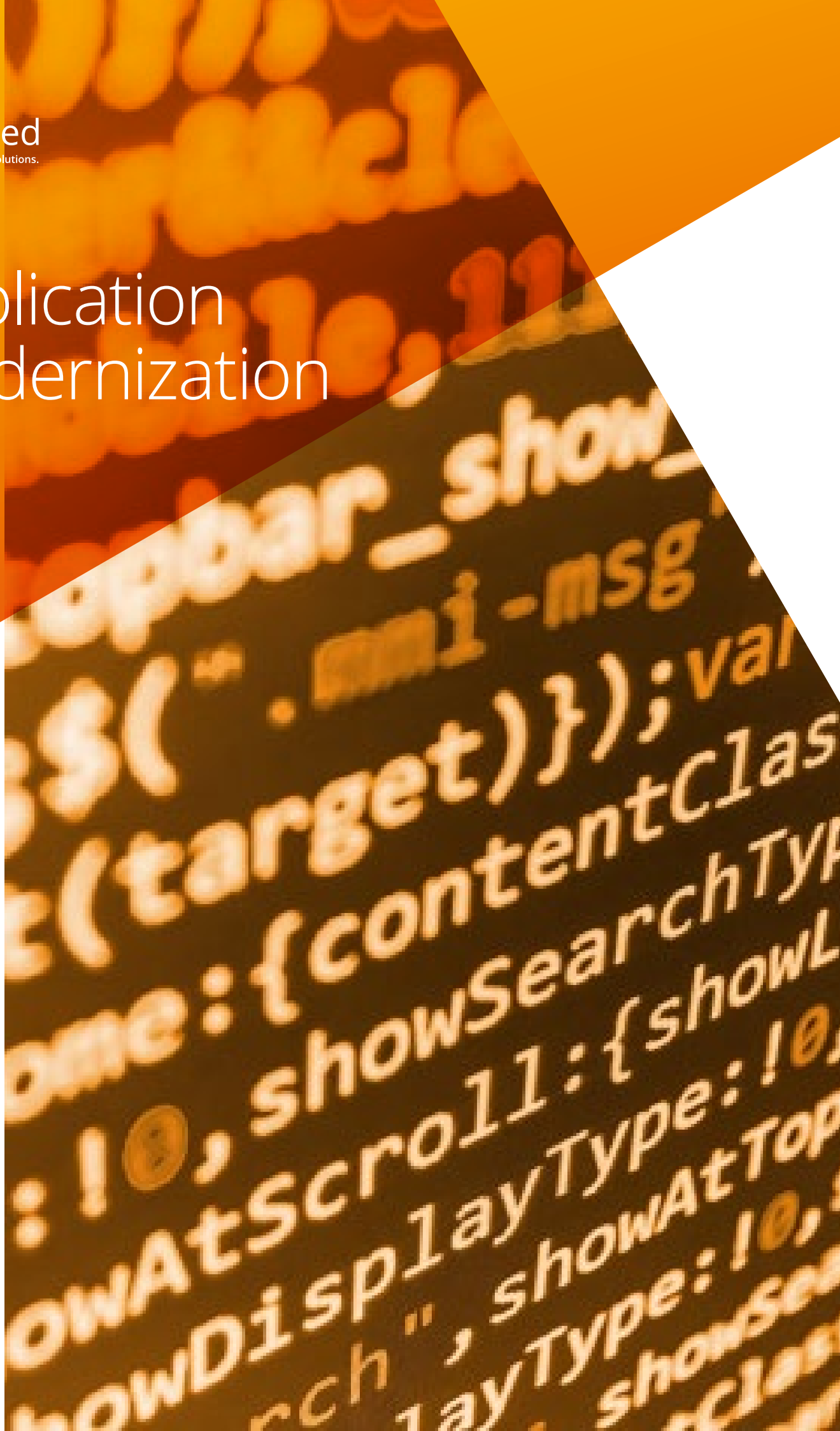


# Application Modernization



Legacy technology can hold your business back, slow down productivity and increase your costs.

Modernization is necessary. As [Stefan van der Zijden, Research Director at Gartner](#) has explained, “Application modernization is not one ‘thing’. If you’re faced with a legacy challenge, the best approach depends on the problem you’re trying to solve. Replacement isn’t the only option.”

**Client >**

GE Capital

**Sector >**

Financial Services

*“I thought I knew what my application did, but I was wrong. Advanced showed me how much more there was than I assumed...this assessment was one of the best things we did.”*

Mark Rubel > Director of Application Development > GE Capital

The broad scope of our Application Modernization practice means that it touches organizations resolving different kinds of issues across industries and around the world.

While technology continues to grow in prevalence across everything we do, organizations have two options. They can review their current estate and proactively look to move forwards, or they can assume that relying on their current tech will suffice. Making this assumption is risky. In the digital age, it is becoming more and more necessary to align resources to the future.

Relying on your current IT often means agreeing to legacy technology as part of your future. In doing this, you are:

- > Accepting a reduction in productivity
- > Limiting your ability to adapt to, and deliver on, customers' expectations quickly
- > Ignoring that your specialists are retiring and the new workforce cannot support your technology
- > Increasing your costs
- > Enabling susceptibility to security breaches and risk

As the difficulties around integrating legacy applications with modern technology show, trying to force old to mix with new is an arduous process. Though it may be necessary during your transition, it isn't a place you can stay in.

In our [2020 Mainframe Modernization Business Barometer Report](#), the consequences of not modernising were shown to be huge. 61 per cent of IT respondents said difficulty in integrating legacy systems and modern technology is an ancillary consequence of not modernizing, followed by difficulty to recruit the right talent (41 per cent) and reduced levels of customer service (36 per cent). This lack of integration and talent means making changes in applications is extremely difficult and time consuming because they are often complex and require a specific, diminishing skillset.

# Application Modernization by Advanced

Our Application Modernization products and services have capabilities cultivated by specialists that can meet you where you are, and strategically move your organization forwards digitally. We are here to deeply understand, comprehensively document, manage, migrate and modernize your legacy applications, databases and the environments that currently support them.

Our Application Analyser tool helps businesses understand the structure of their application code, the business logic contained within it and the dependencies throughout the application. This enables organizations to optimize their application development to reduce time and effort for changes and to drive development efficiencies. The understanding generated by Application Analyser is vital to the formation of an Application Modernization strategy that can be executed successfully. However, this Cloud or on-premises tool can also be used as a stand-alone solution.

Our Modernization Platform-as-a-Service (ModPaaS) platform analyzes mainframe applications (eg. COBOL, PL/I, Assembler, JCL etc.), producing detail that then supports decisions to fuel an effective modernization disposition strategy.

Whether the goal destination for your application is to remain on-premises with improved functionality and interoperability, to be Cloud-Ready, Cloud-Optimized, Cloud-Native,

or to use Software-as-a-Service (SaaS) or to be retired, our specialists can take you there.

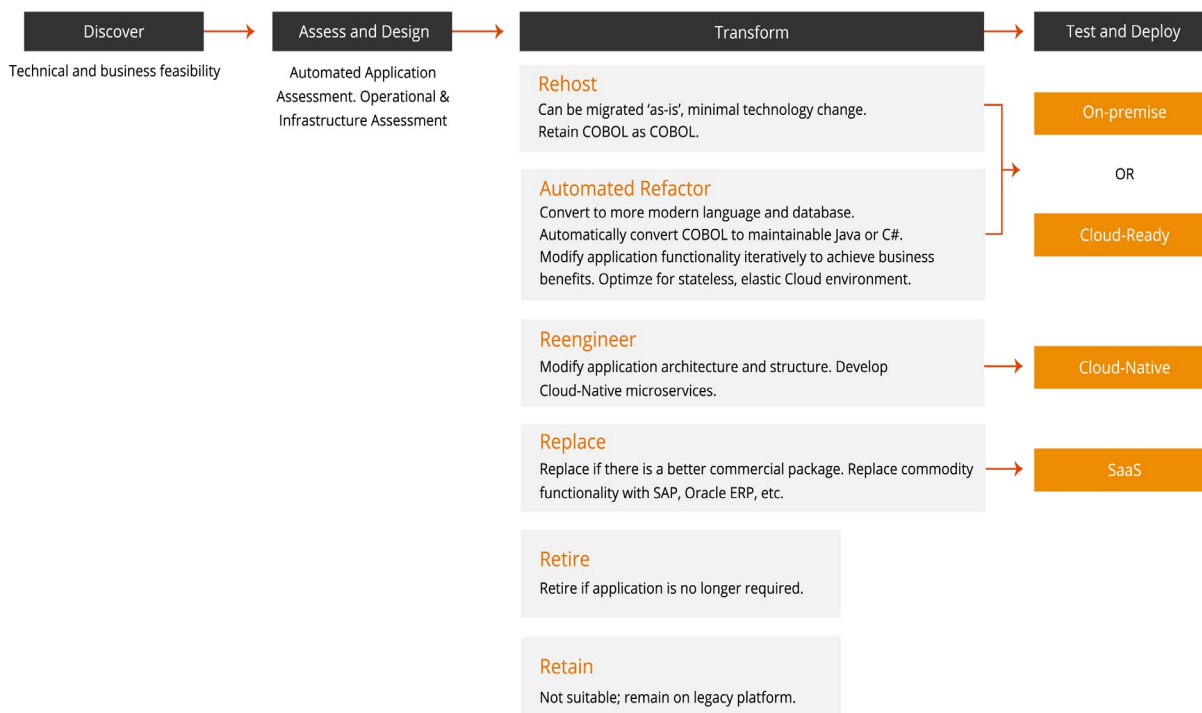
In terms of a starting place, we work with applications and databases on IBM, OpenVMS, VME mainframes and platforms. We can manage applications off the mainframe, as well as on. In addition, we can currently understand over 100 languages and technologies, with the ability to create parsers to understand more. Our teams are committed to working with you to ensure your technology supports your business goals.

As a guide, so far, most of our projects have worked with:

- > [OpenVMS](#)
- > [VME](#)
- > [Mainframe](#)
- > [COBOL](#)
- > [Assembler](#)
- > [CA Gen](#)
- > [CA Telon](#)
- > [Natural](#)
- > [PL/I](#)
- > [Adabas](#)
- > [IDMS Database](#)
- > [IDMSX Database](#)

*“We initially invested heavily in a user-friendly browser front end for our applications. Now the functional pieces of the application are aligned for a more direct data and integration model. COBOL maintenance resources are becoming increasingly hard to find, so application modernization puts us in a position to work with a global community of young talented developers.”*

Thanos Kaponeridis >  
Aerosoft Systems



## Our technical experience:

*"The flexibility of our modernized platform enables integration of modern technologies, which helps the business retain advantage and prepare for the future. As a result of the project, the business experienced significant savings and from an IT perspective, we now enjoy simpler upgrade and maintenance cycles."*

Serge Grenier >  
Principal Director of IT and  
VP of Insurance Technologies  
> Desjardins General  
Insurance Group

Languages		Databases	SOA Architects
ASP/ASP.NET	Natural	Adabas	ACMS
Assembler	NDM Scripts	Alpha	SOAP
Awk Script	Netron Cap	DB2	UDDI
Basic	Oracle Forms	DDL	WSDL
C	Oracle Reports	DTS Packages (SQL Server)	XMI
C#	Pascal	Image/SQL (HP)	XML
C++	Perl	IMS DB - PSB, DBD	XPath
CICS including BMS	PL/I	Informix	XQuery
Maps	Powerbuilder	MS Access	XSLT
CL (AS/400)	Pro*C	ORACLE	
CLIST	QMF	PL/SQL (Oracle)	<b>Infrastructure-Schedulers</b>
COBOL	REXX	Postgres	AutoSys
CSS	RPG/RPG LE (AS/400)	RDB	CA-Jobtrac
DCL	SAS	SQL Server	CA-7
DCR	Shell Script	Supra	Control-M
DDS (AS/400)	SQLMOD	Sybase	cron
DOS Scripts	Struts	T-SQL (Sybase)	ECS
Easytrieve	TACL (HP Tandem)	UDB	ESP
Focus	TAL (HP Tandem)	ETL Tools	Maestro
Fortran	Tiles UBL	CA Advantage Data Transformer	NetBatch (HP Tandem)
FTP Scripts	UBL	CA InfoRefiner	Robot (AS/400)
GDF	Umbrella	Cognos Data Manager	Zeke
Hibernate	VBScript	DataStage	
HTML	Visual Basic/VB.Net	Informatica	
IMS DC including MFS			
Java			
JavaScript			
JCL			
JSP			
Makefile			
Mark IV			
MQ Series			

In support of our work, we recognise key industry providers and form tight partnerships with them, or, in the case of Transoft, Information Balance and Modern Systems, we acquire them. These partnerships and acquisitions have created a cohesive portfolio of services, delivering complete end-to-end solutions that readies our customers for tomorrow, while bettering what they do today.

Our ecosystem of partnerships includes strategic ties to IBM, Microsoft and Ensono, to name a few. This is in addition to technology partners with tools and services that complement our offering, such as Micro Focus, GT Software, and Mobilize.Net, while we also work closely with Cloud technology providers including AWS, Microsoft, Google and Oracle. To support our efforts in the broad range of industries that we operate in, we have built partnerships with sector specialists such as Northrup Grumman, ConnectedX and M Corp.

## Experience with our customers:

Our 35+ years of experience evidences that every Application Modernization project is different, and must be based on the individual business drivers of our customers. This table shows a, by no means exhaustive, list of challenges that we discover when speaking to our customers.

Challenge	Risks	Solution	Benefits
<b>Business critical application(s) running on aging legacy operating system/platform</b>	Legacy platforms such as the IBM Mainframe, OpenVMS and VME are costly to maintain	Refactor or rehost to a modern platform such as Windows, Linux or Unix	Reduce technical debt, overcome the challenge of a skills gap and reduce maintenance - while easing the handling of such tech
<b>Maintaining or enhancing core application(s) where source code is owned but there is a lack of documentation and insight</b>	Changes to application(s) become time-consuming and can be detrimental if you don't understand your application	Application Analyser understands and documents source code, and can extract business rules for comprehensive understanding	Reduce development time, work smarter, support developers, reduce on-boarding time for new resources
<b>Happy with existing application functionality but need to move to a modern environment</b>	Legacy applications, written in languages such as COBOL, are costly to maintain, with a skills gap due to diminishing resources	Leverage an Automated Refactor approach to move your applications to highly maintainable and functionally equivalent target languages such as Java and C#	Maintain the functionality of your existing application while working with a more manageable, future-proof platform
<b>Legacy platform becoming end-of-life</b>	Business-critical systems are no longer supported	Refactor or rehost to a modern platform such as Windows, Linux or Unix	Modernizing enables you to move to an environment that is easily supported
<b>Need to integrate modern application with legacy</b>	Building custom APIs can take weeks/ months and as organisations digitally transform, more and more APIs are needed	There are multiple solutions available, including AppIntegrate for OpenVMS and GT Software's Ivory for IBM mainframe	Building APIs with our tools is five times faster and a fifth of the cost of building custom APIs

*"Within only a month of the completion of our modernization project, we have already experienced dramatic benefits including - our technical infrastructure has been simplified and our mainframe storage reduced by completely eliminating the legacy environment; our INET and other application infrastructures have been simplified by now obtaining data directly from our new databases; and we have a much broader base of application developers to support these modernized applications."*

Barry Ibej >  
2nd Vice President,  
Corporate Systems  
Development >  
National Life Insurance

# 500

So far, we have processed more than 2.5 billion lines of code and have successfully completed over 500 projects worldwide.

We use a proven methodology that includes leveraging automated tooling to ensure the most beneficial outcome is achieved. A range of methods are available from our teams to reach the ideal destination, we can rehost, refactor, reengineer, replace or retire applications and databases.

We operate in accordance with global ITIL and PRINCE 2 standards, and in compliance with ISO 9001, ISO 14001 and ISO 27001.

**Some of our highlights include:**

**COBOL to AWS - New York Times**

The New York Times had a critical business workload running on a mainframe as the core IT system supporting daily home delivery of its newspaper. Our teams collaborated to successfully transform the New York Times' COBOL-based application into a Java-based application running on AWS.

### **Application Analyser - US life insurance company**

A leading US life insurance company needed to improve the accuracy and completeness of their systems documentation, both to help staff with their ongoing application maintenance and development, and to streamline the on-boarding of suppliers for outsourced projects.

### **VME - Department of Work & Pensions**

As part of its ongoing migration away from the legacy VME platform, the Department of Work & Pensions chose to invest in runtime software to allow the department to manage the workload and performance of existing systems.

### **OpenVMS - Cashco**

Cashco was running its entire operation on a highly customized, long-standing OpenVMS system. They wanted to reduce their dependency on this aging platform, mitigate the risk of skills shortages and use the latest database tools – while at the same time retaining their valuable business logic.

# 35

In the past 35 years, our broad range of services have been showcased across different sectors, organizations and capabilities.



## About Advanced

Advanced is a leading provider of innovative and pioneering modernization solutions, with thousands of organizations worldwide using our products and services. Our approach has evolved, and our portfolio has been built, to address the migration of legacy to new and relevant environments, through replatforming, rehosting, reengineering and integrating new functionality. Our aim is to enable our customers to increase business value and maintain competitive advantage through maximizing the potential of existing data and applications. This provides a rapid return on investment, a reduction in costs, improved productivity and efficiency, along with the ability to manage operational risk.

With over 35 years of experience, a proven modernization track-record and expert staff who are dedicated to servicing the needs of organizations with legacy technology, we offer a tailored approach to projects. The benefits of our Application Modernization services truly shine through our customer stories. Major organizations including Deutsche Bank, Citi, Gap, International Paper, Chevron, Associated Wholesale Grocers, Genuine Parts Co., The Home Depot and many other well-known companies have enjoyed the business benefits of an Advanced approach to legacy technology. We specialize in helping global organizations collaboratively move along this path towards the future, using the industry's most advanced technologies and applying decades of expertise.

## More information

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