Advanced Acquires Modern Systems and Leading-Edge Solutions for Legacy Modernization

Abstract
Advanced’s acquisition of Modern Systems positions Advanced to be an industry lead in legacy modernization. Digital transformation objectives are often associated with the delivery of new products and services. The legacy modernization capabilities that Advanced now offers in the cloud enable an organization to optimize the path forward for its entire portfolio to ensure support for the needs of the business.

Event
In April 2019, Advanced, the UK’s third-largest software and services company, announced its intent to acquire Modern Systems, a leader in application modernization. The transaction announcement close date of the Advanced/Modern Systems deal took place in July 2019.

Context
Advanced is a software and services company with over 19,000 customers and software products focused on business, financial, human capital, procurement, and workforce management solutions. Advanced provides services focused on application modernization, transformation, managed IT services, and cloud solutions. Advanced is no stranger to application modernization, having internally developed a practice focusing on VME, VMS, and COBOL migration projects. In 2018, Advanced acquired Information Balance, which was a provider of application development and migration across mainstream technology platforms.

In 2016, Modern Systems and Advanced began partnering on legacy migration projects. Since then, Modern Systems and Advanced have worked together on a variety of projects, including a high-profile project for the UK involving over 20 million lines of legacy code. Modern Systems brings the following capabilities to Advanced:

- **Automated conversions to Java or C#**. Modern Systems conversion solutions have been 15+ years in development and convert COBOL and other languages to object-oriented code that is far more maintainable.

- **CA IDMS migration on or off mainframe environments**. Modern Systems has over 35 years of experience in IDMS migrations. Modern Systems’ approach to IDMS migration is comprehensive and includes rule-based data extraction, transformation, phased conversion, JCL data extraction generation, and targeted DDL generation.

- **Software AG Adabas/natural modernization**. Enterprises that want to be free of Adabas’ inverted list architecture can convert to any of the leading RDBMSs on or off the mainframe. Natural code can also convert to OBOL, Java, or C#.

- **CA Gen conversion**. Conversion from CA Gen is ideal for enterprises that are looking for a standardized 3GL conversion from this higher-level proprietary product. The CA Gen conversion reads the CA Gen encyclopedia and automatically converts its procedures and action blocks to Java or C# source code.

- **Assembler conversions**. As distributed hardware and 3GL compilers gain efficiency, there is seldom a need for using Assembler. Modern Systems converts online and batch assembler and its business logic to Java, COBOL, and C# source code.

- **ModPaaS: a platform for orchestrating modernization activities**. Modern Systems developed ModPaaS to categorize an enterprise’s IT portfolio to develop a strategic modernization plan and access to Modern Systems’ modernization services. These services can then be leveraged in a self-service, assisted, or fully managed service. ModPaaS is available on AWS, Azure, GCP, and the Oracle cloud.
Modern Systems’ capabilities complement those offered by Advanced. ModPaaS brings a way to manage, collaborate, analyze, evaluate, and then convert, re-host, re-platform, or reengineer legacy applications and systems. ModPaaS reflects the wisdom that Modern Systems has acquired in over 200 legacy modernization engagements and provides a framework, methodology, workflow, and tools for customers, business partners, and service providers to work on projects in self-service or collaborative ways.

Figure 1 is a schematic of ModPaaS that identifies its key capabilities and legacy modernization workflow.

**ModPaaS Key Capabilities**

![ModPaaS Key Capabilities Diagram](image)

**EMA Perspective**

Digital transformation is driving enterprises to more heavily invest in IT in order to differentiate their products and services and disrupt competitors. The focus of IT is shifting from process automation and cost reduction to new ways to leverage information, engage with customers, and deliver new sources of value. Recent EMA research shows that in 2019, just 4% of large enterprises had decreasing IT budgets.¹ With software now a strategic asset, enterprises must continually evaluate and evolve their software portfolio to leverage new opportunities and mitigate competitive advances.

Because legacy systems make up a significant portion of the IT portfolio and require a disproportionate amount of maintenance, enterprises must develop an informed strategy regarding how to manage these assets. The acquisition of Modern Systems by Advanced means that Advanced gains additional industry-leading tools and resources that expand its portfolio of service offerings in the legacy modernization domain.

This acquisition will serve Advanced well because the demands of digital transformation require an enterprise to fully assess its entire software portfolio. The mission criticality of many legacy systems means that an enterprise needs to carefully consider the best path forward, be it re-hosting, automated conversion to a new language, refactoring, reengineering, replacement, retirement, or retention as is. The complexity of this decision-making is where ModPaaS and the thousands of person-years of experience between Advanced and Modern Systems are invaluable in optimizing the path forward for an enterprise.

¹ EMA, Optimizing DevOps Initiatives Survey, April 2019
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