

Migrating the Enterprise

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The word “migration” means many things to different people. Typically, it is used to refer to the act of moving a body of software from an existing compute platform, operating environment and IT infrastructure to a different platform, environment and infrastructure.

In this presentation, we will introduce the concept of the E-stack, which we use to represent and capture the business, execution and management architectures. We follow this with an examination of four possible migration solutions and introduce a set of metrics that can be used to choose the correct solution. We conclude the presentation with a discussion of tools that we have developed in-house that can be used to implement one of the solutions. Where possible, real world examples will be used.

The E-stack is a construct that can serve as a basis for identifying key components of the overall IT infrastructure that are either integrated with or provide service to the application or assist in the administration of that application. Too frequently, migration projects encounter problems because attention has only been given to the application component of the execution architecture. As we will point out, for the application to be successfully integrated into

the new environment, all aspects of the E-stack must be addressed.

Over the past ten years, we have developed a value proposition to help the customer identify the correct migration solution for their individual situation. The solution that best meets the customer's needs will be based on the application's IT effectiveness as well as its ability to meet the business needs of the enterprise. We use what we call the Migration Solution Quadrant to identify four possible migration solutions: Rehost, Re-Engineer, Refront/Replace and Interoperate. We define each of these solutions and identify metrics that can be used to determine the correct one.

As many legacy applications typically involve hundreds of thousands or millions of lines of code, we have had to develop a number of automated tools and solution sets for different environments. Key to any migration project is a project plan. We present a number of tools that are used in estimating the amount of effort that will be required to transform source code from one environment to another, exploring the role middleware has to play in commercial software development.