Chapter II
Extreme Architecture Framework:
A Minimalist Framework for Modern Times

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ABSTRACT

As consultant-educators, the authors created the extreme architecture framework (XAF) in order to quickly grasp an understanding of an organisation's architecture from different perspectives. The framework is presented as a matrix of system types and architectural perspectives that is described by a single uncluttered diagram. Elements within the framework are defined along with the content that can include architectural representations, planning, and governance information. A discussion follows to show the relationship of the framework to planning, development, and governance activities. The minimalist framework presents a consolidated view of both human activity and software systems and can also help to foster a shared understanding between IT groups and business areas.
It has been designed to answer a manager's questions:

- *Which elements of the enterprise do I need to be aware of and understand; and*
- *Which elements am I responsible for and need to manage?*

INTRODUCTION

The enterprise architecture framework described here evolved slowly over a period of time. It has been heavily influenced by the assignments undertaken by the authors who consult to a variety of clients across a range of industry sectors. In presenting "yet another framework," it is not the authors' intention to "reinvent the wheel" but rather to synthesise some of the best ideas in

the field of enterprise architecture and inject a healthy dose of experience in order to create an enterprise architecture framework that has strong conceptual foundations but can also be applied to practical situations.

Early in the evolution of the framework, both authors were introduced to the ideas advocated by the extreme programming (XP) community (Beck, 2000). XP is a lightweight but highly rigorous approach to software development that the authors originally sought to emulate in their architecture framework. The "extreme" in XP refers to the way in which well-established best practices have been taken to the "extreme."

In the area of enterprise architecture, there is less consensus on what represents best practice. This also means that there is less opportunity to develop "extreme" practices. In fact, as the extreme architecture framework (XAF) evolved, it became obvious that the "extreme" in XAF was in fact a pun. The XAF is best described as a "lightweight" pragmatic approach to enterprise architecture that avoids the "extremes" of perfection and chaos.

In contrast to other architecture frameworks the XAF:

- Is easy to describe.
- Encourages an agile approach to architectural work products.
- Unifies a number of disparate disciplines.
- Offers a simple, consistent view to the various parties involved in the management of enterprise resources.

Above all, the XAF can be used to answer the two questions most often asked by the authors' clients (frequently IT managers and chief information officers):

- "Which elements of the enterprise do I need to be aware of and understand; and
- Which elements am I responsible for and need to manage?"

The remainder of this chapter describes how the XAF attempts to present a unified view of human activity and software systems from the three perspectives of business processes, information systems, and technology infrastructure. The unified view attempts to strike a balance between architectural perfection and the inevitable chaos when there is an absence of architecture.

The XAF embodies three guiding principles:

1. The contribution of frameworks themselves.
2. The need for interoperability between systems whether they be human or software systems.
3. The various different architectural perspectives that are required to be managed (IEEE Computer Society, 2000).

The chapter concludes with a description of how elements of the enterprise can be organised into groupings that reflect the disciplines responsible for building and managing the enterprise. The XAF is a perfect mechanism for highlighting these grouping and revealing the nature of the relationship between them.

BUILDINGS, URBAN DISTRICTS, SOFTWARE, AND ARCHITECTURE

A clear and simple definition of what constitutes architecture can be difficult to achieve. The authors like this definition of building architecture that was provided by Ean MacDonald, a retired architect (e-mail communication October 5, 2003).

"Architectural design is the simultaneous resolution and solution of the various architectural problems including location, aspect, and prospect, sun, wind, and weather, materials and method, finance, function, and form, to which may be added a dash of flair that can make a structure work of art."