What are some criteria that can be used to evaluate architecture implementation framework?

Frameworks can vary widely along nearly any quality dimension. Evaluating a software component is similar to evaluating any software component. The different criteria for evaluation is as mentioned:

**1. Platform support**

An architectural framework brings three key elements together: an architectural style, a programming language and an operating system. Once the architectural style has been identified, the availability of architecture framework for a target programming language and operating system combination can be determined. If the project allows selecting the implementation platform based on the architecture, then availability of suitable architecture frameworks should be a criterion for platform selection.

**2. Fidelity**

A quality particularly important in architecture implementation frameworks is fidelity to target architectural style. A framework need not provide direct implementation support for every single design decision in its target style. The frameworks make it easy for implementers to follow the constraints of the style, but will not explicitly prevent them from breaking the constraints.

**3. Matching Assumptions**

Styles impose constraints on the target architecture. Frameworks also induce additional constraints to support the concrete implementation activity. Problems might occur when the assumptions of a framework conflict with the assumptions of other implementation technologies used on a project. Thus, it is important to enumerate the assumptions made by the architecture framework with those made by other components, toolkits, libraries and environments.

**4. Efficiency**

The architectural framework adds a layer of functionality between the application and the hardware it runs on. This may decrease the efficiency of the application. An architecture framework may mediate all communication between components in a system. When this is the case, efficiency should be primary selection criterion for a framework.

**5. Other quality considerations**

Nearly every other software quality can affect framework evaluation and selection. Qualities like size, cost, ease of use, reliability, robustness, availability of source code, portability and long-term maintainability and support are all important.