The SEI Architecture Tradeoff Analysis Method (ATAM) is the leading method in the area of software architecture evaluation. An evaluation using the ATAM typically takes three to four days and gathers together a trained evaluation team, architects, and representatives of the architecture’s various stakeholders. Proven benefits of the ATAM include:
- clarified quality attribute requirements
- improved architecture documentation
- documented basis for architectural decisions
- identified risks early in the life cycle
- increased communication among stakeholders

Business drivers and the software architecture are elicited from project decision makers. These are refined into scenarios and the architectural decisions made in support of each one. Analysis of scenarios and decisions results in identification of risks, non-risks, sensitivity points, and tradeoff points in the architecture. Risks are synthesized into a set of risk themes, showing how each one threatens a business driver.

The most important results are improved architectures. The output of an ATAM is an out-brief presentation and/or a written report that includes the major findings of the evaluation. These are typically:
- the architectural styles identified
- a “utility tree” — a hierarchic model of the driving architectural requirements
- the set of scenarios generated and the subset that were mapped onto the architecture
- a set of quality-attribute-specific questions that were applied to the architecture and the responses to these questions
- a set of identified risks
- a set of identified non-risks

Additional Information
For consulting information about ATAM, visit http://www.sei.cmu.edu/architecture/consulting/. Direct technical questions about ATAM to us using the contact information under “For General Information” below.

You can also become qualified to perform on ATAM evaluation teams or become certified to lead ATAM teams. For more information, visit http://www.sei.cmu.edu/training/certificates/architecture/atame or http://www.sei.cmu.edu/certification/architecture/atam/.