The Service Oriented Architecture

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One of the recently most talked about topics is the Service Oriented Architecture (SOA). The term "service oriented" means that logic required to solve a large problem can be better constructed, carried out and managed if it is decomposed into a collection of smaller, related pieces. Each of these pieces addresses a concern or a specific part of the problem. Service-oriented architecture (SOA) encourages individual units of logic to exist autonomously yet not isolated from each other. Units of logic are still required to conform to a set of principles that allow them to evolve independently while still maintaining a sufficient amount of commonality and standardisation. Within SOA these units are known as services. The presentation will shortly overview the principles of SOA as well as the tools generally used for the implementations.
Although SOA is heralded as a brand new architecture, in reality it is reinventing and applying well established principles and practices – like structured programming, top-down planning, acknowledgement of messages, the proper use of exception logic, visibility in programs, etc. – already accepted and taught in Computer Science courses at Universities 30 years ago, but neglected and thus rarely applied in practice. A service oriented system needs an implementation platform. Although SOA can be implemented on many possible platforms, however, the web services technology set offers, as such, the most competent platform and for the time being it is the only one used up to now, and for the .foreseeable future it offers the best prospect for success.
SOA is a new, and still evolving technology. Although in 2005 it was in the phase of disillusionment of the so called hype curve of the Gartner Group, Gartner still expected the support for SOA to grow and to mature as a technology within ten years although many changes in user and vendor organisations and technologies are required before SOA reaches its full potential. In the longer term, Gartner believed that SOA has the potential to be transformational to a business. It is, however, an open question, whether this will become true, as in the Gartner's Hype Cycle for Emerging Technologies in 2006 it has completely disappeared from the presented view of the Gartner group. The web-services technologies, however, which may make the service delivery platform for SOA, will still remain important architectural elements of future systems, be they called SOA or WEB 2.0 or anything else.