Currently, a large fraction of users accesses network resources through web clients/browsers. The majority of today's Web services are generally not concerned about the level of Quality of Service (QoS) presented to their users. However, there exists a small but increasing number of web sites that need to maintain their popularity and reputation, and are concerned about the QoS experienced by their users. Furthermore, new web applications demand delivery of multimedia data in real time (e.g. streaming stored video and audio), and the information transfer via the Internet, is becoming one of the principal paradigm for business: electronic sales, banking, finance, collaborative work, are few examples of this. The QoS perceived by its users is thus becoming a dominant factor for the success of an Internet based Web service. The principal QoS attributes these users perceive include those related to the “responsiveness” of the service, i.e. the service availability and timeliness. A service that is frequently unavailable may have the effect of tarnishing the reputation of the service provider or result in loss of opportunity. Furthermore, from the user’s perspective, a service that exhibits poor responsiveness is virtually equivalent to an unavailable service.

The performance perceived by the users of a Web service depends on the performance of the protocols that operate between web clients and servers. Solutions currently investigated in the literature range from new protocols that enhance the network QoS (e.g. differentiated services) to mechanisms that run on the end systems and enhance the QoS perceived by the users (e.g. caching, prefetching, Web servers' replications, etc.). Currently an IP network provides only a best effort service. While, in the medium-term, it is envisaged that Internet evolves to a universal transport service that will be able to provide (when it is required) a delivery of the traffic with QoS guarantees, the middleware must cope with the insufficient bandwidth and high latency.

The minitrack focuses on the design and analysis of middleware techniques and protocols for providing Web services with QoS guarantees by addressing the following issues: i) document retrieval latency, ii) data availability, iii) amount of data to transfer, and iv) redistributing the network accesses to avoid network congestion.