

## عنوان مقاله:

Using Timed Petri-Nets for Specifying Elaborate Requirements in Service Oriented Systems

## محل انتشار:

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## خلاصه مقاله:

In recent years, various organizations by following the concept of service oriented architecture, offer their services with independent and reusable programs on Internet. Since these services can be called by application programs and other services, the concept of implementing inter-organizational workflow by dynamically composing the services is being developed. The necessary requirement of this development is the existence of formally defined standard methods for specification of these compositions in an abstract way. In a service oriented system, users' requirements fall into simple and elaborate categories. To satisfy the former, it is sufficient to call one service; however, to satisfy the latter, it is necessary to call a composition of services. Additionally, to satisfy many of elaborate requirements, time constraint is a determinant of requirement satisfaction. In this paper, we first specify common types of elaborate and time-based users' requirements in service oriented systems, and then using an three-step approach, suggest a specific composition of services for each type of requirement. In the first step of the approach, an operator is introduced for informal stating a composite service. In the second step, the composition is formally specified using a model based on Transition Timed Petri-Nets, and in the third step, the model is defined formally

## کلمات کلیدی:

Service oriented architecture(SOA), Web service, Services composition, Requirement specification, Petri-Nets

## لینک ثابت مقاله در پایگاه سیویلیکا:

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