

From P2P to Web Services and Workflow

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In this talk, I will discuss the use of a generic API, developed as part of the GridLab project, called the GAP. The GAP is an advertising, discovery and communication interface for use with a number of different types of distributed services. I will talk about two different implementations of this interface using Web services and peer-to-peer (P2P) middleware. Although, these underlying implementations differ vastly in distributed architecture and type of communication, the resulting application interface remains constant. I then show how such services can be integrated into workflow by using the GAP implementation within the Triana problem solving environment. Triana enables the graphical composition of workflow where users see Web services, local Java units or P2P services as simple pluggable tools on a work surface, which can be connected together in a seamless fashion.