

## **Believing Answers from GEON Applications**

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GEON aims to increase collaboration between applications, i.e., services and tools, as well as increasing the reuse of information sources by applications. This suggests that application results might be coming from multiple sources and services that may unintentionally provide information that has discrepancies or is inaccurate. Thus, it is becoming important for GEON applications to have some kind of tracking mechanism indicating where their results were derived from, i.e., provenance information. In addition to provenance information, the applications may need a mechanism for computing belief recommendations for their results that are based on a web of trust GEON users may have on sources, i.e., a network of trust relations identifying users' degrees of trust on sources as well as on other users. Trust recommendations may be used by users to build opinions about the trustworthiness of the results themselves as well as the trustworthiness of any intermediary result provided during the processes of generating answers. In this poster, we present initial results of our effort to develop and integrate a trust component and infrastructure within GEON's service-oriented architecture. By using provenance information and trust recommendations, we expect geoscientists to easily decide how much to believe results produced by applications using a complex set of GEON resources, i.e., services and information sources. As a result, geoscientists will have more control over which results to confidently accept or which results to further question or reject.