Securing Dynamic Online Social Networks

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Considering the popularity and wide adoption of social network systems and the competitive edge these systems provide, there has been a rapid growth in use of these systems to access, store, and exchange personal attribute information in distributed and/or federated environments and this trend is expected to continue. Efficient, secure, and user-centric techniques are important for the successful deployment of such systems. Our goal in this project is to develop a comprehensive and compelling framework SNGuard (Social Network Guard) that satisfies diverse privacy properties, access control issues, identity management requirements, and usage patterns. The vision of dynamic social networks is a complex and highly sophisticated one that requiring ongoing research and analysis to continue concurrent with the changing role and face of digital information creation and usage including personal information and contents in social networks. We have attempted to develop novel frameworks to facilitate user-centered privacy management, content management and risk-aware access control, thereby making SNGuard solutions more trustworthy, more reliable, and less vulnerable.