

Realization of a Lightweight Account Management System Supporting Campus Members with Various Status

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We constructed a lightweight account management system for various information services in our university, Tokyo University of Agriculture and Technology (TUAT). In recent years, various kinds of information services have been provided which are managed by each section in TUAT. In order to access these services, it is needed to pass proper authentication and to obtain proper authorization. Ideally, if a unified account management system based on a unified authentication and authorization scheme is available, users could access each service by their own single accounts. However, it is too difficult to manage users' accounts by a unified account management system in TUAT, because campus members' positions are not only a faculty or a student but also various status such as visiting researchers. Furthermore, those human resources are managed by both each section and each policy. Therefore, our account management system has been required to assign a new account corresponding to a service under individual circumstances. In order to realize this requirement, we have developed a lightweight account management system for various information services without reconstructing databases storing personal data. Our approach which derives from the "lightweight" has some advantages in comparison with conventional approaches. For example, our system is adaptable to environmental changes, such as management section change or management policy change of human resources. So, it is not necessary to unify management policies of databases and services in each section.

We present an outline of our authentication system and specifications of our account management system in TUAT. Particularly, the latter one is explained in detail. Our account management system has following two characteristic functions.

1. Our system can support various kinds of services and systems.
2. It is possible to cooperate with a new system which will be provided in near future.