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**Authorization algorithms for permission-role assignments.** (English) Zbl 1216.68096  
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Summary: Permission-role assignments (PRA) is one important process in role-based access control (RBAC) which has been proven to be a flexible and useful access model for information sharing in distributed collaborative environments. However, problems may arise during the procedures of PRA. Conflicting permissions may assign to one role, and as a result, the role with the permissions can derive unexpected access capabilities.

This paper aims to analyze the problems during the procedures of permission-role assignments in distributed collaborative environments and to develop authorization allocation algorithms to address the problems within permission-role assignments. The algorithms are extended to the case of PRA with the mobility of permission-role relationship. Finally, comparisons with other related work are discussed to demonstrate the effective work of the paper.

**MSC:**

[68P15](#) Database theory

[68M14](#) Distributed systems

**Keywords:**

[access control](#); [authorization](#); [conflicts](#)

**Full Text:** [Link](#)