

Exercise: Authorisation

ACME Water has decided to implement a new database for *Critical National Infrastructure* (CNI) customers, such as hospitals, airports, and power stations. The database will store contact information for each organisation, general account information for invoicing and payments, current and previous incidents that affect their clean and waste water services, and a plan of any actions required to safeguard their supply. The database will be initially trialled in the Sturminster area in the hope that operations centre staff will be able to quickly access and update information about these organisations, and the services they receive.

You have been asked to devise a suitable role-based access control system for this database.

Questions

1. Who are the stakeholders you need to engage when eliciting access control requirements for the database, and what requirements might they have?
2. You would like operations manager to take responsibility for the creation and revision of access control policies. To help them, you want to provide a tool to help them create and update access control policies; you would like the tool's user interface to build on ideas from Reeder's Expandable Grid. Make a list of the considerations that need to be made when designing possible interfaces that build on both Expandable Grid and RBAC in general. When answering this question, you may find it useful to make some assumptions that constrain the design space, and sketch possible interfaces.
3. The Centre for the Protection of National Infrastructure (CPNI) have become aware of your work, and would like to trial the database in a water company serving Greater London. How might the access control system need to be adapted, if at all?