

Role-based Access Control in Federated Environments

Satish Vellanki

| Problem Description | Objective/Approach | | | | | | | | | | | | |
|--|--|---------|------------------------------|---------|--|---------|-----|---------|----------------------|---------|----------------|---------|---|
| <ul style="list-style-type: none">• No mechanism to create authorized service federations in SORCER• No uniform access control across explicit administration boundaries• No user-centric access control while global permissions defined around administration domains• PKI creates global namespace with CA• PKI does not provide delegated authorization <p><i>A flexible role-based access control crossing administration boundaries and around users is needed in metacomputing environment.</i></p> | <p>Objective Role-based access control framework (RACF) in SORCER</p> <p>Approach</p> <ul style="list-style-type: none">• Review and analyze existing role-based solutions• Define requirements for RACF in SORCER• Develop role-based access control protocol• Design RACF• Implement RACF• Verify & validate RACF• Deploy RACF in the SORCER environment | | | | | | | | | | | | |
| Schedule | Benefits | | | | | | | | | | | | |
| <table><tbody><tr><td>Literature Review</td><td>03/2007</td></tr><tr><td>RACF Requirements Definition</td><td>04/2007</td></tr><tr><td>RACF Access Control Protocol Design and Implementation</td><td>06/2007</td></tr><tr><td>V&V</td><td>09/2007</td></tr><tr><td>Deployment in SORCER</td><td>10/2007</td></tr><tr><td>Thesis Defense</td><td>11/2007</td></tr></tbody></table> | Literature Review | 03/2007 | RACF Requirements Definition | 04/2007 | RACF Access Control Protocol Design and Implementation | 06/2007 | V&V | 09/2007 | Deployment in SORCER | 10/2007 | Thesis Defense | 11/2007 | <ul style="list-style-type: none">• Secure access to protected resources in federated environment• Flexibility in granting rights by users to other users• Zero administration in the user-centric framework• Intuitive and user friendly interface supporting role-based access |
| Literature Review | 03/2007 | | | | | | | | | | | | |
| RACF Requirements Definition | 04/2007 | | | | | | | | | | | | |
| RACF Access Control Protocol Design and Implementation | 06/2007 | | | | | | | | | | | | |
| V&V | 09/2007 | | | | | | | | | | | | |
| Deployment in SORCER | 10/2007 | | | | | | | | | | | | |
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