Security Access Management at UC Irvine: Slaying the Paper Forms Dragon

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Abstract

The number one request from the University of California Irvine's administrative computing client community was to dramatically speed up and simplify the process for requesting access to applications. The resulting process review resulted in the development and implementation of SAMS, the Security Access Maintenance System.
Security Access Management at UCI – Slaying the Paper Forms Dragon

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Administrative Computing Services

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Agenda

• Background
• Project Overview
• Demonstration
• The Future
UC Irvine Campus Overview

- Year Founded: 1965
- 2004 Enrollment: 24K students
- Carnegie Classification: Doctoral/Research – Extensive
- Extramural Contracts & Grants Awarded: $235M for 2002 - 2003
## Growing need

<table>
<thead>
<tr>
<th>Category</th>
<th>Timeframe</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>Fall 2001</td>
<td>21,885</td>
</tr>
<tr>
<td></td>
<td>Fall 2002</td>
<td>23,779</td>
</tr>
<tr>
<td></td>
<td>Fall 2003</td>
<td>24,874</td>
</tr>
<tr>
<td>Employees</td>
<td>Fall 2001</td>
<td>7,553</td>
</tr>
<tr>
<td></td>
<td>Fall 2002</td>
<td>7,882</td>
</tr>
<tr>
<td></td>
<td>Fall 2003</td>
<td>8,120</td>
</tr>
<tr>
<td>Access Requests</td>
<td>2001</td>
<td>1,141</td>
</tr>
<tr>
<td>(30 applications)</td>
<td>2002</td>
<td>1,404</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>2,333</td>
</tr>
</tbody>
</table>
The Objective

Customers wanted faster, simpler access to Administrative applications.
The Result

• SAMS - Security Access Maintenance System
• Response to a campus-wide request to simplify the process of requesting access to administrative applications
Previous Request Process

Access Requests

Help Desk

User Notified

Forms filled out correctly?

Access approved?

All training completed?

Access granted

Congratulations! You now have access!

UC Irvine
User Requirements

- Departmental control of access request process
- Departmental security administrator (DSA) specifies access via Web application
- Database can be queried easily (by DSAs and users) to review access
- Enable DSAs to model new access requests after existing/former employee profiles
Requirements (cont’d.)

• No programmer action required for each access request
• DSAs are allowed to grant access only to accounts for which they are authorized
• Central office approver/trainer approves access requiring training and/or approval
• AdCom Services logins are assigned once, and do not change on departmental transfers
<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Unable to modify some existing applications to get security rights from SAMS | • Real-time update of legacy apps from SAMS  
• Hourly or nightly updates of various applications |
| Mapping some applications’ unique profiles into one SAMS function | Various applications’ profiles added into SAMS data model |
Technology

- In-house Java application
- Web interface using JSP/Javascript
- Integration with uPortal: open-source Campus Business Portal (http://snap.uci.edu)
Build a Nest, Grow a Tree

- Over 260 ‘grantable’ functions, 30 applications
- Create application groups to help the grouping of applications/functions
- Nested functions help to display list in a tree menu structure
- Separate departmental functions from central office functions
E-mail Notifications

- All access requests to DSA and User
- E-mail to Help Desk of all requests requiring manual update
- All trainers and central office approvers when required
- Notification to cancel-logon group when account is deleted
Security Policy

• All users MUST complete security use agreement before access is valid
• All DSAs must agree to terms of SAMS DSA Agreement
• DSAs cannot grant access to themselves
Demonstration
## Process Improvements

<table>
<thead>
<tr>
<th>PRIOR</th>
<th>CURRENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 paper forms</td>
<td>Paperless access requests via web application</td>
</tr>
<tr>
<td>Up to 27 access request steps per function</td>
<td>Most functions require 1 step, additional steps required in special cases (i.e. training)</td>
</tr>
<tr>
<td>Up to 10 manual approval steps</td>
<td>1 or 2 approval steps</td>
</tr>
<tr>
<td>Users unable to view their access</td>
<td>“My Access” link via business portal</td>
</tr>
<tr>
<td>Improper signatures on forms</td>
<td>“My DSA” link</td>
</tr>
</tbody>
</table>

UC Irvine
SAMS Users

- 94 Departmental Security Administrators
- 1,809 Application Users
- 12 Central Office Approvers
- 30 Enterprise Applications
The Road Ahead

• SAMS currently supports 30 administrative applications, 4 still require manual updates
• Additional access queries, reports
• Addition of departmental applications to SAMS
• Integration w/LDAP (role-based security)
Lessons Learned

- Communicate, communicate, communicate
- Getting the word out to the proper target audience
- DSA training challenges
- Removal of Help Desk as central review point for all access requests
- Timing issues with training preparations
Questions?