

Victor Kalil Fellowship Project Presentation

SADI and the Cloud

August 12, 2021



A Summary

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SADI is the new Secure Access Digital Identity application

- Identity and authentication system that complies with new national standards set by National Institute of Standards and Technology (NIST) for identity proofing
- SADI first went live protecting the Child Tax Credit Update Portal this summer
- Next, other IRS applications will integrate with SADI
- Afterwards, SADI will move to be cloud-based

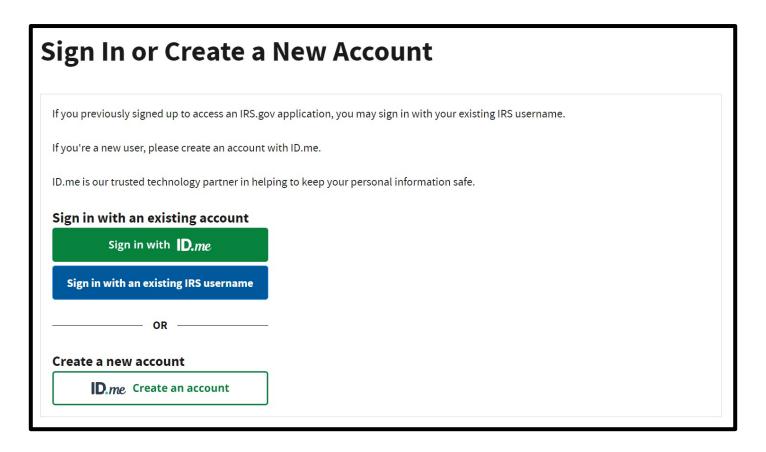


The Goal:

Review NIST standards, SADI architecture, and logical flow to describe requirements and phases for SADI's cloud migration



A Summary





- Collaborating with technical leads, application analysts, and other team members
- Research into cloud technologies, products, migration processes & best practices, and service models, containerization, etc.
- Breaking down regulations into understandable pieces
- Using software engineering skills to understand SADI architecture and flow, then using product management skills to create in-depth technical paper that describes the cloud migration strategy and best practices



Document Overview

- Introduction
 - Executive Summary
 - Regulations & eAuth
- SADI
 - Customer Journey
 - Logical Overview
 - Dependencies
- Cloud Migration
 - Containerization
 - Block Storage
 - Cloud Security
- What Should Be Moved?
- Glossary
 - and more!



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Regulations & eAuth

Essential Points

- Understanding NIST 800-63-2 and differences with the 800-63-3
- Comprehend important aspects of the 800-63-3 that lay the groundwork for SADI

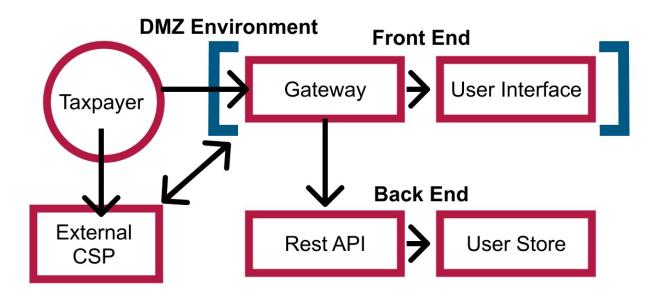
Electronic Authentication Guideline William E. Burr Donna F. Dodson Elaine M. Newton Ray A. Perlner W. Timothy Polk Sarbari Gupta Emad A. Nabbus http://dx.doi.org/10.6028/NIST.SP.800-63-2

Paul A. Grassi Michael E. Garcia James L. Fenton This publication is available free of charge from: https://doi.org/10.6028/NIST.SP.800-63-3 COMPUTER SECURITY National Institute of Standards and Technology U.S. Department of Commerce



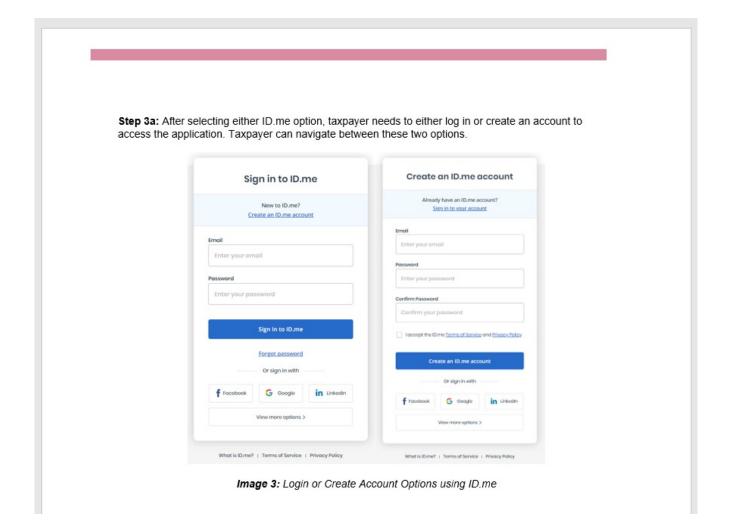
Understanding SADI

SADI Logical Flow (Simplified)





Understanding SADI

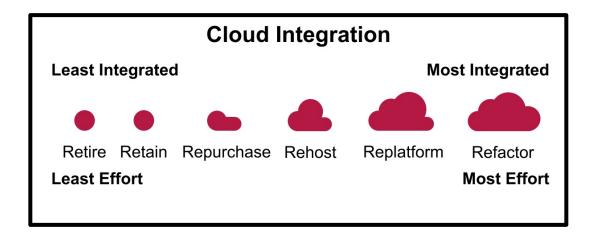




Guiding Cloud Migration

Migration Essential Points

- Covering cloud migration and use strategies in a simple way
- Biggest points covered include
 - 6 R's
 - Containerization
 - Block Storage
 - Cloud Security

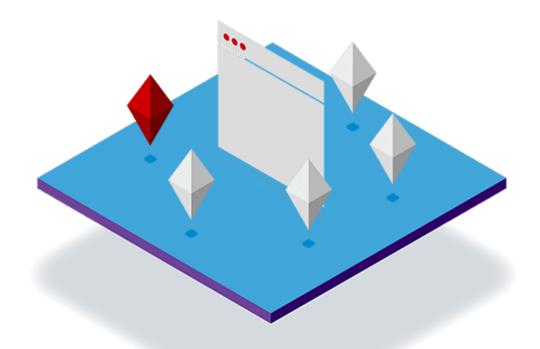




Guiding Cloud Migration

Migration Essential Points

- Explaining which microservices and dependencies of SADI can be moved
- Diving more deeply into top cloud migration candidates
 - Jboss
 - SiteMinder
 - Kubernetes





Reflecting & Impact

Reflecting

- Saw how new technologies are pushed forward in the IRS
- Understand the importance of SADI, how it works and intersects with national standards
- Learned a lot about cloud migration processes
- Special thank you to Sudebi, Gopi, and Roger!

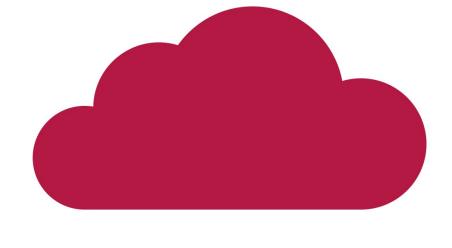
Impact

- Technical paper serves as a guiding tool before and throughout the cloud migration process
- Led sessions teaching the team about product management strategies and cloud technologies





Thank you!



Questions?