



# Case study: General Motors

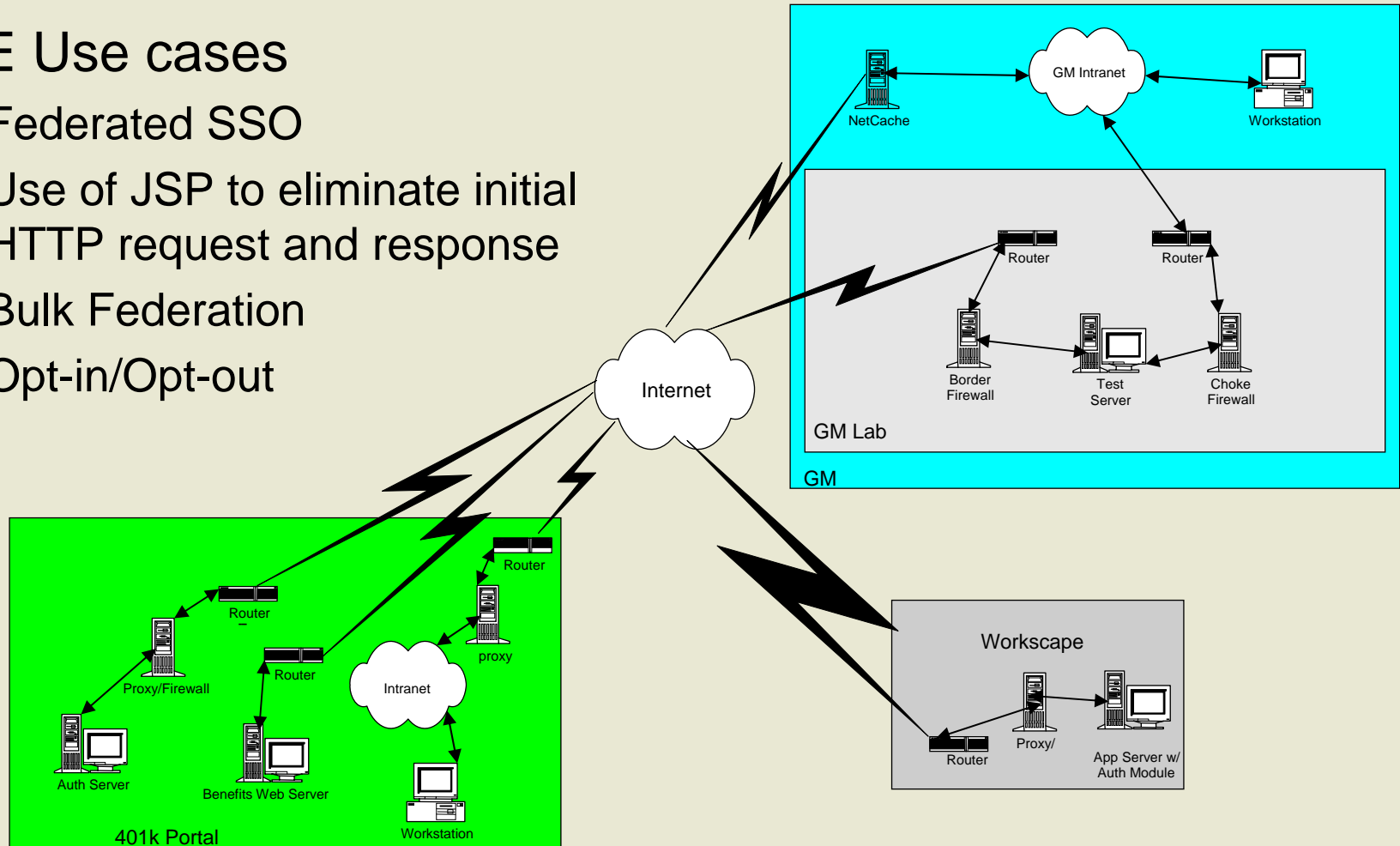
General Motors' implementation of the Liberty-Enabled solutions Employee 401k and OnStar Music Store for Proofs of Concept

# Executive Summary of the Employee 401k Portal Integration

- The solution:
  - Providers:
    - Sun
      - Sun Portal Server
      - Project Management Support
      - Professional Services
    - Workscope
      - Professional Services were/are <Vendors, Integrators involved>
  - Is designed to
    - Federate GM Employee Portal and Employee 401k Portal
    - Validate ID-FF spec
  - PoC completed in 2003, production implementation planned for 2005
  - Supports ID-FF 1.1

# Solution Description

- B2E Use cases
  - Federated SSO
  - Use of JSP to eliminate initial HTTP request and response
  - Bulk Federation
  - Opt-in/Opt-out



# Reasoning and Selection of Solution

- PoC requirements
  - Validate ID-FF
  - Model production environment as closely as possible
    - Work with business partner
    - Firewalls/Proxies
    - Use Public Internet

# Statistics and Feedback

- Business partners
  - Business issues, legal issues consumed the majority of the time spent on the PoC
- Perception and feedback
  - HR believes federation provides high value in employee facing applications and services.
- Statistics
  - ROI was not computed; this is an ease of use issue
  - Makes BPO solutions seamless to the employee
  - Approximately 70,000 users

# Implementation phase and Liberty

- Implementation phase:
  - Four months estimated
  - 12 months start to finish
- Quotes:
  - “I’m glad we spent so much time on the use cases.” – Nearly everyone involved.
- Comments:
  - What we thought would be a two week process of defining use cases took two months. It was time well spent.
  - Technically, firewall and proxy configuration issues were most troublesome.

# Vendors, System Integrators quotes

- List of companies/organizations participating in the implementation:
  - Sun - software, project management, professional services
  - Workscape – professional services
- Quotes:
  - “Will this go into production?” – Universal sentiment that federated SSO will be well received.

# Planned Extensions

- Expansion plans,
  - Production implementation in 2005

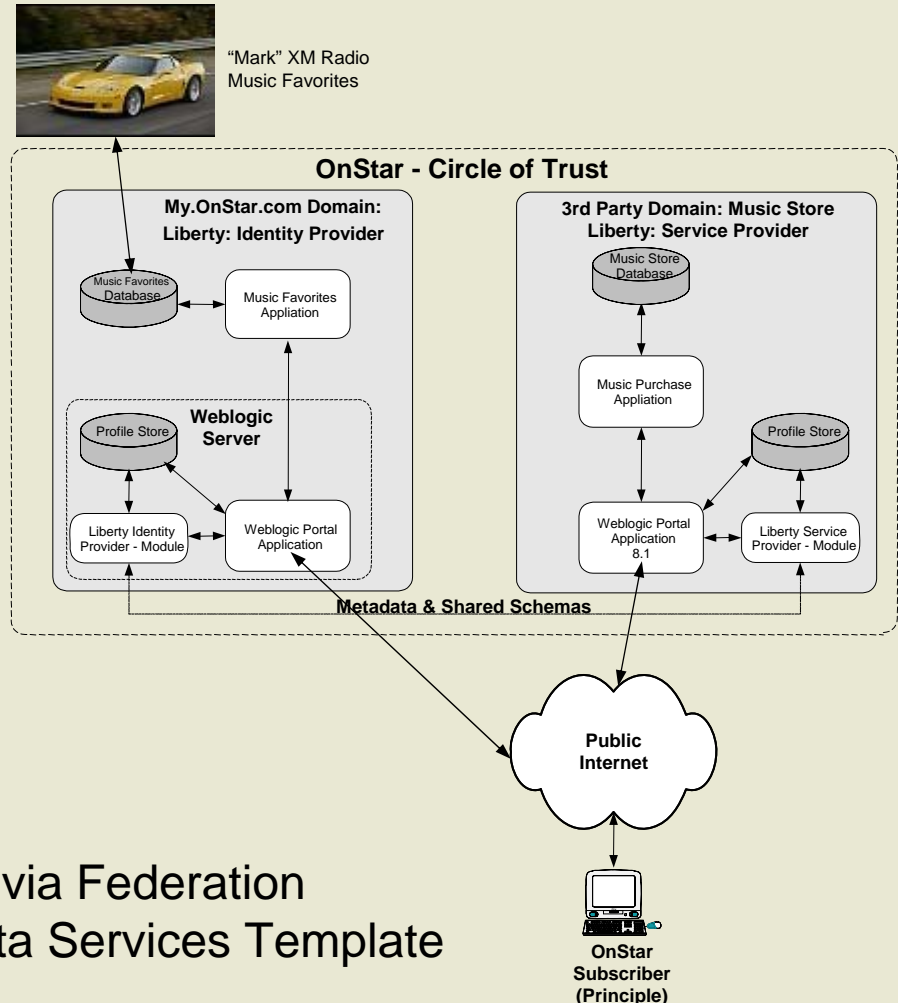
## Executive Summary of the OnStar/Music Store PoC

- The solution:
  - Providers were Mycroft, Inc. and Oracle
  - Is designed to
    - Allow OnStar/XM Radio subscribers to purchase music heard while listening to XM Radio while in an OnStar equipped vehicle.
  - Was presented to GM management on 12/09/04
  - Supports Liberty Identity Web Services 1.0

# Solution Description

## B2C Use cases:

- Federation
  - Federate
  - De-federate
- Authentication
  - SSO
  - SLO
- Attribute sharing
  - Browse
  - Buy



## High Level Sequence

- User authenticates to MyOnStar
- User authenticates to Music Store via Federation
- Music Favorites are sent using Data Services Template

# Reasoning and Selection of Solution

Project was a PoC intended to demonstrate basic WSF capabilities

- OnStar/Music Store environment was chosen over other options based on:
  - Customer focus
  - Potential revenue stream made it most appropriate for presentation to GM business units.
  
- Also looked at internal (employee) options.
  
- Other Key Decisions:
  - Chose to work with Mycroft to build Prototype Music Store vs engaging a e-business Music Vendor in order to keep project simple and fast
  - Music store was intended to provide only basic functionality with respect to federation
    - User interface development intended to be minimal
    - Limited eCommerce functionality (no CC processing capability)
  
- Business Issues/Problems that the solution is aimed to solve
  - Allows GM to stay focused on automotive products while still generating customer loyalty via extended service offerings.

# Statistics and Feedback

- Business partners – perception and feedback
  - Mycroft
    - Primary technical vendor
    - Mastery of technical aspects
    - Experience in federation
    - Built mock music store
    - Supported integration of Oracle Federation Toolkit into OnStar portal
    - Provided good council
  - Oracle
    - Contributed Federation Toolkit for use in both OnStar portal and music store
    - Integration of toolkit presented no significant problems
    - Toolkit could use more examples
- Customer – perception and feedback
  - GM IS&S - Global Technology Management
  - PoC met requirements with respect to validation of WSF functionality
  - User Interface needs refinement for presentation to GM business units

# Implementation phase and Liberty

- Implementation phase:
  - How long did it take to implement the solution?
    - Expectation of one month
    - Took 6 weeks due to scheduling (not technical issues)
- Quotes about:
  - Experiences and useful learning points when implementing and using the Liberty-enabled solution
    - “Where’s the table of contents?” – Rob Freilich, OnStar project lead, on the difficulty of finding specific answers in the Liberty documentation.
    - The biggest frustration among the GM team was lack of a roadmap, including a well developed ToC and an index, to reading and understanding the specifications.
    - Testing tools would be helpful to the extent testing is hampered by the need to coordinate between federating parties. Once both sides were at the same development point, testing and problem resolution was easy.

# Planned Extensions

- Followup on WSF prototype
  - Multiple SP's
  - Fully developed user interface with respect to attribute management
  - Use of Discovery and Interaction services and Data Services Template

# For More Information

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