



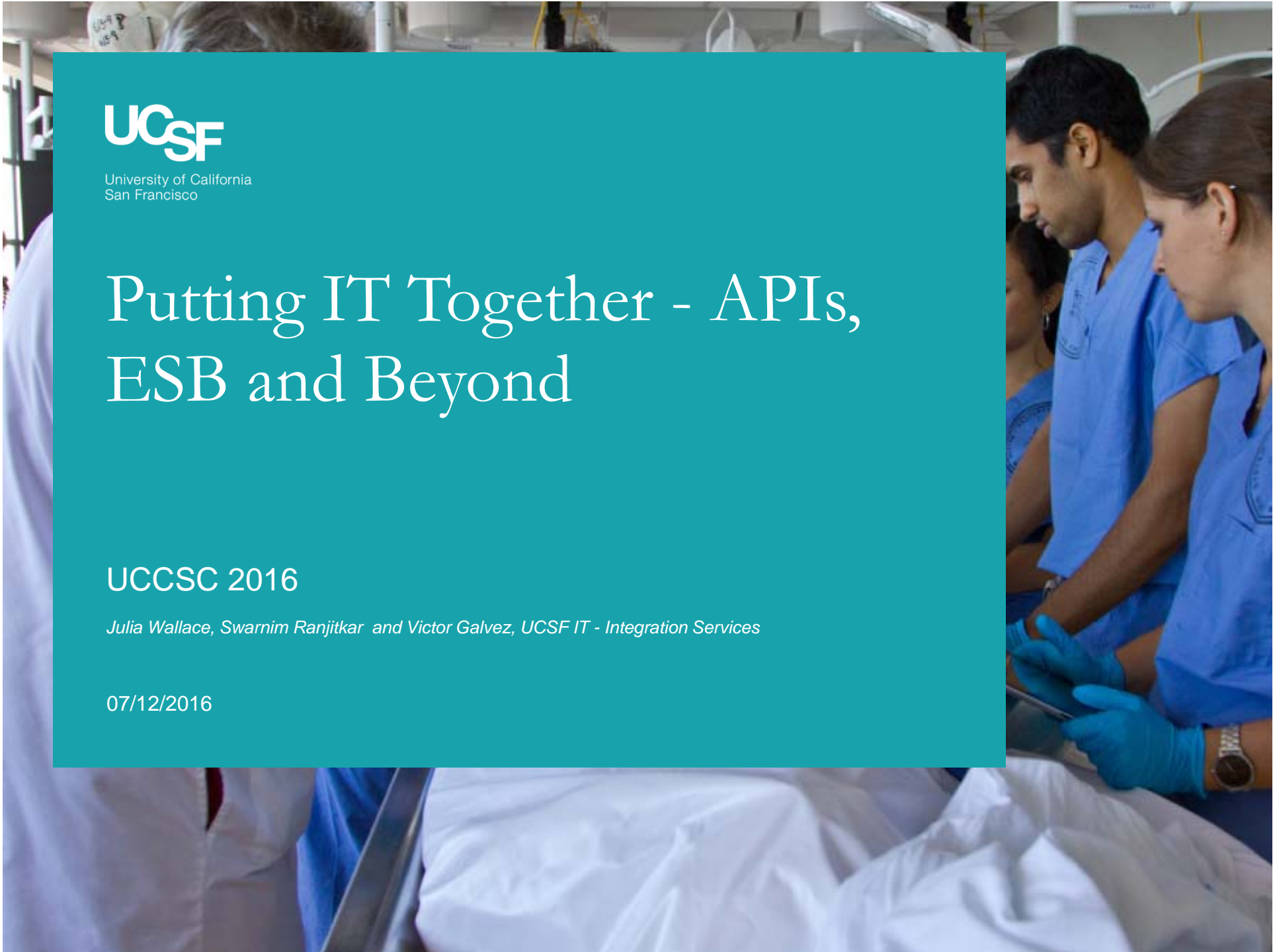
University of California
San Francisco

Putting IT Together - APIs, ESB and Beyond

UCCSC 2016

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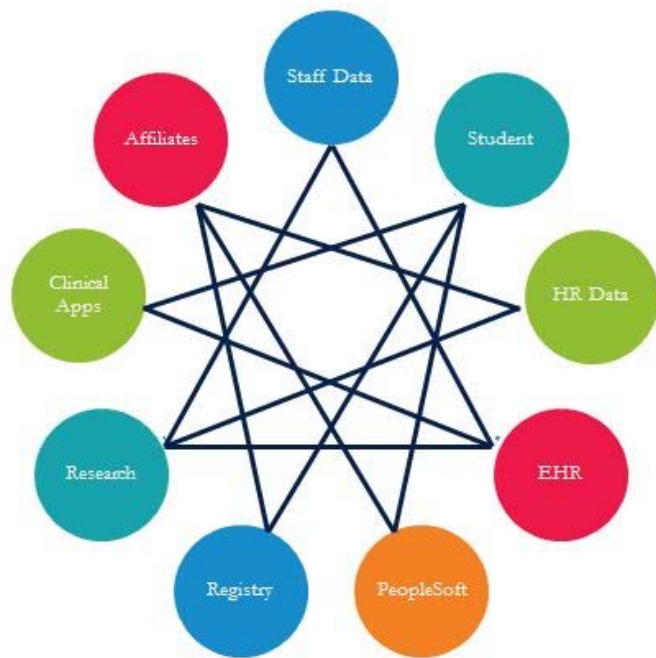
Agenda

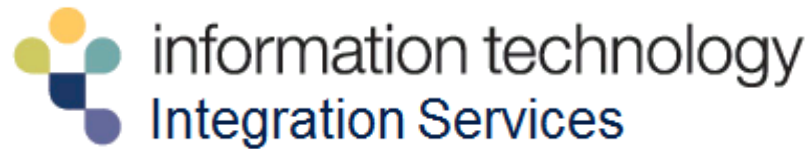
- Current integration landscape
- Our vision
- API use cases
- Architecture and management of our platform
- Demo
- Challenges and successes

Overview – Problem

- Many point to point interfaces
- Many manual and double entry processes
- Hard to maintain and support
- Decentralized solution
- Same data is created in many formats







- **Who We Are:**

Centralized group providing **integration solutions** across UCSF enterprise and beyond.

- **Our Services:**

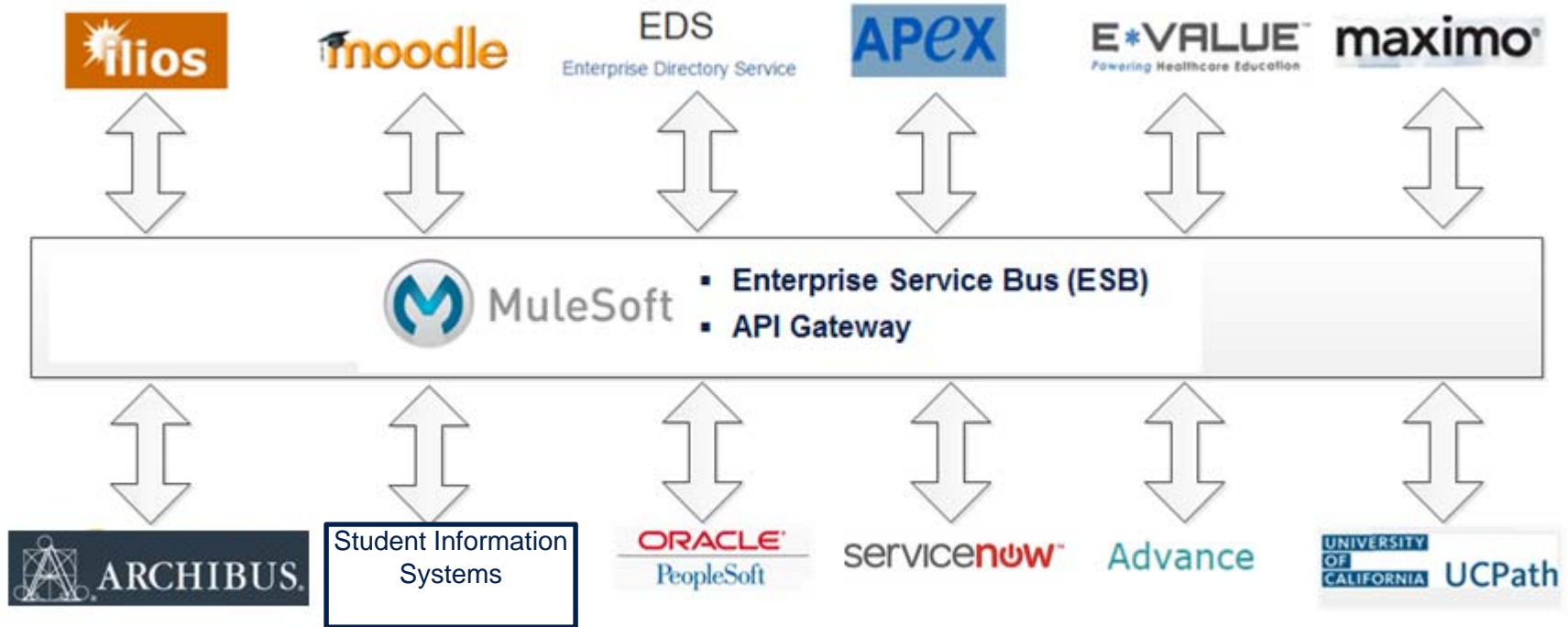
Provide **expertise and reliable integration platforms** for building robust, reusable and cost efficient interfaces

- **Our Mission:**

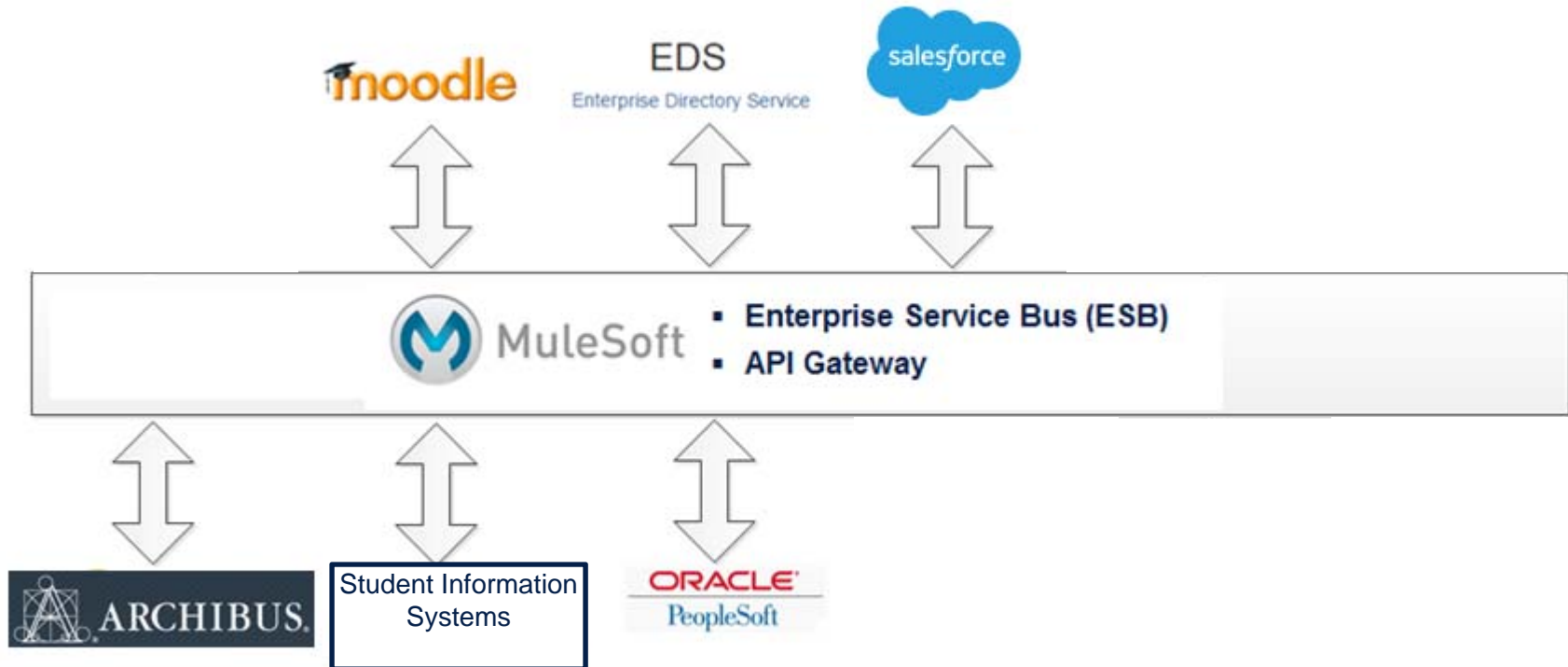
Use integration platforms and tools to **move away from point-to-point** interfaces.

Build APIs to expose commonly requested data to adapt to changing business needs **more rapidly with less cost.**

Our Vision



Where are we now?



What's Next?

- Development phase:
 - Cross Campus Enrollment System - UC-wide project, students from one UC campus enroll in and complete courses offered by another UC campus.
 - ServiceNow Integration - generic API to enable applications to create incident tickets.
 - Ilios to E*Value – project with the School of Pharmacy linking Ilios (curriculum management) to E*Value (evaluation system).
- Discovery phase:
 - Airborne Precautions – link APeX (electronic medical record) to facilities management system to generate work order.
- Platform as a Service (PaaS).

Use Case 1 – SIS APIs

- API to share schools, departments, subjects, courses, terms and enrollments from the Student Information System (SIS) with other systems
- Replace the existing nightly batch file interface from SIS to the Collaborative Learning Environment (CLE) with RESTful web services calls using new API.
- Currently the SIS APIs will only be available for consumers permitted to access data for all student enrollments (restricting data access is for a future phase).

Use Case 2 – Building Metadata

- [API to share building metadata](#) (building, floor, room and room splits) from new space management system (Archibus) with other systems.
- Share employee and employee location information with Archibus.
 - [Subscribe to published people data](#) from our Enterprise Directory Service (EDS) through the Enterprise Service Bus (ESB).

Demo

- Architecture review
- API Manager (SSO)
- Use case 1 - Student Information Systems (SIS) API
- Use case 2 - Building Metadata API
- Security policies and API monitoring

Challenges

- Developing an enterprise culture of development with an eye to reusability.
- Identifying the right stage for the Integration Services team to become involved.
- Funding – budget for development of the initial integration *and* for support/maintenance of the project and the integration platform.
- Educating project requestors that integration projects are a shared responsibility.
- Socialization of tools/approach.
- Platform as a Service model.
- Finding resources.

Successes

- Built the team, delivered pilot project to show proof of concept, created standard processes for the team.
- Developing partnerships across the enterprise (multiple projects with same partners).
- Building metadata API – used by Directory Self-Service and HR Service Request System and available to developers across UCSF.
- Working with first customer for UCSF API Repository (Advance).
- Platform as a Service model!

Through its singular focus on health,
UCSF is leading revolutions in health.



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