Infrastructure Software Development & Architecture (ISDA)

Wilson D'Souza

July 31, 2008

Agenda

- People
- FY08 - A look back
- ISDA Strategic Plan
  - Break - 15 mins
- FY09 Priorities for ISDA and IS&T
- Guiding Principles
- Organization
  - Q&A
- Cruise : 3:45

People

Awards & Recognitions

- Dave Tanner - awarded the Spotlight Award by Mark Damian from SAIS for his outstanding work on the web services work for the UA project
- Maija Ahlquist - award a special award by John Donnelly from the VP Finance team for her tremendous efforts in analyzing their financial reporting needs and executing on some complex dashboards and reports.

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Promotions

Information
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Promotions

Promotions

- Janet Riley Bowker

Information Services & Technology

Promotions

- Janet Riley Bowker
- Qing Dong

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- Svetlana Lemeshov

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- Joanna Proulx
- Thomas Yu
- Bryan Murray

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FY08 - A look back

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FY08 - A look back at our projects

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FY08 - A look back at our projects

- Launch of the MIT Kerberos Consortium
- Wiki Service
- Data Warehouse upgrade
- Web Services for UA System
- Touchstone, Thalia in pilot
- Stellar 2.1 release

FY08 - Challenges we faced

- ISDA management gaps
- Communications
- Listening to the customer - who is the customer?
- Collaboration within ISDA and with our service partners in IS&T
- Project oversight
- Too many goals
- Long term view and commitment
- Working with external partners (incl vendors)

Opportunities

- Lightweight process for significantly improving our communications and collaboration
- Decision-making that is informed and collaborative
- Tight management of our work and deliverables (incl dependencies)
- Better understanding of our infrastructure
- Outreach and Marketing across the board
- Refining our Service Delivery process

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ISDA 3 Year Strategic Plan

Components of Strategy

- Data Services
- Identity Services
- Developer Services & Tools
- Content & Collaboration Services
- Kerberos

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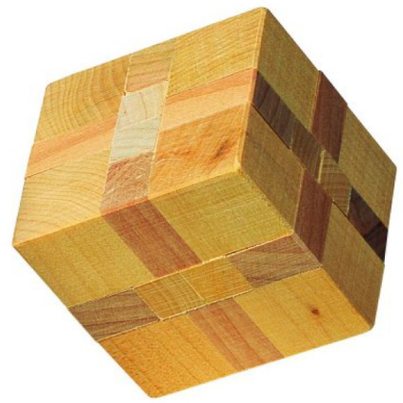
Data Services Architecture

ANY FORMAT ***ANY WAY***

Managed Data Services

Realtime Data Repository

Data Warehouse



Tape

Old data

SAP

MITSIS

Libraries

ANY DATA ***ANY SOURCE***

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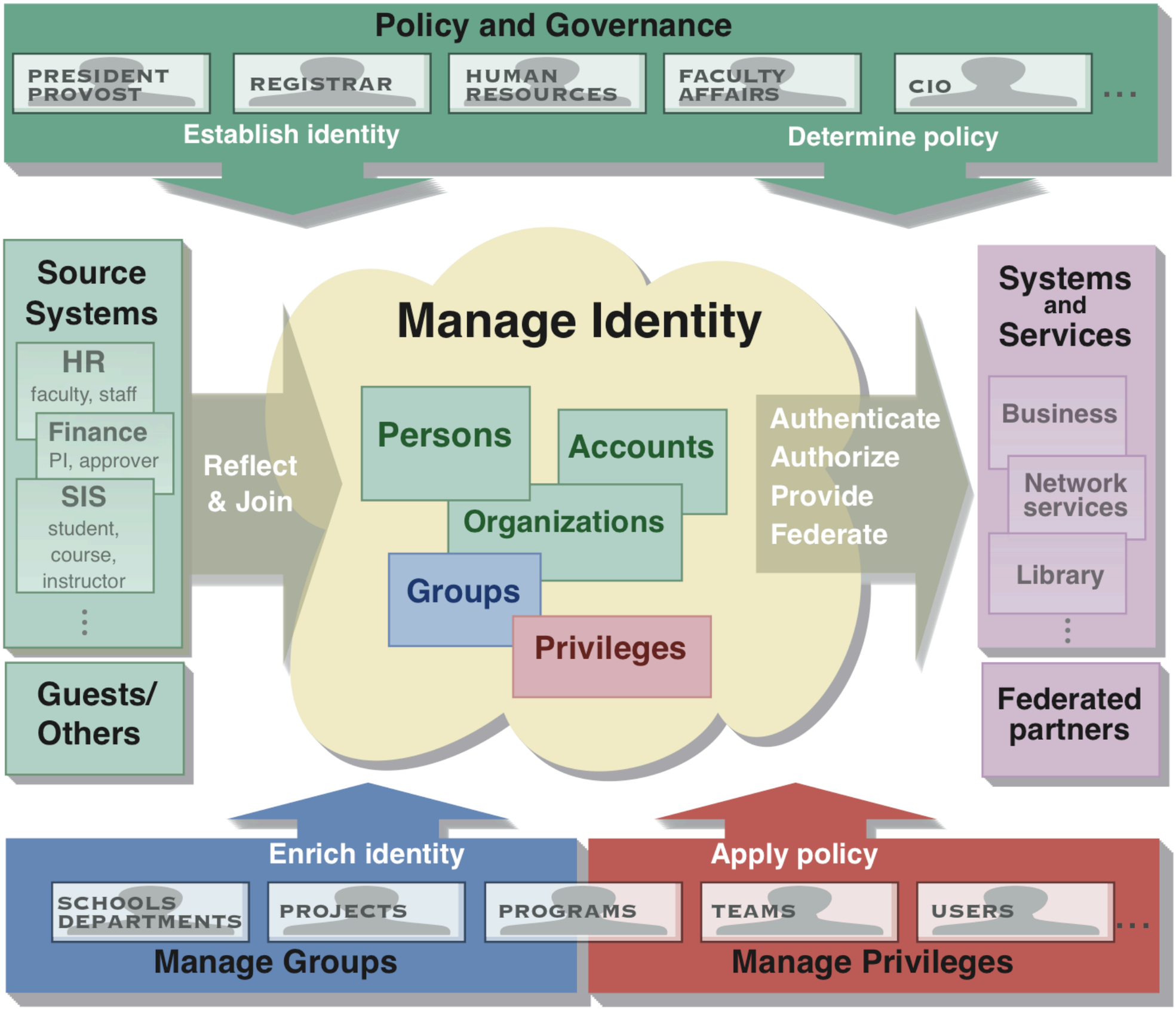
Identity Services Architecture



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Developer Services & Tools Architecture

Dev Tools

- IDE
- Source code management
- Build and Dependency management
- Continuous Integration
- Code browsing
- Code analysis
- Issue management
- Performance testing
- …

Downloads | Forums | Chat

Developer Community Site

Doc | Articles | Etc…

Toolkits

APIs

Java Language Stack

Toolkits

APIs

PHP Language Stack

… (n stacks)

MIT infrastructure services

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CCS Vision

Support for real-time/ asynchronous learning and collaboration

On-demand, self-service model where possible

Multiple channels for distribution/ syndication (e.g., RSS)

An integrated infrastructure and shared tools for teaching, learning & research

User-driven content/media tagging, rating, reputation, and citation

Seamless, integrated user experience across the content lifecycle (e.g., DOS)

Secure search across components

Discovery and social networking tools

Community-supported, extensible LMS meeting MIT needs

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CCS Architecture

Exists Now | In development | Exists, will update | Under consideration

TOOLS

Course Management

- Sections
- Homework
- Homepage
- Schedule
- Gradebook
- Syndication
- Course Evaluation

Content

- Materials
- Mobile Content
- Images: Thalia
- Web: Quickpages
- Content Repository
- Podcasts
- Content Mgt
- Multimedia: TechTV

Collaboration

- Survey: Opinio
- Chat: MIT Chat
- Forum: Teamspace
- Blog: Teamspace
- Social Networking: Teamspace
- Content Ratings: Teamspace
- User Reputation: Teamspace
- Email: MIT
- Calendar: MIT

SERVICES

- Groups
- ID Mgmt
- WebAuthN

9

- Stellar
- OCW

Interactive Content → Archival Content

- DSpace

- MIT Email
- Calendar
- Teamspaces
- Search

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An Integrated Architecture for Applications

MIT Community / External Community

Research Tools

Collaboration Tools

NG Student Systems

Learning Management

HR/Finance Apps

DLC Apps

Developer Infrastructure

UI Tools & Services

MAP (MIT Application Platform)

Rules/Workflow/ Messaging

Web Services

Data Services

Identity Services

Data Center & Network Infrastructure

Enterprise Architecture

Security & Privacy

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Kerberos Consortium Goals

Prepare Kerberos to meet future challenges so that tomorrow's Kerberos will be attractive in tomorrow's environment.

- Progress Towards Four Pillars:
  - Kerberos on the Web
    - Understand and analyze Kerberos for web services and federation.
  - Kerberos for Mobile Devices
    - Lightweight and low power
  - Building and Securing Kerberos
    - Improving security and flexibility
- Vendor Independence
  - Support open innovation and product differentiation.

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FY09 Priorities for ISDA & IS&T

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Our Aspirations

- To be the **best** IT Services organization in higher-ed, that is aligned with MIT's mission around teaching, learning and research
- Providing the best customer experience - support and services
- Reducing time to market and costs of new services to the community
- Enable the community to innovate by providing easy to use services (data et al) and infrastructure
- Become an "Employer of Choice" for the best technology and business talent.
- Recognized as a entity that fosters creativity, talent and growth with balanced work/life

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ISDA Strategic Goals

- Implement a set of policies and procedures, in alignment with MIT/IS&T, on how we run the business of ISDA
- Workforce development (working collaboratively with HR)
- To provide a rich set of data management services & tools with a robust data governance model
- Define and execute on the portfolio for Content and Collaboration software services

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ISDA Strategic Goals

- Provide a rich foundation and framework for identity services
- Deliver a set of services to the development community that allows them to integrate with MIT infrastructure
- Progress towards making Kerberos the universal authentication system for the world's computer networks

Key ISDA Initiatives for FY09

- DOS (DSpace, OCW and Stellar integration)
- Future of LMS platform
- MIT Touchstone
- Managed Data Services
- Developer Tools & Services
- Kerberos on mobile platforms
- Deliver Thalia and QuickPages into production
- Athena 10
- Kuali Student - Architecture, Components

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IS&T FY09 Priorities (XDPP/VP-Staff will prioritize)

- Next Generation Student Systems/Kuali Student
- DOS
- eMail/Calendaring
- VoIP Rollout
- Data Centers (relocation, virtualization, new DC's)
- Identity Services (Touchstone, perMIT, Kerberos)
- HR Payroll
- Next Gen WiFi rollout (802.11n)

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Guiding Principles

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Guiding Principles

- Staff On Boarding Process aligned with HR
- Projects/Work
- Purchasing/Procurement
- Community/Customer/External Partners Engagement
- Software Development Life-cycle and Best Practices
- Communications
- Decision Making
- Collaboration & Consensus Building
- Mentoring/Coaching

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Organization

So what does this all mean?

- We need to structure our work and resources towards the success of our key initiatives
- Structure that promotes better leverage and collaboration
- Get our people aligned with critical efforts
- Build on common tools and practices

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An Organization to execute the vision

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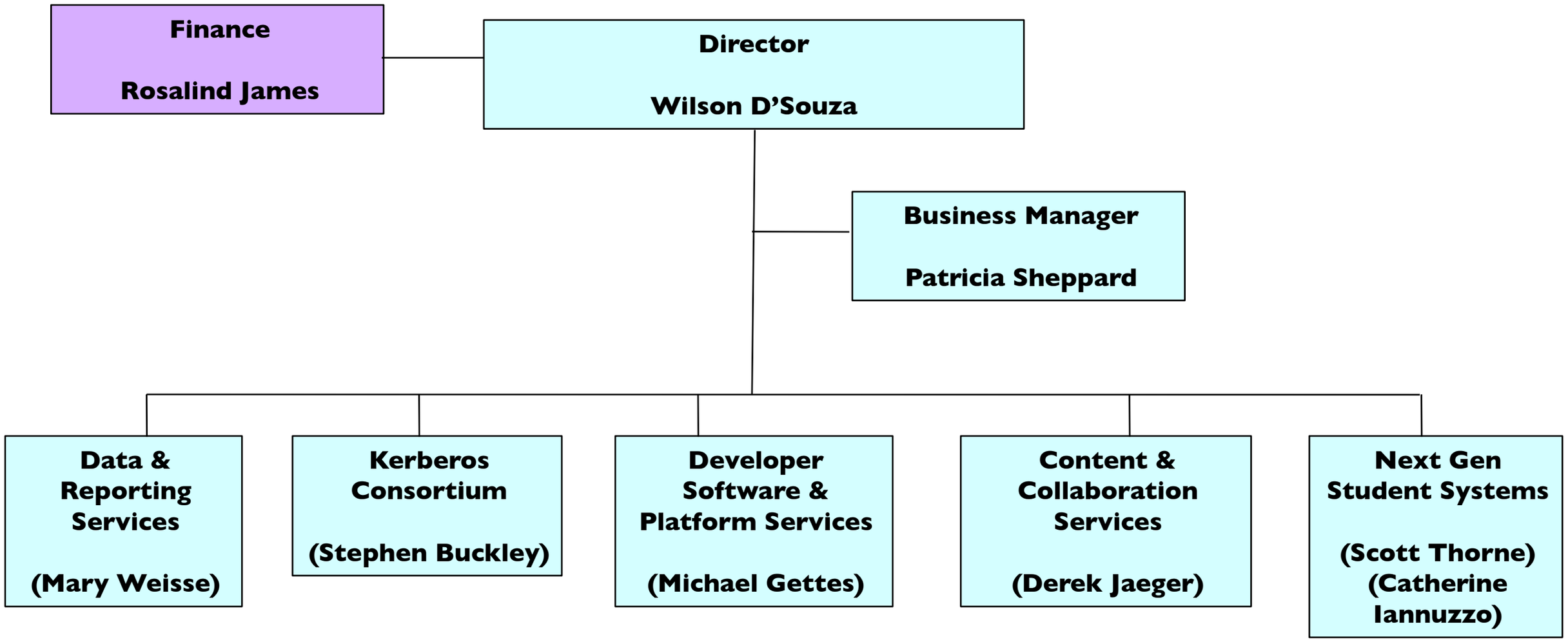
ISDA Management Team



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Organization effective Aug 1, 2008

Consultant

Student

Finance

Rosalind James
Quentin Alexander

Director

Wilson D'Souza

Business Manager

Patricia Sheppard

Bryan Murray
Arnis Kletniks
Joshua Scott

Data & Reporting Services

(Mary Weisse)

Huey Chan
Amon Horne
Rayna Lateva-Demirev
Svetlana Lemeshov
Elena Zhitnikov
Maija Ahlquist
John Scanlon
James Repa
Margaret McGrath
+ 1 Open

Keith Harrington
Vladimir Sluchak

Kerberos Consortium

(Stephen Buckley)

Thomas Yu
Alexis Ellwood
Kenneth Raeburn
Zhanna Tsitkova
Greg Hudson
+ 2 Opens

Robert Silk

Dev Software & Platform Services

(Michael Gettes)

Paul Hill
Steve Landry
William Cattey (60%)
Robert Basch
Andrew Boardman
Hunter Heinlen
Brian Knoll
Dave Tanner
Gongqin Li
+ 2 Opens

Vijay Konda
Gerard Bras

Nana Essilfie-Conduah
Joshua Dale

Content & Collaboration Services

(Derek Jaeger)

Craig Counterman
Carter Snowden
Joanna Proulx
Laura Watts
Justin Anderson
Janet Riley Bowker
Qing Dong
Robin Colodzin
Joe Calzaretta
+ 2 Opens

Ajay Bhandari
Cassandra Boell
Usha Erramilli
Karishma Gupta
Alex Pandre
Ann Patrice Hickey

Debbie Song
Javier Matos-Desa
James Chen

Next Gen Student Systems

(Scott Thorne)
(Catherine Iannuzzo)

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Products & Services

Finance

Rosalind James

Budgets
T&E
Project Chargebacks
Purchasing

Director

Wilson D'Souza

Business Manager

Patricia Sheppard

ISDA Administration
Policies/Process
PMO
Contracts/Licensing
Service Readiness/SLAs

Data & Reporting Services

(Mary Weisse)

Data Services
MIT DataWarehouse
AAUDE DataWarehouse
Managed Data Services
Real-time Data Repository
Business Intelligence & Reporting
Roles
MIT ID

Kerberos Consortium

(Stephen Buckley)

Kerberos Development
External Community Development
Vendor Alliances & Standards

Dev Software & Platform Services

(Michael Gettes)

MIT App Platform (MAP)
Developer Tools
perMIT
MIT Touchstone
Athena Development
AMIT (App Management & Integration Team)

Content & Collaboration Services

(Derek Jaeger)

Stellar
TeamSpaces
Wikis
DOS (Dspace, Stellar & OCW) Integration
Thalia
QuickPages

NGSSS

(Scott Thorne)
(Catherine Iannuzzo)

Kuali Student
Next Gen Student Services System (NGSSS)

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Thank You