Customer Case Study
Event-Based Systems Integration at QUT

Enhancing Student Service & Delivering Change Capacity

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SAMS Implementation Program

- SAMS - Student and Academic Management System
  - TechnologyOne Student Management
  - In production Oct/Nov 2010

- Replace existing Student Information System
  - Integration and connections to other systems
  - Rethinking technical architecture

- Key business objectives
  - Improve service to students
  - More efficient student data processing
  - Draw students into self-management online
Deliverables

- Tighten student facing University-wide web experience
  - Improve web interactions
  - Seamless
- Leverage Single Sign-On
  - Authentication (ESOE and SPEP)
- Reduce latency in integration
  - ‘Real-time’
  - Web services, SOAP, XML messages

Technical Architecture
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Technical Architecture

- Needs a mindset change both in business and technical areas from:
  - Batch
    - export groups list of de-normalised data
    - delayed and often overnight
  - Event
    - single, discrete self-contained data packets
    - distributed ‘as they happen’
    - Real-time
# Important QUT Scenarios

**Student Study Plan:**
- SSP_SI_01 Student applies for course
- SSP_SI_02 Course application rejected
- SSP_SI_03 Student offered a place
- SSP_SI_04 Student accepts course offer
- SSP_SI_05 Student admitted on course
- SSP_SI_07 Student enrolls on unit
- SSP_SI_08 Student withdraws from course
- SSP_SI_09 Student withdraws/cancels unit
- SSP_SI_11 Student goes under examination
- SSP_SI_12 Student completes course
- SSP_SI_13 Student completes unit

**Curriculum:**
- 10 Course, 8 Study Area, 11 Unit
Important QUT Scenarios

- Student Account
  - STA_SC_01 Sanction applied
  - STA_SC_02 Sanction lifted
  - STA_SC_03 Sanction changed

- Student Registration
  - STA_SR_01 Student registration

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Student Registration - Batch
Student Registration - Batch

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One vision, one vendor, one experience.
STA_SR_01 Student Registration
Student Registration – Event Driven

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T1 Application Events

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One vision, One vendor, One experience.
Comparison

- **Batch**
  - One error may hold up entire batch
  - Many hands 'end-to-end'
  - First and last at same time

- **Event**
  - Error savvy
  - Single end-to-end process
  - Concurrent and recoverable
  - First complete before last started

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Key Connections & Convergence

- Improved Student Experience
- Enterprise Architecture Approach
  - Flexible architecture driven by business needs
  - Strategy and governance of data flow
  - Integration as a Service
- Cloud Computing
  - Loose connections between systems
  - Mix and Match future components
  - Challenge – Single Sign-On in the Cloud
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