The Alma Course API
An Exercise in Course Integration

DAVID LEWIS

CURTIN UNIVERSITY LIBRARY

ANZREG 2018, ADELAIDE

History

- Migration to Alma in 2013
    - Ex Libris did not assist in this
    - SOAP API was available
    - First version of client wrapper

- SOAP and REST
    - 2015 Ex Libris announced deprecation of SOAP
    - Middle 2015 accelerated deprecation
    - Second version of client wrapper

- Leganto
    - Third version (refined) of client wrapper
    - Fourth version of client wrapper

Why use the Alma Courses API?

- Alma Course Loader restriction
  - Choose anytime out of 4 but only once a day
  - Run once a day using Alma Course Loader

- Flexibility
  - Run twice or more a day using Courses API

- Failed job runs
  - Points of failure – network, database, Alma
  - Retry manually at will or automatically

The Integration Project

▶ Deprecation of OLAS by OLAE

▶ Changed business rules

▶ Change of source data structure

▶ New requirement

▶ Elevated importance of the Reading List

Project Considerations

- API Quotas
  - Quota is summed over all applications
    - Analytics, User, Courses, etc
  - Use it sparingly and wisely and factor this in your approach
  - High cost incurred
    - Minimize frequency of invoking Courses API

- Frequency of source updates
 - Built-in Alma Course Loader runs once a day

Project Considerations (cont'd)

- Course field mappings
  - Know the mappings before developing the Course Loader

Alma Course	Source
Course code	BB Course code
Title	BB Course title
Instructors	Unit Coordinator, other associated academics
Processing department	OLAE (add a note for indexed searching)
Academic department	Faculty / School name and code
And so on	And so on

Project Considerations (cont'd)

- Requirement
  - Course collapsing and parent-child course relationships
    - A problem
    - Promised before technical feasibility study!! ☹
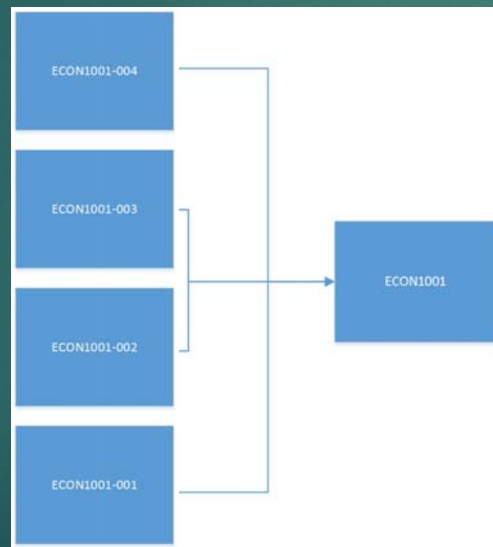
Project Considerations (cont'd)

- LTI Protocol
  - How does it support this?
  - BB sets LTI context_label parameter
    - For collapsed courses – parent course code
    - For normal courses – the course code

Project Considerations (cont'd)

Integration – Course Loader
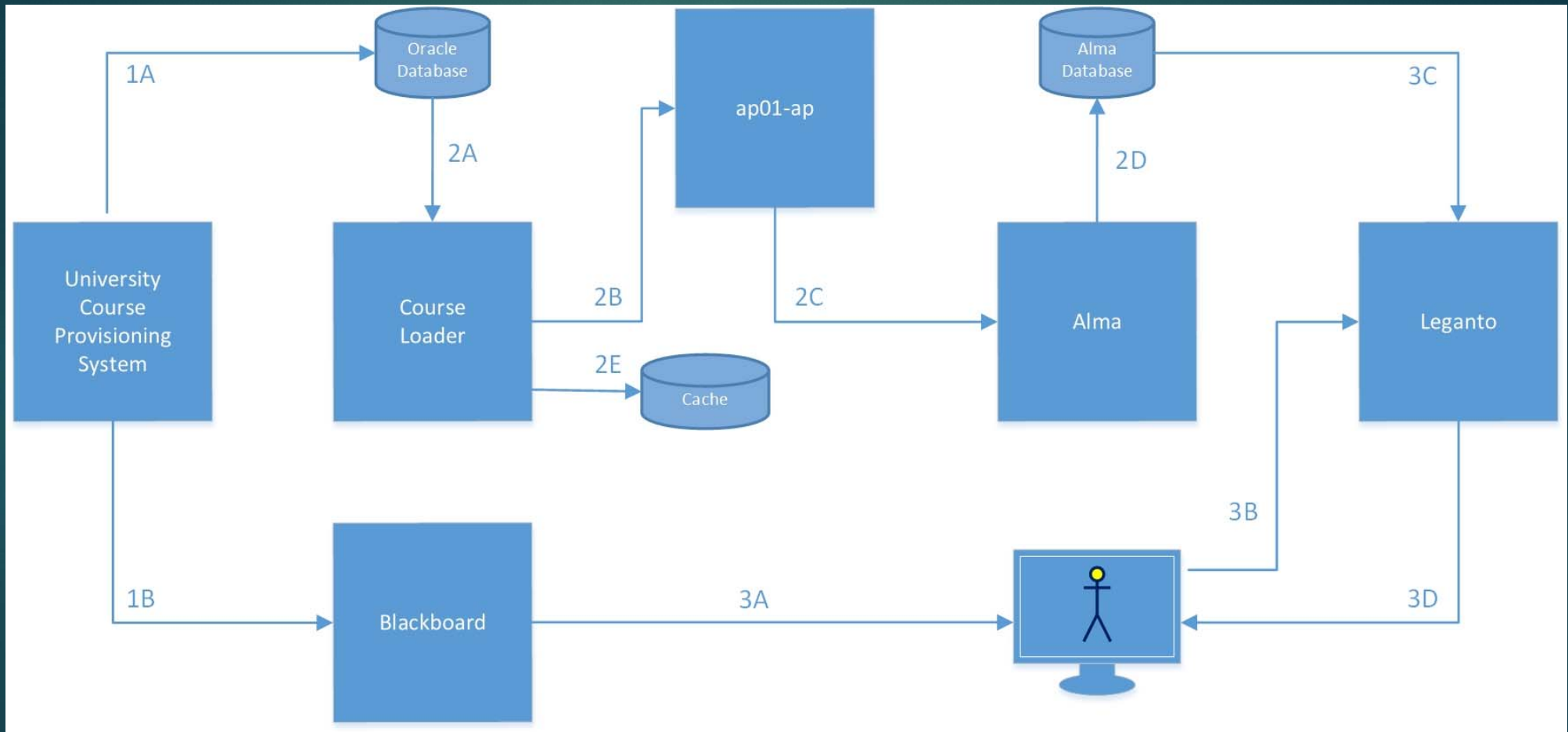
Traps

- Loading the API server
  - Timeouts
  - Strange things happen
    - Valid results come back as XML but you asked for JSON

- Error handling
  - Be prepared to handle errors
    - Missing courses and updates

- Errors come back in XML
  - Even if you asked for JSON
  - Stick to XML if you don't want to parse XML and JSON

Lessons

- Questions to ask
  - Is it even possible?
  - Who shoulders what responsibilities?
  - How do you get data out of the primary source system?
  - How do you map and put data into Alma?

- Manage the Project Managers
  - Pre-empt them especially when they make decisions without you
  - Pester them till they pay attention to you

- Prepare early
  - Groundwork
  - Document everything
  - Start your integration work (design, planning, etc)
  - Voice your concerns
  - Be wary of everyone's schedules and changes

Lessons (cont'd)

- Schedules
  - Second and third party delays (not if but when and how long)
  - Insist that their delays will impact YOUR schedule; bang tables if needed
  - Manage the managers, pester external developers

Lessons (cont'd)

- Be efficient in programming
  - The same API gateway for
    - Analytics, Bibs, Courses, Users
    - Acquisitions, Tasks-list, Resource Sharing Partners, etc
  - The same back-end Alma server

- Use last run timestamp
  - Primo pipes last run timestamp
  - Limits the window of interest

- Caching
  - Consistent state reflection of courses between Alma and business system
  - Only 5% of source updates are relevant

Lessons (cont'd)

- Logging
  - A good debugging tool
  - A good audit trail
  - Own business systems and Alma API server

Lessons (cont'd)

- Use your past integration experiences
  - Past experiences are valuable moving forward
  - If you have done this before at least once
  - Hiccups can and will happen

- Know the risks
  - Integration goes badly
    - Instructors outright reject Leganto
      - Library's reputation goes south

QUESTIONS
&
ANSWERS