

# e-Pragati Hackathon Challenge

03 October 2017



The better the question. The better the answer.  
The better the world works.



# Overall solution stacks used

## Service creation and Delivery Platform



Service modeling, Data modeling,  
Business rules, Case flows, Mobile stack

## ESB Solution



API management including modeler  
based on RAML, API repository and  
governance

## Transactional databases



Content management system  
Document store and publish



Content management system for  
Document store and publish and policy /  
privacy management



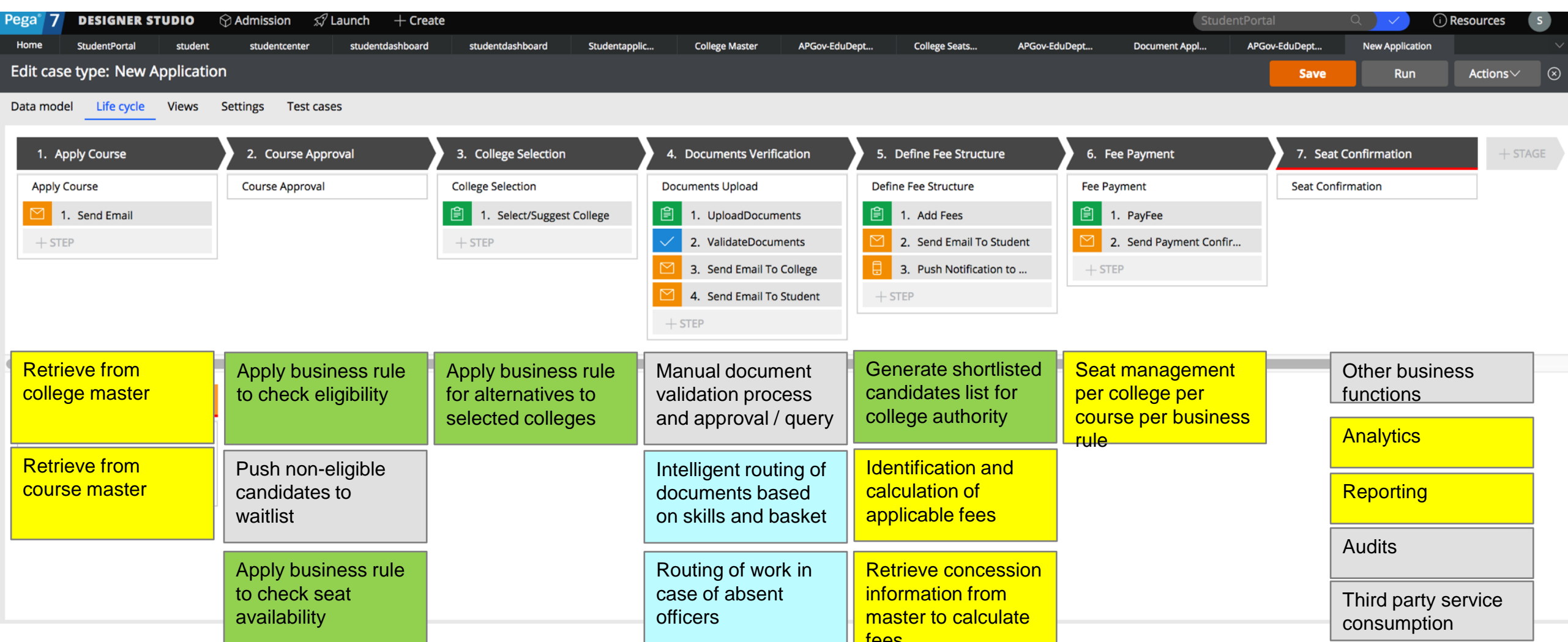
Third party services like Payment  
and SMS Gateway  
(currently developed as stubs)



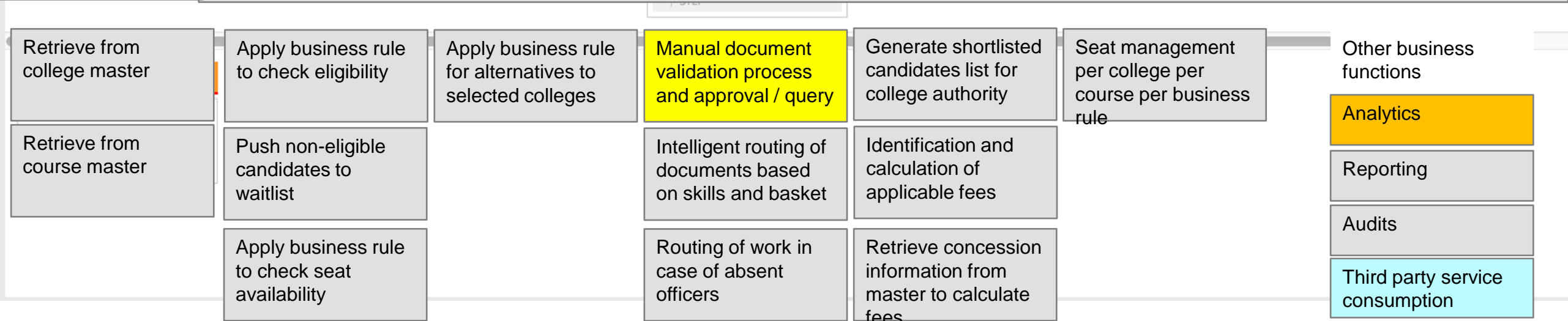
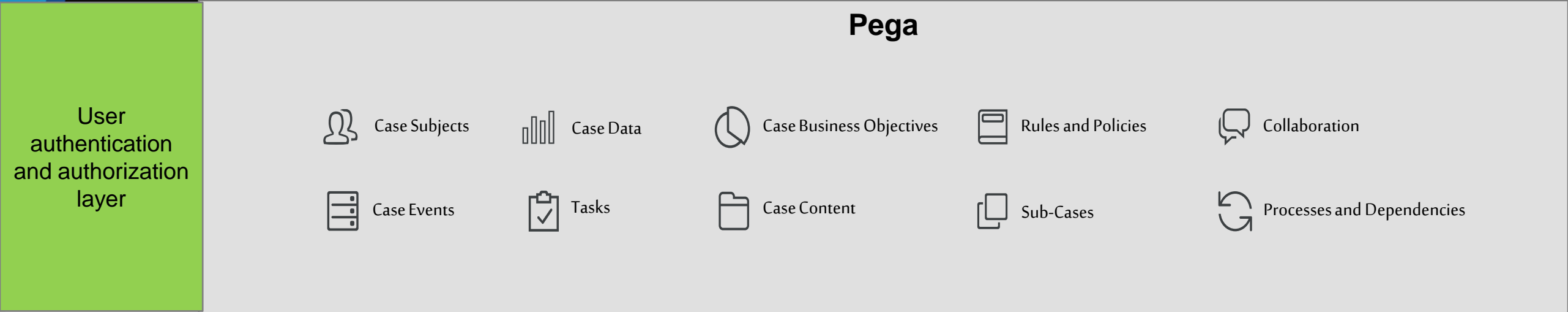
Big data analytics solution

# Business architecture

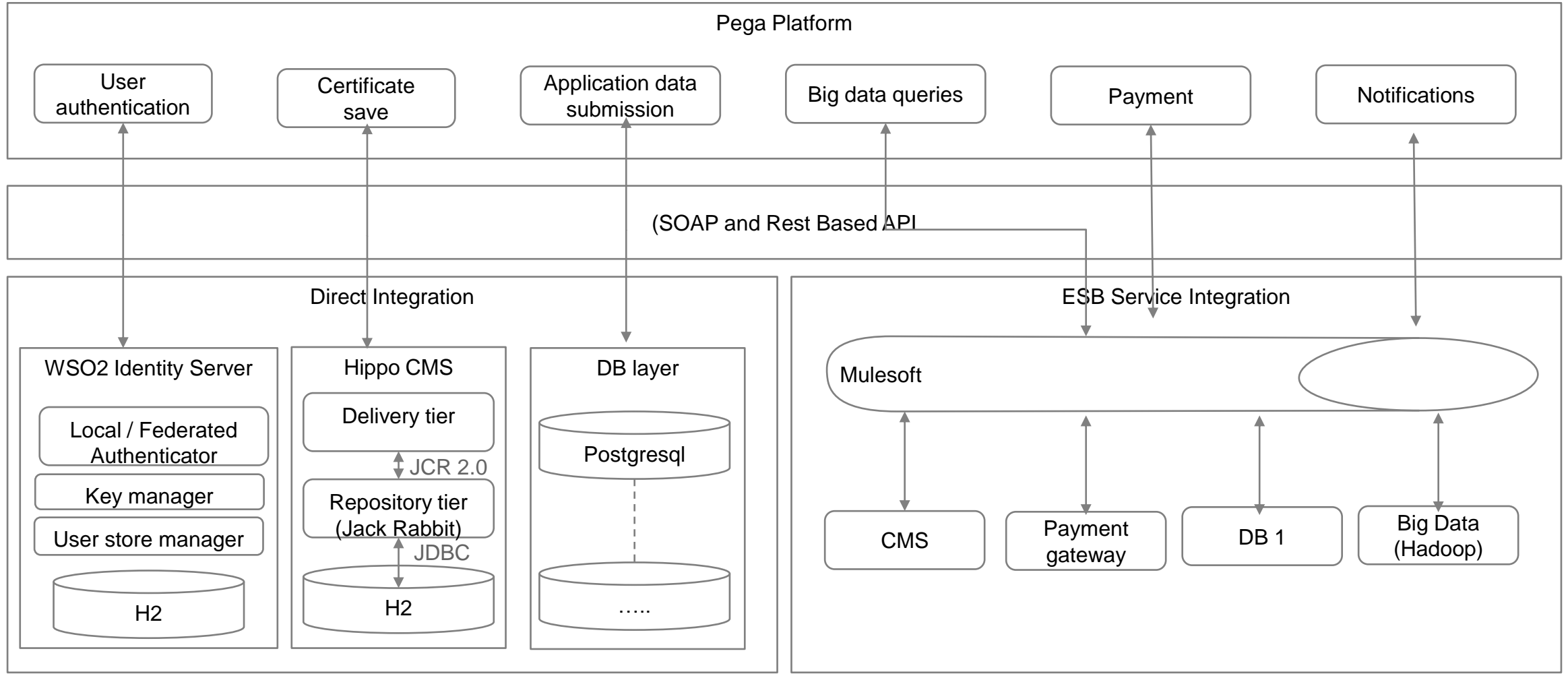
## Integrated case lifecycle for admission



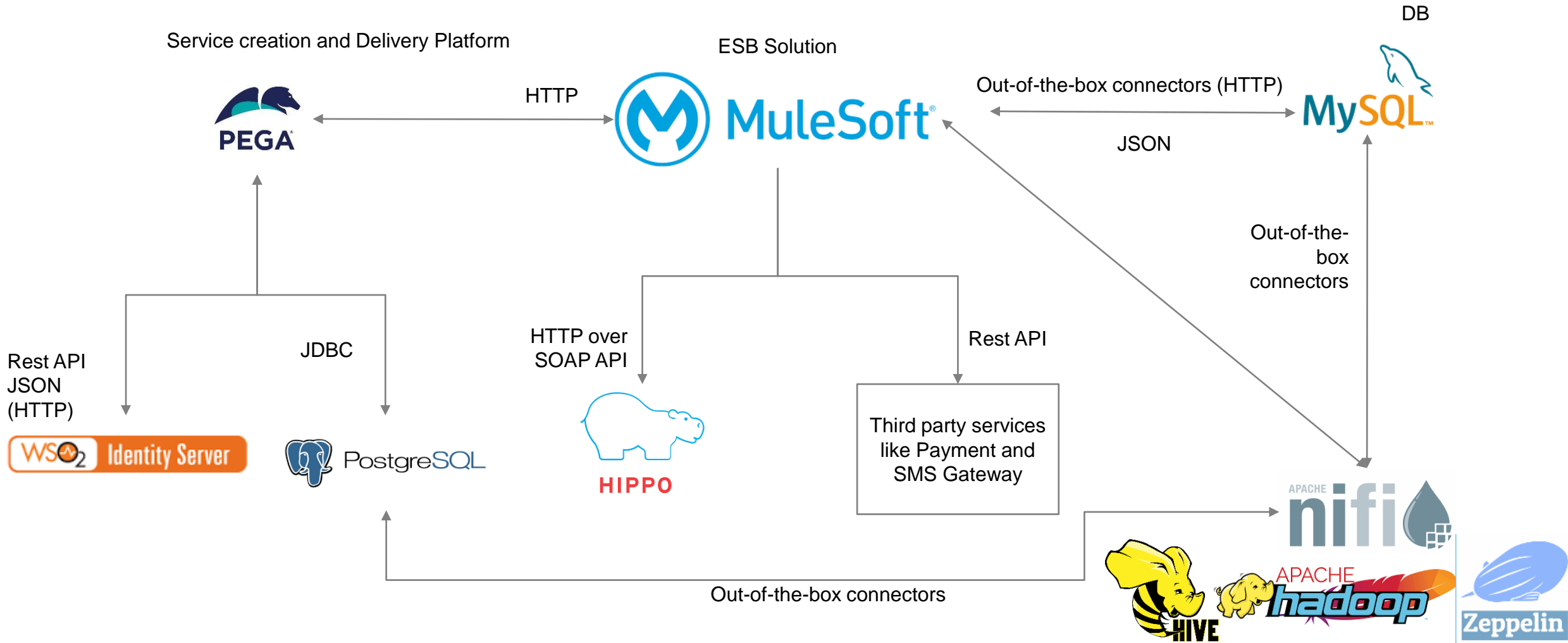
# Implementation architecture



# Integration architecture



# Communication architecture



# Proposed solution

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- The complete solution case flow has been built on Pega platform with zero coding - 90% + requirements are being catered to by Pega alone
- The reusable components like content management system, user authentication and authorization services, analytics services have been identified and provided as reusable components through open source solutions like Hippo, WSO2, Hadoop solutions
- Multiple database connections have been presented (Postgres and MySQL) with two different approaches (Pega – DB and Pega – MuleSoft – DB) to demonstrate solution ability and decoupling.
- The process workflows have been designed using zero / no coding in Pega
- User authentication and authorization services have been decoupled from Pega and may be reused by other sectors / departments (like Finance and Audits demonstrated here)

# Pega situational layer cake to enable reusability

Layer	Description	Reusable components
Education, Finance and Audit Departments / Sectors	To cover specific UI/UX (Department Logos), Business rules and case flows for the corresponding sector or department	<ul style="list-style-type: none"> <li>• UI / UX – logos, web and app structure</li> <li>• Business services - registrations, seat allocation, eligibility criteria, fee calculation, etc</li> <li>• Data models – student derived from citizen, university, employee derived from citizen</li> </ul>
E-Pragati	To cover GoAP specific UI / UX (color pallettes), business rules and case flows which span across all departments / sectors / govt organizations in AP	<ul style="list-style-type: none"> <li>• UI - color palates, GoAP logo, contextual messages, accessibility options</li> <li>• Business services - citizen authentication</li> <li>• Data models - Citizens, Land data hubs</li> </ul>
Pega Government Platform	Covers Industry specific patterns, flows and business logic	<ul style="list-style-type: none"> <li>• Sample government portal structures</li> <li>• Sample functions like business registration, citizen registration forms, license management, payroll and administrative functions</li> </ul>
Pega 7	Covers generic foundation references and models which may be reused	<ul style="list-style-type: none"> <li>• Covers industry agnostic structures which may be further extended by the individual departments</li> </ul>