



# CAL POLY

Future-Proof Strategy for  
Cloud Adoption



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## About Cal Poly

Cal Poly is a nationally ranked, four-year, comprehensive public university located in San Luis Obispo, halfway between San Francisco and Los Angeles on California's Central Coast

**Students:** 21,306

**Faculty:** 1,439

**Staff:** 1,654

**Bachelor Programs:** 63

**Master Programs:** 34

**Minor Programs:** 79

**Credential Programs:** 13



\*As of Fall 2016

# **Accelerator versus Standardizer:** Cloud Strategies for the Future

*“a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources”*

NIST Cloud Computing Standards Roadmap (2013)

**11** Years

# Clarity

# **Standardization Acceleration**



# Standardization



*Data Center Roots*

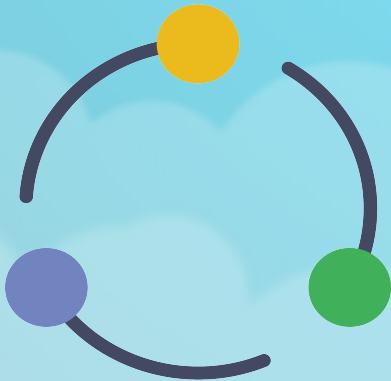


*Standard Configurations*



*Commonality*

# Acceleration



*Lean Approach*



*Self-Service*

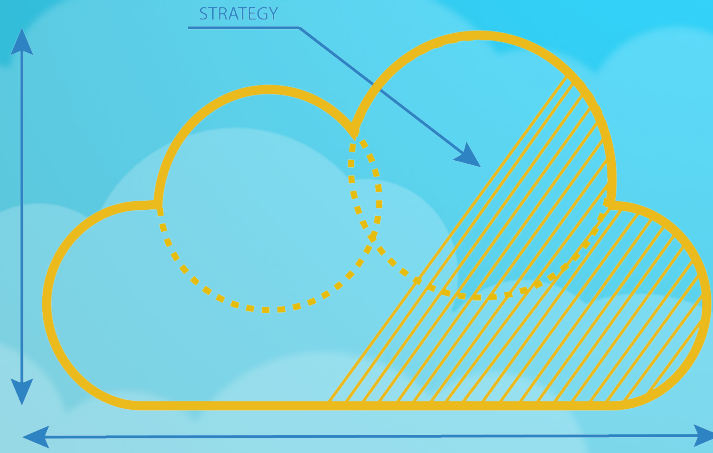


*Flexibility*

AWS



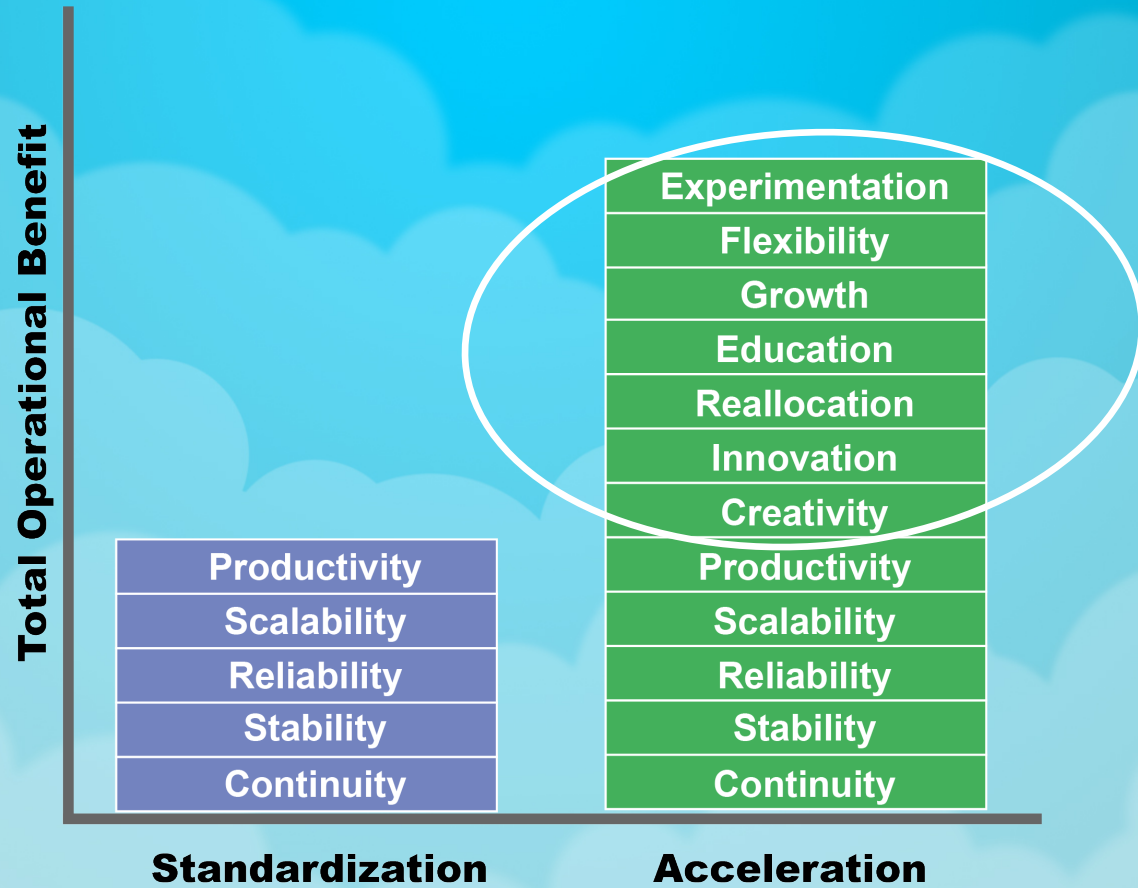
**Flexibility**  
**Scalability**  
**Reliability**



# Old Blueprint

# Change





**1963** built in

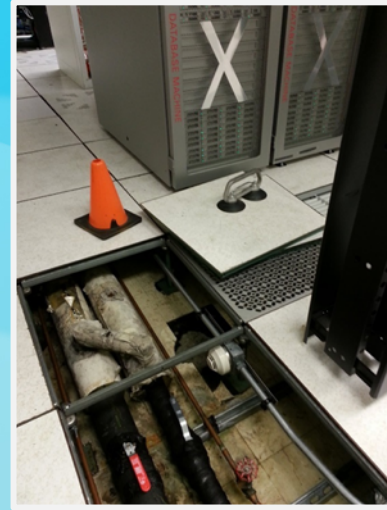
**3000** sqft

**900** servers

**25,000** customers

**1 flush**





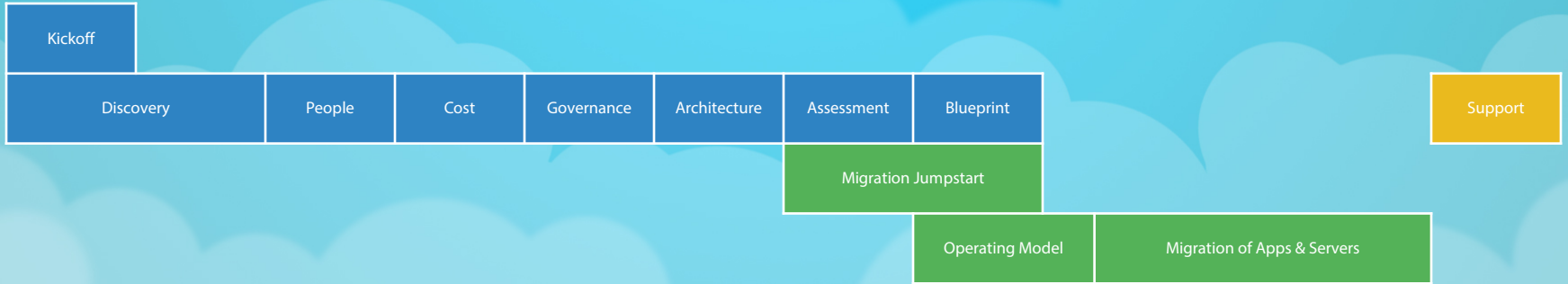
ALL IN  
aws



Jun 2017

Jan 2018

Aug 2019



Phase 1

Phase 2

Phase 3



**Amazon  
EC2**



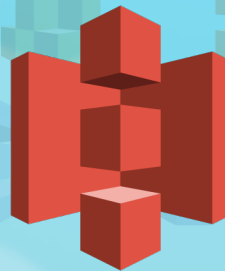
**AWS  
Lambda**



**Elastic Load  
Balancing**



**Amazon  
Cloudwatch**



**Amazon  
S3**



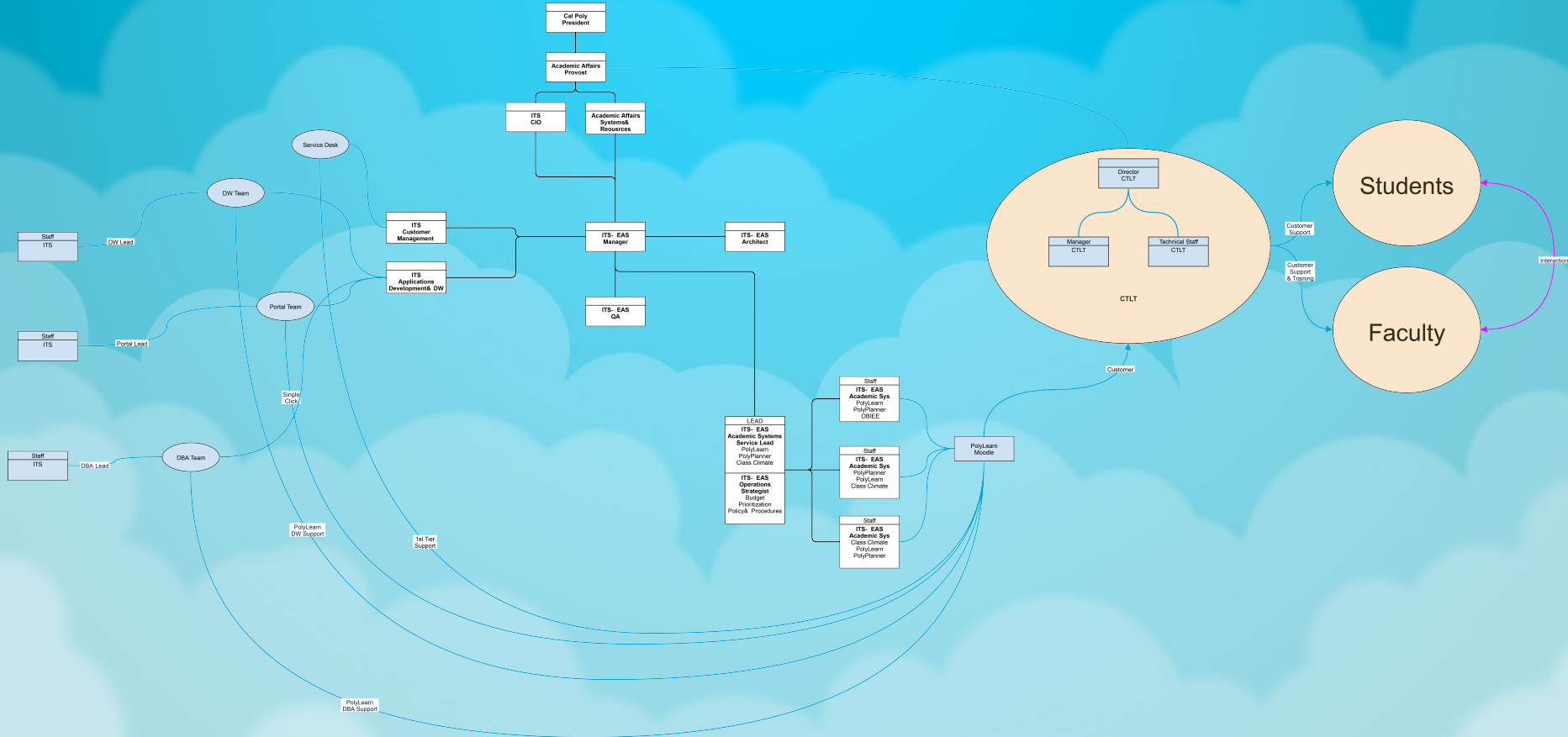
**Amazon  
RDS**



**Amazon  
WorkSpaces**

# People, Processes & Services

aws partner  
network  
aws  educate







*“Cal Poly’s motto is ‘Learn by Doing,’ and as an institution focused on technology, what better way to embody that than by transforming our own IT infrastructure and going all-in with the world’s leading provider, AWS”*

Cal Poly President  
Jeffrey D. Armstrong

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**Deployment Strategy**

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**Flexibility, Scalability, Reliability**

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aws



**Policy & Process Guardrails**

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**Customer Needs**

# Discussion

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Digital Transformation Hub



# Mission

Lower Costs

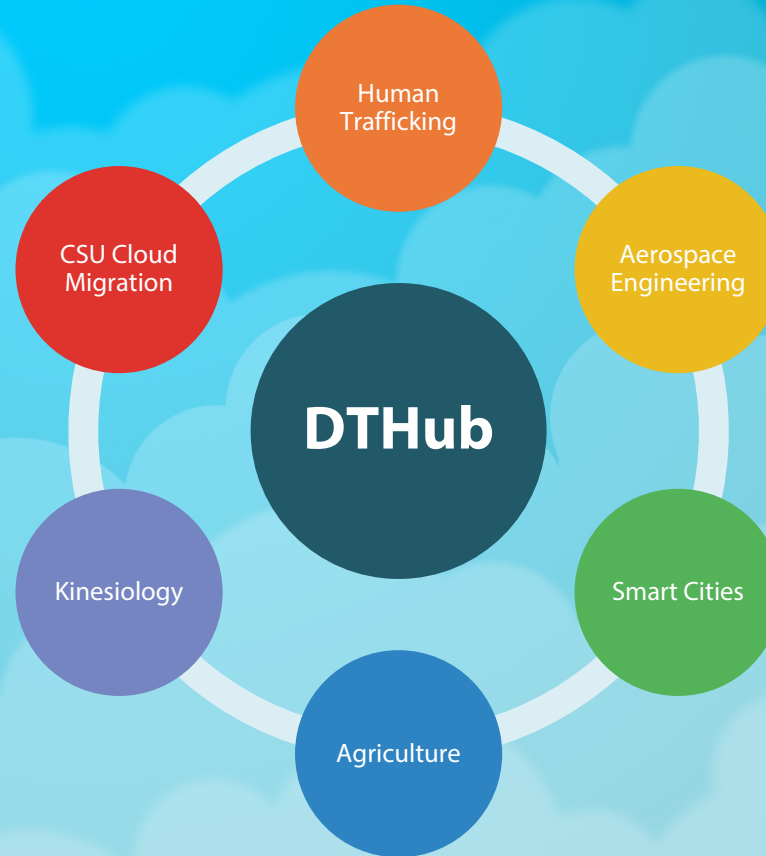
Technology  
Options

Economic  
Development

Replicate  
Success

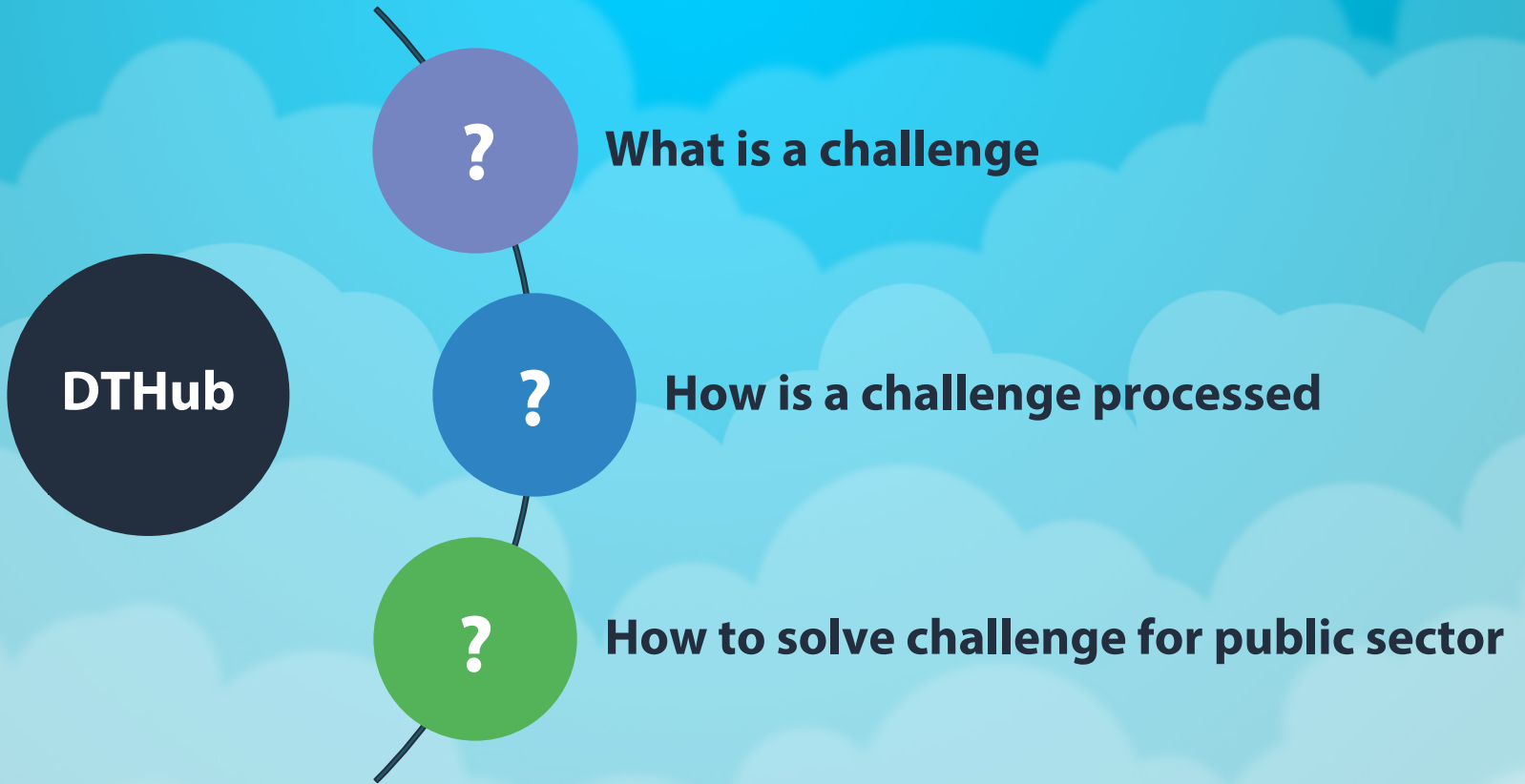
Improve  
Experiences

*“The Cal Poly Digital Transformation Hub utilizes proven innovation methodologies for the development of technologically advanced solutions to real-world challenges.”*



# Benefits

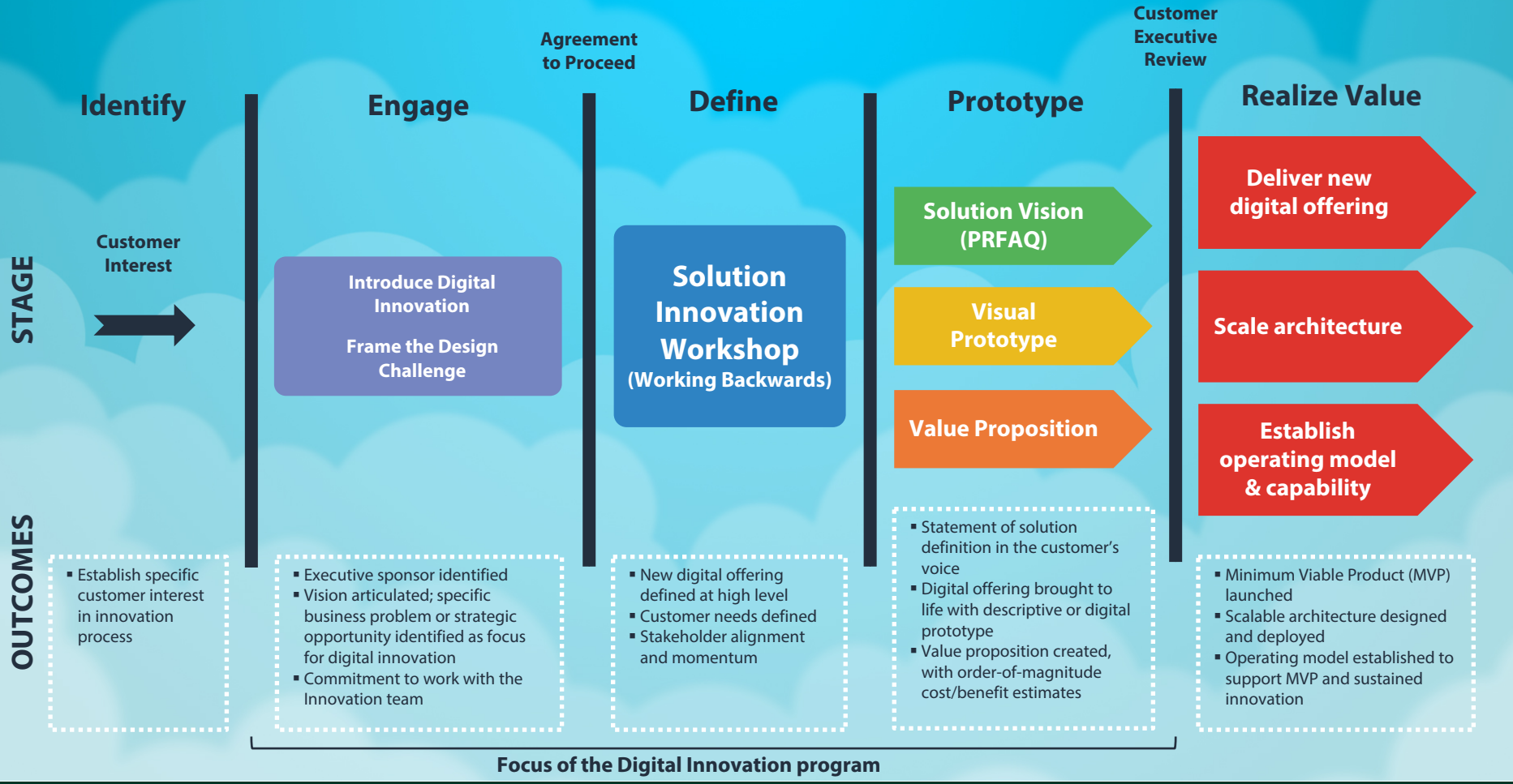
# Roles



# Sample Challenge

What if all types of data collected by/for the California law enforcement community could be easily and securely accessed at low cost by the widest variety of devices/tools?

# Core Questions





Area of Interest	Category	Challenge Topic
Human Trafficking	NGO/Non-Profit	Digital Automation
Evidence Sharing	Public Sector	Secure Storage
Missing Children ID	NGO/Non-Profit	Facial Recognition
Cloud Migration	Public Sector	Cloud Migration Topics
Process Optimization	Public Sector	Equipment Checkout Automation
Big Data Analytics	NGO/Non-Profit	Nutritional Impacts of food in Juvenile Detention Facilities
Agricultural Research	Public Sector	Efficient Data Analysis and Storage



Where are we?



What's next?

# Discussion



CAL POLY

**Accelerator versus Standardizer:  
Cloud Strategies for the Future**

ITS CLOUD PAPER SERIES  
2017

Dustin DeBrum  
Information Technology Services  
Cal Poly

# Find Out More

- **Read the white paper: [bit.ly/cloudstrat](https://bit.ly/cloudstrat)**
- **Visit: [dth.calpoly.edu](https://dth.calpoly.edu)**



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