



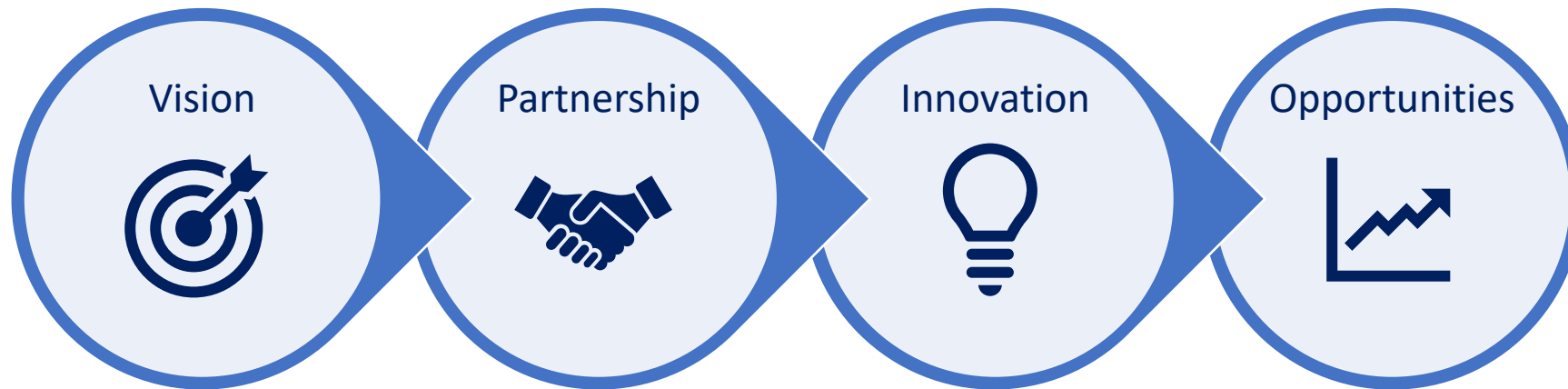
Partnering for success: Microsoft's journey with Open edX

Jhansi Reddy
Sarav Palaniyandi
Sathishkumar Eswaran

Microsoft Worldwide Learning



Our Approach





Vision



Our Mission

Empower every person and every organization on the planet to achieve more

"Achieving our mission requires us to evolve our culture, and it all starts with a growth mindset—a passion to learn and bring our best every day to make a bigger difference in the world"

Satya Nadella

Microsoft – Learning as a Service (LaaSS) Vision

Go Where Learners Are

Make learning and skills
development easy

Global scale with local relevance

Provide an experience for flexibility,
scalability and insights

21st Century Technical Workforce Skilling

Deliver cutting edge curricula and
learning paths

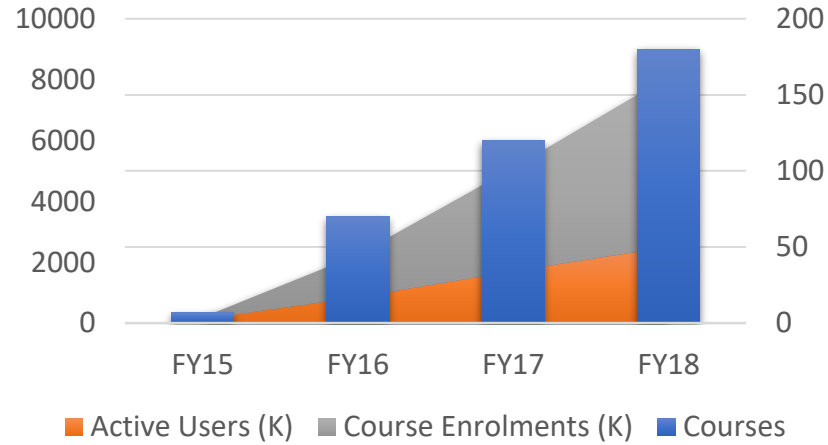
Help job-task aligned skills for future
job roles



Partnership



Microsoft Courses



- Microsoft Professional Program in Artificial Intelligence**: Build the Intelligent Future. Current.
- HarvardX Data Science**: Learn key data science essentials, including R and machine learning, through real-world. Current.
- BerkeleyX Business Writing**: Enhance your writing skills as you learn how to craft clear, effective messages to better. Current.
- Microsoft Introduction to Computer Science**: This Professional Certificate will start you at the absolute beginning teaching the. Current.

Vision

Innovation



LITHAN

Get in Touch

DIGITAL SKILLS ACCELERATOR

On Demand Learning & Mentoring

6

Access to Lithan Campuses Across Asia

9,409

Qualifications and Certifications Awarded (2,487 in Singapore)

14,576

Graduates (7,619 in Singapore)

90% Graduates Testify Careers Enhanced After Course Completion (Singapore)

* In past 5 years

Explore Learning by Persona

- Higher Education
- Business Professionals
- Tech Professionals
- Enterprises

Join our Learning Ecosystems

- Our Learning Innovations
- Grow your career with us
- Our Learning Alliances

Fast Lane LMS
Learnings
Remote LMS
Services
About
Sign In

Learn. Transform. Succeed.

What do you want to learn?

Business & Analytics
Cloud Computing
Collaboration
Core Skills
Emerging Tech
Software Development

Popular E-Learning

Microsoft Azure Fundamentals

Last Microsoft AD0014x - LAAS

Introduction to R for Data Science

Last Microsoft DAT204x - LAAS

Data Science Orientation

Last Microsoft DAT204x - LAAS

Microsoft Azure Virtual Networks

Last Microsoft AD0014x - LAAS

Principles of Machine Learning

Last Microsoft DAT204x - LAAS

Our journey...

2015

- 180K Course enrollments
- 7 courses



2016

- 1.4 Mn Course Enrolments
- 70 courses
- Microsoft Professional Program (MPP) Announced



2017

- 3.4 Mn Course Enrolments
- 100+ Courses
- **LaaS Pilot Completed**











2018

- 5.6 Mn Course Enrolments
- 180 courses
- **163 LaaS Partner sites on Open edX**



edX and Professional Certificates

 <h3>Data Science</h3> <p>8-12 hours per course</p> <p>Opportunities for data scientists—one of today's hottest jobs—are rapidly growing in response to the exponential amounts of data being captured and analyzed. Companies hire data scientists to find insights and to solve meaningful business problems.</p> <p>View details ></p>	 <h3>Big Data</h3> <p>12-30 hours per course</p> <p>Designing systems that capture, process, and analyze data is critical for companies in order to have a competitive advantage. This curriculum takes students from their first select statement to orchestrating big data workflows in the cloud.</p> <p>View details ></p>	 <h3>Front-End Web Development</h3> <p>15-30 hours per course</p> <p>The demand for Front-End Web Developers is expected to increase by 27% through 2024. That's why companies need people who are fluent in programming languages and frameworks ranging from HTML, CSS, and JavaScript, to Angular, Bootstrap, and jQuery.</p> <p>View details ></p>	 <h3>Cloud Administration</h3> <p>12-18 hours per course</p> <p>As companies move to the cloud, the need for cloud skilled professionals continues to rise. Companies need people with a range of skills; such as automation of deployments and workloads, to understanding how to best manage security and compliance.</p> <p>View details ></p>
 <h3>DevOps</h3> <p>8-16 hours per course</p> <p>To support companies to be more agile, the lines between development and operations are becoming increasingly blurred. Through continuous integration and deployment, students will learn how to react to changing market conditions.</p> <p>View details ></p>	 <h3>IT Support</h3> <p>8-16 hours per course</p> <p>The help desk is the front line of engagement for customers when problems arise. With the IT Support track you will learn a wide range of skills to diagnose, troubleshoot, and solve customer issues.</p> <p>View details ></p>	 <h3>Artificial Intelligence</h3> <p>8-16 hours per course</p> <p>Artificial Intelligence (AI) will define the next generation of software solutions. Human-like capabilities such as understanding natural language, speech, vision, and making inferences from knowledge will extend software beyond the app.</p> <p>View details ></p>	 <h3>Entry Level Software Development</h3> <p>8-16 hours per course</p> <p>Nearly all tech that you engage with relies on software. The job outlook for software developers is growing year after year. Simply put, Software Developers are the people bringing the modern world to life.</p> <p>View details ></p>



Introduced Professional Certificate + Certification exam for bundle offer

Offering 8 Microsoft Professional Program Tracks

Richard Tapia diversity in computing conference

Atlanta, Sep 2017

Jointly sponsored by



- Provided half-day Big Data training to 46 students
- Students were given vouchers for 3 edX courses



Learning as a Service (LaaSS) - Overview

Learners

Microsoft Professional Program

- Job Role Focus
- Capstone Project
- Premium Credential

Individual Courses

- Skill Focus
- Individual Course Credential (MOOC Certificates)

Partners

SPECIALIZED CONTENT

PERSONALIZED SERVICES

CUSTOM EXPERIENCES



New Geographies



Individuals and Industry



New Audiences

Microsoft

Learning As A Service

CONTENT

CURRICULUM

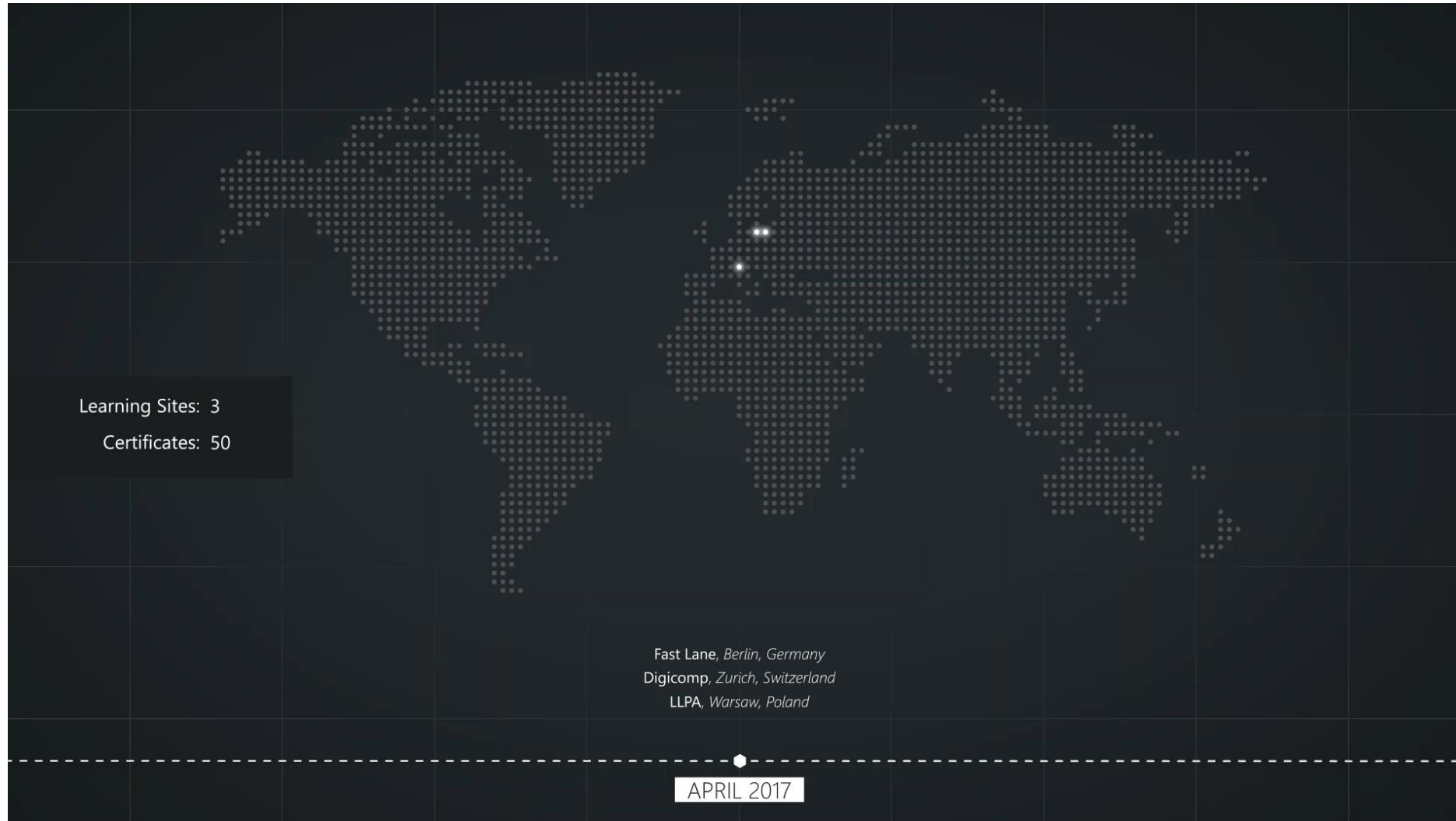
CREDENTIALS

Partners

OPENedX



Customer testimonials – Torsten Poels, Fast Lane



Synergitics – Enterprise Partner Case Study

- **Challenges Identified**

- Large Scale training for 100,000 Software professionals
- Continuous Monitoring of Learning Progress

Status: 4000 Learners registered, 1000 course completions

Be Proficient in Science

Scared to step up in the world of data science with an exhaustive course for data science your path to make the career in data science

[Learn More](#)

Customer testimonials – Leslie Loh, Lithan



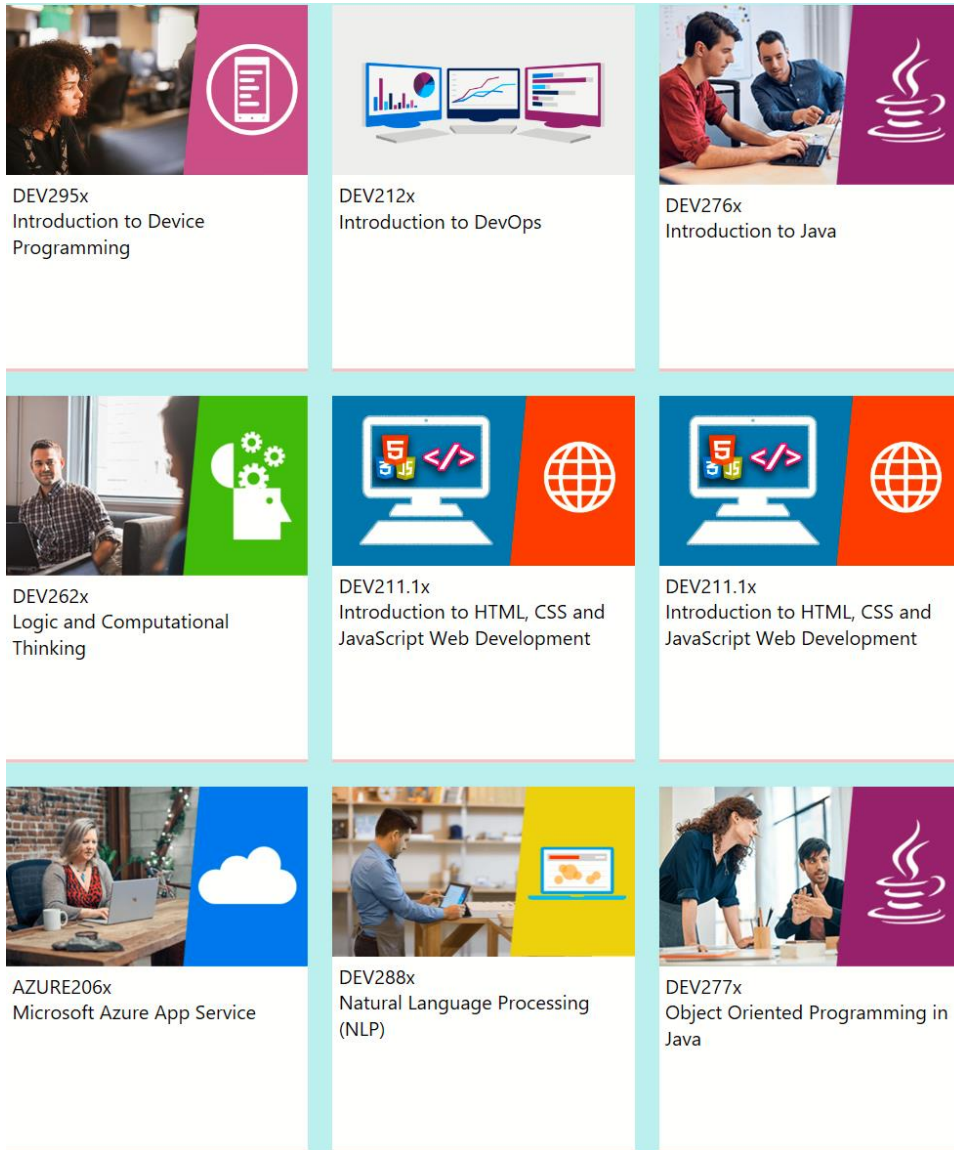
Working with Govt.
of Singapore to
map competency
framework and
deliver learning
solutions

Customer testimonials – Leslie Loh, Lithon

Working with Govt.
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framework and
deliver learning
solutions



Content



140 Courses on the Latest Technologies and Jobs

Curated Learning Paths

Self-paced and Blended Learning Modalities

Quarterly Refreshes and Additions

Centralized Credential: Microsoft Endorsement



Central location to view all the Microsoft Certificates

LTI Integration in all courses to integrate with Microsoft Certificates

Leverage OAUTH and "Grades" API to check course completion and passing status

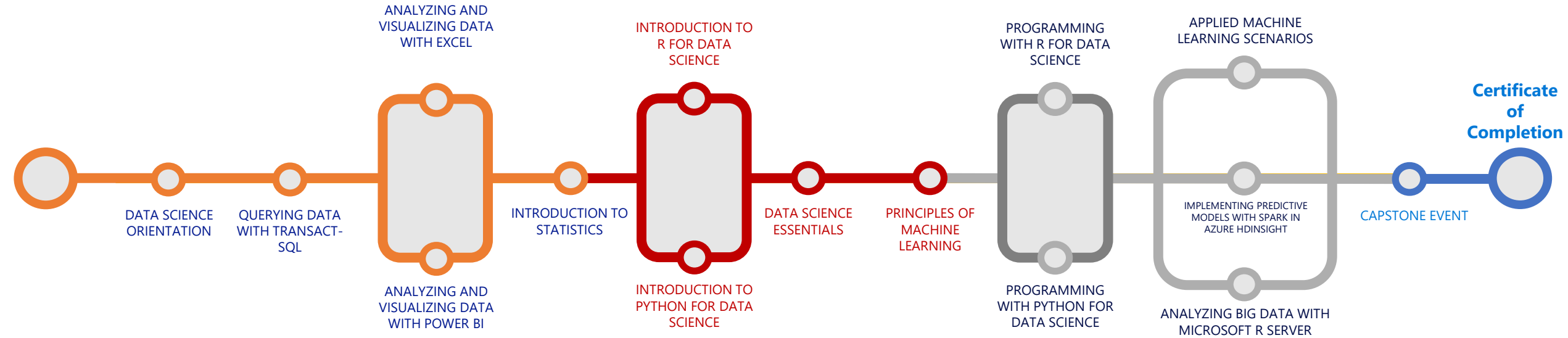
Curriculum – Ex: Data Science Track

FUNDAMENTALS

CORE DATA SCIENCE

APPLIED DATA SCIENCE

PROJECT



Skills

How the Microsoft Data Science program works

Query Relational Data

Analyze and Visualize Data

Performing Statistical and Probability Analysis

Explore Data with Code

Understand Core Data Science Concepts

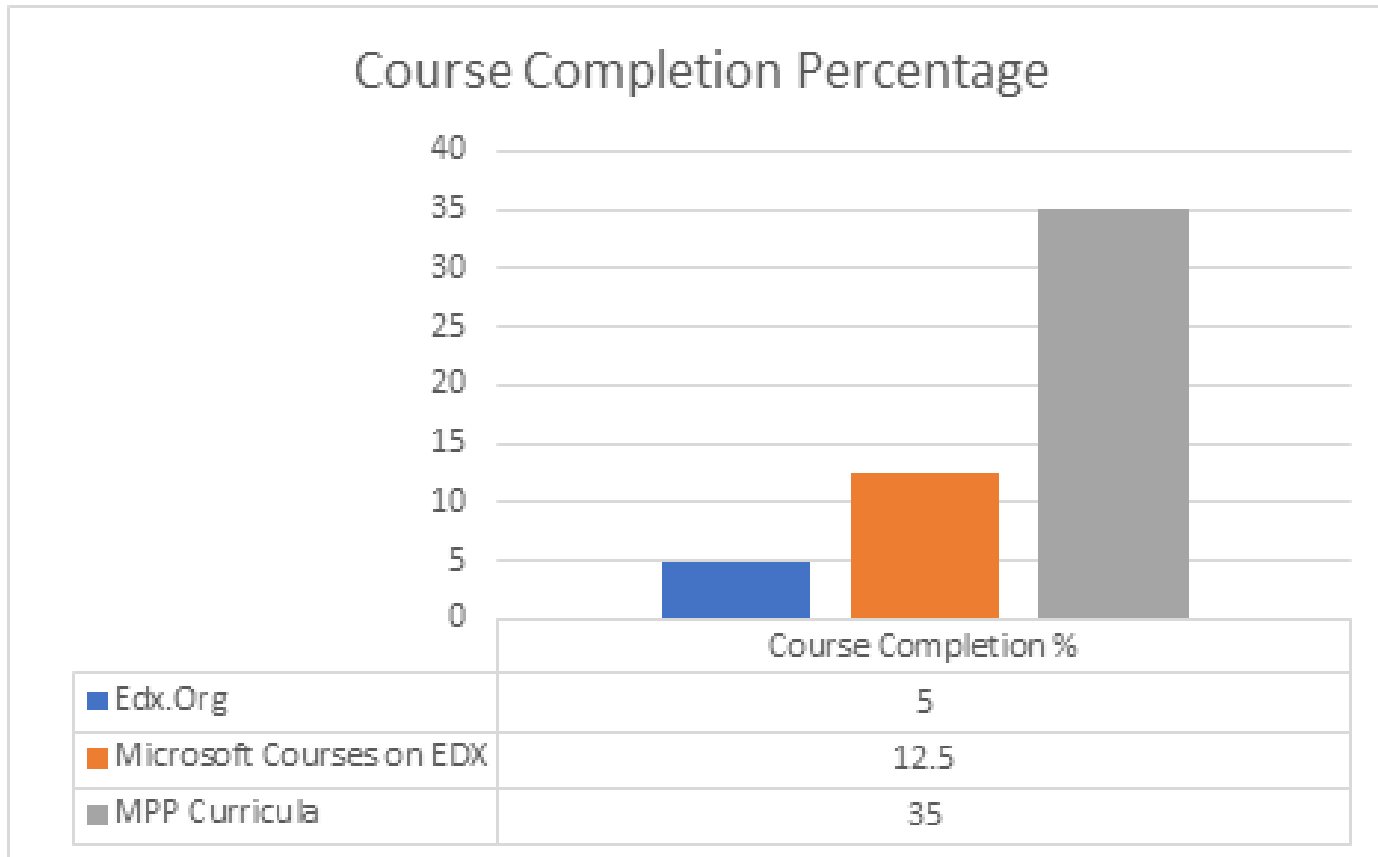
Understand Machine Learning

Use code to Model and Manipulate Data

Applied Data Science

Final Project

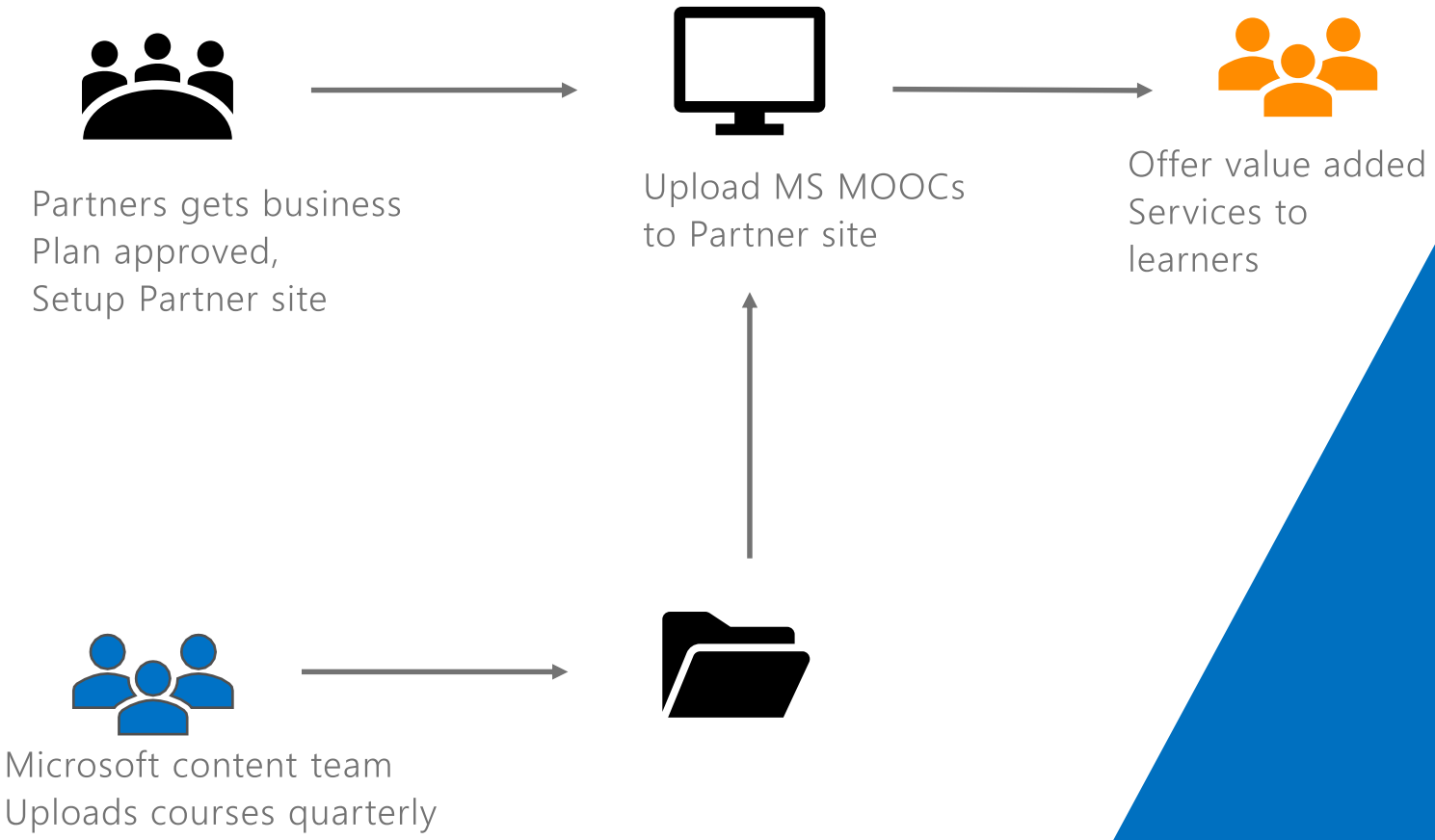
Course Completion



- 150% more completion rate for Microsoft courses
- Much higher(6 fold) completion rates for courses when students are signed up for MPP

Learning As A Service – Partner Flow

Through partner learning syndication leveraging cloud services model



- Microsoft provides deployment templates
- Microsoft MOOCs provided to partners for import into their own Open edX instances
- Each MOOC contains a LTI module to enable Microsoft Achievement workflow

Learning As A Service – Learner Flow

Through partner learning syndication leveraging cloud services model



Learners discover offers on Partner's site, enroll, pay



Pass Microsoft MOOC on Partner site



Retrieve Microsoft Certificate @ Academy.Microsoft.Com



Share credential, Enroll in MPP @ Academy.Microsoft.Com

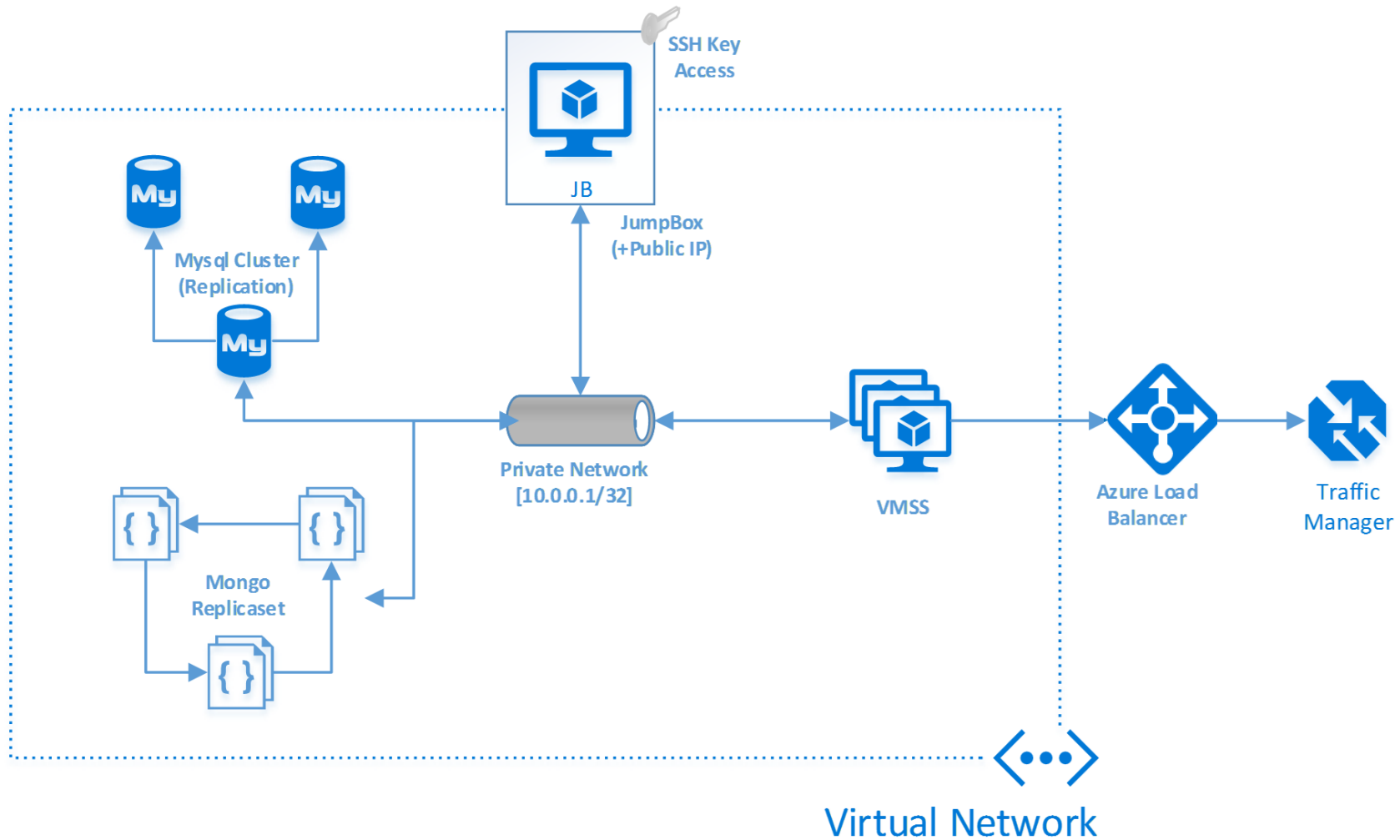


- Learner discovers partner sites and enrolls
- Partners offer online or blended training
- Learner completes the course
- Learners have centralized place on academy.microsoft.com to view achievements



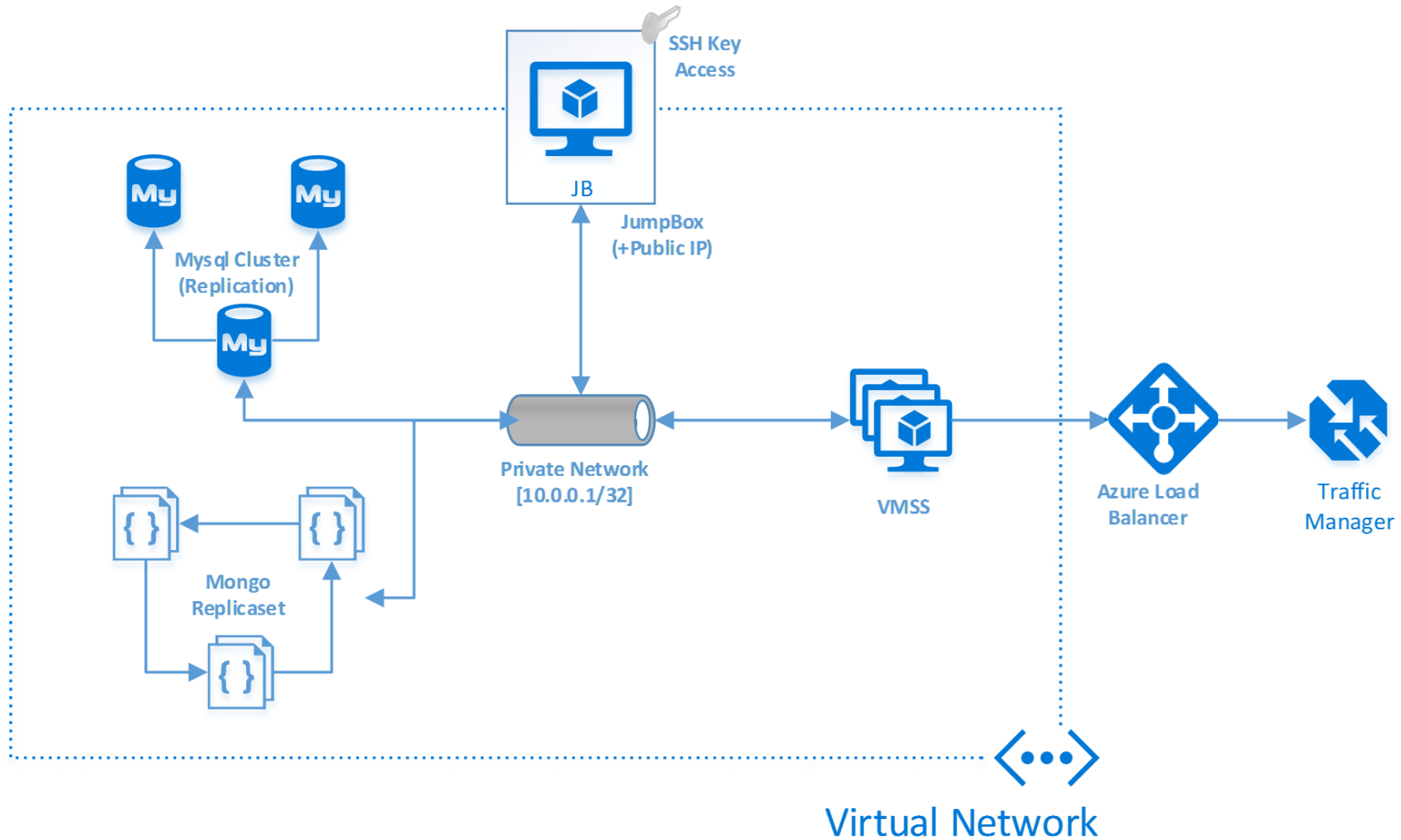
Platform Innovations

Platform – Open edX on Azure



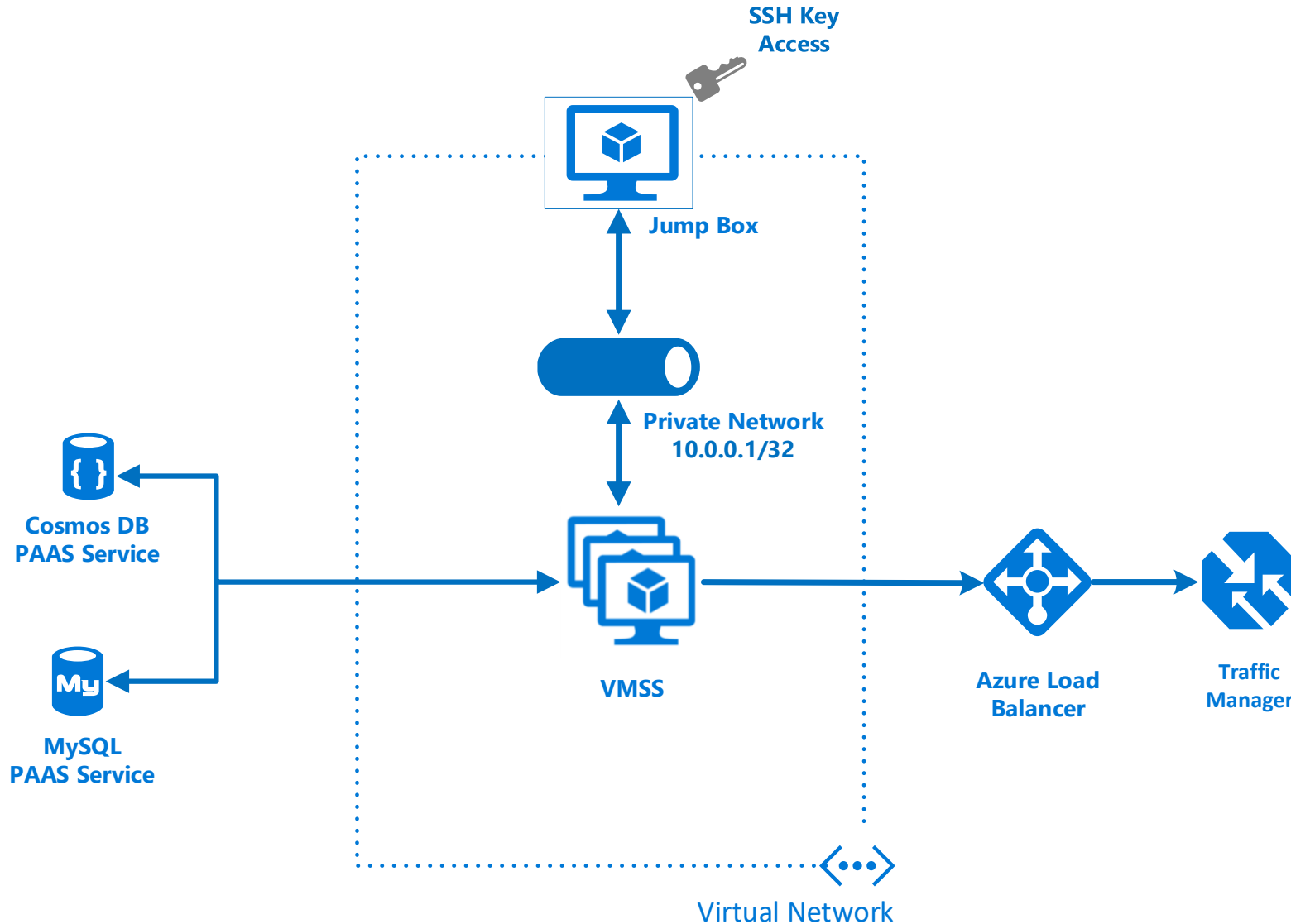
- Enterprise grade infrastructure
- Highly scalable, reliable, and available
- Highly secured frontend and backend
- Disaster Recovery and failover

Platform – Open edX on Azure



- Enterprise grade infrastructure
- Highly scalable, reliable, and available
- Highly secured frontend and backend
- Disaster Recovery and failover

Future Deployment Simplification



- Enterprise grade infrastructure
- Highly scalable, reliable, and available
- Reduced hosting cost with no overhead of deploying and managing backends
- Uses Azure Platform As A Service for MySQL and Cosmos DB (Mongo)

Reporting using PowerBI (Starter Template)

Microsoft Overview OPENedX

Date

Course ID

- Select All
- (Blank)
- 42527
- 81900
- 999990
- 999999
- AZURE202x
- AZURE202x_CHS
- AZURE202x_CHT

Course Name

- Select All
- (Blank)
- [Adaptive Learning Pilot]Essential Statistics for Data Analysis using Excel
- [DO NOT USE]Programming with R for Data Science
- [Lab Only Prototype]
- [Sample Only Course]
- ADE Role 101 (Optimized for APJ)
- ADE Role 101 (Optimized for EMEA Americas)
- Application Monitoring and Feedback Loops

Education Level

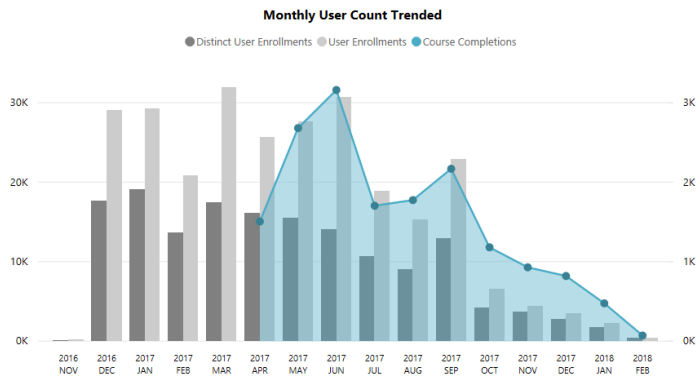
- Select All
- (Blank)
- Associate's Degree
- Bachelor's Degree
- Doctoral Degree
- Master's or Professional Degree
- Undisclosed

Gender

- Select All
- (Blank)
- Female
- Male
- Undisclosed

Publisher

- Select All
- (Blank)
- edX
- ELMS
- Microsoft
- pdets
- PdetsDev



Year	MonthName	Distinct User Enrollments	User Enrollments	Course Completions	% Change Course Completions	% Change Distinct User Enrollments	% Change User Enrollments
2016	NOV	121	258		-100%	-100%	-100%
	DEC	17,702	29,113		-100%	14530%	11184%
2017	Total	17,793	29,371		-100%	-100%	-100%
	JAN	19,155	29,237		-100%	8%	0%
	FEB	13,667	20,867		-100%	-29%	-29%
	MAR	17,462	31,938		-100%	28%	53%
	APR	16,167	25,702	1,505	-100%	-7%	-20%
	MAY	15,571	27,663	2,681	78%	-4%	8%
	JUN	14,076	30,741	3,160	18%	-10%	11%
	JUL	10,659	18,893	1,704	-46%	-24%	-39%
	AUG	9,085	15,344	1,775	4%	-15%	-19%
	SEP	12,993	22,905	2,169	22%	43%	49%
	OCT	4,282	6,623	1,181	-46%	-67%	-71%
	NOV	3,668	4,483	929	-21%	-14%	-32%
DEC	2,813	3,559	820	-12%	-23%	-21%	
2018	Total	121,670	237,955	15,924	-100%	587%	717%
	JAN	1,817	2,260	476	-42%	-35%	-36%
	FEB	416	454	71	-85%	-77%	-80%
Total	2,215	2,714	547	-33%	-21%	-24%	
Total		137,911	270,040	16,471	-100%	-100%	-100%

- PowerBI Dashboard provides an overview of the multi publisher view of the LaaS Open edX Instance
- Working prototype for the LaaS MySQL instance, easily extensible for basic reporting views
- Provides capability to slice and dice on user demographics, Courses and Publishers.

A photograph of two women in conversation. The woman on the left has a large, curly afro hairstyle and is wearing a purple t-shirt and large hoop earrings. She is looking towards the woman on the right. The woman on the right has dark hair with bangs and is wearing a patterned top under a dark vest. They appear to be in a professional or social setting. The image is partially obscured by a blue diagonal overlay on the right side.

Need more info?

<http://aka.ms/laas>

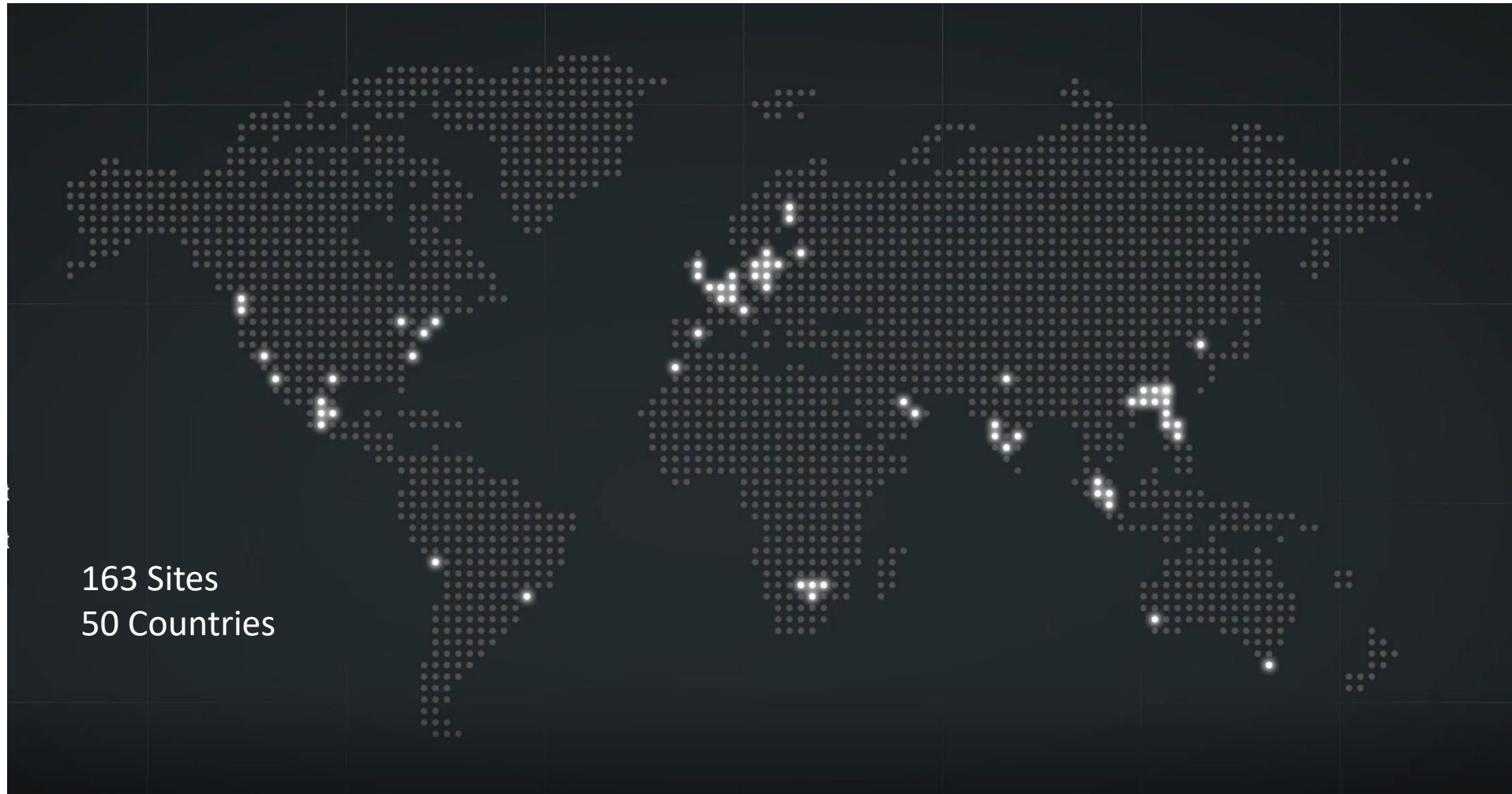
Other sessions

- Show me the reports – Simple reporting on Open edX with Power BI – Kunal Desai and Jhansi Reddy
- Mongo Pruning – Elton Carr and David Ormsbee
- Restricted OAuth and Bulk Grades – Peas in a pod discussion – Sathishkumar Eswaran, Kabir Khan



Opportunities

Geo distribution of LaaS sites on Open edX





- Targeting skilling graduates from tier 3 colleges in India
- Partnered with Glocal university to offer online and onsite training and placement
- Will be training 25000 students in next 4 years

<http://edtechreview.in/news/3118-glocal-university-partners-with-millionlights>

Datachangers – D&I Project in Netherlands

MICROSOFT AZURE ACADEMY | POWERED BY TECHIONISTA + DATACHANGERS



Je data science team uitbreiden?
wat dacht je van een Techionista?

**ONTMOET ONZE KANDIDATEN TIJDENS
DE BANENMARKT OP 12 JUNI!**

Data Scientists | Data Consultants | Data Analisten

DIT TRAJECT KWAM TOT STAND IN SAMENWERKING MET:



- 24 Women started Microsoft Azure Academy
- Location – Johan Cruyff Arena
- Powered Techionista and DataChangers
- 11 weeks of intensive training to get MPP Data Science Credential.



Marian Dragt, Datachangers



Q&A

Thank you