

IT Optimization

INCREASE EFFICIENCY. IMPROVE SERVICE.
REDUCE COMPLEXITY. REALIZE SAVINGS.



IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

March 1, 2018

IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

LEVERAGING CLOUD (Platform and Software)

WELCOME - [Stu Davis](#)

CLOUD GOVERNANCE - [Michael Carmack](#)

CLOUD EXPERIENCE

Salesforce: [Scott Brock](#), [Chris Bowshier](#) & [Ed Carr](#)

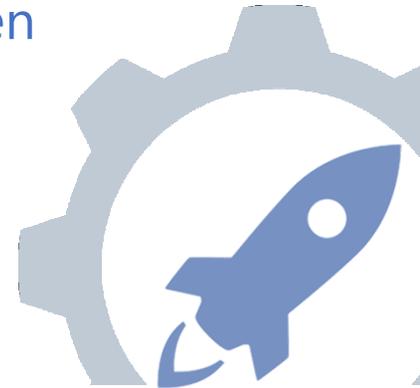
Azure: [Jeff Swan](#)

MS CRM Dynamics: [James Gregory](#), [Deval Parikh](#), [Bright Thomas](#)

AGILE vs TRADITIONAL SOFTWARE DEVELOPMENT - [Matt Curren](#)

ADJOURN

Questions? it.transformation@das.ohio.gov



The Case for Change: IT Focused on the Wrong Things

Prior to 2010, the State operated as:

- ▶ 120+ **semi-autonomous** Agencies, Boards and Commissions
- ▶ **Sprawl** of 9,000+ Servers
- ▶ 32+ Data Centers
- ▶ **Varying Standards** and Security Postures
- ▶ Core IT operating **spend trending up** to support aging legacy systems
- ▶ More than **2,600 Agency Applications**
- ▶ 80%+ of IT **Spending focused on Infrastructure**
- ▶ **Under-investing on Public** facing Systems and Services

Spending on the “Wrong Things”

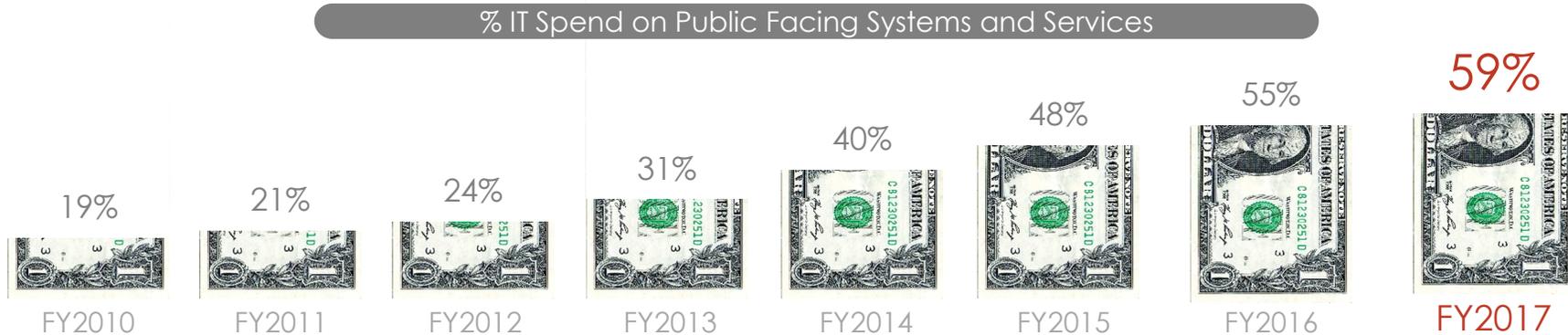
The State maintained three strategic assets that established the foundation for change:

- ▶ 2,100 IT Professionals with deep experience in fulfilling Agency missions through development and operations of IT solutions and services.
- ▶ The State of Ohio Computing Center (SOCC) which, at the time, was one of **the top 10 largest data centers in the country** – however in 2010 could best be described as “**space rich and power poor**” as it had not been upgraded in 20 years since the mainframe era.
- ▶ OARnet, an **ultra-high speed** (100Gb/s) research and academic network that connected State locations, Higher-Education, internet and key commercial computing locations Statewide

“Underutilized Assets”

IT Optimization Update

The State continues to invest in high-impact, public facing systems using funds liberated from duplicative infrastructure spending. Looking forward, legacy modernization via "as a service" and "cloud" models are a force multiplier



since 2010, the State has moved from spending less than 19 cents of every IT dollar on the public facing services and systems to **59** cents of every IT dollar spent in **FY17**

ongoing focus areas:

- ✓ move to software and platform standards
- ✓ legacy systems migration to modern cloud based applications
- ✓ cross-organizational collaboration
- ✓ extended IT workforce optimization

aspirational target:
70%

IT Optimization Update

Collaboration within the State IT community has driven several large systems “go-lives” and is the foundation FY17/FY18 projects. It is the evolution of **IT Optimization Program** – a focus on moving to systems that are standardized, supported and secure

Successful Large/Enterprise System Deployments FY17

- Worker’s Compensation **CORE**
- Commerce **Liquor Modernization**
- Department of Taxation - **STARS**
- **ODJFS** Child Care Licensing & Quality
- **Enterprise Document Management**
- Enterprise Electronic Data Interchange Medicaid/ODJFS
- Multiple **eLicense** Releases

New Large/Enterprise Initiatives Launched in FY17

- **Ohio Data Analytics** – unlocking State data for public good
- **Enterprise Identity/Access Management** – protecting State systems and citizen’s privacy
- **Medical Marijuana Systems** – creating a safe secure (and regulated) marijuana program (H.B. 523)
- **Enterprise eSignature** – moving paper based processes into the 21st century
- **Enterprise Payment Gateway** – vital credit card debit and ACH processing for more than 170 State systems

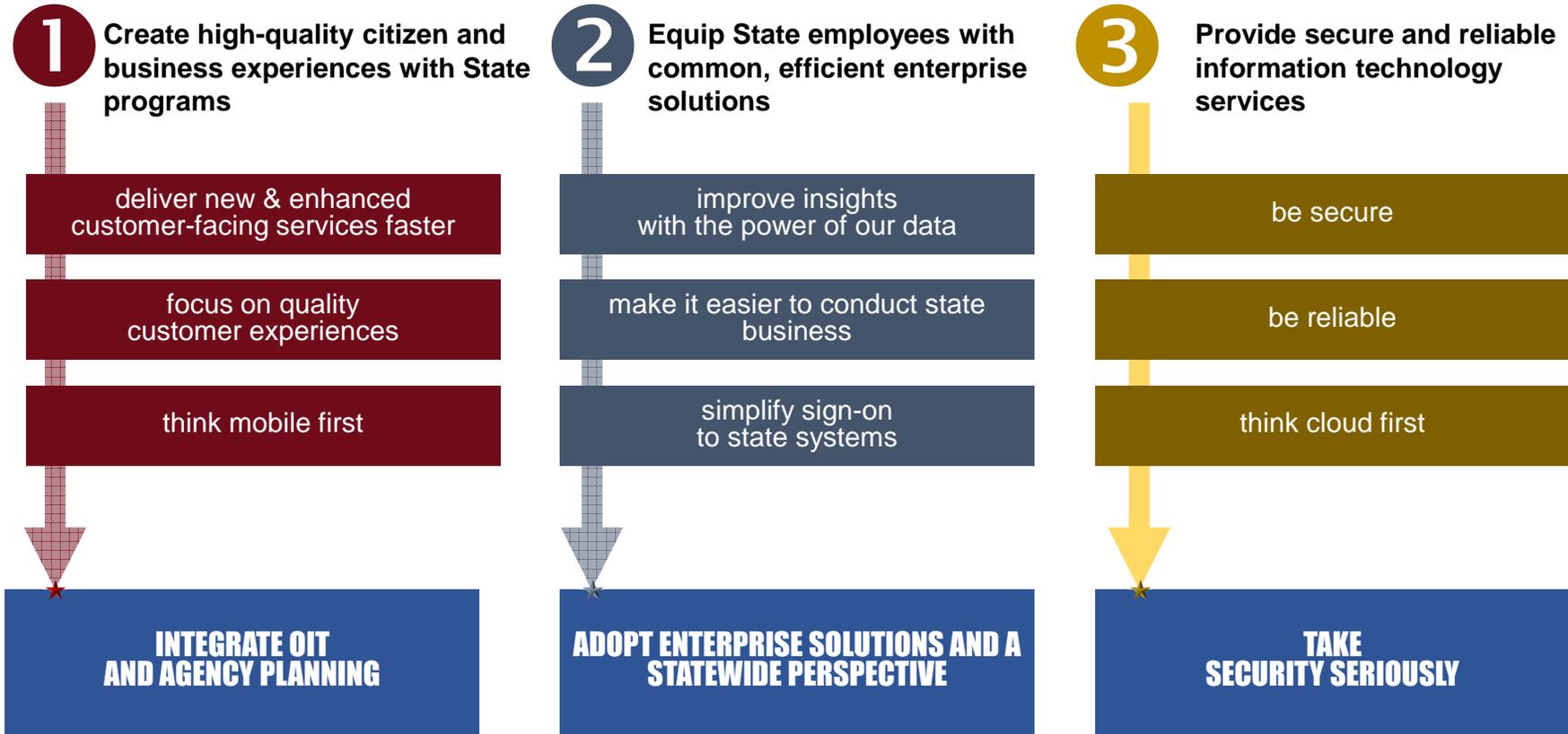
IT Optimization Focus Areas (FY17/18)

- **Continue** to drive infrastructure spending down and repurpose savings into Public Facing Systems and Services to a 60% of total IT spend level
- **Collaborate** with Agencies on legacy replacement projects – preferably those that can be delivered “as a Service” or “via the Cloud”
- **Complete** several Data Analytics projects to better focus State resources on societal problems
- **Consolidate** duplicative Agency systems, software and support to move to a standardized, supported and secure IT environment

IT Optimization

INCREASE EFFICIENCY . IMPROVE SERVICE
REDUCE COMPLEXITY . REALIZE SAVINGS

IT Strategy 2016-2019: *Partnering with State Agencies for Continued Success*



OIT and agencies will focus IT investments on public-facing applications while continuing IT optimization to deliver cost-effective services.

Service/Application Perspective: *It's about who... and when...*



January 2012

State of Ohio, Office of Information Technology

Cloud Computing Guidelines

This document is intended to state the State's position with respect to the appropriateness of each cloud service offering, and to provide recommendations that may factor into decision making with respect to solution selection, vendor selection, guidance to Agencies and vendors as well as to articulate the anticipated implications for the State's private cloud in the context of emerging public cloud offerings.

**Cloud First Guidance
Published in January of 2012**

Current Situation

The State is operating a highly complex and distributed IT infrastructure that, via more than 30 data centers, supports more than 1,600 applications via 5,500 servers and hundreds of private and public network connections. The State wishes to dramatically simplify these applications and the supporting infrastructure while reducing and future costs associated with providing IT Infrastructure to State Agencies.



Identified **Key Considerations**

- Have a **discussion** with DAS before moving to the Cloud
 - Statement of Intent – Business Rationale
 - Evaluation of Cloud Offering Business Models
 - Evaluation of the workload being considered
 - Evaluation of the data being considered
 - Evaluation of application being consider and necessary changes
 - Security of platform
 - Financial stability
 - Develop the Go-forward plan

Engage DAS early and often in the ideation and planning stages

Master Cloud Service Agreements (MCSA)

Provider/Enterprise Solutions DAS Brokers	Agency	IaaS	PaaS	SaaS	SECaaS
SOCC - Private Cloud (DAS)	Ent.	X	X	X	X
Cologix/Regional DR	Ent.	X			
SecureData 365/State Disaster Recovery	Ent.	X			
IBM Sterling Forest/Mainframe Disaster Recovery	Ent.	X			
Microsoft Azure	Ent.	X	X		
Amazon working on T/Cs	Ent.				
Microsoft Office 365	Ent.		X	X	
SalesForce	Ent.		X	X	
BasicGov	Ent.			X	
Hyland Onbase Document Imaging/Management	Ent.		X	X	
ServiceNow	Ent.		X	X	
WorkForce (ATTask – PM Software)	Ent.		X	X	
Penetration Testing Service	Ent.				X
SkyHigh Networks	Ent.				X
Hosted VoIP (CBTS)	Ent.			X	
Qualys/Vulnerability Management System	Ent.				X
Recovery Planner/Business Continuity	Ent.			X	
AirWatch/Mobile Device Management-using OARnet contract now; this will expire 6/30/16	Ent.		X	X	
RF Works/Wireless as a Service	Ent.			X	
Decision Lens/IT Prioritization	Ent.		X	X	
Duo Security/2 factor authentication	Ent.		X	X	
MOBI	Ent.			X	
GovDelivery/Communication Management	Ent.		X	X	

Agency Specific Cloud Solutions					
SmartSimple/Grants Management	Arts Council		X		
Matrix Pointe/Case Management	Dental Board		X		
APPRISS	Pharm- PRX		X	X	
Optimum Technology/Prescription Monitoring Program	Pharm-PRX		X	X	
Modria/Mediation Software	Tax Appeals		X		
Centium Software/Event Management	BOR		X		
Risk Control Technologies/Risk Assessment	BWC		X		
Comodo Group/PKI subscription	DAS		X		
Accruent/Facility Management	DAS-GSD		X		
Origami/Risk Management	DAS-GSD		X		
NeoGov/government jobs (will be replaced by MCSA0064)	DAS-HRD		X		
Innotas(now Planview)/Project Management	DODD		X	X	
Trilogy/Network of Care	DOH		X		
Midwest Consulting/Traffic Monitoring System	DOT		X	X	
Splunk	DPS				X
CBOSS/ Payment Portal and Local Health Districts	DPS, DOH		X		
K12 Management/Online classes for Students	DYS		X		
D2L Ltd/Learning Management Software	EDU		X	X	
Colyar/Claims Reimbursement	EDU		X	X	
National Charter School/Manage charter schools, stats and tracking	EDU		X		
Emerge Knowledge/Solid Waste Tracking and Reporting – not completed yet	EPA		X	X	
Accelerated Technology Labs/ Laboratory IMS	EPA		X	X	
Global Environmental Consulting/Monitor and Assess Public Drinking Water	EPA		X	X	
Controltec/Kinship Permanency Incentive Program (tracks kinship care givers for kids)	JFS		X		
Sivic Solutions Group/Random Moment Time Study and County Finance Info System	JFS		X		
Clarity/Project Management Software	JFS, ODM, SOS		X	X	
Carestar/Provider Management System	JFS, ODM		X	X	
Netsmart/Avatar Software	MHA			X	
Medicaid Provider Incentive Program/CGI	ODM		X	X	
Synergy (AKA Harmony) Case Mgmt Tool	ODM		X		
Ascendum Solutions/Social Intelligence and Retail platform			X		
WatchSystem/Sex Offender Tracking System	AGO		X		
Infovision21/eLitigation support and doc tracking	AGO		X		
Data Recovery Services (DRS)/Westerville Data Center	ToS	X	X		
Beehive Industries/replace SWIMS	AGR			X	
GoFormz/Forms creator	ODOT			X	
US Business Council for Sustainable Development/On-line materials	FPA			X	

Closing Thoughts: *Get Started*



IT Strategy, Planning and alignment of IT, Agencies and Procurement is critical to establishing (and keeping to) the plan



Drive thinking to “as a Service”, “in the Cloud”, and “mobile everywhere” to consolidate platforms, services and enterprise solutions



The alignment of **IT investments must focus on public good** and not infrastructure



Clarity of purpose and progress is an essential communication element at all levels of IT



Foster collaboration and innovations in activities to drive better contracts, results and outcomes – use all the tools in the toolbox



Get **Started!**

IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

Cloud Governance

Michael Carmack – Dept of Education



What is Cloud Governance

- The purpose is to promote and enable adoption of cloud technologies in alignment with the tenets of IT Optimization
- Agencies will benefit from guidance, recommendations, best practices, use cases, etc.
- OIT's cloud team can use feedback on what is most important to agencies to help prioritize their efforts
- Primary attention is on public cloud and hybrid cloud topics

“Scaffolding”

- In real life, scaffolding is used to create the basis of the structure. The scaffold guides the general outline, and provides anchor points for more permanent systems to be mounted.
- **An enterprise scaffold is the same: a set of flexible controls and cloud capabilities that provide structure to the environment,** and anchors for services built on the public cloud. It provides the builders (IT and business groups) a foundation to create and attach new services.

Cloud Governance Roadmap

Build Cloud Team

Build Cloud Core team

Build Cloud Center of Excellence (CoE) team

Establish Foundational Standards

Develop technical shared services

Define Cloud operation services

Define Cloud **Infrastructure** reference architectures, best practices

Define Cloud **Application** reference architectures, best practices

Develop Cloud Application frameworks (code)

Enable Provisioning and Chargeback

Define Cloud services provisioning process

Define subscription and chargeback model

Define Cloud support plan

Define EA Application Services

Define DevOps application development process

Enhance Architecture Review Board process for applications

Define Application Review process

Establish regular collaboration sessions between Business and DAS-OIT

Enhance Request Process

Define Cloud **Infrastructure** service catalog items

Define Cloud **Application** service catalog items

Integrate Cloud services with DAS-OIT request process

Define **In-take** process and automation

Develop DAS-OIT and Agencies training

Define change enablement plan

Legend

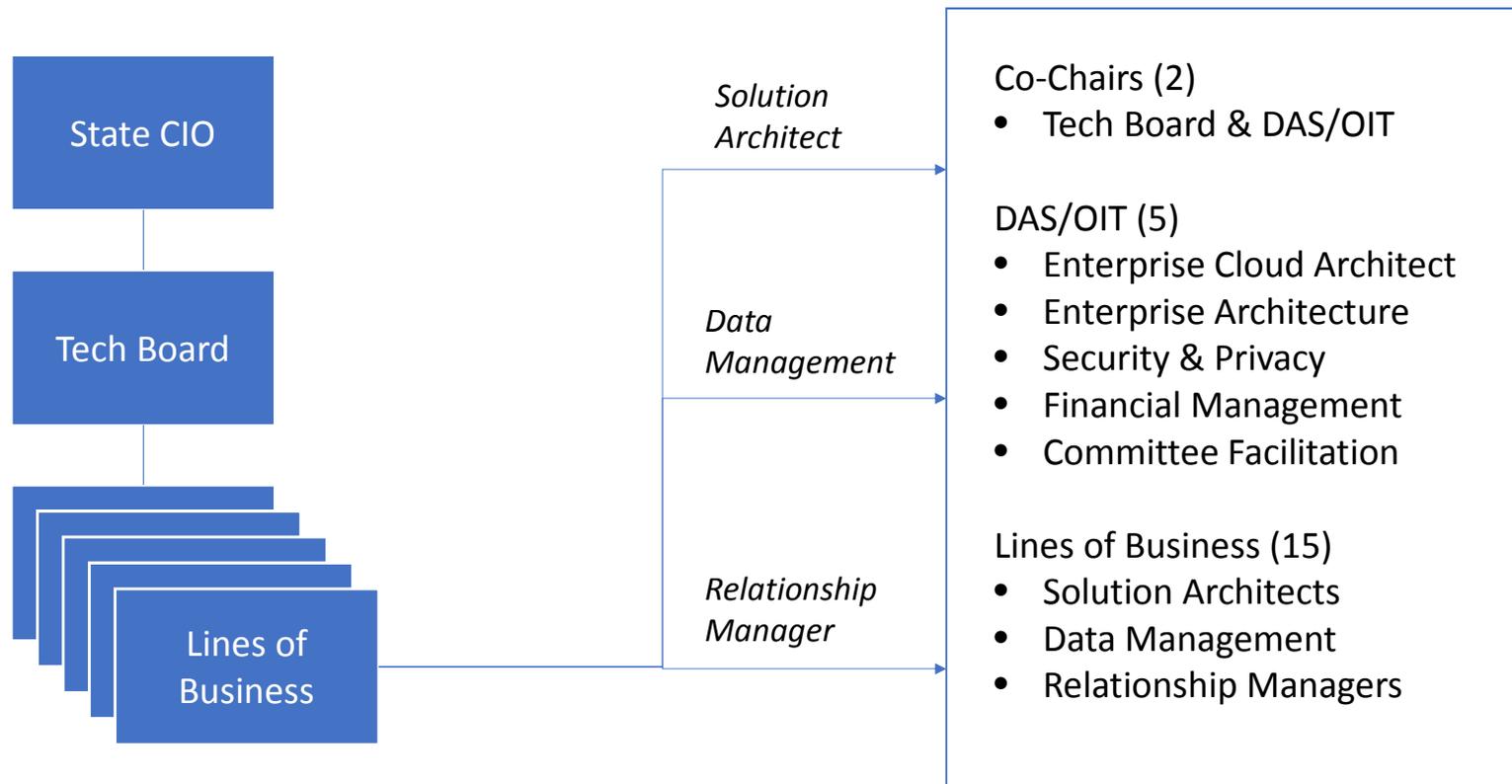
DAS-OIT

Enterprise

DevOps

Chg Enable

Ohio's Cloud Governance Committee



Likely Deliverables

- **Reference Architectures** – Best ways to build solutions, write code, string services together, etc.
- **Recommendation White Papers** – Do the research once around products, architectures, solution patterns, whatever; and make “best practice for Ohio” recommendations.
- **Standards and Procedure Recommendations** – For those cases when all agencies doing things exactly the same way makes clear sense.
- **Prioritize OIT’s Cloud Efforts** – If they have more work than resources available, and/or to make sure OIT knows how to best serve the cloud needs of agencies

What the committee is NOT

- NOT picking one cloud provider that all state agencies have to use, committee is cloud agnostic.
- NOT standardizing or centralizing application development. But *will* research and make recommendations about app dev in the cloud, because good cloud development is *different* than on-premise.
- NOT a cloud project approval committee. An agency does not have to convince the committee that a project should be built in the cloud. We *want* them to build in the cloud, and we want to help them get there.

The goal is to add value, not to be a gate.

Broad Topics Identified (so far)

- **Cloud Strategy**
- **How to Get to the Cloud**
- **Cloud Development / DevOps**
- **Staffing & Training**
- **Hybrid Cloud**
- **Salesforce**

Workgroup: Cloud Strategy

- Develop a cloud strategy and roadmap for the Enterprise
- Create samples, templates, processes etc. to help agencies create their own strategies and roadmaps

Workgroup: Cloud Strategy

Key Topics:

- How does the cloud impact and interface with the goals of IT Optimization?
- What are the models for engaging with OIT and/or cloud vendors?
- What priorities should the OIT Cloud Team focus on to move everyone forward?

Workgroup: Cloud Strategy

Key Topics (cont.):

- Why cloud?
- Cloud Models
 - Is there is single answer to when to use SaaS, Paas, or laas?
 - If there are multiple good options, how to evaluate the pros and cons for a particular workload?
 - For IaaS, when to use private cloud vs. public cloud? Or if we view it as a hybrid cloud, does it even matter?

Workgroup: How to Get to the Cloud

Addressing topics that should be considered and understood before beginning a cloud project.

Key Topics:

- Cloud Selection – How to pick the “right” cloud
- Procurement & Contracts – How to leverage DAS contracts, when to RFP or MCSA, etc.

Workgroup: How to Get to the Cloud

Key Topics (cont.):

Risk Management - It's different in the cloud, especially for PaaS and SaaS

- Security – OISP's tools can only be installed in IaaS environments
- Cloud lock-in
- Platform upgrade schedules
- Backups and Disaster Recovery

Workgroup: Cloud Development / DevOps

Addressing topics directly related to developing cloud applications.

Key Topics:

- VSTS for Azure, and similar tools for other clouds
- Modernized build pipelines – Automated build and deploy, test driven development, continuous integration, etc.

Workgroup: Cloud Development / DevOps

Key Topics (cont.):

- Cloud Architectures
 - Microservices
 - APIs, not tight integration
 - Serverless computing
- Non-relational Databases
 - NoSQL, document DBs, graph DBs
 - Polyglot data architectures

Future Workgroup: Staffing & Training

Developing the human capital to make a cloud transition will be difficult; but not doing so limits the state to perpetually contracting for help.

Key Topics:

- DevOps blurs the lines between traditional roles
 - Developers have to know a lot more “infrastructure stuff” than before
 - Infrastructure folks have to know how to write “infrastructure as code”
 - *Immutable infrastructure* is a new concept to most of us

Future Workgroup: Staffing & Training

Key Topics (cont.):

- Skills availability – It can already be hard to find good developers for hire or contracting, cloud developers are even harder!
- How do we effectively train staff in these new skills?
 - “What if we train them and then they leave?”
 - “What if we *don't* train them and they stay?!?”

Future Workgroup: Private / Hybrid Cloud

Will provide guidance on when a public, private, or hybrid cloud should be leveraged.

Key Topics:

- IaaS: Virtual machines, containers, storage, etc....
Does it even matter where it lives?
- Data analytics: State data lake, or are desired services available only in commercial cloud?

Future Workgroup: Salesforce

- Salesforce is in-scope for the Committee
- We know that some agencies are already having great success with Salesforce, so we're focusing on the more uncharted territory for now
- Expect to provide guidance on good workloads for Salesforce, pros/cons, pitfalls, lessons learned, etc. for non-Salesforce agencies to consider
- Leverage the expertise of the existing Salesforce user group

Questions?

it.transformation@das.ohio.gov

IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

Cloud Experience

Salesforce: Scott Brock & Chris Bowsher- Development
Services Agency & Ed Carr - PUCO



IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

Leveraging the Cloud (Software): Salesforce

- Overview of Salesforce
- The DSA & PUCO journey
- Lessons Learned
- Center of Excellence
- Questions

Questions? it.transformation@das.ohio.gov



IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

Cloud Experience

Azure: Jeff Swan – Dept of Administrative Services



ALL IN ALL ITS JUST ANOTHER BRICK IN THE WALL

FROM BRICK AND MORTAR TO CLOUD SOLUTIONS



DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

AZURE PROJECT OPERATING GOALS

- STRIVE TO PROVIDE A VALUE-DRIVEN, DYNAMIC, AND COST-EFFECTIVE SET OF CLOUD BUSINESS SOLUTIONS THAT WILL IMPROVE THE AGENCIES OPERATIONS AND QUALITY OF SERVICES TO CITIZENS
- PROMOTE AUTOMATION AND SELF-PROVISIONING OF SERVICES TO IMPROVE AGENCIES AGILITY
- PROVIDE PLATFORM FOR AGENCIES TO SCALE VARIABLE LOADS ACROSS SERVICES AND APPLICATIONS
- FOSTERING A CULTURE OF COLLABORATION AND INNOVATION
- DEVELOP A KNOWLEDGE BASE OF REFERENCE ARCHITECTURE, SERVICE MODELS, AND RAPID CLOUD ADOPTION
- WORKING TOWARDS BUILDING SOLUTIONS – NOT JUST SERVERS

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

THE OPPORTUNITIES SO FAR.....

- **DATA ANALYTICS**

- WORKED WITH PUCO TO CREATE POWERBI AND SQL AS A SERVICE TO HELP BRING DEPARTMENT DISJOINTED DATA TOGETHER AND LEVERAGE DATA AS INFORMATION.
- WORKING WITH DOT TO CREATE GUI PRESENCE THROUGH POWER BI.COM IN THE CLOUD SO TRANSPORTATION CUSTOMERS CAN ACCESS IMPORTANT ROAD DATA

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

THE OPPORTUNITIES SO FAR.....

- **RELATIONSHIP MANAGEMENT**

- WORKING WITH DODD TO IMPROVE CUSTOMER RELATIONSHIP MANAGEMENT WITH OHIO DISABLED BY IMPLEMENTING NEW DYNAMIC CRM APPLICATION INTEGRATION WITH AZURE NODE - SQL ALWAYS ON
- ALSO WORKING WITH DODD ON CHAT BOT PAIRING FOR THIS IMPLEMENTATION

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

THE OPPORTUNITIES SO FAR.....

- **DEVOPS**

- PROMOTING ADVANCEMENT TOWARDS CI/CD PIPELINE WITH VSTS (VISUAL STUDIO TEAM SERVICES)

DEPLOYMENTS FOR:

- EDU
- OFCC
- DODD
- DAS
- LOTTERY

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

THE OPPORTUNITIES SO FAR.....

- **MEDIA SERVICES & APP SERVICES**
 - WORKED WITH DPS ON DESIGN PATHS THE *CONSULTANT INVOICE VERIFICATION SYSTEM (CIVS)* APPLICATION COULD TAKE INTO AZURE PAAS OFFERINGS
 - WORKED WITH EDU ON THE DESIGN OF REFACTORING THE REPORT CARD APP IN AZURE

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

CONTINUING WORK.....

- **ENABLE CLOUD OPPORTUNITIES FOR AGENCIES REACHING OUT FOR BUSINESS SOLUTIONS CORE TO THEIR MISSION:**
 - DSA - VSTS, APP INSIGHTS
 - DODD - SERVICE BUS
 - DPS - APP SERVICES
 - OGRIP - GIS

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

CONTINUING WORK.....

- **FACILITATE CLOUD EDUCATION TO ACCELERATE & ADDRESS CHALLENGES WITH AZURE APPLICATIONS**
 - “CODE WITH” PROGRAM PAIRS AGENCY DEVELOPMENT TEAMS WITH CLOUD ENGINEERS
 - AGENCIES SEND AS MANY DEVELOPERS AS THEY WANT TO WORK ON THE POC
 - PROJECT BASED ON A SPECIFIC CUSTOMER BUSINESS NEED SCENARIO
 - AGENCY CHOOSES THE TECHNOLOGY AND ENGINEERS BRING IN THE TECHNICAL EXPERTISE TO MATCH

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

FUTURE WORK.....

- **AUTOMATE VM PROVISIONING TO AZURE**
- **AZURE TEMPLATES FOR RAPID CLOUD RESOURCE GROUP DEPLOYMENTS**
- **LOOKING FOR EXISTING WORKFLOWS THAT COULD BE OPTIMIZED BY RUNNING IN AZURE**
 - **CREATE AGILITY**
 - **COST REDUCTIONS**
- **ENABLING A FULL RANGE OF MIGRATION OPTIONS**
 - **REHOST – REFACTOR – REVISE – REBUILD – REPLACE**

DAS OIT HYBRID CLOUD – BUSINESS SOLUTIONS

OBJECTIVES MOVING FORWARD.....

CONTINUOUSLY IMPROVING CLOUD OPTIONS FOR AGENCIES

- BEST PRACTICES
- MAXIMIZE FUNCTIONALITY OF EMERGING TECHNOLOGIES
- SHARED TOOLS & RESOURCES
- DEVELOP WORKFORCE

Questions? it.transformation@das.ohio.gov



IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

Cloud Experience

MS CRM Dynamics: James Gregory, Deval Parikh,
Bright Thomas - DODD





Department of
Developmental Disabilities

John Martin, Director Michelle Burk, CIO

IT Optimization Summit

Division of Information Technology Services (ITS)

James Gregory

Bright Thomas

Matt Curren

Deval Parikh

March 1, 2018

DODD Information Technology Services

- Michelle Burk – CIO
- Matt Curren – ITS Development Manager
- Bright Thomas – ITS Enterprise Architect
- Deval Parikh – ITS Data Mgmt and BI Manager
- James Gregory – Deputy CIO

DODD ITS Background

- Supported ITS Systems: **152**
 - **.NET:** 54
 - **Dynamics:** 12
 - **Third Party:** 46
- Ongoing Projects Threshold: **150+**
 - **Major:** 15%
 - **Minor:** 25%
 - **Support:** 50%
 - **Reporting/Analytics:** 10%

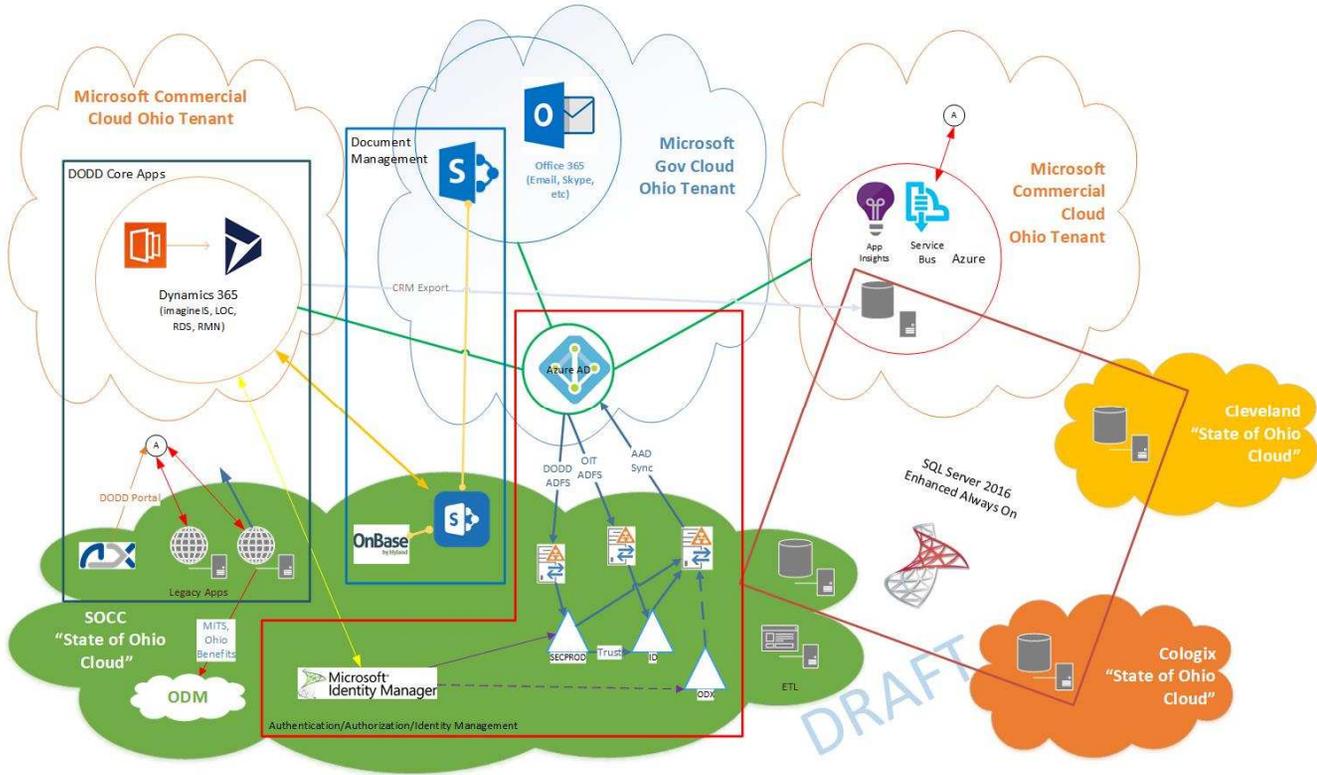
Dynamics CRM/XRM

- Dynamics CRM/XRM
 - Development platform for many core DODD systems
 - 2011 – October 2012 through July 2014
 - 2013 – July 2014 through January 2017
 - 2015 – January 2017 to Present
 - D365 – April 2018 - Planned

Dynamics 365

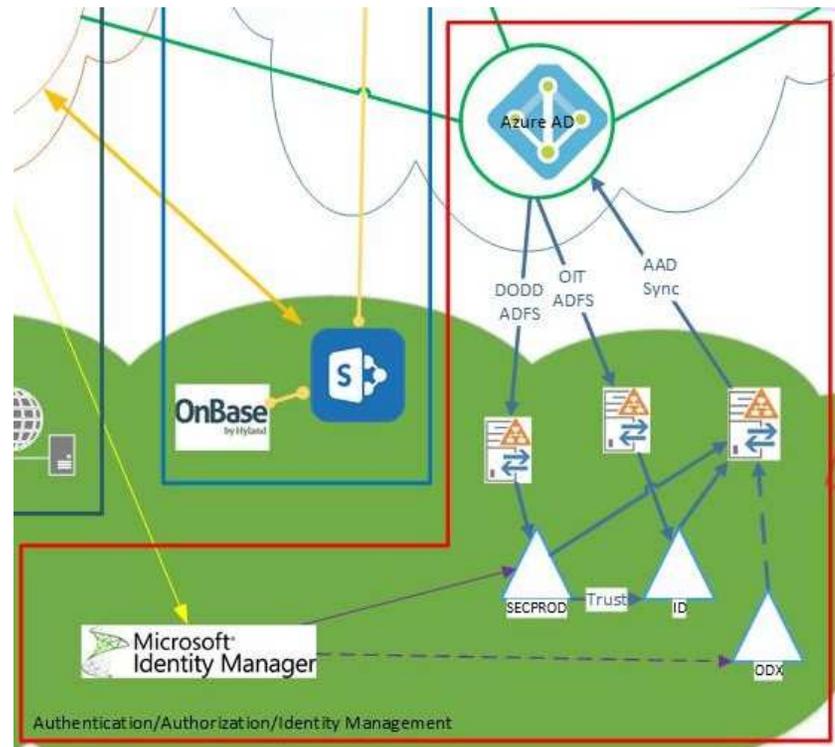
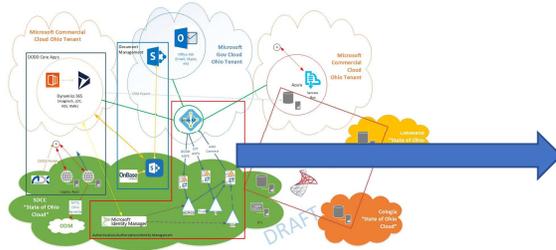
- Four Core Pillars of Work
 - Security/Identity
 - Data Infrastructure and Migration
 - Application Lifecycle
 - Operationalizing/Readiness

Dynamics 365



Dynamics 365 - Security

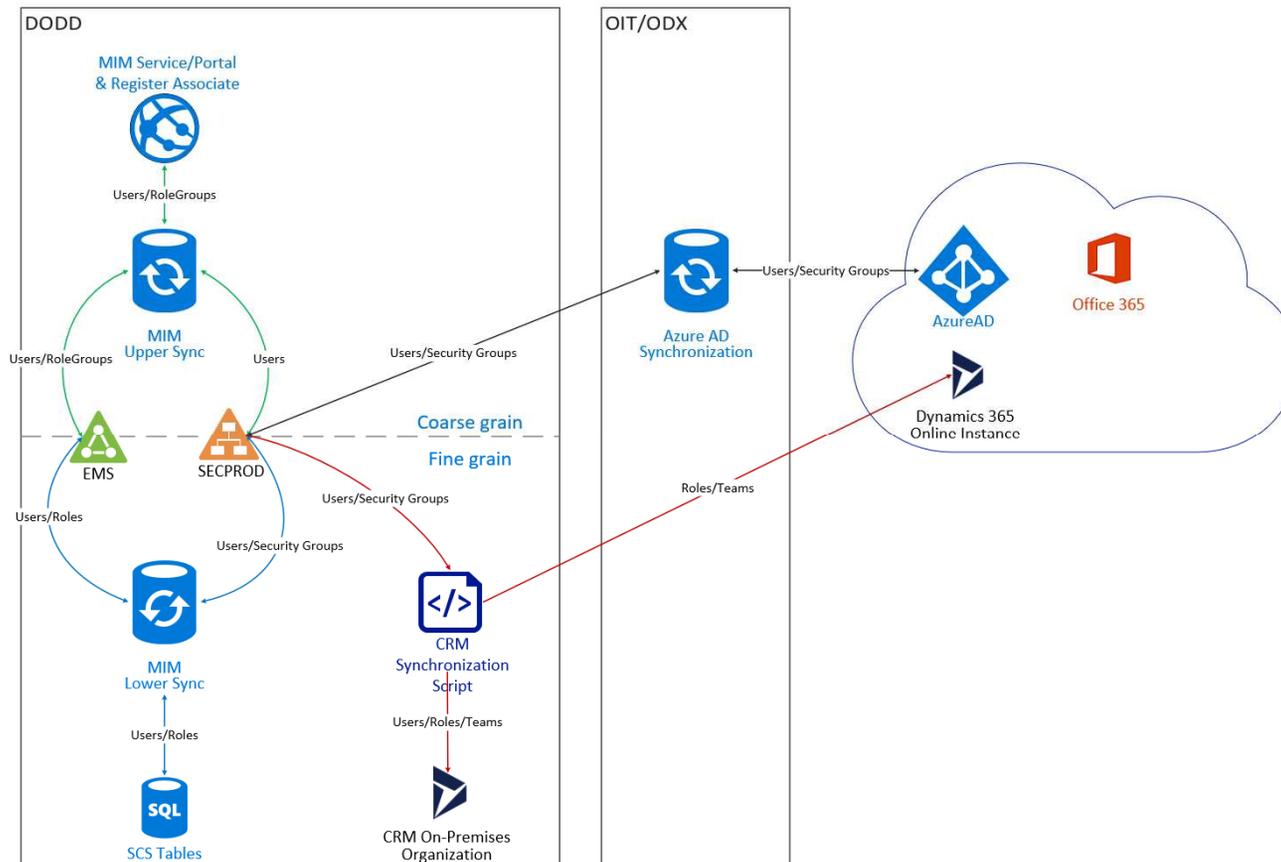
- DODD User Sync
- DODD Federation
- ODX Migration



User Synchronization (1)

- Coarse grain synchronization & provisioning
 - Microsoft Identity Manager (MIM) 2016
- Fine grain synchronization & authorization
 - Microsoft Identity Manager (MIM) 2016
 - CRM Synchronization Script
- Identity bridge synchronization (Azure AD)
 - Azure AD Connect (currently)
 - ODX Azure AD synchronization tool (near future)

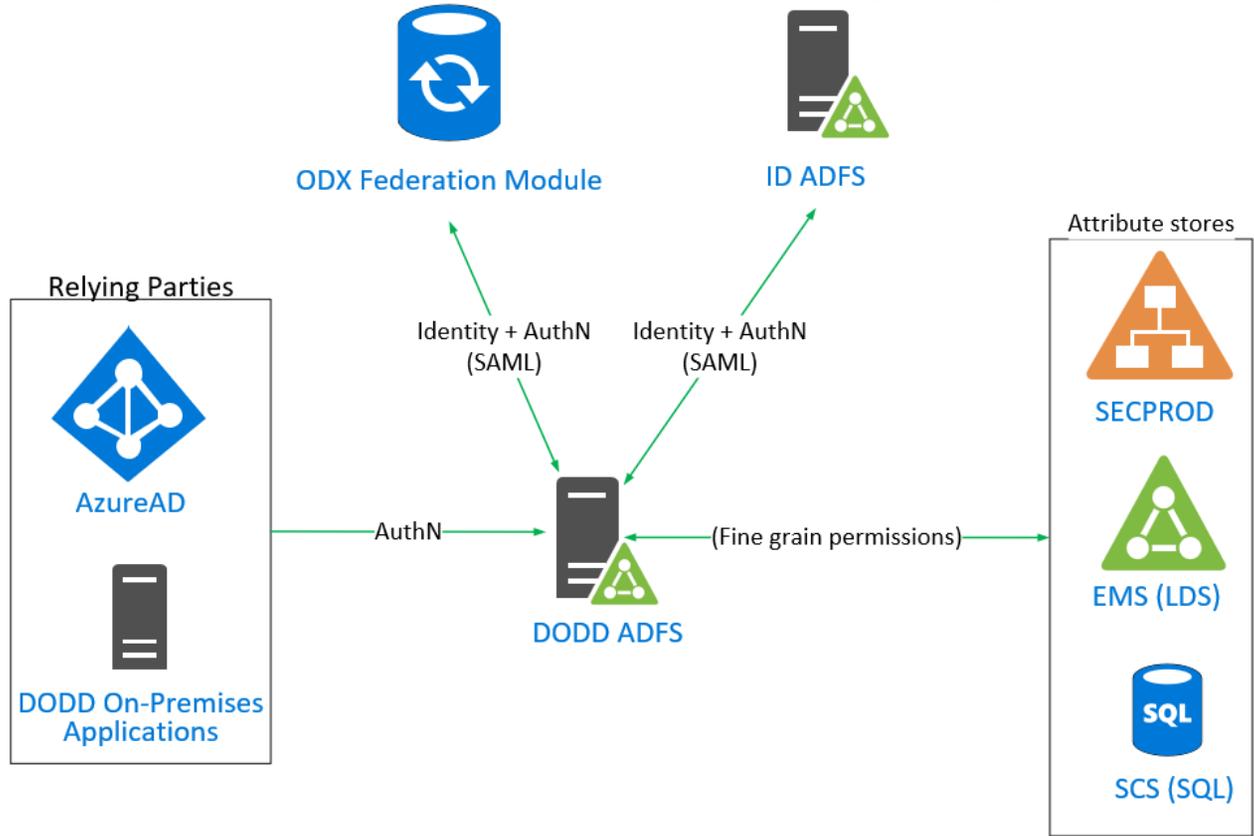
User Synchronization (2)



DODD Federation (1)

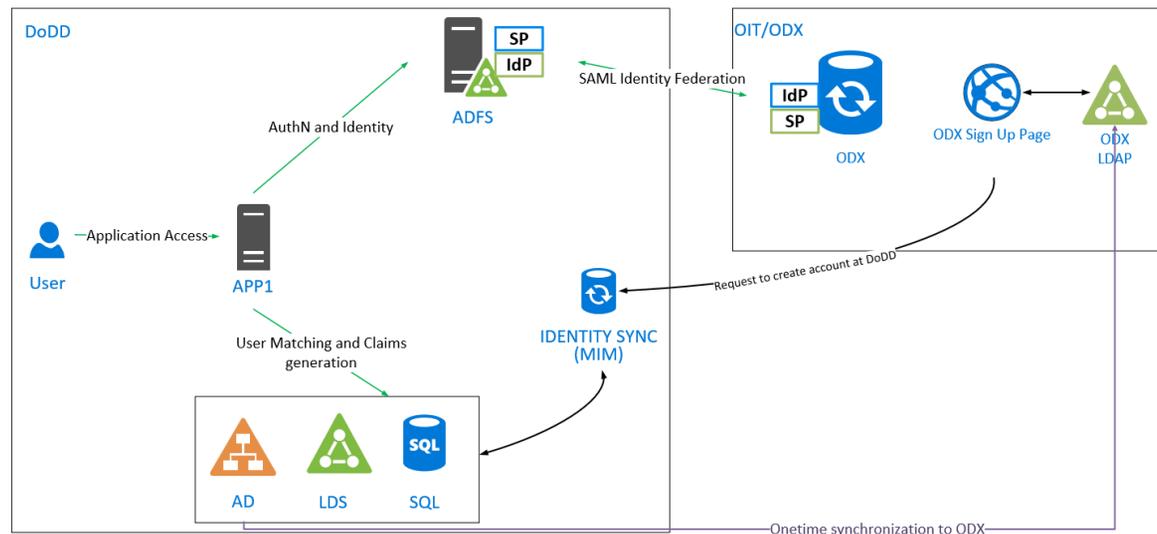
- DODD federated application
- Azure AD federation for Dynamics 365
- ID Domain federation (Short term)
- ODX federation (Long term)

DODD Federation (2)



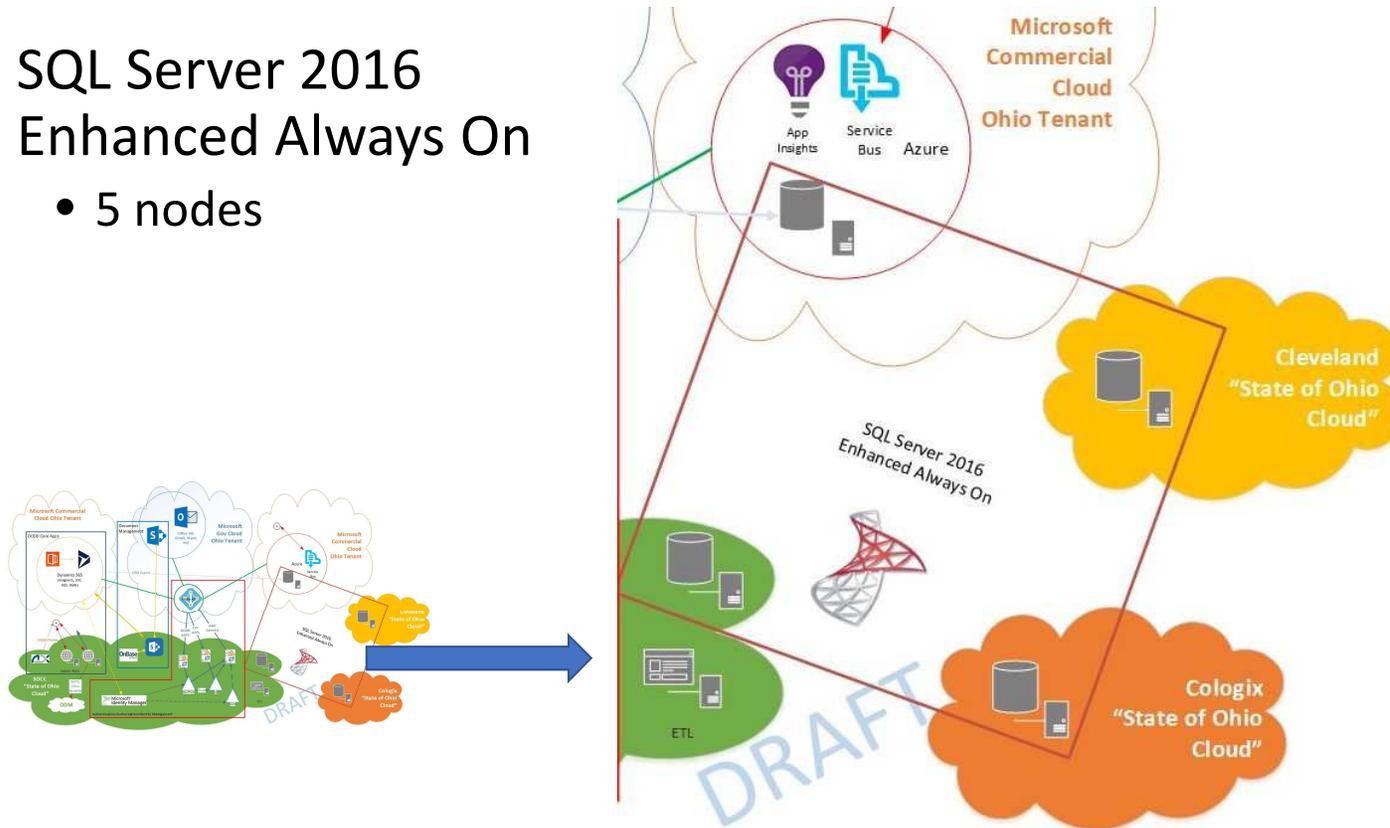
ODX Migration

- Migration of user accounts from DODD
- Transition new accounts sign up
- Transition AuthN for DODD Apps

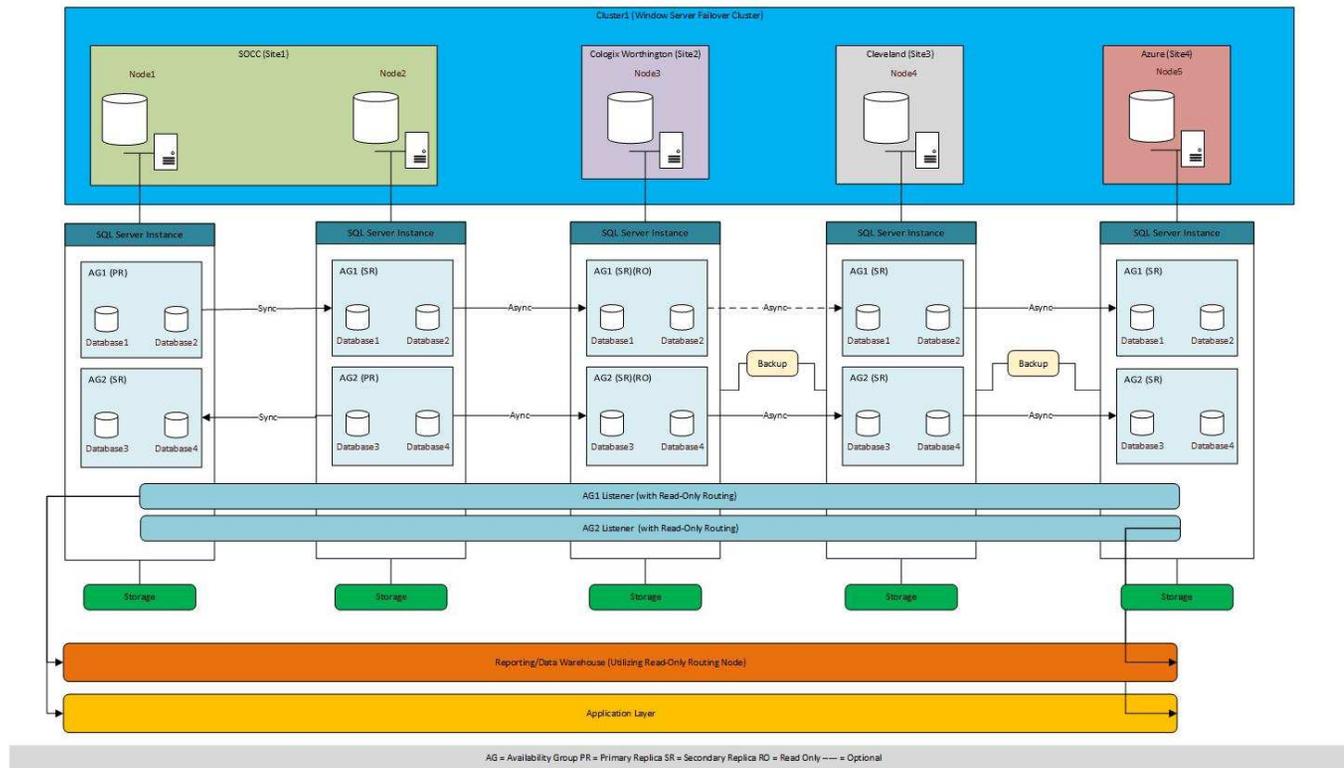


Dynamics 365 - Data

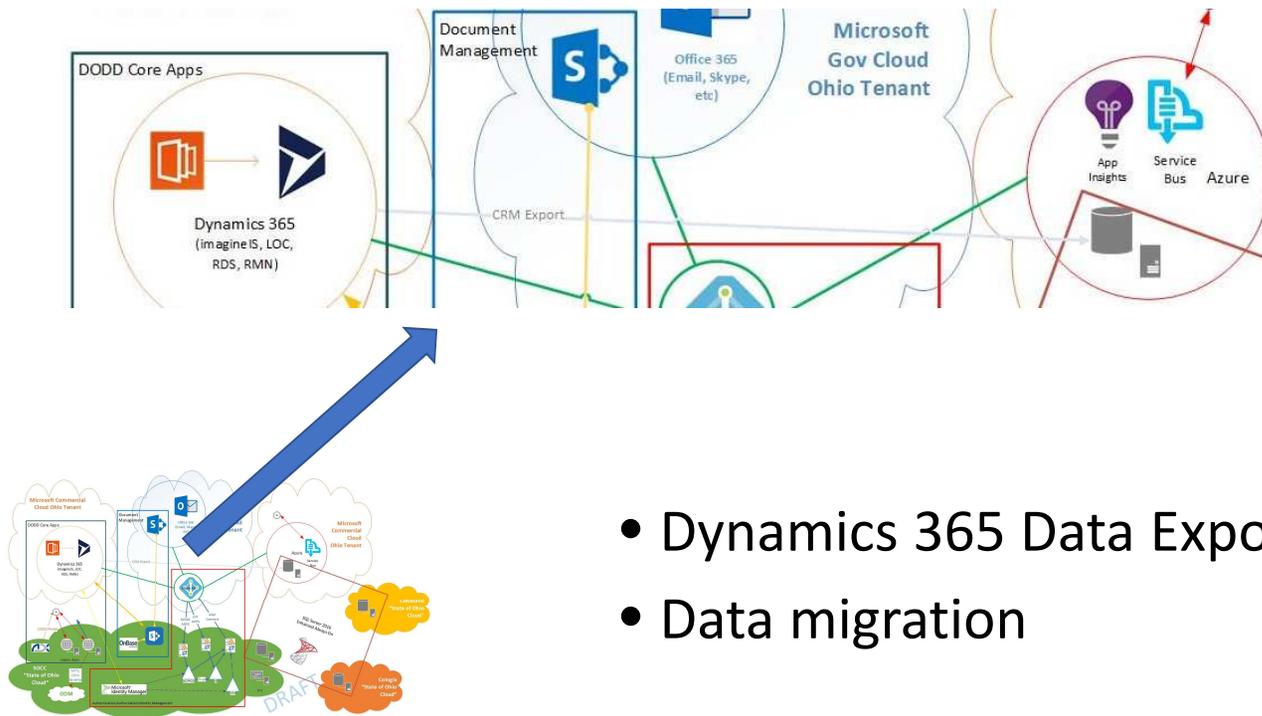
- SQL Server 2016 Enhanced Always On
 - 5 nodes



Dynamics 365 - Data

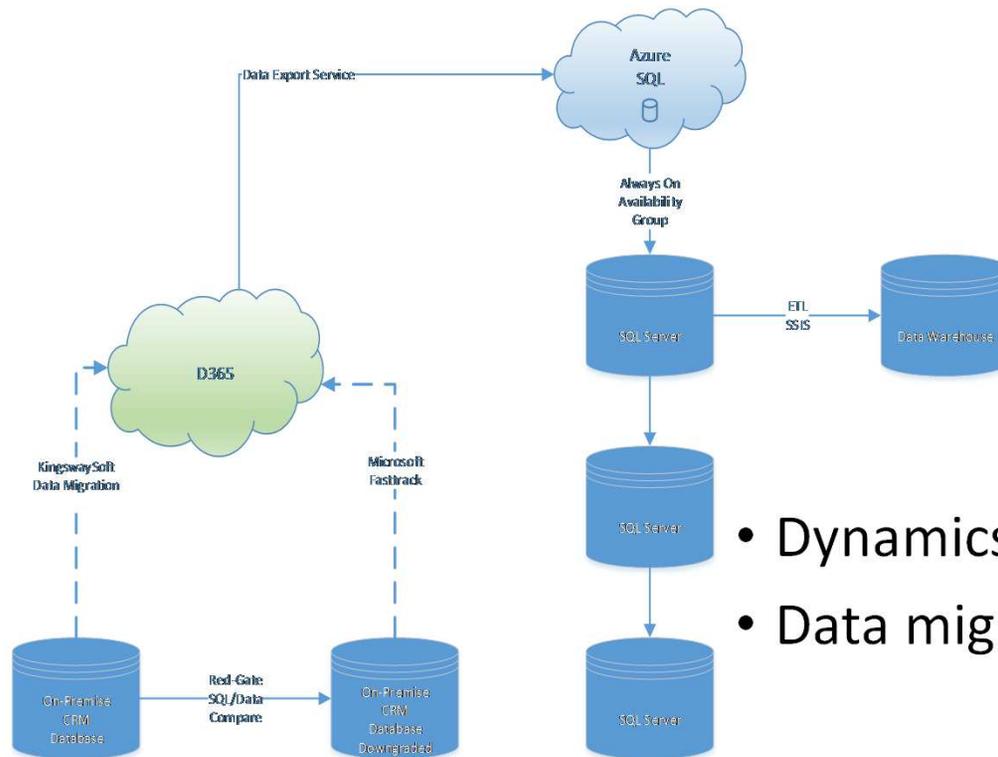


Dynamics 365 - Data



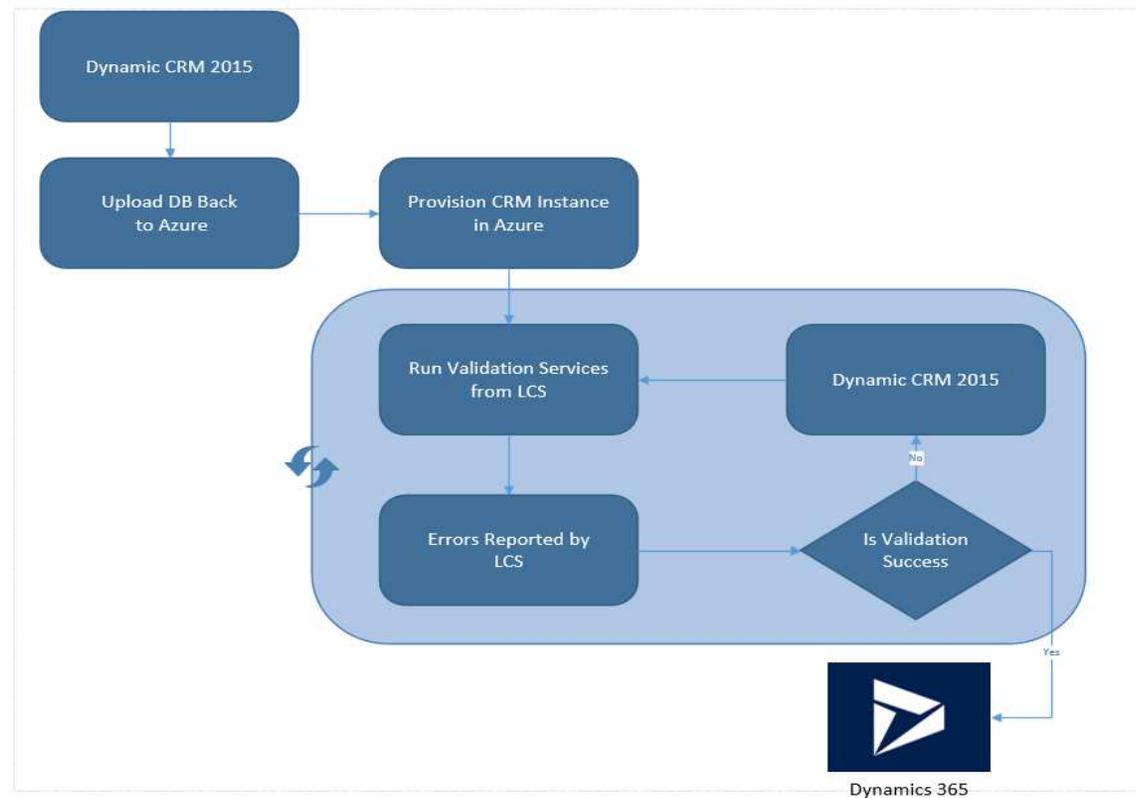
- Dynamics 365 Data Export
- Data migration

Dynamics 365 - Data



- Dynamics 365 Data Export
- Data migration

On-Prem to Online using Microsoft FASTTrack

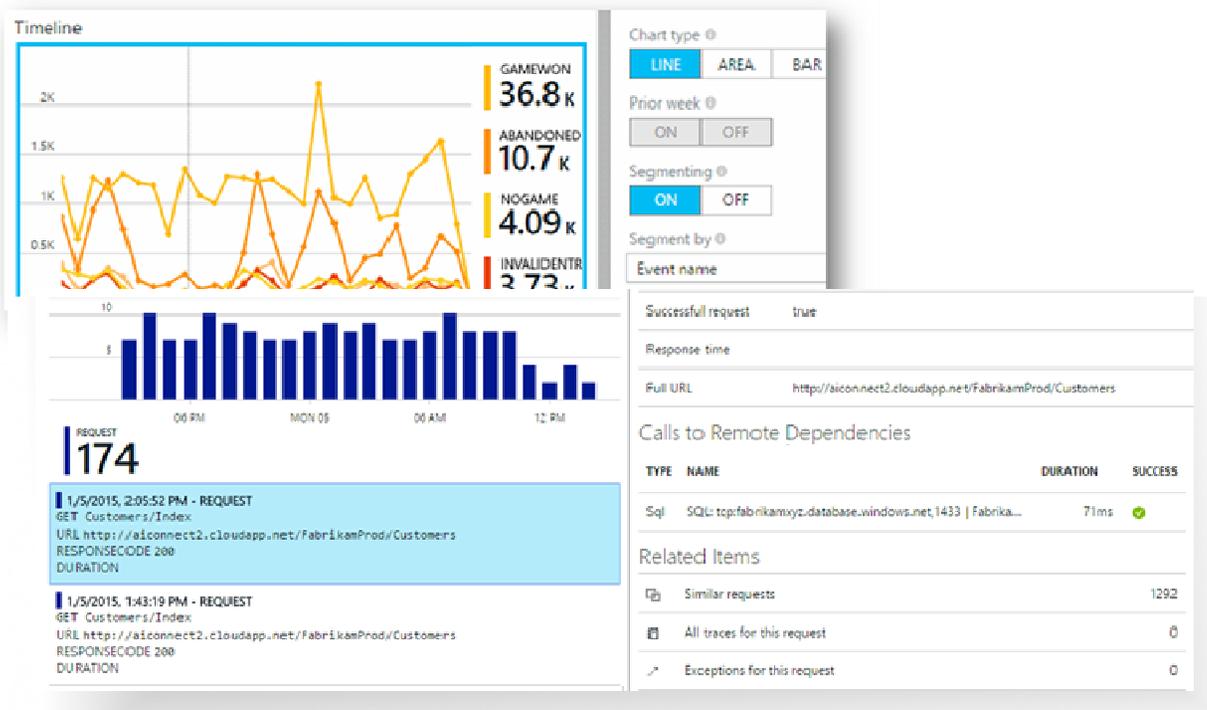


Dynamics 365 –Operational Readiness

- ✓ Detect and diagnose exceptions and application performance issues
- ✓ Monitor Sites hosted on Azure plus websites on-premises and with other cloud providers
- ✓ Seamlessly integrate with your DevOps pipeline using Visual Studio Team Services, GitHub, and other webhooks
- ✓ Get started from within Visual Studio, or monitor existing apps without redeploying

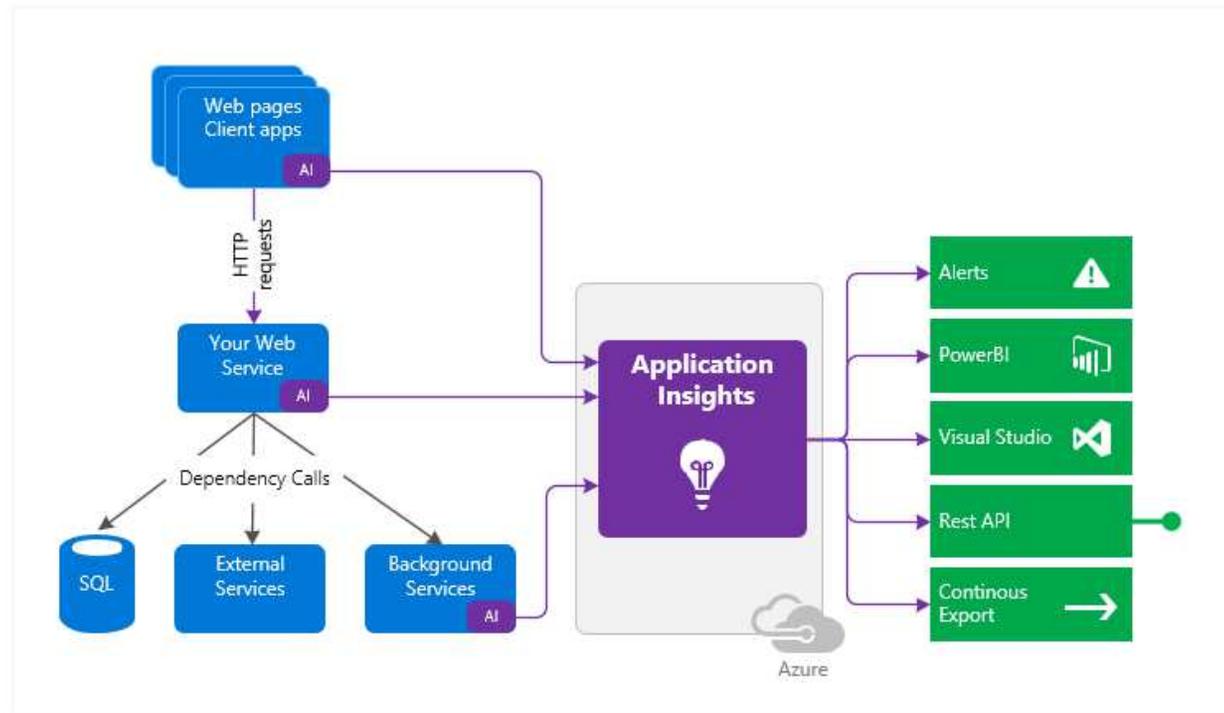
Dynamics 365 –Operational Readiness

Application Performance Management (APM) service



Dynamics 365 –Operational Readiness

Application Insights



Dynamics 365 –Operational Readiness

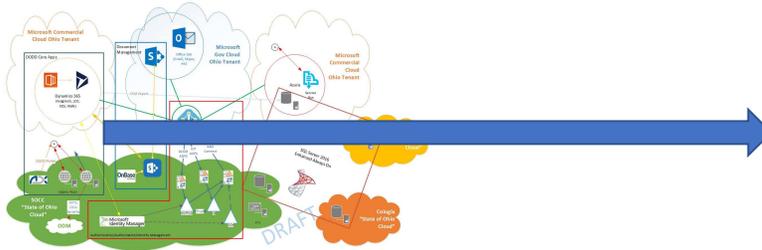
- Request rates, response times, and failure rates** - Find out which pages are most popular, at what times of day, and where your users are. See which pages perform best. If your response times and failure rates go high when there are more requests, then perhaps you have a resourcing problem.
- Dependency rates, response times, and failure rates** - Find out whether external services are slowing you down.
- Exceptions** - Analyse the aggregated statistics, or pick specific instances and drill into the stack trace and related requests. Both server and browser exceptions are reported.
- Page views and load performance** - reported by your users' browsers.

Dynamics 365 –Operational Readiness

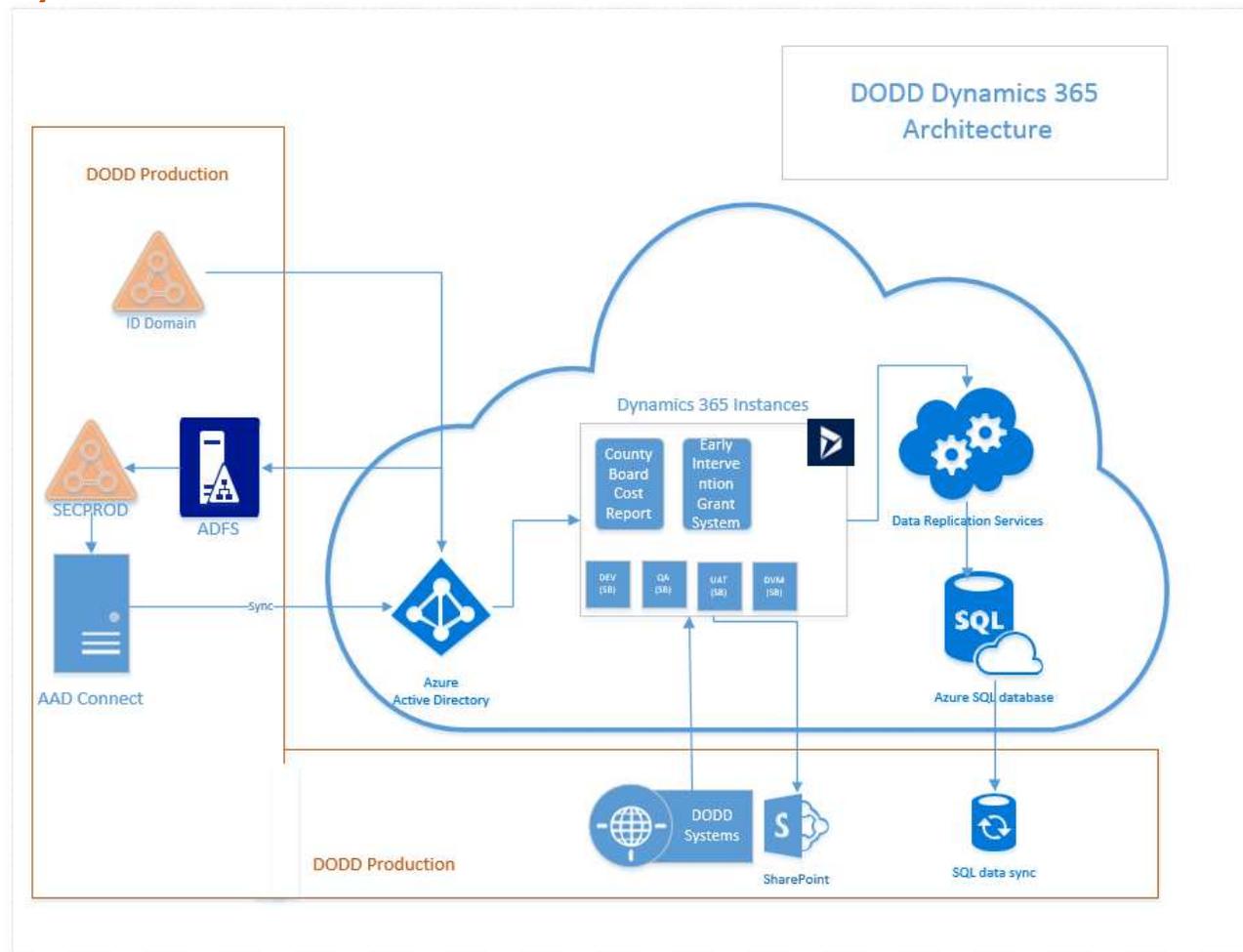
- AJAX calls** from web pages - rates, response times, and failure rates.
- User and session counts.**
- Performance counters** from your Windows or Linux server machines, such as CPU, memory, and network usage.
- Host diagnostics** from Docker or Azure.
- Diagnostic trace logs** from your app - so that you can correlate trace events with requests.
- Custom events and metrics** that you write yourself in the client or server code, to track business events such as items sold or games won.

Dynamics 365 - ALM

- 1 Single tenant - Multi environment
- 2 Sandboxes and Dev Ops
- 3 Service Layer - Azure
- 4 Programming Model

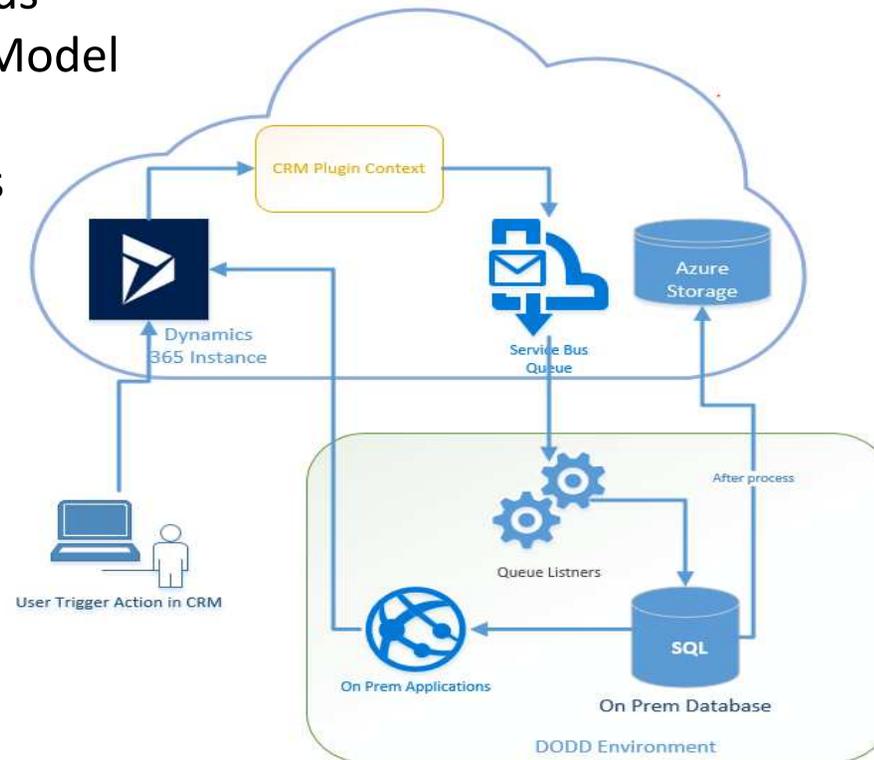


Dynamics365 Architecture

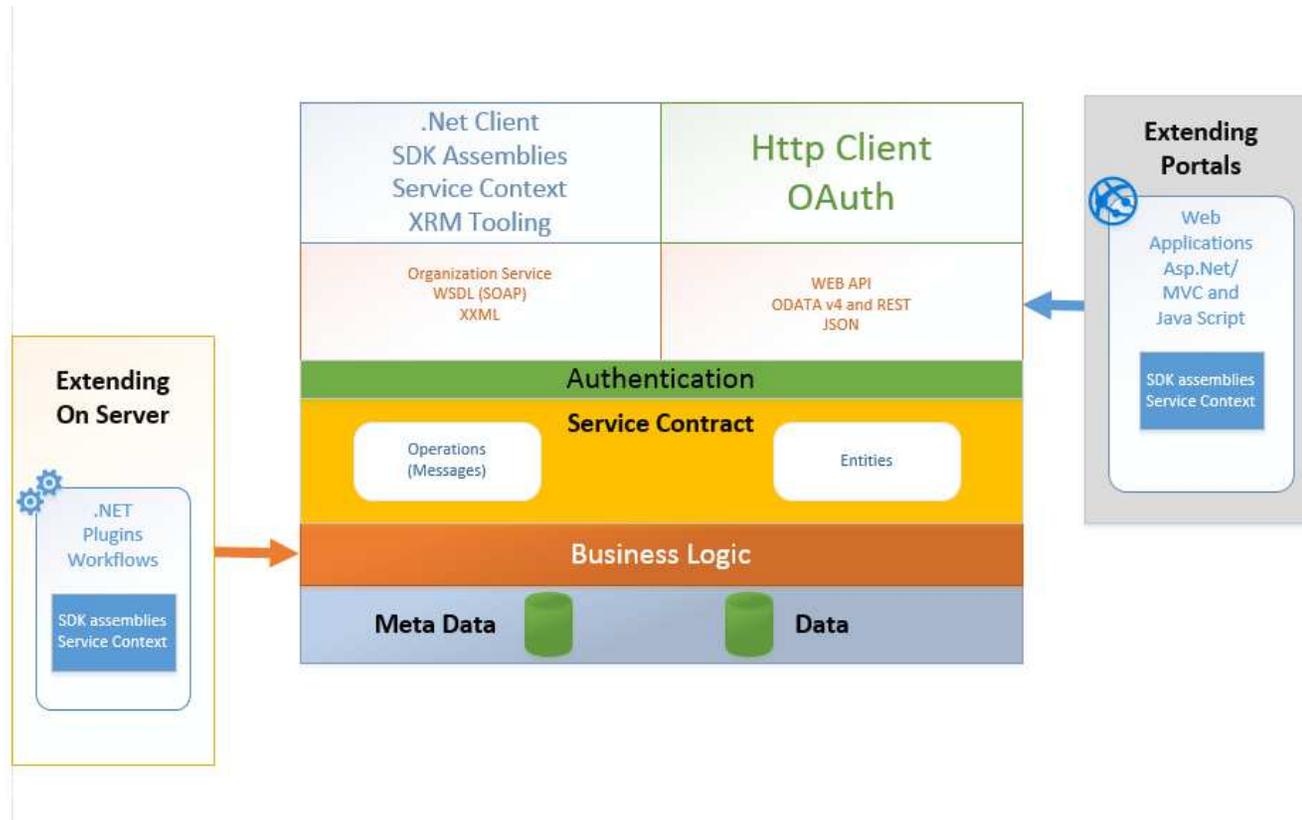


Dynamics365 – SOA

- Azure Service Bus
- Common Data Model
- Flow
- Azure Functions
- Power Apps
- BOT integration



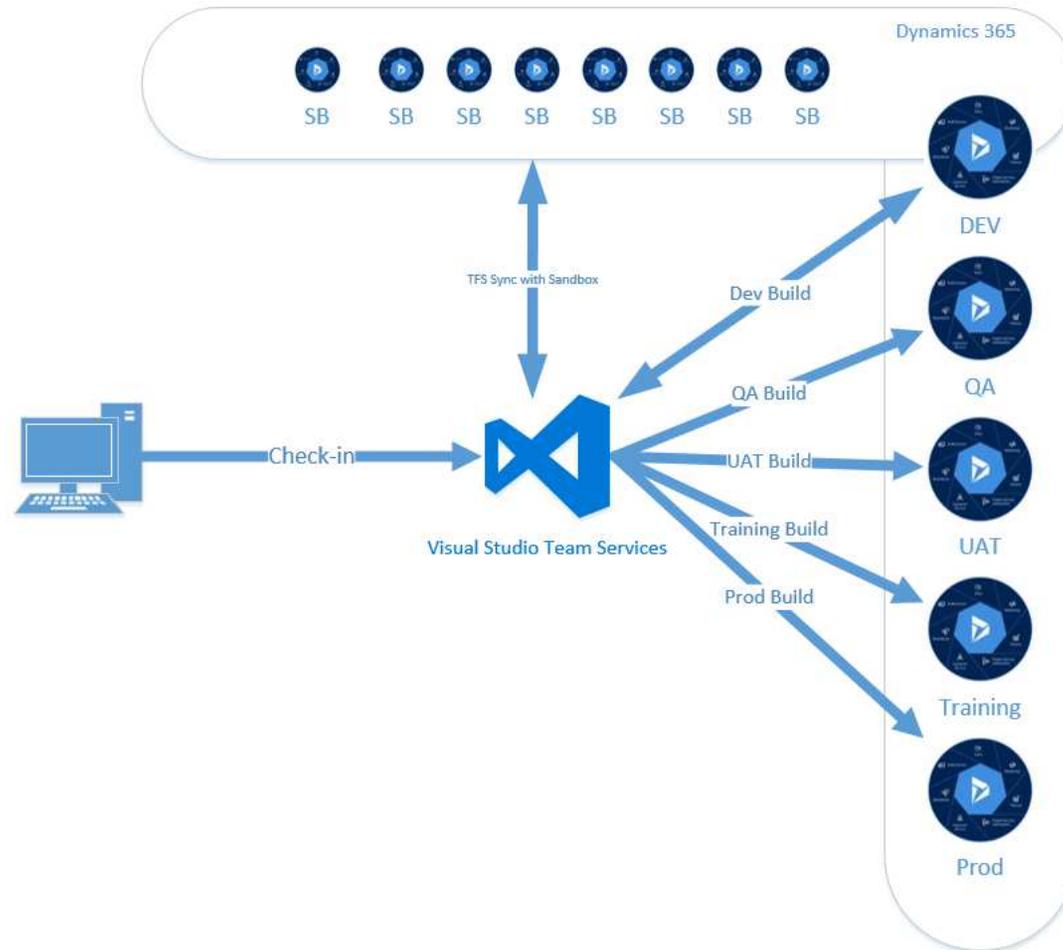
Programming Model



Programming Model

Plug-ins	2 minute timeout	Sandbox mode
SQL	30 seconds timeout for database transactions	
Running Workflow Jobs	Fair user-no specific hard limits, but the resource is balanced across organizations	Sandbox mode
Direct Database Access	Not allowed	
JavaScript	Use WEB API where ever possible	
3rd Party Libraries	Not allowed	Exception use IL Merge if necessary
Changes in DOM	Not allowed	
Reports	Fetch XML only	
Storage	Based on licenssed	Additional storage is available for purchase
Custom Database Indexes	Not allowed	Supported through service request

Dynamics365 - ALM



Agile vs Traditional Dev

- **What is Agile?**
- Iterative; but how long are sprints?
- One size does not fit all
- There is no secret sauce. Agile approach must fit the culture
- Support from management and business

Agile vs Traditional Dev

- **Where we started**
- **People**
 - SCRUM master training; product owner training
- **Other**
 - VSTS
 - Co-location
 - Scrum boards

Agile vs Traditional Dev

SCRUM board picture

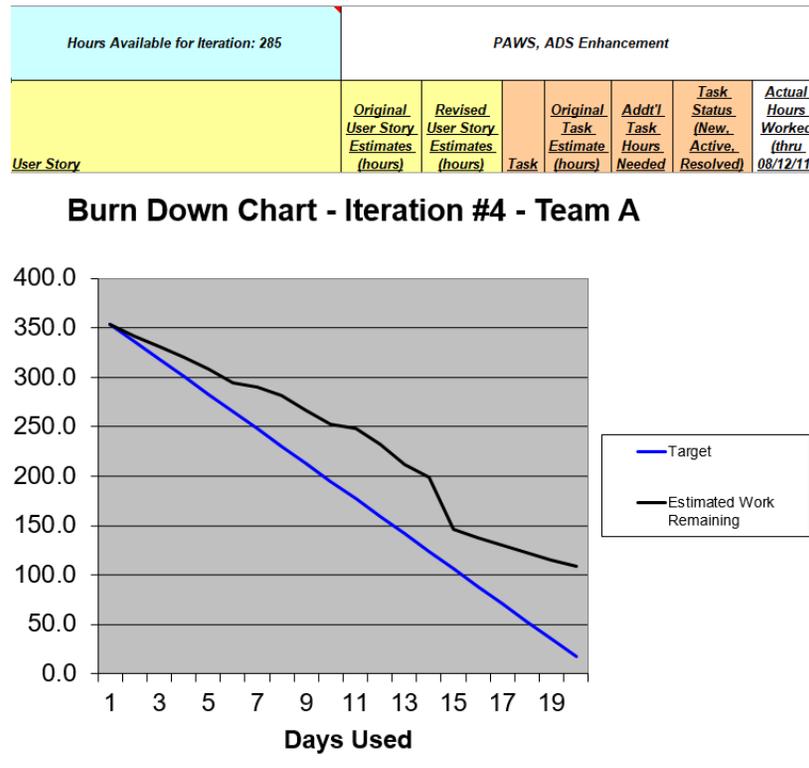


Agile vs Traditional Dev

- **Transparency**
- Agile approach produces metrics to better manage projects
 - Burn down charts
 - Other project related metrics

Agile vs Traditional Dev

Metrics



Agile vs Traditional Dev

Metrics

Iteration #4 - Team B (John)	Hours Available for Iteration: 314	PA, SELF Waiver and DRA Exemption											
User Story ID	User Story	Original User Story Estimates (hours)	Revised User Story Estimates (hours)	Task	Original Task Estimate (hours)	Add'l Task Hours Needed	Task Status (New, Active, Resolved)	Actual Hours Worked (thru 08/11/11)	New	Active (New portion)	Active (Resolved portion)	Resolved	Hours
21	Entire Iteration	325	325		325	0		340.5	26	21	12	266	Hours
									9	6		62	Tasks
976	Write a screen to review previously-requested PAs	20	20					25					
	John			A									
				B									
				C	18		R	25					18
				D									
				E	2		N		2				
				F									
977	Write a screen that allows a user to complete the Individual Request Form (IRF)	15	15					13.5					
	John			A									
				B									
				C	12		R	12.5					12
				D	1		R	1					1
				E									
				F	2		A			2	0		
				G									
				H									
978	PA - Provide the ability for the SSA to input												

Agile vs Traditional Dev

- **Getting started**
- Training
 - Scrum Master
 - Product Owners
- Scarlet and Gray
- MSS

Agile vs Traditional Dev

- **Our first AGILE RFP**
- **AGILE and the vendor**
 - Design room/”Keeping the hopper filled”
 - Three Amigos
 - Acceptance criteria
 - Mocks
 - Architecture engagement

Agile vs Traditional Dev

imagineIS RFP user stories

Supporting artifacts include:
[Individual Support Plan](#)

	Orig Ref #	User Story	Track	Business Process	Epic	Sub Epic	Responsible Party
50	SB-11	As a SSA I need to be able to alert an individual's team members (e.g. providers, individual, and family/guardian, etc. etc.) that the ISP Outcomes and Support Considerations are complete or have been updated so that team members can take the action that is appropriate for their role given the new information (e.g. a provider might need to change an action plan given a change of support consideration.)	Track 13: ISP (View History, Plan Approval, Action Plans)	Service Planning	Alerts/Notifications		Vendor
51	SB-11	As a Provider I need to receive change alerts for the Outcomes and Support Considerations sections of the ISP and to have read access to those sections so that I can remain current and responsive to changes occurring for the individual.	Track 13: ISP (View History, Plan Approval, Action Plans)	Some/All Process Areas	Alerts/Notifications		Vendor

Agile vs Traditional Dev

- **Keeping pace**
- New VSTS tools
- Virtual SCRUM boards
- Using VSTS tools to manage stories

Agile vs Traditional Dev

- **Current state**
- VSTS/TFS upgrades
- Automated testing

Agile vs Traditional Dev

- **DODD CRM SDLC**
- Dynamics development environment at 50,000 feet
- Dynamics Dev environment
- Automated builds/CI
- Move to DevOPS approach
 - CI
 - Tools – Launch Darkley

Agile vs Traditional Dev

- **Bringing it all together**
- Change control – Service now
 - PIA/PITA
- Scheduled APP Scans
- Automated testing
- Continuous improvement activities

Questions?

Questions? it.transformation@das.ohio.gov

IT Optimization Summit

Instilling Intellectual Curiosity into Ohio's IT Leadership

IT OPTIMIZATION SUMMIT UPCOMING SCHEDULE:

March 22: Leveraging Existing Enterprise Solutions/Tools

- Skype & Video Conferencing – Michael Carmack & Eric Schmidt
- OneDrive – Greg Buskirk
- SharePoint – Deven Mehta
- ServiceNow – Renee Evans
- Enterprise Document Management – Glen Coleman
- Ohio Digital Experience – Derek Bridges





Thank You!

Questions? it.transformation@das.ohio.gov