

# INTEGRATE 2017 USA

Microsoft Campus, Redmond

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Integration MVP

Moving to Cloud-Native Integration

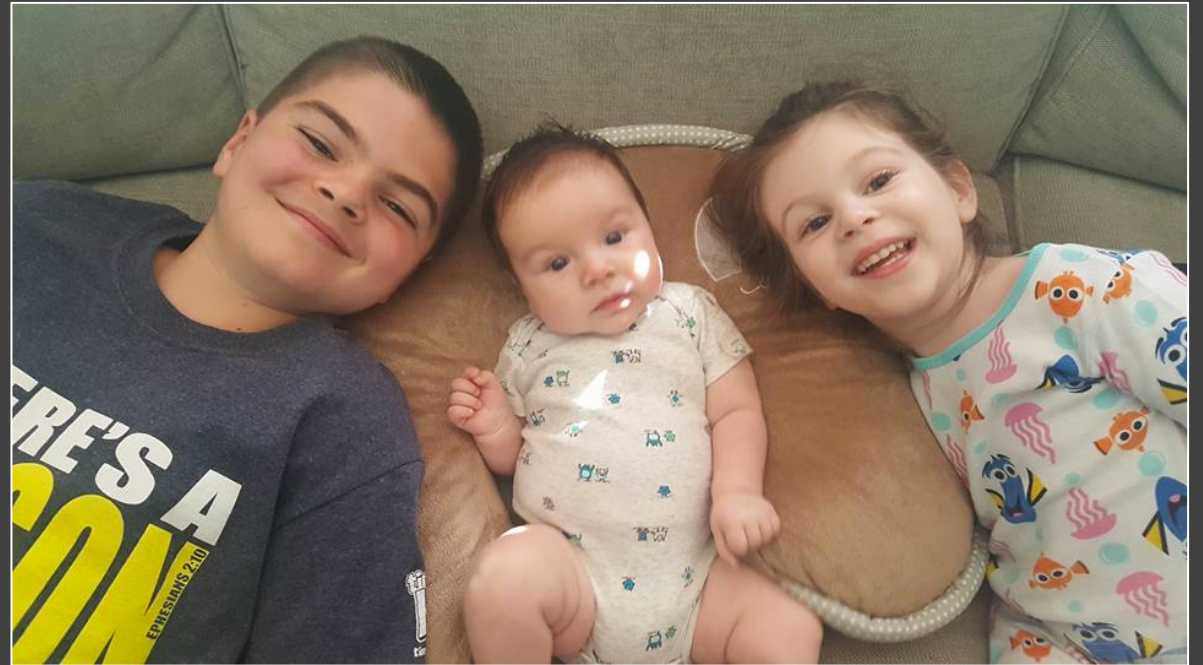
**Sponsors**



**devscope**

I've got 3 kids.

It's hard to be  
on-time for  
anything.



Optimizing the  
wrong step  
**won't improve**  
the flow.

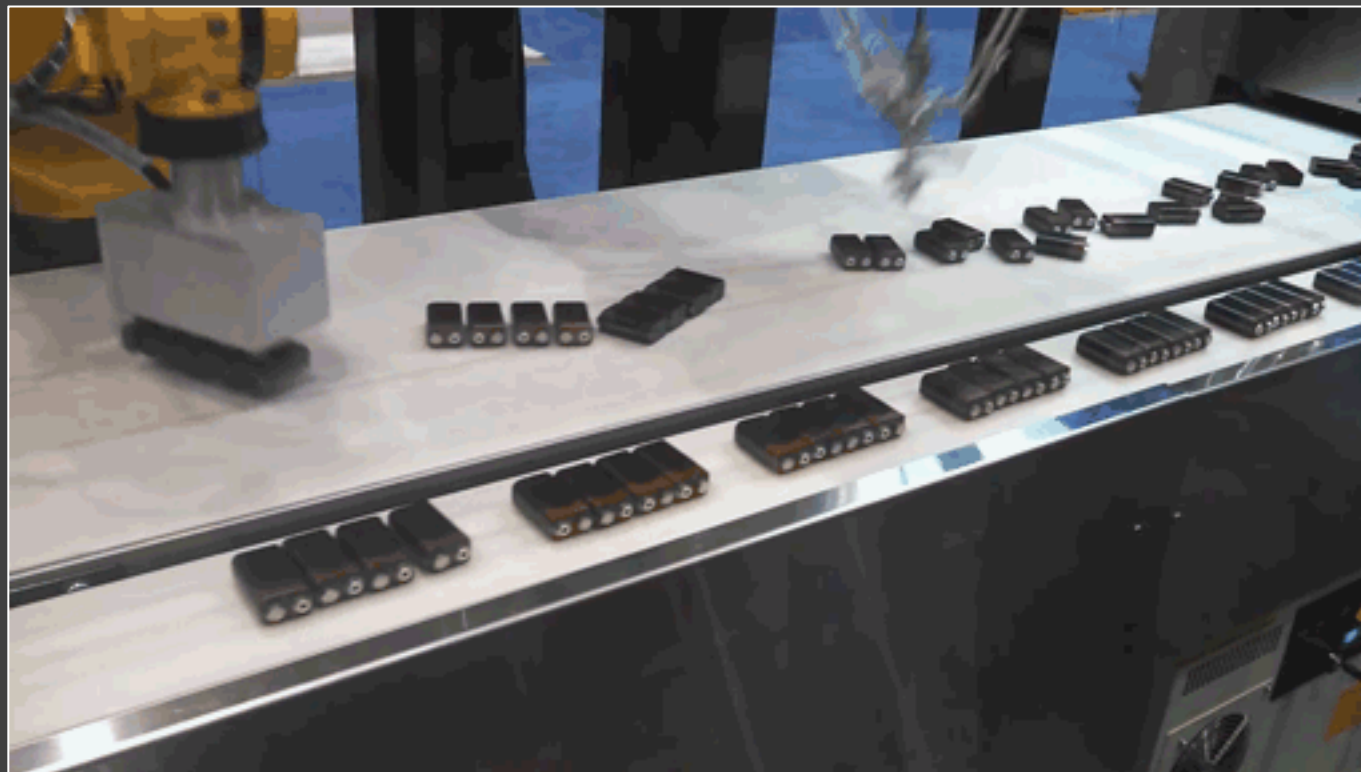


A photograph of a narrow, winding street in a historic town. The walls are light-colored and textured, with several small, irregular windows. A person is walking in the distance. The text "theory of constraints" is overlaid in the center.

# theory of constraints



Software teams  
face the same  
reality.



Don't allow app integration be the bottleneck.

You need a  
**cloud-native**  
approach to  
integration.



**#1** Integration today

**#2** What is “cloud-native”?

**#3** Delivering cloud-native integration

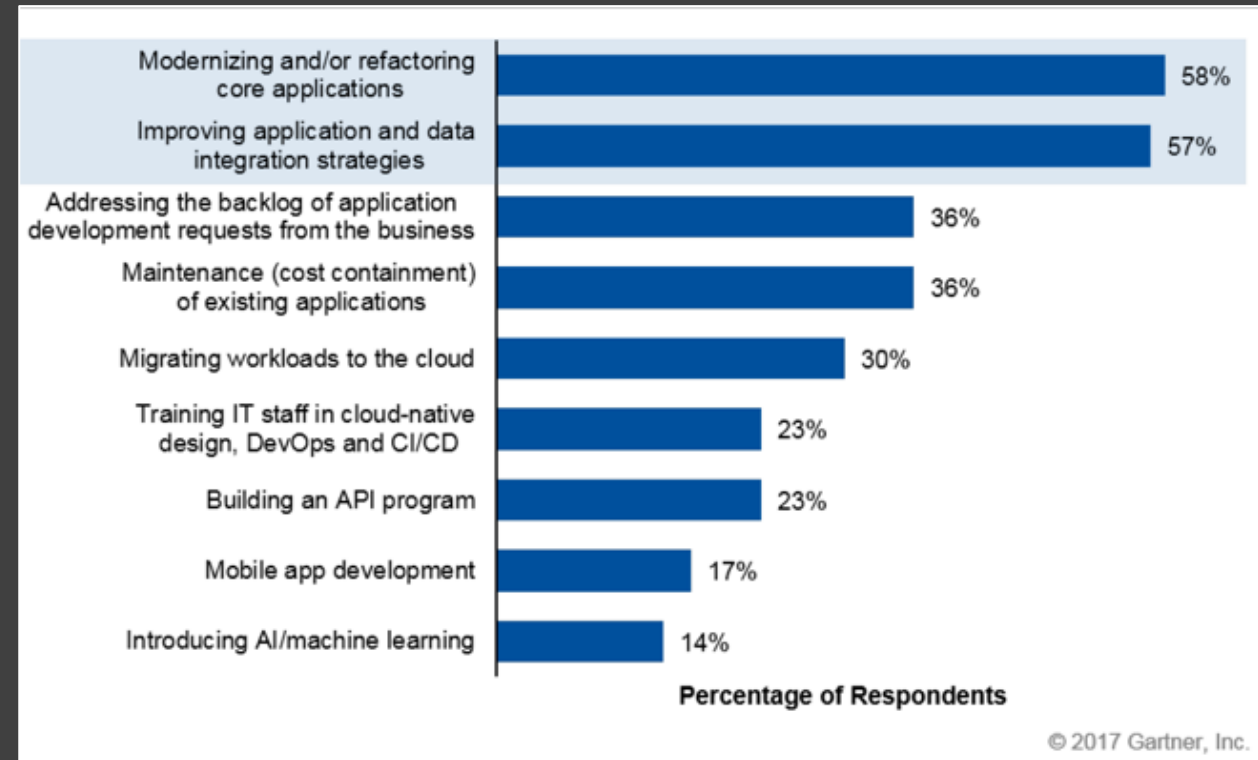
**#1** Integration today

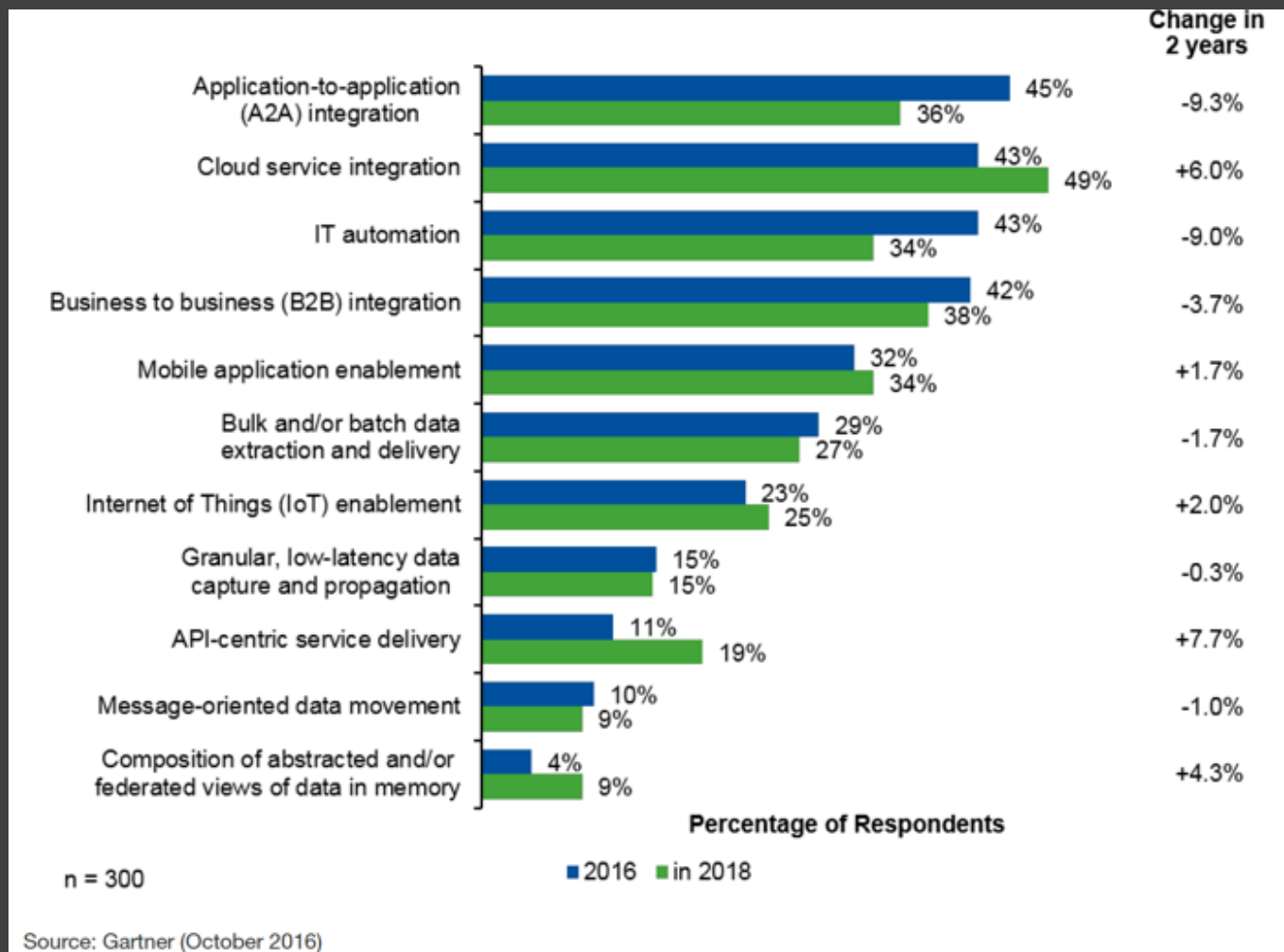
**#2** What is “cloud-native”?

**#3** Delivering cloud-native integration

The top IT priorities for 2017 to 2018 include **app modernization** and improving **integration strategies**.

Gartner :2017 Strategic Roadmap for Application Architecture, Infrastructure and Integration (2017)





Today, **application-to-application** is most critical integration scenario.

In two years? **Cloud service integration** rises to the top.

Gartner's 2016 Application Integration Pulse Survey



Spending on  
integration platforms is  
accelerating, with  
fastest growth in **iPaaS**  
and **API management**.

Gartner "Forecast Analysis: Enterprise  
Application Software, Worldwide, 4Q16  
Update," 24 January 2017

“By 2020, more than 75% of large organizations will establish a **hybrid integration platform** using integration infrastructure that they assemble from multiple vendors.”

Gartner :Use the Integration Maturity Model to Assess and Improve Your Integration Competency (2016)





“By 2021, at least 50% of large organizations will have incorporated **citizen integrator** capabilities into their strategic integration infrastructure.”

Gartner: Citizen Integrators Bring Application and Data Integration Into a Common Focus (2017)

**#1** Integration today

**#2** What is “cloud-native”?

**#3** Delivering cloud-native integration

# What is “cloud-native” all about?

This is an approach to building and operating software that takes advantage of the cloud-computing model. Often see as a combination of **microservices, continuous delivery, containers, and DevOps.**

**Built for scale, built for continuous change,  
built to tolerate failure, built for manageability.**

“Cloud native means the applications are designed to be **managed by software**, not humans.”

*Cloud Native Infrastructure How to Build and Manage Modern Scalable Infrastructure.* (2017). O'Reilly & Associates Inc.

Traditional Enterprise	Cloud-Native
Orgs arranged in silos without common goals	Balanced teams with shared objectives
Dissimilar environments; “works on my machine”	Consistent setups everywhere
Changes are an exceptions, deployments risky	Changes are an asset, deployments boring
Security via perimeter, triaged patches	Security everywhere, 3 R’s (repair/repave/rotate)
Try to prevent mistakes; focus on MTBF	Embrace resilience engineering; focus on MTTR
Scaling requires careful planning, entire stack	Dynamic scaling of individual components
Software planned and delivered in bulk	Software delivered in small batches
Single, long-lived technology stacks	Diverse, on-demand technologies leveraged



Which one of  
those sounds like  
**your** integration  
practice?

**#1** Integration today

**#2** What is “cloud-native”?

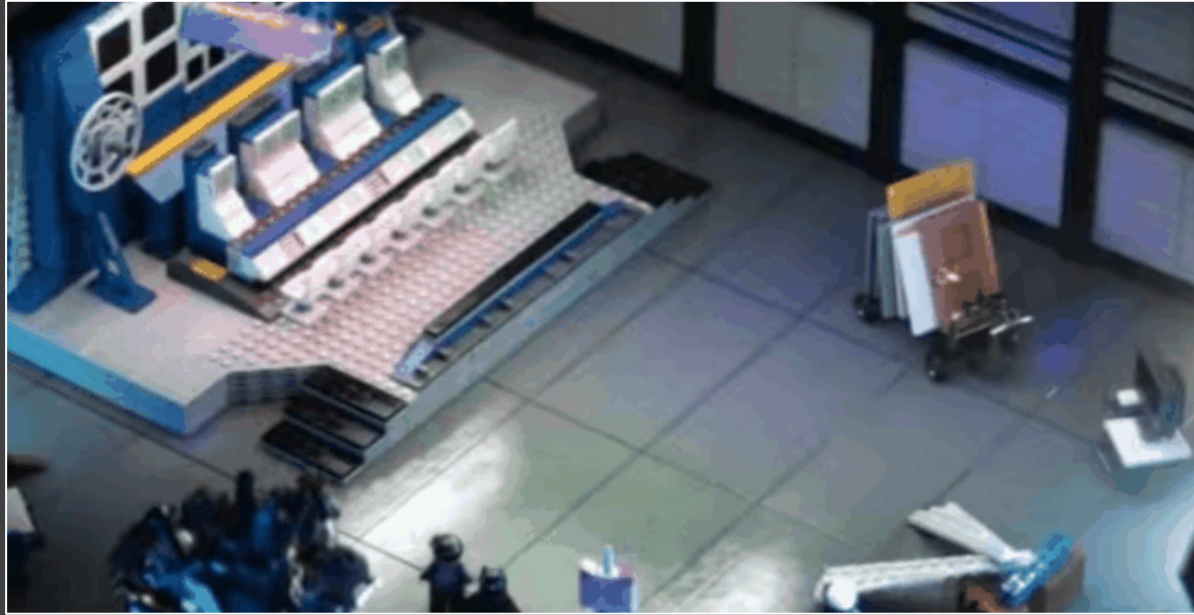
**#3** Delivering cloud-native integration

Today's integrations are often built by siloed teams, managed manually, use centralized platforms with on-premises focus, and aren't designed for elasticity.

# MORE DECENTRALIZED

Logical/physical isolation  
Edge, cloud, on-premises  
Distinct products  
Federated management





## MORE COMPOSABLE

Loosely coupled  
Choreographed services  
Logic in endpoints  
Targeted updates

# DEMONSTRATION

Logic App as data pipeline

## MORE “ALWAYS ON”

Events always arriving  
No maintenance windows  
Smarter failure handling  
Blue-green upgrades





## MORE SCALE

Unpredictable usage  
Scale each component  
Avoid shared capacity  
Buffering strategies

# MORE SELF SERVICE

Ad hoc integrators  
Environments on demand  
Unaided deploy/manage  
Embed experts in teams



# DEMONSTRATION

Making BizTalk Server easy



## MORE ENDPOINTS

Embrace modern sources  
Variable latency demands  
Embrace new patterns  
Logic Apps for cloud

# MORE AUTOMATION

Build, scale AND upgrade  
Platform-managed  
Changes to Ops approach  
*Product* mindset



# DEMONSTRATION

Automate Azure via Service Broker

Introduce **cloud-native integration** and start delivering integration as a service at scale.