Building a DEV Practice in the Cloud Era

Presented by Zac Paulson

About True|IT

WHERE TECH MEETS WORK

True | IT isn't just an IT company. We boost business performance by combining every aspect of technology in a seamless continuum of solutions. That means integrating everything – from foundational hardware to application/process improvement to strategies for growth – so you're free to push relentlessly toward a stronger bottom line.

WARM FUZZIES

Warm. Personable. Comforting.

LOYALTY

Strategy and a relationship.

KAIZEN

Getting better and better.

Core Values

Our Mission

WARM FUZZIES | LOYALTY | KAIZEN

We Care, We Connect, We Make a Difference… Together!

The Pioneers

WES HENRY

Chief Product Officer

ZAC PAULSON

Chief Executive Officer

OLE GJERDE

Chief Operating Officer

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Today's Discussion

MAIN POINTS

Why Build a DEV Practice

How to Build a DEV Practice

Difference in the Cloud Era

Define Your Strategy

Choose Your Cloud Target

Select Your Tools

Good Business Practices

What True IT Does

Let's Talk

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Why Build a DEV Practice?

Why Build a DEV Practice?

- ✓ Deliver additional value to your clients
- ✓ Strengthen your position as technology leader to your clients
- ✓ Make your relationship with your clients "stickier"
- ✓ Generate additional revenue
- ✓ Diversify within client base

How to Build a DEV Practice?

How to Build a DEV Practice

✓ Define your practice

✓ Hire your team

Sounds easy, right?

Define Your Practice

- **DEV is about building software (writing code)**
- **What are you planning to build?**
  - Custom stand-alone software
  - Apps
  - SaaS
  - *Integrations / customizations*
    --- This is where TrueIT started and had the most success with client acquisition

Hire Your DEV Team

- **Developers come in different levels**
  - Do you want high-level developers or low level developers?
  - *Hard to build good software with only low-level developers* --- We learned this one the hard way…☹

- **It's not just about coding**
  - System architects --- Most important, the rest could be outsourced
  - Business analysts
  - Project managers
  - UI/UX
  - Documentation / training

Hire Your DEV Team

- **DEV leadership**
  - DEV leader needs to balance stability vs evolution
    - Stability: Sticking with things that work
    - Evolution: Adopting newer tools and technologies

  - DEV leader needs to prevent ideological wars that happen between developers when they start championing their favorite language, frameworks, tools, etc.

  - Generally is NOT the same as MSP/VAR Leaders

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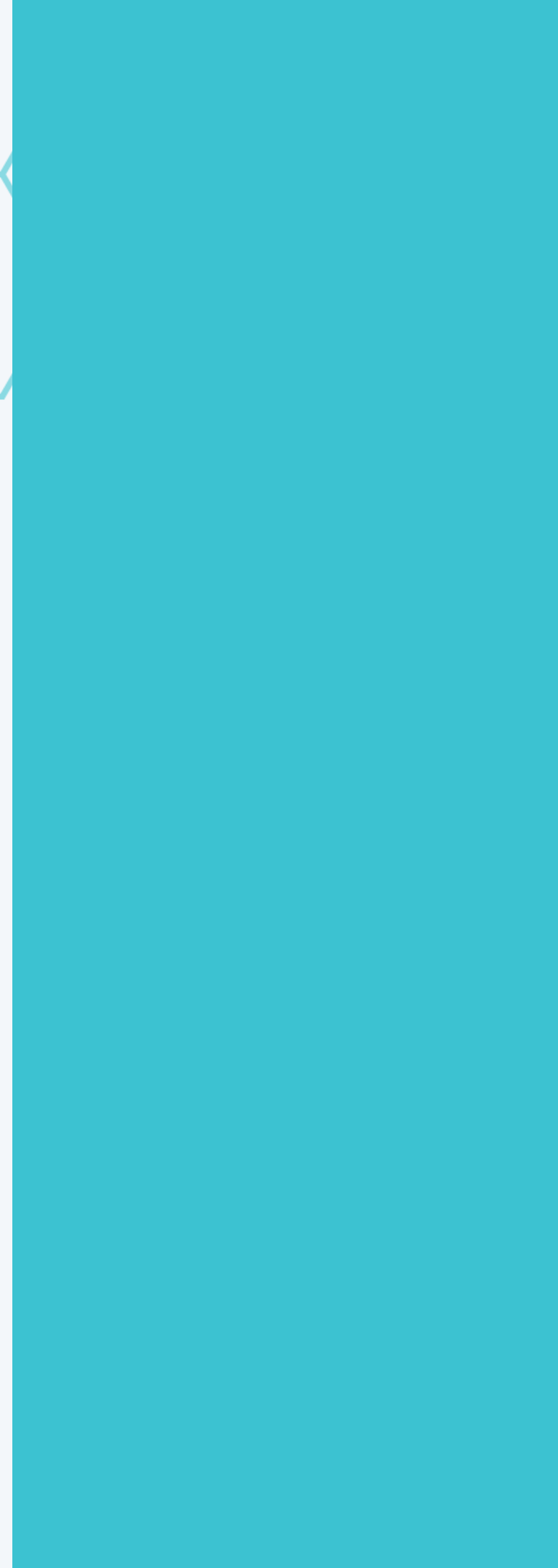# What's Different about DEV in the Cloud Era?

What's Different About DEV in the Cloud Era?

- ✓ Client Expectations
- ✓ Cloud Hosting Environments
- ✓ Cloud Tools
- ✓ SaaS

Client Expectations

- ✓ Always-on
- ✓ Scalable
- ✓ Accessible anywhere
- ✓ Accessible through mobile devices

Cloud Hosting Environments

- **Big cloud environments**
  - Azure
  - AWS
  - Adoption of big cloud is growing rapidly
  - Leverage tools and capabilities
  - Big cloud offerings are very sophisticated
    - Reliability and scalability that are impossible to produce with mere mortal teams and budgets
    - New features being released all the time
    - It's not possible for in-house teams to keep up with the advancement of the big cloud offerings
- **Private and hybrid cloud**

Cloud Tools

- Source control, testing automation, bug tracking, agile development management, monitoring, and more

- Tools like these are available from the cloud provider or from 3rd party SaaS developers

SaaS

- Existed before cloud, but much more prevalent today

- People being used to SaaS now is a big part of what's causing the change in client expectations

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Define Your Strategy

Define Your Strategy

✓ Develop Onto the Platform (deep integration)
✓ Traditional Plus Cloud (shallow integration)

Develop Onto the Platform

- Using all the tools the features directly into your software
- Maximizes the benefits of the cloud platform
- Tightly coupled to the cloud platform means migrating to a different platform is not easy

Development deeply integrated into the platform capabilities, features, and tools.

Traditional Plus Cloud

- Developing on a virtual-machine infrastructure and then leveraging the cloud as your hosting environment
- Less benefits of the cloud platform
- Most similar to DEV practices in the past (easiest to learn)
  - Flexibility to move to different cloud platforms
  - May even be possible to deploy your software to local infrastructure since it's just built on virtual machines

  Development loosely integrated into the platform capabilities, features, and tools.

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Choose Your Cloud Target

Choose Your Cloud Target

✓ Azure (Microsoft)

✓ AWS (Amazon)

✓ Google

✓ Other cloud: Private / hybrid cloud

Select Your Tools

Select Your Tools

- ✓ Primary tools
  - ✓ IDE, Testing, Continuous Integration, Continuous Delivery, Source Control, …
  - ✓ Need to standardized!
- ✓ Azure provides amazing tools for cloud development
  - ✓ Source control, Bug tracking, Agile development, Staging, Testing, Continuous development / continuous integration, Release process, Scaling to match workload, …
- ✓ AWS in conjunction with 3rd party developers offer similar tools
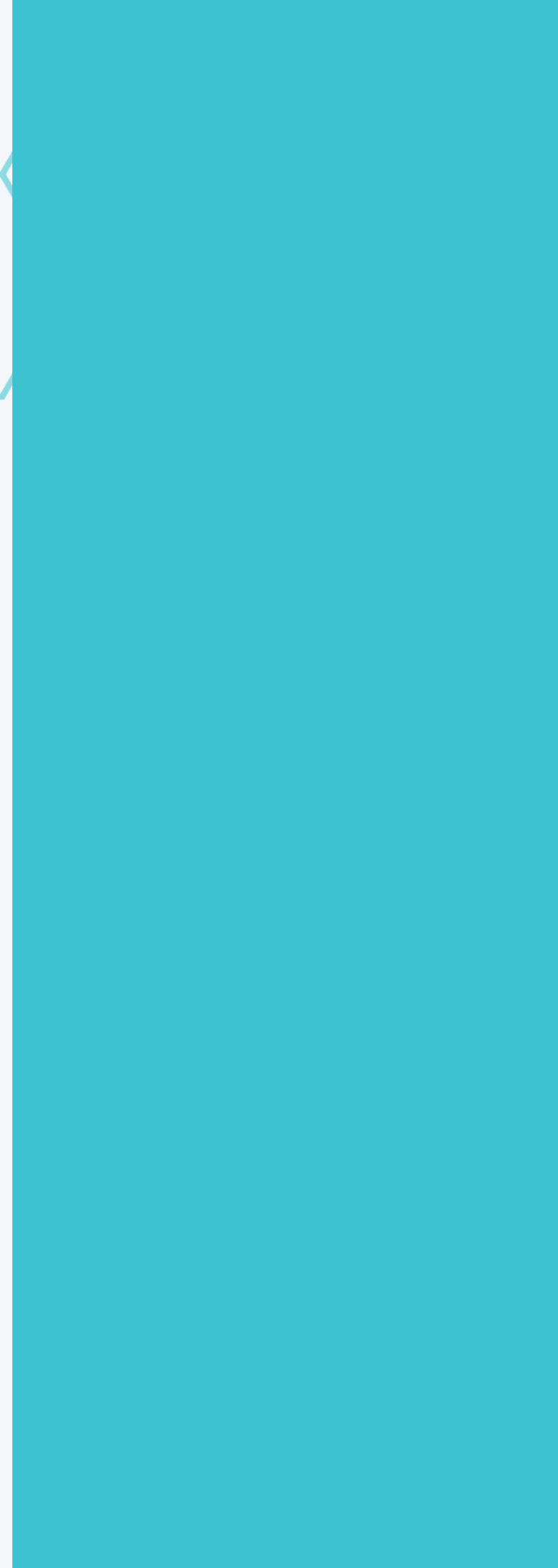
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Good Business Practices

Good Business Practices

- ✓ Processes
- ✓ Documentation
- ✓ Standards
- ✓ Project Management
- ✓ Sales Marketing

Processes

- You need processes in order to scale
- Processes make the projects consistent
- Processes enable your team to work together

Documentation

- Scope of work defines the project
- It's basically not possible to over document
- **Contracts, contracts, contracts**

  --- make sure your E&O is covered and other liabilities... Anyone can sue you.

Standards

- Language
- Frameworks
- Libraries
- Coding Style
- Testing
- Release Process
- Documentation

Project Managment

- **Project Managers are worth their wait in gold and SHOULD always be billable.**
- Development work is project-based
- Project management is essential to ensuring positive outcomes
  - Keep the project in scope
  - Keep the project within budget
  - Keep the project on time
- Change control and change management are essential to keep the project and client expectations in-line

Sales / Management

- It's a whole new business
  --- VERY Different than Infrastructure or MSP

- Case Studies Work Best!
  --- Have to back it up with sales and marketing

- "Build it and they will come" definitely doesn't apply to DEV
  --- Best to have a project to start the build and GROW into it…

What Does True IT Do?

What Does True IT Do?
--- Our Secret Sauce

✓ Cloud target: Azure

✓ Strategy: Deep integration

✓ Azure Platform

✓ Azure Tools

✓ Technology

Azure Platform

- ❑ Azure web roles
- ❑ Azure ServiceBus
- ❑ Logic Apps
- ❑ Web Jobs
- ❑ Azure functions
- ❑ Azure SQL
- ❑ Azure Active Directory
- ❑ Azure search
- ❑ Azure pipelines
- ❑ DevTest Labs

- ❑ Monitor
- ❑ AppInsights
- ❑ Azure backup
- ❑ Blob storage
- ❑ CDN
- ❑ Load balancer
- ❑ VPN gateway
- ❑ Still have some Azure virtual machines

Azure Tools

❑ Visual studio online
   ❑ Source control
❑ Azure DevOps - True IT uses nearly all of Azure DevOps tools
   ❑ Bug tracking
   ❑ Agile management
   ❑ Staging and testing
   ❑ More
❑ Azure scaling

Technology

- Microsoft .NET framework
- C#
- ASP.NET MVC Core
- React Javascript library
- Azure SQL or Microsoft SQL Server

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