Mid-Day Keynote | How Serverless Computing Changes Cloud, and Your Job

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What we thought we knew...

Operational Cost Saving

Speed to Deploy

Speed to Change

Speed to Fail
No longer are we needing to think about server resources when building or deploying applications.

Source: CodeProject
Benefits of Serverless Computing

No servers to manage

No longer are we dealing with the notion of having to provision some type of server for most operations on cloud-based platforms.
Benefits of Serverless Computing

Continuous scaling

Thus, we don’t have to think about how many servers to allocate, or the over-allocation of servers which are costly.
Benefits of Serverless Computing

Never pay for idle

No longer are we paying for resources we don’t also, serverless is better aligned with usage than server-oriented approaches.
### Fits for Serverless Computing?

<table>
<thead>
<tr>
<th>Fit</th>
<th>Not a Fit</th>
</tr>
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<tbody>
<tr>
<td>Net New</td>
<td>Legacy</td>
</tr>
<tr>
<td>Value on Scaling</td>
<td>No Value on Scaling</td>
</tr>
<tr>
<td>Service Oriented</td>
<td>Traditional</td>
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</tbody>
</table>
Voter Registration

As is:
Old system – monolithic, server intensive
Difficult to update, maintain, add feature requests

Registration Service
IwillVote User
Voter Laws API

Registration Database
IwillVote System
To Be:
Split out service functionality
Voter registration processing using serverless
Pick Your Poison

AWS Lambda
- One of the first on the market
- Largest user base
- Many use cases and workloads on this platform

Microsoft Azure Function
- Tightly coupled to the azure platform
- Microsoft development model
- Works well for those on Azure, or moving to Azure

Google Cloud Functions
- Newest player, but very promising
- Google scales well, and has good serverless functions
- Third place, but catching up
AWS Lambda

Working with AWS Lambda

EVENT SOURCE
- Changes in data state
- Requests to endpoints
- Changes in resource state

FUNCTION
- Node
- Python
- Java
- C#

SERVICES (ANYTHING)

Source: AWS
Azure Functions?

• Azure Functions are a serverless and event driven that builds on Azure App Service platform
• Azure Functions are “nanoservices,” or microservices that can scale based on demand
The Steps

Plan
• Understanding the features of Lambda, understand how to build the application.

Build
• Using best coding standards, carry out the plan.

Test
• Test performance, functions, security, and other aspects of the application.

Deploy
• Deploy the application into the production environment.

Operate
• Continuous operations and improvement.
Understand How They Breakdown to Lambda Functions

Plan | Build | Test | Deploy | Operate

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Thanks! Questions? Catch me after lunch, or e-mail to: david@davidlinthicum.com