Chandler Concrete: Microsoft .Net Modernization to AWS Lambda

About Chandler Concrete

Founded just after World War II in 1946 by R.F. Kirkpatrick, Chandler Concrete Company began its journey as a concrete contracting firm. In 1974, the reins were taken over by Tom Chandler, marking the inception of over 45 years of family-led operations. Since its modest beginnings in Alamance County, Chandler has experienced robust expansion through strategic acquisitions, stretching its footprint across central and western North Carolina, as well as parts of Virginia and Tennessee.

Today, the company boasts over 40 concrete plants across three states, supplemented by three block plants in Virginia and a building supply center in Salisbury, NC. Beyond its impressive portfolio, Chandler is distinguished by its unwavering commitment to superior quality, with a customer-centric approach that consistently exceeds expectations. The brand stands as a testament to innovation, growth, and a legacy built on concrete foundations.

Overcoming legacy hurdles for a seamless transition

Chandler Concrete found itself navigating a multifaceted challenge with its legacy AWS solution, which had originally been set up with security as a secondary concern. Crafted as a custom application by an individual who later became unavailable, the system was left without crucial documentation, leading to substantial support challenges.

As if these hurdles weren't enough, Amazon's impending discontinuation of the Classic AWS Services on which Chandler's application ran further intensified the situation. The Chandler team, while skilled, faced the pressing need to familiarize themselves with transitioning to the updated AWS infrastructure. Amidst these complexities, the imperative grew to establish a solution that was not only modern but also secure and efficient.

The Challenge

With Amazon phasing out Classic AWS Services, **staff faced challenges** migrating the application to new infrastructure

Custom application's sole creator became **unavailable, complicating support**

Legacy application **lacked documentation**

Initial AWS solution **lacked modernized security** measures

The Solution

Application & ETL modernization led to **streamlined efficiency**

Transitioned from Classic Services to a **serverless system, preventing data loss**

Introduced Code Pipeline and repositories for **improved code management**

Produced comprehensive documentation for the entire environment

Provided clearer billing insights with EPI-USE's **"Billing as a Service"**

Elimination of a now unnecessary Windows Licenses and **server maintenance**

Building a future-ready framework:
from classic to contemporary

When faced with the intricate challenges posed by Chandler Concrete's legacy infrastructure and imminent AWS service discontinuation, EPI-USE swiftly took the reins. A thorough assessment of the .Net application hosted on-prem paved the way for modernization, simplifying the application and ETL jobs to four principal functions. These functions seamlessly transformed into Lambda functions within an AWS Step Function, initiated at regular intervals by an EventBridge Event.

The urgency to migrate from the AWS 'Classic' services was addressed proactively. The EC2 Classic instances and the RDS MySQL Classic database were efficiently backed up and reintegrated into their modern counterparts.

Beyond these foundational changes, EPI-USE spearheaded other pivotal shifts. Code repositories for the application and web application ensured streamlined change management, while a Code Pipeline was implemented for the web application. A mirror Development environment was crafted, mirroring Production to facilitate safe testing and developmental processes. Furthermore, comprehensive environment documentation was introduced, bridging the previously existing knowledge gaps regarding the application and web application.

"While things are more stable now than they probably have ever been, the two best parts of this is documentation of the legacy systems through reverse-engineering of the code, and ongoing assistance with the application and the corporate AWS environment. Having that visibility and support has allowed corporate IT to focus on the internal needs such as cybersecurity and infrastructure upgrades rather than working to keep a legacy application simply functional."

Chandler Concrete

A sigh of relief

EPI-USE's engagement with Chandler Concrete yielded remarkable benefits, providing enhanced stability, modernization, comprehensive documentation of their systems, the elimination of the server licenses, and the maintenance required for servers. The legacy application was not just transitioned to the advanced AWS cloud, but the custom code underwent significant refinements, documentation, and where feasible, was replaced with streamlined AWS Lambda functions.

This revitalization ensured that the mission-critical application is not only robust but also optimized with the latest tools and methodologies. Coupled with its first-ever thorough documentation, maintenance and future modifications are set to be more efficient. EPI-USE's strategic approach has paved the way for ongoing developments, allowing for the inclusion of features and functions that corporate users had eagerly been awaiting.

Legacy application and ongoing support

Updating and support in the corporate AWS implementation

Knowing that Chandler Concrete has a "Go-To Partner" for support and advice

Measurable Results Achieved

Securely deployed application and database

Database **no longer deployed** on public internet

Streamlined change management

Identical development environment for **full testing**

Comparable monthly cost

About EPI-USE Services and AWS

EPI-USE Services for AWS offers robust and scalable hosting solutions, based on AWS. As a Next-Gen Managed Services Provider (MSP) we provide managed services and consulting services for AWS, including assessment, development, migration, management, and optimization, allowing our clients to focus on their core business. By providing a flexible cloud migration methodology, we tailor our migrations to each client's unique requirements. This allows any business to move from traditional server environments to AWS quickly and efficiently, with little to no impact on existing environments.

To learn more about how we can help your business, contact info-aws@epiuse.com or visit epiuse.com/aws-services.

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