PILOT LIGHT ARCHITECTURE WITH CLOUDBASIC REPLICATE BASED RDB REPLICATION

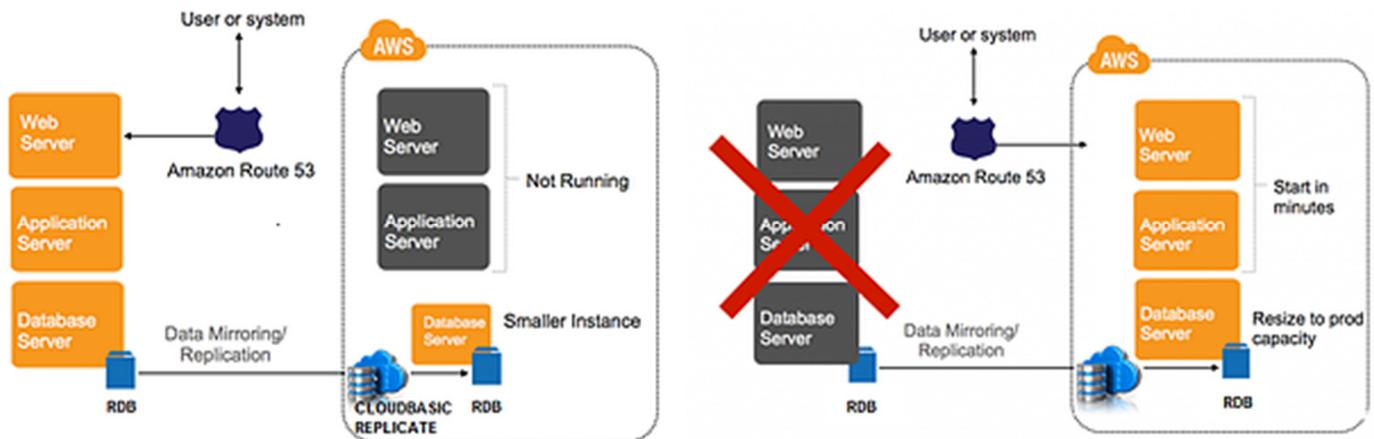## A Cost Effective AWS Cloud DR Solution for Smaller Companies (SMB)

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PILOT LIGHT is a cost effective architecture that can be implemented in:

(1) hybrid environment - extending on-premise system setups to Amazon Web Services (AWS) cloud infrastructure (Cloud DR), or
(2) cloud environment - providing Region-to-Region (i.e. AWS US East-to-West coast) DR capabilities.

A small part of the cloud setup is always running, databases are in synch with the primary databases. Another part, usually switched off, is to be turned on to replace the original structure when a DR event occurs.

Implementing this architecture without leveraging the cloud, would require the existence of a properly sized structure in another data center. This is an expensive approach, both in terms of hardware acquisition and power consumption, despite the possibility of utilizing virtualization in the on-premise data center facilities.

Using Amazon Web Services, a properly sized structure can be setup in the cloud:

- EC2 to run Application and Web servers (not running after the initial setup)
- ROUTE 53 to easily switch DNS records to point to the new structure in AWS
- AWS RDS or EC2 DATABASES for the destination active DB standby (always on)
- CLOUDBASIC REPLICATE EC2 instance for continuous Relational Databases synchronization (always on)

When a DR event occurs, the "dormant" EC2 structure need to be started to handle the production load. Route 53 DNS records need to be adjusted accordingly. The process can be automated via utilizing AWS Service APIs.

Compared to utilizing only offsite backup as a DR strategy, this architecture delivers substantially better RTO depending only on the time needed to detect the need for DR and to scale up the replacement structure. Depending on the replication/mirroring system the RPO can become close to Zero.

PILOT LIGHT is an architecture recommended by Amazon Web Services. For more information:
http://www.slideshare.net/AmazonWebServices/using-aws-for-disaster-recovery-webinar

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