

Plan HA for Legacy Application from On Prem to Azure Cloud.

PROBLEM STATEMENT

- ❖ The legacy Application has to be highly available. The way HA was planned on-Prem was not supported by Azure cloud however the business needs HA to be planned without making any changes in the application on the cloud too

SOLUTION

- ❖ Adactin has started the work by performing POCs, we have done 2 POCs using 2 different approaches:
- ❖ Approach 1 - Providing HA using Virtual Scaleset (VMSS)
- ❖ Approach 2 - Running 2 VMs and making sure that the switch over of the application happens smoothly within the 2 machines assuming we can only run application on the one VM at a time.
- ❖ Both the POCs got successfully executed from our end. The Approach 2 is selected due to less time of recovery and it is quite similar to what they do right now in on-prem so training curve for the presales, support staff would be very less.

SNAPSHOT

Industry: Healthcare
Business Unit: IT Services
Services: Development

- ❖ Application is built on the legacy technology like Java applet.
- ❖ Application got lot many integrations with Internal and external systems.
- ❖ Application architecture does not allow application to run on multiple machines simultaneously.
- ❖ Application is having multiple services which runs different modules in the application. All these services have to run successfully to make sure that application is running perfectly on the cloud.
- ❖ The current recovery time should be same what it is On-Prem.
- ❖ Client has got a limited Azure trained staff so our approach needs to be similar to existing one.
- ❖ The application generates some local data stores in local hard drive while running on the server which needs to be synced to provide complete HA.

Technology Stack:

- ❖ Linux
- ❖ Azure Functions
- ❖ Azure Virtual machines
- ❖ Apache Server
- ❖ Azure File Share

WHAT WAS DEVELOPED?

- ❖ The image of the running application is created and stored into the azure image library, which will be used to create identical VMs. The VMs can be 1 or multiple in numbers.
- ❖ All these VMs are behind the load balancer so that in case of getting an unhealthy sign from one VM, the traffic can be route to other VMs.
- ❖ We created one own utility to Round Robin serving of the request from VM to load balancer
- ❖ Adactin used Azure file share to sync the data between multiple VMs.

BENEFITS?

- ❖ The method is quite similar to what they use right now on-prem.
- ❖ The complete Infra setup takes 30 mins.
- ❖ The recovery time in case of failure is less than 60 mins.
- ❖ The utility is created using Azure Functions, as it is serverless services so scalability is default and it is “pay as you go” service of Azure.
- ❖ This approach requires no change in the application

Adactin is a premium Australian software consulting company dedicated to excellent software development and testing with a comprehensive service suite encompassing quality assurance, design and development services, data analytics products and other digital transformation enterprise solutions including quality ICT training programs. The company has a core competency and thought leadership position built around the science of IT development and testing application development. For more information, please visit <https://www.adactin.com>

Sydney
Address: Level 4, 56 Station Street East
Parramatta NSW 2150 | Phone: (02) 9057 8016
Fax: +61 2 8824 9522 | Email: info@adactin.com

Canberra
Address: ASL House, 6 Geils Court, Deakin ACT 2600
Phone: (02) 5110 3140 | Email: info@adactin.com

Melbourne
Address: 416-420, Level 2, Collins Street, VIC 3000
Phone: (03) 9115 7477 | Email: info@adactin.com

© Copyright 2019, Adactin Group. All rights reserved. No part of this document may be stored in a retrieval system, reproduced, transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the express written permission from Adactin. The information contained herein is subject to change without notice. All other trademarks mentioned herein are the property of their respective owners.