INTERNET AND WEB SYSTEMS 1- (Fall-2018)

PROJECT REPORT - 1
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Problem Statement

Doing operations on Cloud-based applications from any computer device (mobile, tablet) is not possible currently.

Why this is a problem?

• Cloud operations are time-consuming- because we need to login to the resource providers portals to do any kind of operations.
• Example: Let's say we need to restart a virtual machine/increase the RAM for a VM. Here we need to login to the Resource provider's portal and then we need to do the operations manually.
• Sometimes, these operations can be only done when you are inside the VPN. (if the server is a hybrid cloud which has a part of its confidential data on-premise)
• Even if there are automation scripts to do these operations, they need to be triggered only using a desktop or laptop and sometimes these machines need to be inside their VPN if the server is on-premise. So, need to tunnel into the required VPN which is again time-consuming and also needs a lot of hassles to be handled.
• And most importantly, every industry will be cloud-based one day. Not necessarily be a public cloud, but then will be transitioning to the hybrid cloud since cloud providers take care of most of the time consuming and cost consuming problems for a firm.

Existing solutions

• Automation scripts for doing all kind of cloud-operations using APIs. Every cloud provider has exposed their APIs for all their operations.
• Resource provider's portal like portal.azure.com for Azure and similarly to AWS and Google cloud.

How can this problem solved?

This problem can be solved using any mobile app/ or chat application which can trigger the automation script which lives inside an online repository (or it may be living in the on-premise repository server of the firm/university) and can do the automation task needed to be executed. Creating a platform for the mobile device to run these automation scripts can solve this problem easily.

Conclusion

This idea can make any kind of operations on cloud-based applications easier with just a command from the mobile device sitting at a restaurant/bed. This will save tons of time for Computer Science Engineers/Developers in a day to day life.

References

1. The below link gives an idea on how to restart a virtual machine in Azure portal.https://www.utterlycloud.com/How-to-restart-VM-Instance-in-Azure.php
2. https://www.cio.com/article/2415674/software-as-a-service/how-cloud-computing-and-mobile-devices-are-changing-your-application-strategy.html
3. https://searchitoperations.techtarget.com/definition/mobile-cloud-applications