

Application Development for Mobile and Ubiquitous Computing

Seminar Task Final Presentation

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VMMonitor



- Make it easy to view the resources consumed by the VMs on mobile device
- Manage the software that are installed on the VMs
- Get alerts on mobile device upon some events like resource usage reached to threshold level

Use Cases Implemented



Client

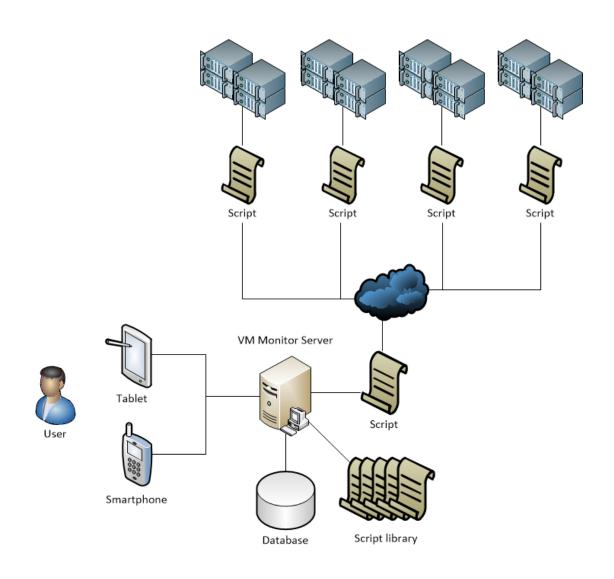
- Add the Monitor-Server on the mobile device
- Get the VMs that are registered to monitor and update the list on mobile device
- Sync with the monitor for any new scripts or VMs added to monitor
- Getting notification from monitor upon events
- Run the script and get result
- Displaying info about the VM

Server

- Add , Store VM and related scripts,
- Execute script on VM and send result back to mobile device
- Send alert notification to mobile device.











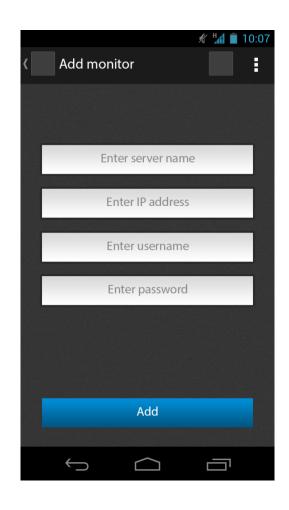


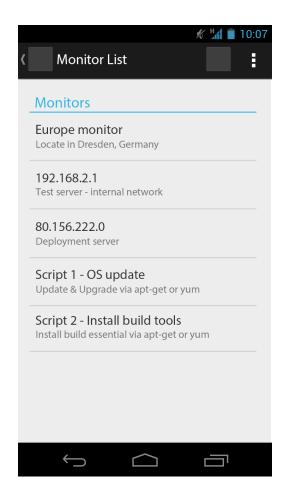
Populate the list





Add Monitor and Monitors List

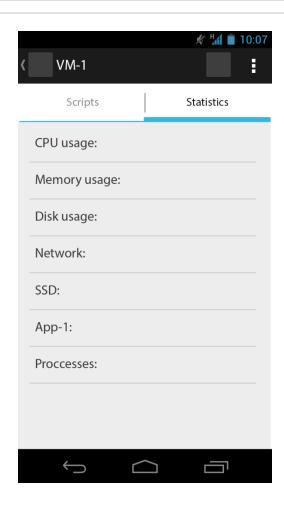






VM's Information

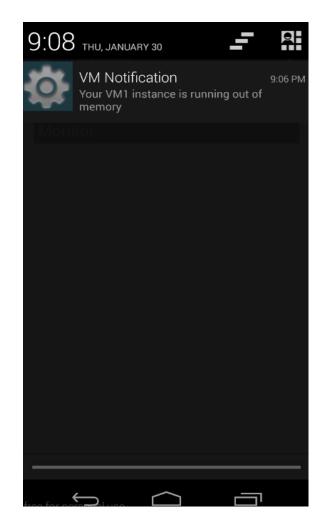
Taping on the VM entry will display resource statistics







Notification from the server upon an event







127.0.0.1:8001/script-list/

Create new script

id	name	file	description	servers	Execute	Details	Edit	Delete
2	Test	test.file	Test script.	127.0.0.1, 192.168.2.100,	Run	<u>Details</u>	<u>Edit</u>	<u>Delete</u>
3	Deploy app 1	run.ansible	This script deploys the application 1	192.168.2.100,	Run	<u>Details</u>	<u>Edit</u>	<u>Delete</u>
4	Deploy app 2	run2.ansible	This script deploys application 2.	192.168.2.100,	Run	<u>Details</u>	<u>Edit</u>	<u>Delete</u>
6	List Folder	./dir.cmd	This script list all folder form the target machine.	127.0.0.1,	Run	<u>Details</u>	<u>Edit</u>	<u>Delete</u>
9	Users	./users.sh	This script get all users from the target machine.	127.0.0.1, 192.168.2.100, 192.168.100.113,	Run	<u>Details</u>	<u>Edit</u>	<u>Delete</u>
10	Update	./update.sh	This script update the operating system of the target machine	127.0.0.1,	Run	<u>Details</u>	<u>Edit</u>	<u>Delete</u>





- Keeping the database as small as possible.
- Getting alert notifications through the GCM
- Asyc task to get the info from monitor through REST APIs
- Django, Tastypie to generate the REST APIs
- Keeping the processing as low as possible while looking for updates.
- Limiting the communication with the server only to run scripts, get VM info and to sync with the monitor.



Limitations and Assessment

- Its not a standalone application, it requires internet connection always
- Whenver we add a new VM to monitor we have to syc it to appear on the list
- When we run a script, we dont know how long it takes to run the script and get the result.



Thank You !!!