

Standard Operating Procedure for Vodafone Qatar OTA managed service

Version Control

Document Name	Version	Date
SOP for Vodafone Qatar OTA managed service	V1.0	16-08-2022

Prepared by	Technical Support Services	16-08-2022
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Revision History

Issue	Date	Reason for change
V1.0	16-08-2022	First Release

Introduction

This document outlines the procedure for Vodafone Qatar OTA managed service.

Description of OTA services provided to VFQ

1. Customized Network Name Update Requests

1. These requests are received to update the network name of subscriber.
2. For Ex: Update the Network Name of MSISDN “+97477775586” to “Hassan”.
3. The request is received in an email with the below format:

Date of request	Segment	MSISDN	SIM Serial	SIM Swap	Existing Customer network name	Customer Network Name request	Trouble Ticket	Action	Notification SMS
10-Oct-19	Basic	97430710701	8942702111341989284	No	Vodafone Qatar	Bo M&MSS	1-108759861029	ACTIVATION REQUEST	Dear Customer, your request to activate Network Name is being processed. You will receive an SMS once your service is activated. For more info, visit vf.qa/NetworkName

4. On receiving the mail, we process the request within 3 working days which is the SLA agreed between VFQ and Workz.

2. Network Name Update – Complete Subscriber Base

5. These requests are received to update the network name of complete subscriber base.
6. As an input, we receive the ICCID – MSISDN pairing list.
7. For Ex: Update the Network Name of all MSISDNs to “Vodafone” (previously it was Vodafone Qatar)
8. For such requests, a project plan is formulated and discussed with VFQ.
9. The campaign is divided into batches and executed as per the plan.

3. ECC Update – Complete Subscriber Base

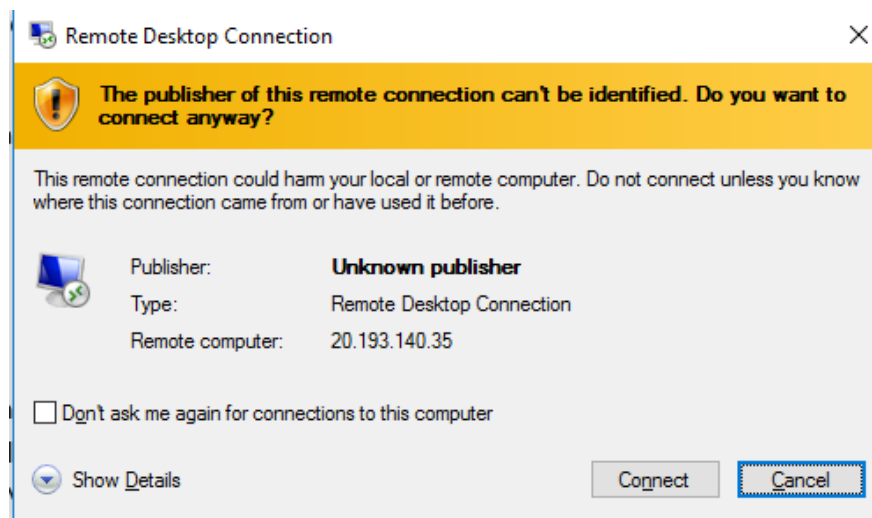
10. These requests are received to update the ECC of complete subscriber base in the sim cards.
11. For Ex: Add ECC “911” - “Police” in all the sim cards.
12. For such requests, a project plan is formulated and discussed with VFQ.
13. The campaign is divided into Batches and executed as per the plan.

4. One-Off Update Request – Test MSISDNs

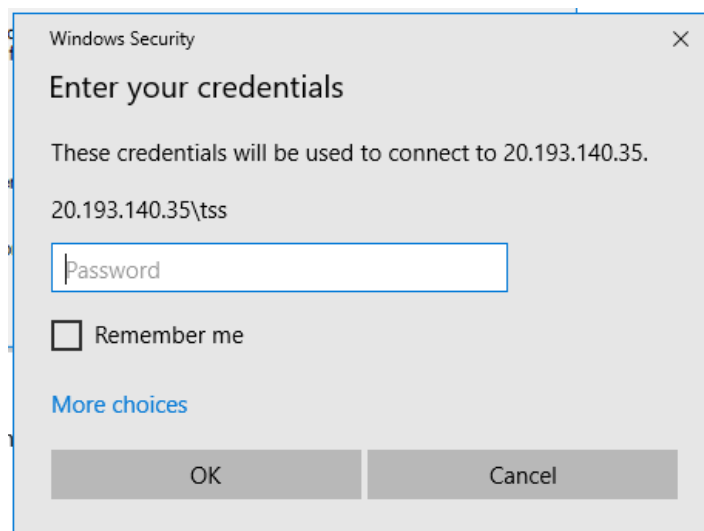
14. These requests are received from Vodafone Qatar for their internal testing.
15. For Ex: Updating of ACC in X number of sim cards. (where X = 10 or 15 depending on VFQ’s requirement)

Platform Access

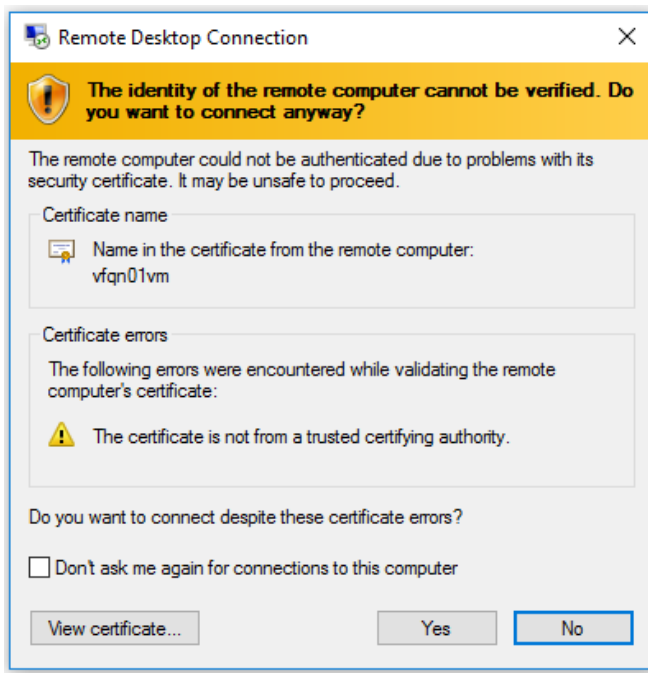
1. Connect to cloud instance (VM) using .rdp file placed at below path:
T:\Sales\Mobile Solutions\SIM Data_SD\Vodafone_Qatar\special_projects_confidential\customized SPN update solution\PIM Login Access\02_Aug2022\vfqn01vm (1).rdp
2. After clicking on the .rdp file, below prompt will be displayed. Click on “Connect” to continue.



3. A password prompt shall appear as below:

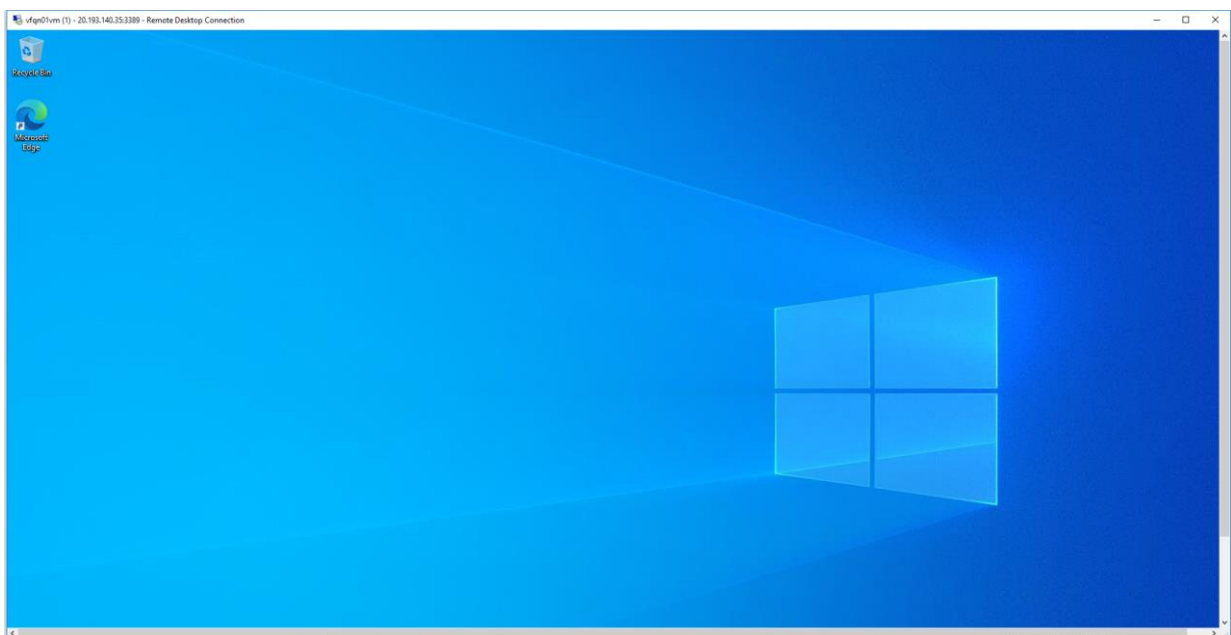


4. Enter the password placed at below path:
T:\Sales\Mobile Solutions\SIM Data_SD\Vodafone_Qatar\special_projects_confidential\customized SPN update solution\PIM Login Access\02_Aug2022\Pass.txt
5. After entering the password, a prompt for certificate confirmation shall appear as below:

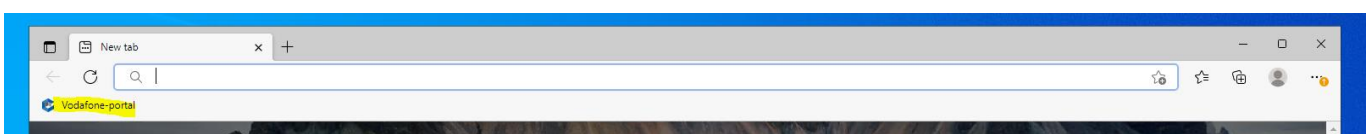


Click on “Yes”.

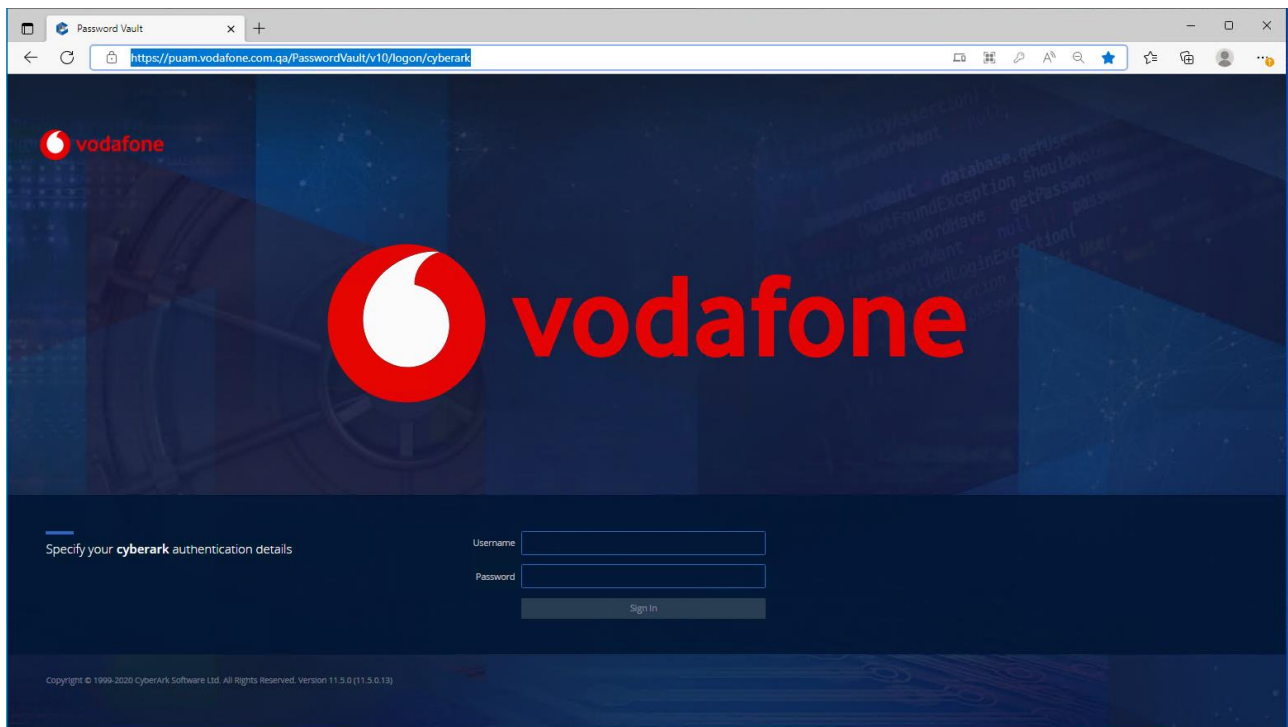
6. Remote session with cloud instance will be established and will open as below.



7. Open “Microsoft Edge” and click on “Vodafone-portal” embedded in title bar.

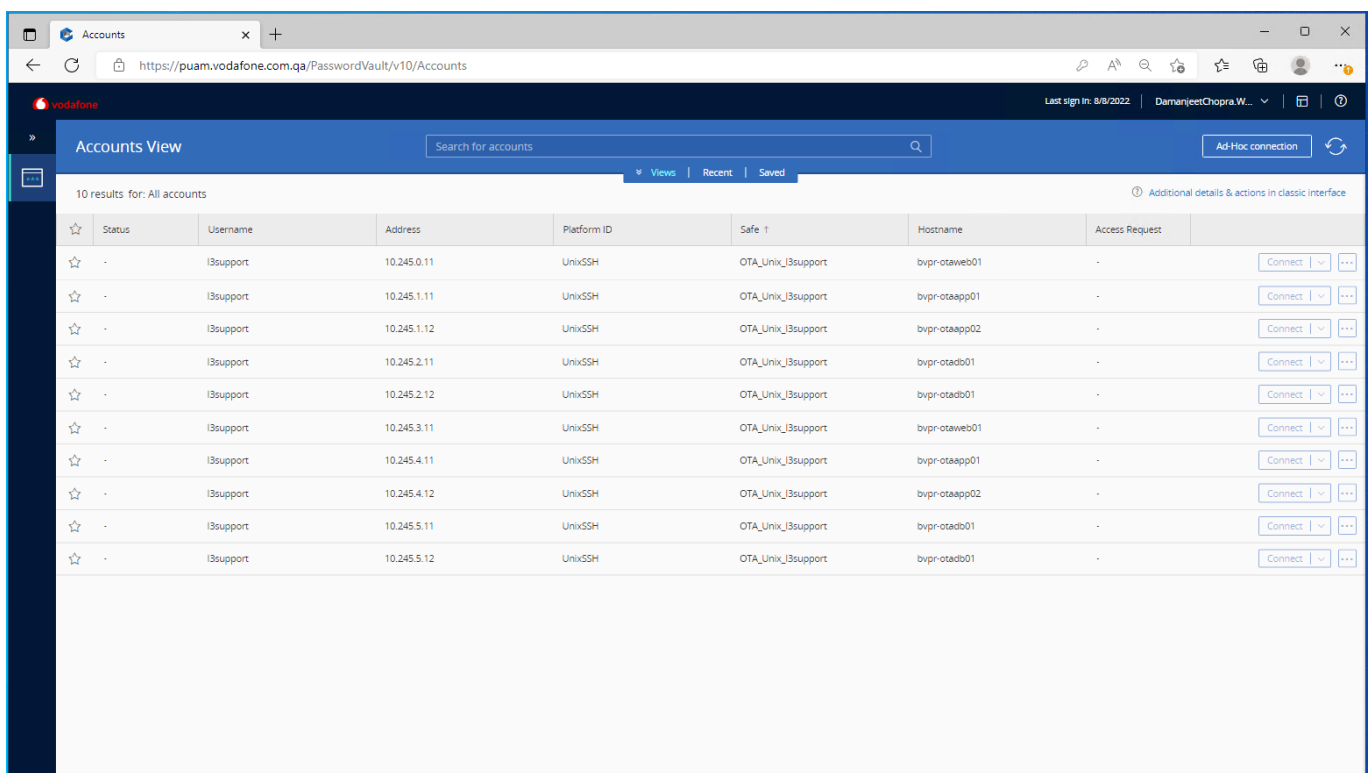


8. It will open Vodafone PUAM page – “https://puam.vodafone.com.qa/PasswordVault/v10/logon/cyberark”. See below:



9. Enter your PUAM credentials for login.

10. After successful login, you will be directed to “Accounts” page. See below.

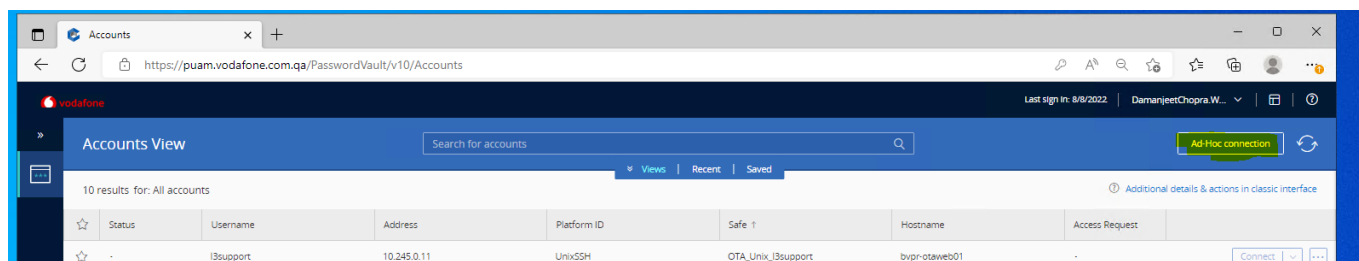


Status	Username	Address	Platform ID	Safe	Hostname	Access Request	
-	l3support	10.245.0.11	UnixSSH	OTA_Unix_l3support	bvpr-ota-web01	-	Connect ...
-	l3support	10.245.1.11	UnixSSH	OTA_Unix_l3support	bvpr-ota-app01	-	Connect ...
-	l3support	10.245.1.12	UnixSSH	OTA_Unix_l3support	bvpr-ota-app02	-	Connect ...
-	l3support	10.245.2.11	UnixSSH	OTA_Unix_l3support	bvpr-ota-db01	-	Connect ...
-	l3support	10.245.2.12	UnixSSH	OTA_Unix_l3support	bvpr-ota-db01	-	Connect ...
-	l3support	10.245.3.11	UnixSSH	OTA_Unix_l3support	bvpr-ota-web01	-	Connect ...
-	l3support	10.245.4.11	UnixSSH	OTA_Unix_l3support	bvpr-ota-app01	-	Connect ...
-	l3support	10.245.4.12	UnixSSH	OTA_Unix_l3support	bvpr-ota-app02	-	Connect ...
-	l3support	10.245.5.11	UnixSSH	OTA_Unix_l3support	bvpr-ota-db01	-	Connect ...
-	l3support	10.245.5.12	UnixSSH	OTA_Unix_l3support	bvpr-ota-db01	-	Connect ...

11. Description of servers:

- a. 10.245.4.11 - Appserver 1
- b. 10.245.4.12 - Appserver 2
- c. 10.245.5.11 - DBserver 1
- d. 10.245.5.11 - DBserver 2

12. Access to GUI of OTA platform is done using “Ad-Hoc connection” option. See below:



13. Fill the credentials as shown below and click on “Connect”.

Ad-Hoc connection

Platform
PSMSecureConnect

Client
RDP

Address
10.245.3.12

Username
otaadmin

Password
.....

☒ Map local drives

Log On To (Optional)

Port

Cancel Connect

Ad-Hoc connection

10.245.3.12

Username
otaadmin

Password
.....

☒ Map local drives

Log On To (Optional)

Port
3389

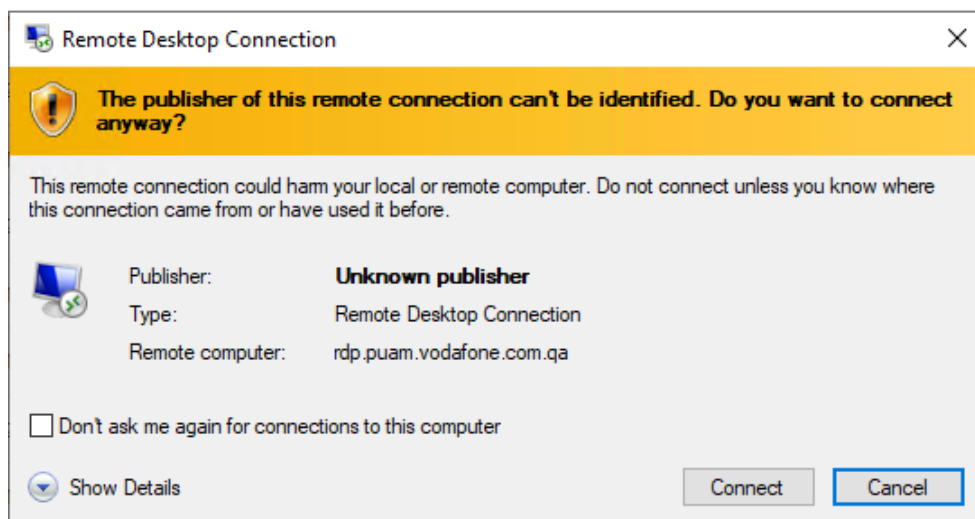
☒ Connect to machine console

Reason (Optional)

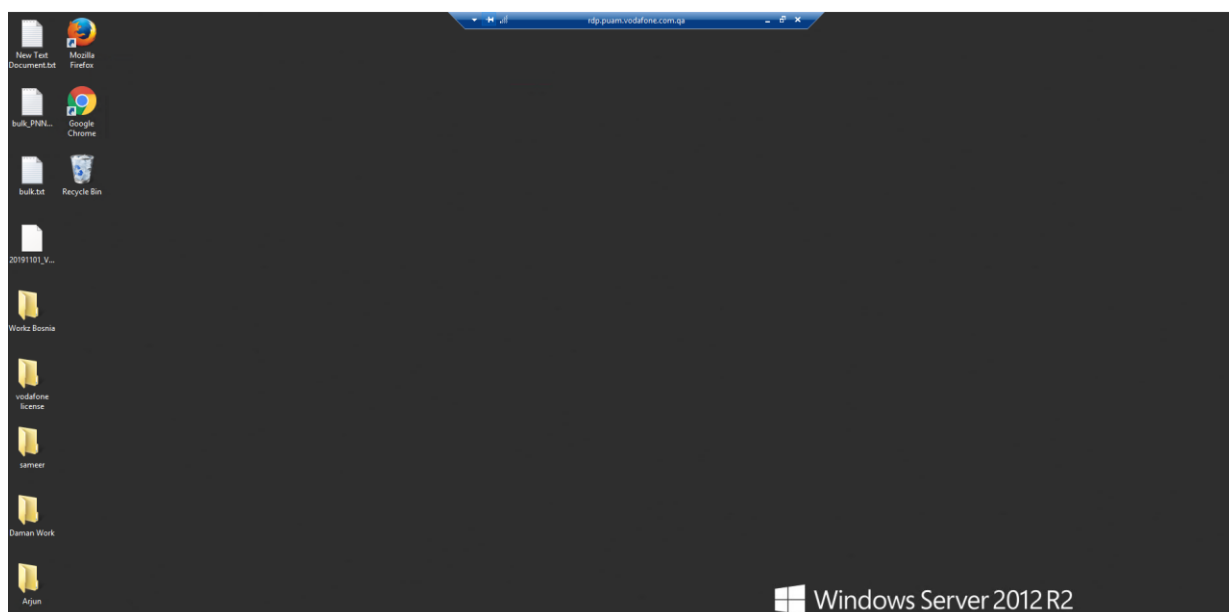
Cancel Connect

The password can be fetched from section “Solvex Access using RDP” in file placed at below path:
T:\Sales\Mobile Solutions\SIM Data_SD\Vodafone_Qatar\special_projects_confidential\customized SPN update solution\VF VAS Requests\vfq login credentials.txt

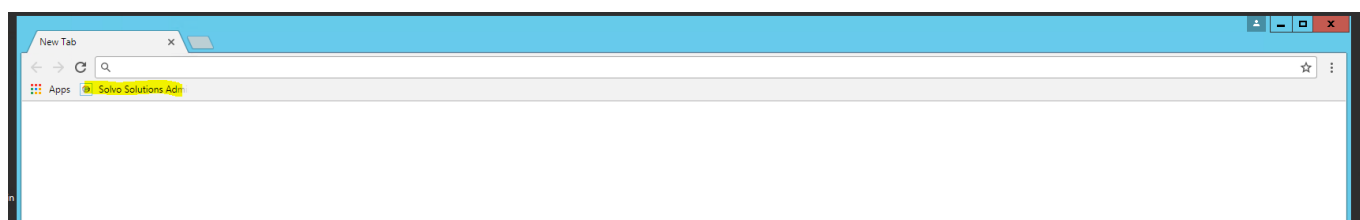
14. An RDP prompt shall appear as below. Click on “Connect” to continue.



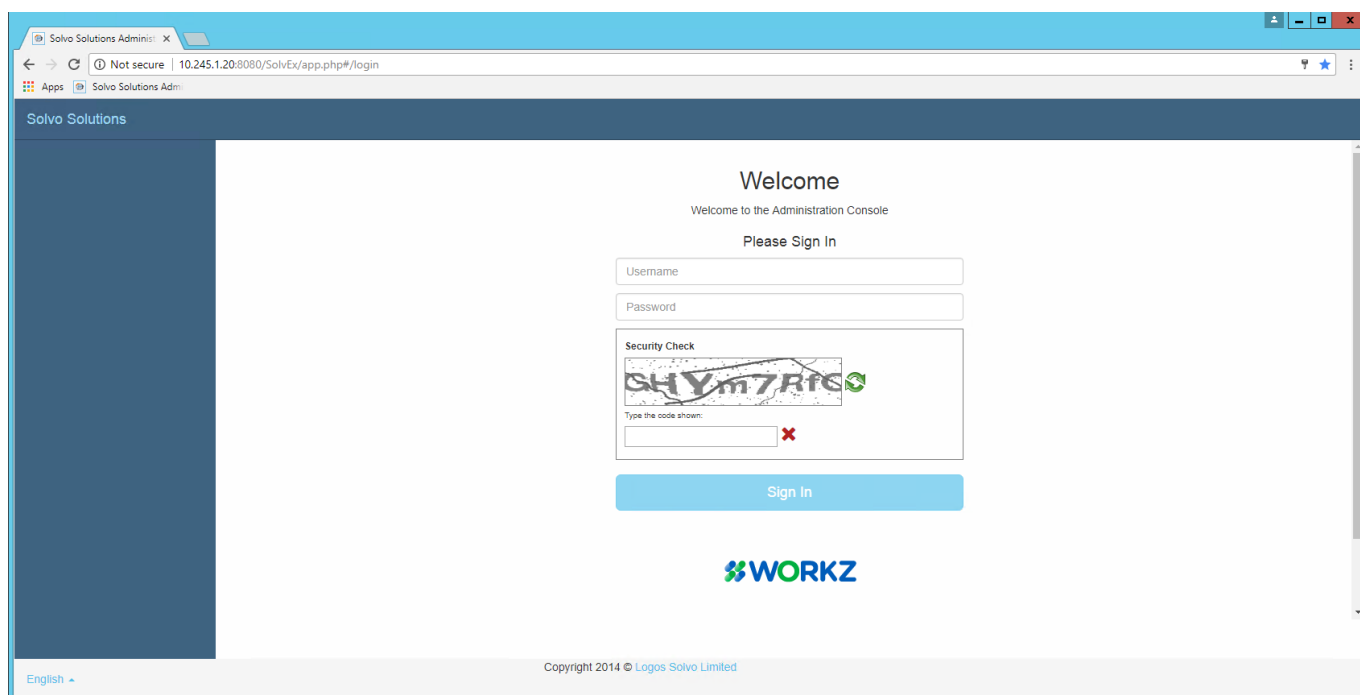
15. The VM GUI will open as below.



16. Open Chrome and click on bookmarked button in title bar - "Solvo Solutions Administration". See below.



17. You will land on the login page of OTA platform GUI. See below:



18. Enter "Username" and "Password" to login. The credentials can be picked from file placed at below path:
T:\Sales\Mobile Solutions\SIM Data_SD\Vodafone_Qatar\special_projects_confidential\customized SPN update solution\VF VAS Requests\vfq login credentials.txt

Execution of Customized Network Name Update Requests

1. Once an input mail is received, create a folder for the same at below path:
T:\Sales\Mobile Solutions\SIM Data_SD\Vodafone_Qatar\special_projects_confidential\customized SPN update solution\VF VAS Requests

Sample email request snippet below:

NN Customer Change Request - June 27 2018

CG Care Gurus, Vodafone Qatar <care-gurus.qa@vodafone.com>
To: Damanjeet Chopra; Ajitav Mohanty
Cc: Raman, Akhil, Vodafone Qatar (External); Botardo, Jan Rey, Vodafone Qatar (External); Care Gurus, Vodafone Qatar; Boughanzour, Houda, Vodafone Qatar (External); Zaghmout, Alla, Vodafone Qatar (External); Saji Krishnan; VAS-Support; SIM Technical Support

Reply Reply All Forward Wed 27/06/2018 11:15

Hi Team,

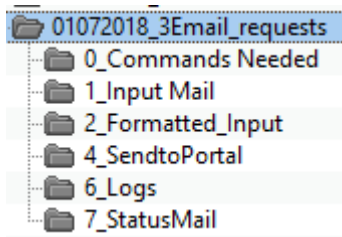
Please see below requests.

Date of request	Segment	MSISDN	SIM Serial	SIM Swap	Existing Customer network name	Customer Network Name request	Trouble Ticket	Action	Notification SMS
24-Jun-18	Basic	97474711114	8942702111337637046	No	Vodafone Qatar	شيمو المحجوب	1-68990504653	ACTIVATION REQUEST	Dear Customer, your request to change Network Name is being processed. You will receive an SMS once Network Name is changed. For more info, visit vf.qa/NetworkName

Best Regards,

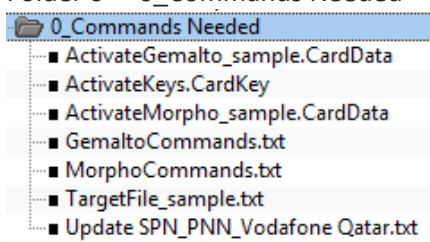
John Christopher Limoran
Care Gurus
Customer Care
Vodafone Qatar P.O. Box C
PO Box 27727, Doha, Qatar
+974 77775820
care-gurus.qa@vodafone.com
vodafone.qa
The future is exciting.
Ready?

- The folder created shall have below sample structure:

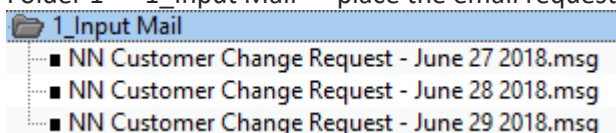


The name of folder should contain the date of request execution and how many request email are being processed. Ex: 16082022_1Email_request.

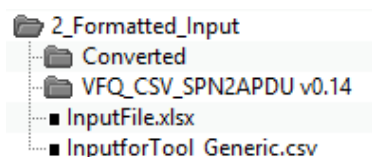
- Folder 0 - "0_Commands Needed" – it contains some reference commands and files. See below.



- Folder 1 – "1_Input Mail" – place the email request in this folder. See sample below.



- Folder 2 – "2_Formatted_Input" – this is used to prepare the commands to be launched for campaigns. See sample below.



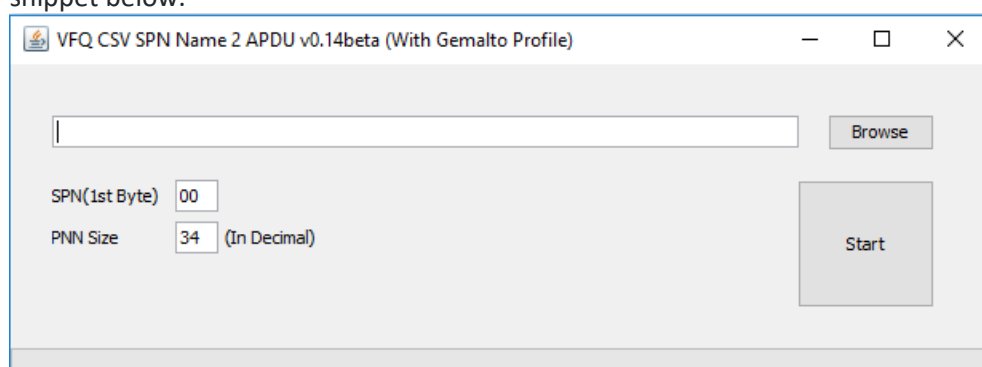
- InputFile.xlsx – fill the details received from email request in this sheet. Sample snippet below:

Date	MSISDN	SIM Serial	SIM Swap	Existing Customer network name	Customer Network Name request	Trouble Ticket	Action	SMS	SIM Vendor
12-Jun-18	97474744666	8942702111236125077	No	Vodafone Qatar	F29/10	1-68127906371	ACTIVATION REQUEST	Dear Customer, your request to change Network Name is being processed. You will receive an SMS once Network Name is changed. For more info, visit vf.qa/NetworkName	Gemalto
27-Jun-18	97431310101	8942702111337525605	No	Vodafone Qatar	Bin TAWAR	1-69153646862	ACTIVATION REQUEST		Morpho
24-Jun-18	97474711114	8942702111337637046	No	Vodafone Qatar	تسميم المجدد	1-68990504653	ACTIVATION REQUEST		Morpho
30-Jun-18	97477779407	8942702111337611017	No	Alla	Vodafone Qatar	1-69417778481	DEACTIVATION REQUEST	Dear Customer, you have successfully deactivated your Network Name service. Your personalised Network Name has been removed. You can monitor your account through the My Vodafone app, download it from vf.qa/app.	Morpho

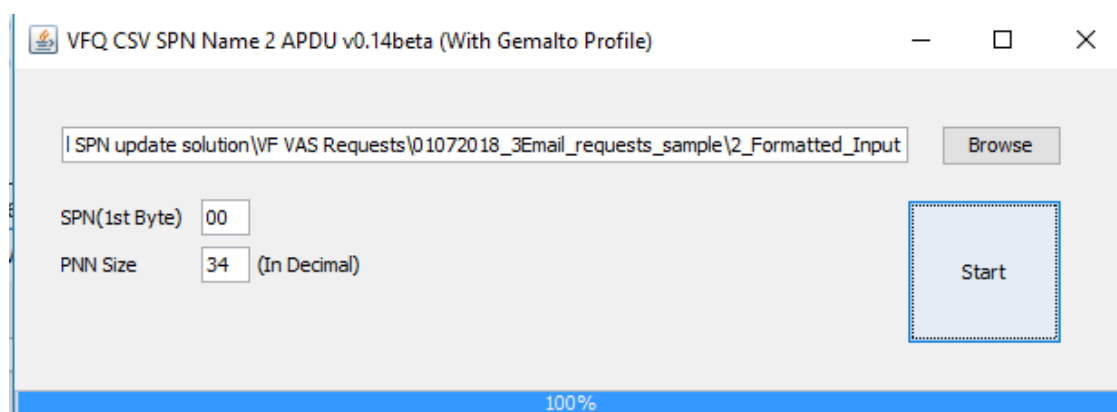
- b. InputforTool_Generic.csv – prepare this file with details of ICCID, MSISDN and SPN. See example snippet below:

```
#Bulk Predefined RFM file
FILETYPE: BULKUPDATE
FORMATVERSION: 1.1
COLUMNS: ICCID,MSISDN,SPN
894270211123612507,+97474744666,F29/10
894270211133752560,+97431310101,Bin TAWAR
894270211133763704,+97474711114,تميم المجد
894270211133761101,+97477779407,Vodafone Qatar
```

- c. VFQ_CSV_SPN2APDU v0.14 – contains the tool “VFQ_CSV_FileConversion” to create the commands. Tool snippet below.



Give the path of folder where “InputforTool_Generic.csv” is placed and click on start. Once the request is executed the status bar will show 100% and output folder “Converted” will be created which will have the output files. Example below:



Name	D
Converted	10
VFQ_CSV_SPN2APDU v0.14	10
InputFile.xlsx	0:
InputforTool_Generic.csv	0:

- d. “Converted” folder will have two files as below:

Name
InputforTool_Generic.txt
InputforTool_Generic_create.txt

Solvo Solutions Admin | 10.245.1.20:8080/SolvEx/app.php#/3-2/ota/rfm/push/rfm-push-generic-command

Solvo Solutions | **OTA RFM Generic Command** | Logged in as: damanjeet | Sign Out | Last Logged on: 2022-08-16 13:32:29

Campaign Name: sample | **Campaign Priority:** 4 | **Campaign Schedule Start:** 2022-08-16 14:19 | **Campaign Schedule End:** | **E-Mail Notification:** Choose Notification

Select: ☒ Generic Target ☐ Custom Target ☐ SIM ☒ USIM ☐ ISIM

Please enter or select the command for RFM Push Campaign

☒ APDU Sequence ☐ Read from File

APDU Sequence:
 FFFFFFFFFFFFFFFFFF00A4000C026FC600DC01040824F7200000FFFE0100A4000C026F3800D60005023E5800A40
 00C026F4600D600011004632392F3130FFFFFFFFFFFFFFFFFFFF00C041200

Please Select the Notification to send

Send: SMS | **Message:** Enter message | **Choose when:** | **Update:** ☐ **Await Message Delivery to continue:** ☐

Send refresh: Select refresh type | after file update | ☐ Complete job on message delivery
 If selected, the APDU content must be RFM Update | If unticked, every response will be interpreted as a RFM response

Targeted Cards:
☒ All ☐ Any ☐ File | **Load target:** **Save target:** | **Targeted #:** 1

MSISDN: | **Range:** ☐ **Single:** +97477203457

Submit: **Reset:**

Copyright 2014 © Logos Solvo Limited
 SolvEx v3.0 (Release 3.1.6) | License: core8ota | Issued To: Vodafone_Qatar_Prod_281021 | Max. Subs: 1750000 | Expires: Sat Oct 29 13:54:13 2022

9. The status of the campaign should be checked in “access.log” file in appserver. Steps below:

a. Connect with SSH on appserver. Snippet below:

RemoteApp | The publisher of this RemoteApp program can't be identified. Do you want to connect to run the program anyway?

This RemoteApp program could ham your local or remote computer. Do not connect to run this program unless you know where this program came from or have used it before.

Publisher: Unknown publisher
Type: RemoteApp program
Path: PSMInitSession
Name: PSM-SSH
Remote computer: rdp.puan.vodafone.com.qa

☐ Don't ask me again for connections to this computer

Show Details | **Connect** | **Cancel**

Platform ID	Safe	Hostname	Connect
ixSSH	OTA_Unix_I3support	bvpr-otaweb01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otaapp01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otaapp02	Connect
ixSSH	OTA_Unix_I3support	bvpr-otadb01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otadb01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otaweb01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otaapp01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otaapp02	Connect
ixSSH	OTA_Unix_I3support	bvpr-otadb01	Connect
ixSSH	OTA_Unix_I3support	bvpr-otadb01	Connect

b. After successful connection, the terminal will open as below:



c. Browse to kannel folder using below command-

```
cd /var/log/kannel
```

d. Open access.log file to view the logs. Tail command can be used to open the access.log file.

```
tail -f access.log
```

10. Once a campaign is launched, the logs will populate in access.log file. See example logs below:

```
2018-07-02 15:04:09 Sent SMS [SMSC:vodafoneLink1] [SVC:binary] [ACT:] [BINF:] [FID:41A169B4]
[META:?smpp_resp?] [from:98988] [to:+97431310101] [flags:2:1:-1:-1:27]
[msg:132:00981516311515B00001F9A8B595662FF850119F4909BE61E50EB9D728FC5DC381DE95482FE60B0
F9B7A94BCF547AA2F047CC56A4F01F3855B27BC02977706B9E75F803ED3DACC3FA48EF425889A57D51D47
4442D7BBF99A456558F5F748E889D9E16AE1859A28B0FCABE2984B2BA5275BA261EA1A0F60CD30F4DDF53B
4D2D6866D0AC5] [udh:8:070003ED02017000]
```

```
2018-07-02 15:04:09 Receive DLR [SMSC:vodafoneLink1] [SVC:binary] [ACT:] [BINF:] [FID:41A169B4]
[META:?smpp_resp?] [from:98988] [to:+97431310101] [flags:-1:-1:-1:-1:8] [msg:4:ACK/] [udh:0:]
```

```
2018-07-02 15:04:09 Sent SMS [SMSC:vodafoneLink1] [SVC:binary] [ACT:] [BINF:] [FID:41A169BD]
[META:?smpp_resp?] [from:98988] [to:+97431310101] [flags:2:1:-1:-1:27]
[msg:22:12131795BD775D3F65BFC5E90A1627A89DF47E1DD3A6] [udh:6:050003ED0202]
```

```
2018-07-02 15:04:09 Receive DLR [SMSC:vodafoneLink1] [SVC:binary] [ACT:] [BINF:] [FID:41A169BD]
[META:?smpp_resp?] [from:98988] [to:+97431310101] [flags:-1:-1:-1:-1:8] [msg:4:ACK/] [udh:0:]
```

```
2018-07-02 15:04:14 Receive DLR [SMSC:vodafoneLink1] [SVC:binary] [ACT:workz] [BINF:] [FID:41A169B4]
[META:?smpp?dlr_err=%03%00%00&] [from:98988] [to:+97431310101] [flags:-1:-1:-1:-1:1]
```

[msg:103:id:1101097396 sub:001 dlvr:001 submit date:1807021504 done date:1807021504 stat:DELIVRD err:000 text:.] [udh:0:]

2018-07-02 15:04:17 **Receive DLR** [SMSC:vodafoneLink1] [SVC:binary] [ACT:workz] [BINF:] [FID:41A169BD] [META:?smpp?dlr_err=%03%00%00&] [from:98988] [to:+97431310101] [flags:-1:-1:-1:-1] [msg:103:id:1101097405 sub:001 dlvr:001 submit date:1807021504 done date:1807021504 stat:DELIVRD err:000 text:.] [udh:0:]

2018-07-02 15:04:26 **Receive SMS** [SMSC:vodafoneLink1] [SVC:] [ACT:workz] [BINF:] [FID:] [META:?smpp?] [from:+97431310101] [to:98988] [flags:2:1:-1:-1:-1] [msg:22:00140AB00001ED918962830221488770B2F355D377D8] [udh:3:027100]

Sent SMS - SMS1 sent from the platform to the card

Receive DLR - DLR received by the SMSC toward platform for SMS1

Sent SMS - SMS2 sent from the platform to the card (this will be present if payload is large and needs more than one SMS for transmission)

Receive DLR - DLR received by the SMSC toward platform for SMS2

Receive DLR - DLR received from handset towards platform for SMS1

Receive DLR - DLR received from handset towards platform for SMS2

Receive SMS - PoR SMS received from SIM towards platform

If the PoR is plain then check the SW and if it is "9000", it means that the campaign has been successfully executed.

If the PoR is encrypted, then check the SW in GUI portal.

- Folder 6 – "6_Logs" – place the content of access.log for the campaign in this folder in a log.txt file.
- Folder 7 – "7_StatusMail" – in this folder the final status of campaign should be updated and then sent to the customer on the same email chain on which the request was received. See example snippet below:

	Date	MSISDN	SIM Serial	SIM Swap	Existing Customer network name	Customer Network Name request	Trouble Ticket	Action	Status
1	12-Jun-18	97474744666	8942702111236125077	No	Vodafone Qatar	F29/10	1-68127906371	ACTIVATION REQUEST	Complete
2	27-Jun-18	97431310101	8942702111337525605	No	Vodafone Qatar	Bin TAWAR	1-69153646862	ACTIVATION REQUEST	Complete
3	24-Jun-18	97474711114	8942702111337637046	No	Vodafone Qatar	تميم المجد	1-68990504653	ACTIVATION REQUEST	No Response
4	30-Jun-18	97477779407	8942702111337611017	No	Alia	Vodafone Qatar	1-69417778481	DEACTIVATION REQUEST	No Response

Execution of Mass Campaigns

- A SoW document should be prepared to enlist the major milestones/actions in the project.
- Understand the purpose of the campaign. Ex: is it for adding a contact in EF_ADN file or for updating an ECC contact or any other requirement.
- Gather the total number of subscribers to be targeted. This will be needed to form batches and plan the campaign execution.
- A UAT should be done on agreed numbers provided by VFQ (ex: 5 cards each from Morpho, Gemalto, G&D). VFQ shall check the behaviour on different handsets/devices and provide Workz a confirmation to move ahead with the mass campaign.

5. The latest MSISDN-IMSI-ICCID pairing of complete active subscriber list to be targeted should be fetched from VFQ team.

The above is a critical input to ensure that all intended cards/MSISDNs are present in our platform for targeting the campaign.

Based on the above input, if intended cards are not present in platform, then they need to be provisioned and activated (MSISDN pairing should be done).

If the ICCID-MSISDN pairing information has changed, then appropriate Card_Replace or MSISDN_Swap operations should be performed on the platform.

6. Any exclusion list (MSISDNs which should not be targeted for the campaign) should be checked with VFQ.

7. Validation of final list should be conducted as below:

- a. Finding duplicates, missing ICCID/MSISDN/IMSI.
- b. Validate the list provided with current OTA database.
- c. Perform new activations, swap operations based on previous step findings (as mentioned in step 5).

8. Execution of campaigns should be done as per plan – in batches (maximum size 100k).

9. For each batch, log analysis should be conducted.

It is done by fetching logs from access.log file.

In VFQ OTA platform log rotation mechanism has been applied and hence access.log file gets zipped and archived every 24 hrs. Hence, if the campaign has been executed overnight, then logs should be fetched from access.log file and previous days' access.log-yyyyymmdd.gz file.

Details on log analysis are described in document – “SOP_for_for OTA_campaign_management_and_reporting.pdf”.

TITLE	SOP_for_Vodafone_Qatar_OTA_managed_service_v1.0
FILE NAME	SOP_for_Vodafone_...service_v1.0.docx
DOCUMENT ID	e719f7890e13d5d50da847bdf8a57b9507419c27
AUDIT TRAIL DATE FORMAT	DD / MM / YYYY
STATUS	● Signed

Document history



SENT

05 / 09 / 2022

10:16:03 UTC+4

Sent for signature to Saji Krishnan
(saji.krishnan@workz.com) from tss@workz.com
IP: 94.200.229.6



VIEWED

05 / 09 / 2022

10:53:08 UTC+4

Viewed by Saji Krishnan (saji.krishnan@workz.com)
IP: 86.99.233.49



SIGNED

05 / 09 / 2022

10:54:07 UTC+4

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