

Automated & Agile Operations Management with: IBM Runbook Automation

September 2017 – New Feature: “SSH Automation”

Sebastian Wegmann (wegmase@de.ibm.com)
RBA Lead Architect

Bernd Jostmeyer (bjost@de.ibm.com)
Best Practices Architect, IBM Hybrid Cloud, Runbook Automation

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SCRIPT Automation Provider

Allows to execute scripts on target systems

The SCRIPT automation provider allows to execute scripts (bash, ksh, perl, ...) on a target system

The script is being transferred to the system (using ssh), saved as temporary file and executed.

Result (STDOUT) is being displayed and logged in the runbook instances

Temporary file is being deleted after script execution

```
echo Health of system $SystemName is
echo =====
echo File System
echo $TOPFiles | awk '{print $2,"uses", $1}'
echo -----
echo System Logger
echo $SysLogInfo | awk '{print $1,$2,$8;}'
echo done.
```

Note:

- You need a script connection in order to create SCRIPT automations
- SCRIPT connections can either be configured using TWA or SSH. TWA is deprecated and only available for backward compatibility

Edit automation

Name: List Health of System

Prerequisites: Provide automation prerequisites.

Description: This automation provides some Health Overview of the system

Script: `echo Health of system $SystemName is
echo =====
echo File System
echo $TOPFiles | awk '{print $2,"uses", $1}'
echo -----
echo System Logger
echo $SysLogInfo | awk '{print $1,$2,$8;}'
echo done.`

Parameters:

Name	Description	
target	Target system where the script will be executed	
\$SystemName		
\$TOPFiles		
\$SysLogInfo		

Connection For SSH Provider

Preparation for each target system

From the Connection Dialog for SCRIPT in Runbook Automation you find a generated Public Key – this has to be copied to the target machines on which the scripts will be executed via SSH.

I want a Script Automation Provider

Configure connection for Script Automation

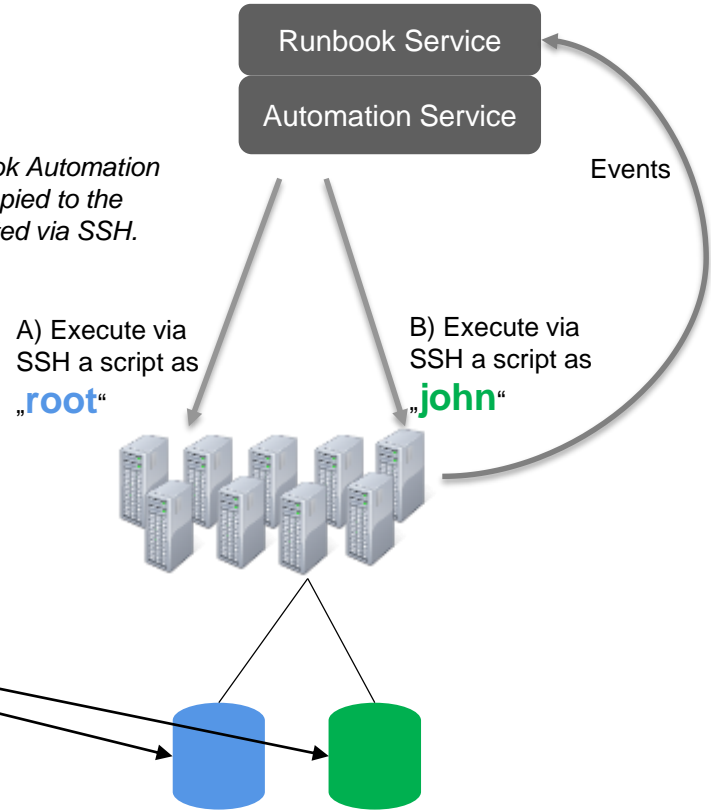
TWA Provider SSH Provider

1. Enter the key to access the target endpoints via SSH.

Public key for SSH:

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQCKwuzdfpxa73J20F1SA6xOYy00r90px78K1FSkNUR/gobu3eRPqhe3cgRgaxyTjJWmxGavpmDWa9MjmECfCZHEU
xsClc4Rf122GjcaHYtwaVwCKfUis8ydmXpflLwFCYFy9vMJwcaCF2ERq+2B8j5gtzz1UQo29y4tBsfPe3ERAEuaLHBR1tB4nngBPrqYQRPFeyhXKE4tojR
5D6+cYsq03BWIROk/4vrgP27cERqPb
```

Generate a new key pair



Remember:

Scripts can either be executed as „root“ (A) or using a specific user ID (e.g. „john“) (B) on a target system

/home/root/.ssh/authorized_keys

/home/john/.ssh/authorized_keys

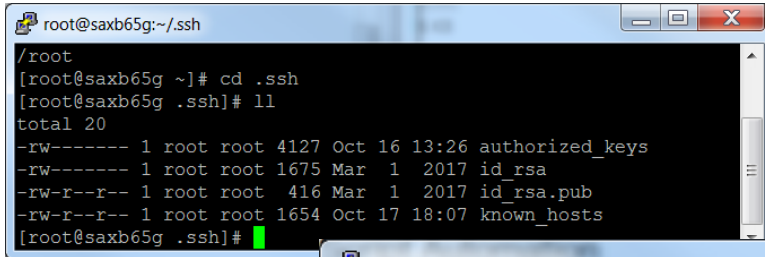
Allow Script Execution for „root“

Preparation for „root“

Before an operator can execute scripts on a target system with the SSH SCRIPT automation provider running with the root user account - the public key has to be added to the „authorized_key“ file in home directory of the „root“ user.

(This is the default – if not configured differently for your sshd on the target system)

`/home/root/.ssh/authorized_keys`



```
root@saxb65g:~/ssh
/root
[root@saxb65g ~]# cd .ssh
[root@saxb65g .ssh]# ll
total 20
-rw----- 1 root root 4127 Oct 16 13:26 authorized_keys
-rw----- 1 root root 1675 Mar  1 2017 id_rsa
-rw-r--r-- 1 root root 416 Mar  1 2017 id_rsa.pub
-rw-r--r-- 1 root root 1654 Oct 17 18:07 known_hosts
[root@saxb65g .ssh]#
```



```
root@saxb65g:~/ssh
t@saxb58m.boeblingen.de.ibm.com
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDY59mOWdUE1g0L8kJkZXXLVuyk
M3vvbqF2sfo2ovZ+nk7FIYW2K3rYXJDO5TA3FeCwEG3+q3+C3Hw7u8Y2WTmPbwRJ
mb615xnnakfjZdQtPVQ6fjGKydvjsEXrMd3nVG3oMRkvtWoJEppZh82s5yCOvaU
hR/WI2HBQEJdzUAdUKeBu5ybl4rLy7llseL9VUkr35b/UmqWxvK5dJoAR3RqyPpB
kIvAz7Gm/18dDcThONZy3508WHrYmvcpykP/EzqV8vgKDQeD1KirojoLWF3tzjwy
0FVGfHdsqxQWoBN9U3U3UJo5Y9LcgSi2BmeDtLU+nqqdt2n6R4YuIFpA1+UP
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQOC0fWwkImtPrNGV4XjLQDpr6yhX
h+bmiWU1AmmTjE5K6VhKx3qn68NI6Wx2A7qr+BQHA9hyhIh8MzKDEscGsSGRIpVb
1Gc22M5bQRsyfj5zWJab1G6yMjJwXBx5Ero5XmImRCCjn+WWxix9CP1bobcnynq
5GwyFayOMHY7cpr3FiGbbrrlu03vt3eNFjaby8RvrSkXRMFGFT+XSbe7EAsRf6Los
DbtMKTZB1sSKWQ5e9lOhyvi9/2stZXUMIz284LeKgsKaXQsgIpJrGOjy7aE7NRyw
kH6KdAlp9ZxT73cgdvGBOLEvvhMwMbg+u4N1zWqos68FPC4HCLLLMgtVp85b imp
orted-openssh-key
[root@saxb65g .ssh]# cat authorized_keys
```

Allow Script Execution For Specific User

Preparation for specific user („bjost“ in this example)
Before an operator can execute scripts on a target system but now using the user account „bjost“ the public key has to be copied to the authorized key file of this user.

```
bjost@saxb65g:~/ssh
[bjost@saxb65g ~]$ whoami
bjost
[bjost@saxb65g ~]$ cd .ssh
[bjost@saxb65g .ssh]$ pwd
/home/bjost/.ssh
[bjost@saxb65g .ssh]$ ll
total 12
-rw----- 1 bjost bjost  381 Oct 17 17:59 authorized_keys
-rw----- 1 bjost bjost 1675 Oct 17 19:27 id_rsa
-rw----- 1 bjost bjost  417 Oct 17 19:27 id_rsa.pub
[bjost@saxb65g .ssh]$
```

```
bjost@saxb65g:~/ssh
[bjost@saxb65g .ssh]$ ll
total 12
-rw----- 1 bjost bjost  381 Oct 17 17:59 authorized_keys
-rw----- 1 bjost bjost 1675 Oct 17 19:27 id_rsa
-rw----- 1 bjost bjost  417 Oct 17 19:27 id_rsa.pub
[bjost@saxb65g .ssh]$ cat authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDQY59mOWdUE1g0L8kJKZXXLvuykM3vvbqF2
sfo2ovZ+nk7FIYW2K3rYXJDO5TA3FeCwEG3+q3+C3Hw7u8Y2WTmPbwRJmb615xnnakfjZdQt
PVQ6fjGKydvjsEXrMd3nVG3oMRkvtWoJEpZ82s5yCOvaUhr/WI2HBQeJdzUADUKeBu5yb
14rLy711seL9VUkr35b/UmqWXvK5dJoAR3RqyPpBkIvAz7Gm/18dDcThONzy3508WHRymvcp
ykP/EzqV8vgKDQeD1KirojoLWF3tzjwy0FVGfHdsqxQWoBN9U3U3UJo5Y9LcgSi2BmeDtLU+
nqgdt2n6R4YuIFpA1+UP
[bjost@saxb65g .ssh]$
```