

ASR9000 Read-Only Users

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Read Only Task Group

Configuration

To create users on the Aggregation Services Router 9000 (ASR9K) with read-only access, we need to define a task-group with read only privileges, create a user group with that taskgroup, then attach the newly created group to the users.

Create the Taskgroup

These are the tasks the user is allowed to run show commands for.

```
RP/0/RSP1/CPU0:ASR9000# show run taskgroup taskgroup_read_only
taskgroup taskgroup_read_only
 task read fr
 task read li
 task read aaa
 task read acl
 task read atm
 task read bfd
 task read bgp
 task read cdp
 task read cef
 task read cgn
 task read eem
 task read nps
 task read pbr
 task read ppp
 task read qos
 task read rib
 task read rip
 task read sbc
 task read ancp
```

```
task read bcdl
task read boot
task read diag
task read dwdm
task read hdlc
task read hsrp
task read ipv4
task read ipv6
task read isis
task read lisp
task read lpts
task read ospf
task read ouni
task read rcmd
task read snmp
task read vlan
task read vpdn
task read vrrp
task read admin
task read eigrp
task read l2vpn
task read bundle
task read crypto
task read fabric
task read static
task read sysmgr
task read system
task read tunnel
task read drivers
task read logging
task read monitor
task read mpls-te
task read netflow
task read network
task read pos-dpt
task read firewall
task read mpls-ldp
task read pkg-mgmt
task read call-home
task read fault-mgr
task read interface
task read inventory
task read multicast
task read route-map
task read sonet-sdh
task read transport
task read ext-access
task read filesystem
task read tty-access
task read config-mgmt
task read ip-services
task read mpls-static
task read route-policy
task read host-services
task read basic-services
task read config-services
task read ethernet-services
```

!

Create the User Group

Taskgroups are applied to user groups. I've created a usergroup called `usergroup_read_only`

```
RP/0/RSP1/CPU0:ASR9000# show run usergroup usergroup_read_only
usergroup usergroup_read_only
  taskgroup taskgroup_read_only
!
end-group
```

Option 1. Create a Local User

Create a local user, and apply the usergroup.

```
RP/0/RSP1/CPU0:ASR9000# show run username tyler
username tyler
  group usergroup_read_only
  secret 5 $1$wTwU$CdHKzfRjLj7kDvJa7NWdi.
!
```

Verification

Show commands work

```
RP/0/RSP1/CPU0:ASR9000# show clock
13:42:03.811 UTC Thu Jun 30 2016
```

```
RP/0/RSP1/CPU0:ASR9000# show run
Building configuration...
!! IOS XR Configuration 5.1.3
!
```

```
hostname ASR9000
```

[output omitted]

Configuration Attempts Fail

It isn't possible to block access to configure, but any attempted configure will fail.

A basic configuration like creating a loopback interface fails.

```
RP/0/RSP1/CPU0:ASR9000# conf t
RP/0/RSP1/CPU0:ASR9000(config)# int loopback 103
% This command is not authorized
```

Removing BGP fails as well.

```
RP/0/RSP1/CPU0:ASR9000# configure
RP/0/RSP1/CPU0:ASR9000(config)# no router bgp 65530
% This command is not authorized
```

Checking Group Assignment

The user logged in is a member of `usergroup_read_only`

```
RP/0/RSP1/CPU0:ASR9000# show user group
usergroup_read_only
```

Checking Task Assignment

This user has access only to READ for the specified tasks.

```
RP/0/RSP1/CPU0:ASR9000# show user tasks
```

```
Task:          aaa : READ Task: acl : READ Task: admin : READ Task: ancp : READ
Task: atm : READ Task: basic-services : READ Task: bcdl : READ Task: bfd : READ Task: bgp :
READ Task: boot : READ Task: bundle : READ Task: call-home : READ Task: cdp : READ Task: cef
: READ Task: cgn : READ Task: config-mgmt : READ Task: config-services : READ Task: crypto
: READ Task: diag : READ Task: drivers : READ Task: dwdm : READ Task: eem : READ Task:
eigrp : READ Task: ethernet-services : READ Task: ext-access : READ Task: fabric : READ
Task: fault-mgr : READ Task: filesystem : READ Task: firewall : READ Task: fr : READ Task:
hdlc : READ Task: host-services : READ Task: hsrp : READ Task: interface : READ Task:
inventory : READ Task: ip-services : READ Task: ipv4 : READ Task: ipv6 : READ Task: isis :
READ Task: l2vpn : READ Task: li : READ Task: lisp : READ Task: logging : READ Task: lpts :
READ Task: monitor : READ Task: mpls-ldp : READ Task: mpls-static : READ Task: mpls-te :
READ Task: multicast : READ Task: netflow : READ Task: network : READ Task: nps : READ Task:
ospf : READ Task: oui : READ Task: pbr : READ Task: pkg-mgmt : READ Task: pos-dpt : READ
Task: ppp : READ Task: qos : READ Task: rcmd : READ Task: rib : READ Task: rip : READ Task:
route-map : READ Task: route-policy : READ Task: sbc : READ Task: snmp : READ Task: sonet-
sdh : READ Task: static : READ Task: sysmgr : READ Task: system : READ Task: transport :
READ Task: tty-access : READ Task: tunnel : READ Task: vlan : READ Task: vpdn : READ Task:
vrrp : READ
```

References

[Support Forums - ASR9000/XR Using Taskgroups and understanding Priv levels and authorization - Xander's Guide](#)