

Probleemoplossing voor een scenario dat betrekking heeft op Bulkstats Schemas en aanbevolen werk in StarOS

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Inleiding

In dit document wordt een scenario beschreven dat betrekking heeft op de toevoeging en verwijdering van bulkstatschema's in StarOS, samen met kwesties en aanbevolen werkgronden voor deze problemen.

Voorwaarden

Vereisten

Cisco raadt kennis van de volgende onderwerpen aan:

- Linux
- StarOS

Cisco raadt u aan bevoorrechte toegang te hebben:

- verborgen modus om het **debug shell** uit te voeren om de opdracht van linux shell te benaderen
- Secure File Transfer Protocol (SFTP) toegang tot het StarOS-knooppunt

Gebruikte componenten

De informatie in dit document is gebaseerd op StarOS versie-21.16.6.77063.

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk levend is, zorg er dan voor dat u de mogelijke impact van om het even welke opdracht begrijpt.

Achtergrondinformatie

1. Om een configuratie-bestand te configureren dat de configuraties opslaat die betrekking hebben op de bulkstats.
2. Het formaat van de opdracht is:

```
configure
    [no] bulkstats config [ schema | supplement ] <url>
end
```

Wanneer:

- Het optionele **schema** sleutelwoord staat u toe om alleen het schema te vervangen met het opgegeven bestand en de serverconfiguratie te bewaren.
- Het optionele **supplement** sleutelwoord staat u toe om de actieve configuratie met de inhoud van het configuratiebestand aan te vullen. Deze zoekwoorden werken alleen aan bestaande bestanden.
- URL specificeert de locatie van het configuratiebestand in de bulkstaten.

Probleem

Kan geen nieuwe schema's toevoegen/het huidige schema opnieuw toevoegen (indien verwijderd) via de CLI-opdrachtmelding.

Testscenario's

1. Ik kreeg dit probleem door het gebruik van het cli **bulkstat-diagram <URL>**.
2. Het is een verwacht resultaat per ontwerp wanneer een optioneel **sleutelwoordenschema** wordt gebruikt.
3. Hetzelfde scenario werd in het lab uitgetest. Hier zijn de resultaten:
Scenario A. Aanvankelijk **werd de CLI met bulkstat ingesteld op <url>**.

```
[local]MME# show configuration bulkstats
configure
    bulkstats collection
    bulkstats historical collection
    bulkstats config /hd-raid/file1
    bulkstats mode
    file 1
    header format Version-20.0,%ipaddr%,%date%-%time%,%localdate%-
%localtime%,%localtz%,%localtzooffset%,%localdate3%-%localtime3%,%swbuild%
    footer format EndOfFile
```

```
card schema cardSch1 format
PPM,card,cardSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%card%,%cpubusy%,%cpuidle%,%numproc%,%memused%,%memtotal%,%numcpu%,%cpu0-cpubusy%,%cpu0-cpuidle%,%cpu0-numproc%,%cpu0-memused%,%cpu0-memtotal%,%cpu0-name%,%cpu0-cpuused-user%,%cpu0-cpuused-sys%,%cpu0-cpuused-io%,%cpu0-cpuused-irq%,%cpu0-cpuused-idle%,%cpu1-cpubusy%,%cpu1-cpuidle%,%cpu1-numproc%,
```

```
card schema cardSch2 format
PPM,card,cardSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%card%,%cpu1-memused%,%cpu1-memtotal%,%cpu1-name%,%cpu1-cpuused-user%,%cpu1-cpuused-sys%,%cpu1-cpuused-io%,%cpu1-cpuused-irq%,%cpu1-cpuused-idle%,%cpu2-cpubusy%,%cpu2-cpuidle%,%cpu2-numproc%,%cpu2-memused%,%cpu2-memtotal%,%cpu2-name%,%cpu2-cpuused-user%,%cpu2-cpuused-sys%,%cpu2-cpuused-io%,%cpu2-cpuused-irq%,%cpu2-cpuused-idle%,%cpu3-cpubusy%,%cpu3-cpuidle%,
```

```
card schema cardSch3 format
PPM,card,cardSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%card%,%cpu3-numproc%,%cpu3-memused%,%cpu3-memtotal%,%cpu3-name%,%cpu3-cpuused-user%,%cpu3-cpuused-sys%,%cpu3-cpuused-io%,%cpu3-cpuused-irq%,%cpu3-cpuused-idle%,%15avg-cpubusy%,%15peak-cpubusy%,%5avg-cpubusy%,%5peak-cpubusy%,%1avg-cpubusy%,%15avg-memused%,%15peak-memused%,%5avg-memused%,%5peak-memused%,%1avg-memused%,%cpu0-15avg-cpubusy%,%cpu0-15peak-cpubusy%,
```

```
port schema portSch1 format
PPM,port,portSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%card%,%port%,%maxrate%,%rxbytes%,%txbytes%,%ucast_inpackets%,%ucast_outpackets%,%mcast_inpackets%,%mcast_outpackets%,%bcast_inpackets%,%bcast_outpackets%,%rxpackets%,%txpackets%,%rxdiscbytes%,%rxdiscpackets%,%txdiscbytes%,%txdiscpackets%,%rxerrorbytes%,%rxerrorpackets%,%txerrorbytes%,%txerrorpackets%,
```

```
port schema portSch2 format
PPM,port,portSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%card%,%port%,%frag-rcvd%,%pkt-reassembled%,%frag-tokernel%,%util-rx-curr%,%util-tx-curr%,%util-rx-5min%,%util-tx-5min%,%util-rx-15min%,%util-tx-15min%,%port-5peak-rx-util%,%port-5peak-tx-util%,%port-15peak-rx-util%,%port-15peak-tx-util%,
```

```
apn-expansion schema apn1 format PPM,apn-expansion,%epochtime%,%localdate%,%localtime%,
apn-expansion schema apn2 format PPM,apn-expansion,%epochtime%,%localdate%,%localtime%,
apn-expansion schema apn3 format PPM,apn-expansion,%epochtime%,%localdate%,%localtime%,
```

```
#exit
```

```
#exit
```

```
end
```

```
[local]MME# show bulkstats schemas
```

```
Bulk Statistics Server Configuration:
```

```
Server State:           Enabled
File Limit:             7500 KB
Sample Interval:        15 minutes (0D 0H 15M)
Transfer Interval:      480 minutes (0D 8H 0M)
Receiver Mode:          Secondary-on-failure
Historical Data Collection: Enabled (15 samples stored)
```

Bulk Statistics Server Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last collection time required: 0 second(s)
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 1

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 2 not configured

File 3 not configured

File 4 not configured

----- Schemas for File 1-----

Type	Name	Active-Only	Format
card	cardSch1	No	PPM, card, cardSch1, %epochtime%, %localdate%, %localtime%, %uptime%, %card%, %cpubusy%, %cpuidle%, %numproc%, %memused%, %memtotal%, %numcpu%, %cpu0-cpubusy%, %cpu0-cpuidle%, %cpu0-numproc%, %cpu0-memused%, %cpu0-memtotal%, %cpu0-name%, %cpu0-cpuused-user%, %cpu0-cpuused-sys%, %cpu0-cpuused-io%, %cpu0-cpuused-irq%, %cpu0-cpuused-idle%, %cpu1-cpubusy%, %cpu1-cpuidle%, %cpu1-numproc%,
card	cardSch2	No	PPM, card, cardSch2, %epochtime%, %localdate%, %localtime%, %uptime%, %card%, %cpu1-memused%, %cpu1-memtotal%, %cpu1-name%, %cpu1-cpuused-user%, %cpu1-cpuused-sys%, %cpu1-cpuused-io%, %cpu1-cpuused-irq%, %cpu1-cpuused-idle%, %cpu2-cpubusy%, %cpu2-cpuidle%, %cpu2-numproc%, %cpu2-memused%, %cpu2-memtotal%, %cpu2-name%, %cpu2-cpuused-user%, %cpu2-cpuused-sys%, %cpu2-cpuused-io%, %cpu2-cpuused-irq%, %cpu2-cpuused-idle%, %cpu3-cpubusy%, %cpu3-cpuidle%,
card	cardSch3	No	PPM, card, cardSch3, %epochtime%, %localdate%, %localtime%, %uptime%, %card%, %cpu3-numproc%, %cpu3-memused%, %cpu3-memtotal%, %cpu3-name%, %cpu3-cpuused-user%, %cpu3-cpuused-sys%, %cpu3-cpuused-io%, %cpu3-cpuused-irq%, %cpu3-cpuused-idle%, %15avg-cpubusy%, %15peak-cpubusy%, %5avg-cpubusy%, %5peak-cpubusy%, %1avg-cpubusy%, %15avg-memused%, %15peak-memused%, %5avg-memused%, %5peak-memused%, %1avg-memused%, %cpu0-15avg-cpubusy%, %cpu0-15peak-cpubusy%,
port	portSch1	No	PPM, port, portSch1, %epochtime%, %localdate%, %localtime%, %uptime%, %card%, %port%, %maxrate%, %rxbytes%, %txbytes%, %ucast_inpackets%, %ucast_outpackets%, %mcast_inpackets%, %mcast_outpackets%, %bcast_inpackets%, %bcast_outpackets%, %rxpackets%, %txpackets%, %rxdisbytes%, %rxdiscpackets%, %txdisbytes%, %txdiscpackets%, %rxerrorbytes%, %rxerrorpackets%, %txerrorbytes%, %txerrorpackets%,
port	portSch2	No	PPM, port, portSch2, %epochtime%, %localdate%, %localtime%, %uptime%, %card%, %port%, %frag-rcvd%, %pkt-reassembled%, %frag-tokernel%, %util-rx-curr%, %util-tx-curr%, %util-rx-5min%, %util-tx-5min%, %util-rx-15min%, %util-tx-15min%, %port-5peak-rx-util%, %port-5peak-tx-util%, %port-15peak-rx-util%, %port-15peak-tx-util%,
apn-expansion	apn1	No	PPM, apn-expansion, %epochtime%, %localdate%, %localtime%,
apn-expansion	apn2	No	PPM, apn-expansion, %epochtime%, %localdate%, %localtime%,
apn-expansion	apn3	No	PPM, apn-

expansion,%epochtime%,%localdate%,%localtime%,

mon-di-net mdn1 No PPM,%epochtime%,%localdate%,%localtime%,

[local]MME#

Scenario B. Om het optionele sleutelwoordenschema toe te voegen, moet u eerst de bulkstatcode verwijderen door **geen grotstaten te wijken**. Zodra u **geen bulkstats meer** uitvoert, worden alle huidige schema's in het knooppunt verwijderd.

[local]MME#

[local]MME# configure

[local]MME(config)# bulkstats collection

[local]MME(config)# no bulkstats config

<cr> - newline

[local]MME(config)# no bulkstats config

[local]MME(config)# end

[local]MME# show configuration bulkstats

config

bulkstats collection

bulkstats historical collection

bulkstats mode

file 1

header format Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

footer format EndOfFile

#exit

#exit

end

[local]MME# show bulkstats schemas

Bulk Statistics Server Configuration:

Server State: Enabled

File Limit: 7500 KB

Sample Interval: 15 minutes (0D 0H 15M)

Transfer Interval: 480 minutes (0D 8H 0M)

Receiver Mode: Secondary-on-failure

Historical Data Collection: Enabled (15 samples stored)

Bulk Statistics Server Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last collection time required: 0 second(s)
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 1

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers

No attempted data transfers

File 2 not configured

File 3 not configured

File 4 not configured

[local]MME#

[local]MME#

Scenario C. Dan de cli *indicatielampje* <url> is ingesteld. Alle configuraties en schema's in het configuratiebestand worden toegevoegd aan het knooppunt.

[local]MME# configure

[local]MME(config)# bulkstats collection

[local]MME(config)# bulkstats config schema /hd-raid/file2

Info: config

Info: bulkstats mode

Info: file 2

Info: header format Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzooffset%,%localdate3%-%localtime3%,%swbuild%

Info: footer format EndOfFile

Info: diameter-auth schema diameter-authSch1 format PPM,diameter-auth,diameter-authSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%servertype%,%group%,%der-req-id-sent%,%der-req-aka-chal-sent%,%der-req-retried%,%dea-chal-rcvd%,%dea-acpt-rcvd%,%dea-timeout%,%dea-badauth%,%dea-malformed%,%dea-malformed-avp%,%dea-dropped%,%rar-req-rcvd%,%raa-ans-acpt-sent%,%aar-req-sent%,%str-req-sent%,%str-req-retried%,

Info: diameter-auth schema diameter-authSch2 format PPM,diameter-auth,diameter-authSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%sta-ans-acpt-rcvd%,%asr-req-rcvd%,%asa-rsp-acpt-sent%,%asa-rsp-rej-sent%,%req-sock-write-err%,%rsp-sock-write-err%,%any-sock-read-err%,%rem-disconnect%,%loc-disconnect%,

Info: diameter-auth schema diameter-authSch3 format PPM,diameter-auth,diameter-authSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%peer%,%diameter-auth-msg-multiround%,%diameter-auth-msg-success%,%diameter-auth-msg-err-protocol%,%diameter-auth-msg-err-transient%,%diameter-auth-msg-err-permanent%,%diameter-auth-msg-err-other%,%aaa-req-received%,%aaa-req-timeouts%,%aaa-req-dropped%,

Info: schema systemSch1 format

PPM,system,systemSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-ttlarrived%,%sess-ttlrejected%,%sess-ttlconnected%,%sess-ttlfailed%,%sess-ttldisconn%,%sess-ttlhandoff%,%sess-ttlrenewal%,%sess-ttlcallop%,%sess-ttlauthsucc%,%sess-ttlauthfail%,%sess-curaaaactive%,%sess-

curaaaadeleting%, %sess-curaaaacctpending%, %sess-curaaaacctitemsused%, %sess-curaaaacctitemsmax%, %sess-curaaaabuffused%, %sess-curaaaabuffmax%, %sess-ttlaaacancauth%, %sess-ttlaaacctpurged%, %sess-ttlradacctpurged%, %sess-ttllcpup%,

Info: schema systemSch10 format

PPM, system, systemSch10, %epochtime%, %localdate%, %localtime%, %uptime%, %aaa-ttlpseudoauthreq%, %aaa-curpseudoauthreq%, %aaa-ttlauthnulluser%, %aaa-ttlacctsucc%, %aaa-ttlacctpurged%, %aaa-ttlacctcancelled%, %aaa-ttlacctkeepalivesuccess%, %aaa-ttlacctkeepalivetimeout%, %aaa-ttlacctkeepalivepurged%, %aaa-ttlradaccreq%, %aaa-ttlradacctcancelled%, %aaa-ttlradacctpurged%, %aaa-ttlradaccreqretried%, %aaa-ttlradacctrspdropped%, %aaa-ttlmgrpurgedrequests%, %diamauth-msg-mareq%, %diamauth-msg-maans%, %diamauth-msg-marretry%, %diamauth-msg-maamtimeout%, %diamauth-msg-maadropped%, %diamauth-msg-sareq%,

Info: schema systemSch100 format

PPM, system, systemSch100, %epochtime%, %localdate%, %localtime%, %uptime%, %sess-bearerdur-24hr-qci6%, %sess-bearerdur-over24hr-qci6%, %sess-bearerdur-2day-qci6%, %sess-bearerdur-4day-qci6%, %sess-bearerdur-5day-qci6%, %sess-bearerdur-5sec-qci7%, %sess-bearerdur-10sec-qci7%, %sess-bearerdur-30sec-qci7%, %sess-bearerdur-1min-qci7%, %sess-bearerdur-2min-qci7%, %sess-bearerdur-5min-qci7%, %sess-bearerdur-15min-qci7%, %sess-bearerdur-30min-qci7%, %sess-bearerdur-1hr-qci7%, %sess-bearerdur-4hr-qci7%, %sess-bearerdur-12hr-qci7%, %sess-bearerdur-24hr-qci7%, %sess-bearerdur-over24hr-qci7%, %sess-bearerdur-2day-qci7%, %sess-bearerdur-4day-qci7%, %sess-bearerdur-5day-qci7%,

Info: sgs schema sgsSch1 format

PPM, sgs, sgsSch1, %epochtime%, %localdate%, %localtime%, %uptime%, %vpnname%, %vpnid%, %servname%, %servid%, %pag-req-tx%, %pag-req-retx%, %pag-req-rx%, %pag-rej-tx%, %pag-rej-retx%, %pag-rej-rx%, %service-req-tx%, %service-req-retx%, %service-req-rx%, %dl-ud-tx%, %dl-ud-retx%, %dl-ud-rx%, %ul-ud-tx%, %ul-ud-retx%, %ul-ud-rx%, %localupd-req-tx%, %localupd-req-retx%,

Info: sgs schema sgsSch2 format

PPM, sgs, sgsSch2, %epochtime%, %localdate%, %localtime%, %uptime%, %vpnname%, %vpnid%, %servname%, %servid%, %localupd-req-rx%, %localupd-accept-tx%, %localupd-accept-retx%, %localupd-accept-rx%, %localupd-rej-tx%, %localupd-rej-retx%, %localupd-rej-rx%, %tmsi-reloc-tx%, %tmsi-reloc-retx%, %tmsi-reloc-rx%, %alert-req-tx%, %alert-req-retx%, %alert-req-rx%, %alert-ack-tx%, %alert-ack-retx%, %alert-ack-rx%, %alert-rej-tx%, %alert-rej-retx%, %alert-rej-rx%, %ue-actind-tx%, %ue-actind-retx%,

Info: sgs schema sgsSch3 format

PPM, sgs, sgsSch3, %epochtime%, %localdate%, %localtime%, %uptime%, %vpnname%, %vpnid%, %servname%, %servid%, %ue-actind-rx%, %eps-detind-tx%, %eps-detind-retx%, %eps-detind-rx%, %eps-detack-tx%, %eps-detack-retx%, %eps-detack-rx%, %imsi-detind-tx%, %imsi-detind-retx%, %imsi-detind-rx%, %imsi-detack-tx%, %imsi-detack-retx%, %imsi-detack-rx%, , , , , , %mm-inforeq-tx%, %mm-inforeq-retx%,

Info: exit

[local]MME(config)# end

[local]MME#

[local]MME# show configuration bulkstats

config

bulkstats collection

bulkstats historical collection

bulkstats config schema /hd-raid/file2

bulkstats mode

file 1

header format Version-20.0, %ipaddr%, %date%- %time%, %localdate%- %localtime%, %localtz%, %localtzoffset%, %localdate3%- %localtime3%, %swbuild%

footer format EndOfFile

#exit

file 2

header format Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%
%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

footer format EndOfFile

schema systemSch1 format

PPM,system,systemSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-ttlarrived%,%sess-
ttlrejected%,%sess-ttlconnected%,%sess-ttlfailed%,%sess-ttldisconn%,%sess-ttlhandoff%,%sess-
ttlrenewal%,%sess-ttlcallop%,%sess-ttlauthsucc%,%sess-ttlauthfail%,%sess-curaaaactive%,%sess-
curaaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-
curaaaacctitemsmax%,%sess-curaaabuffused%,%sess-curaaabuffmax%,%sess-ttlaaacancauth%,%sess-
ttlaaaacctpurged%,%sess-ttlradacctpurged%,%sess-ttllcpup%,

schema systemSch10 format

PPM,system,systemSch10,%epochtime%,%localdate%,%localtime%,%uptime%,%aaa-ttlpseudoauthreq%,%aaa-
curpseudoauthreq%,%aaa-ttlauthnulluser%,%aaa-ttlacctsucc%,%aaa-ttlacctpurged%,%aaa-
ttlacctcancelled%,%aaa-ttlacctkeepalivesuccess%,%aaa-ttlacctkeepalivetimeout%,%aaa-
ttlacctkeepalivepurged%,%aaa-ttlradacctreq%,%aaa-ttlradacctcancelled%,%aaa-
ttlradacctpurged%,%aaa-ttlradacctreqretried%,%aaa-ttlradacctrspdropped%,%aaa-
ttlmgrpurgedrequests%,%diamauth-msg-mareq%,%diamauth-msg-maans%,%diamauth-msg-
marretry%,%diamauth-msg-maamtimeout%,%diamauth-msg-maadropped%,%diamauth-msg-sareq%,

schema systemSch100 format

PPM,system,systemSch100,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-bearerdur-24hr-
qci6%,%sess-bearerdur-over24hr-qci6%,%sess-bearerdur-2day-qci6%,%sess-bearerdur-4day-
qci6%,%sess-bearerdur-5day-qci6%,%sess-bearerdur-5sec-qci7%,%sess-bearerdur-10sec-qci7%,%sess-
bearerdur-30sec-qci7%,%sess-bearerdur-1min-qci7%,%sess-bearerdur-2min-qci7%,%sess-bearerdur-
5min-qci7%,%sess-bearerdur-15min-qci7%,%sess-bearerdur-30min-qci7%,%sess-bearerdur-1hr-
qci7%,%sess-bearerdur-4hr-qci7%,%sess-bearerdur-12hr-qci7%,%sess-bearerdur-24hr-qci7%,%sess-
bearerdur-over24hr-qci7%,%sess-bearerdur-2day-qci7%,%sess-bearerdur-4day-qci7%,%sess-bearerdur-
5day-qci7%,

diameter-auth schema diameter-authSch1 format PPM,diameter-auth,diameter-
authSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%servert
ype%,%group%,%der-req-id-sent%,%der-req-aka-chal-sent%,%der-req-retried%,%dea-chal-rcvd%,%dea-
acct-rcvd%,%dea-timeout%,%dea-badauth%,%dea-malformed%,%dea-malformed-avp%,%dea-dropped%,%rar-
req-rcvd%,%raa-ans-accpt-sent%,%aar-req-sent%,%str-req-sent%,%str-req-retried%,

diameter-auth schema diameter-authSch2 format PPM,diameter-auth,diameter-
authSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%sta-
ans-accpt-rcvd%,%asr-req-rcvd%,%asa-rsp-accpt-sent%,%asa-rsp-rej-sent%,%req-sock-write-
err%,%rsp-sock-write-err%,%any-sock-read-err%,%rem-disconnect%,%loc-disconnect%,

diameter-auth schema diameter-authSch3 format PPM,diameter-auth,diameter-
authSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%peer%,%
diameter-auth-msg-multiround%,%diameter-auth-msg-success%,%diameter-auth-msg-err-
protocol%,%diameter-auth-msg-err-transient%,%diameter-auth-msg-err-permanent%,%diameter-auth-
msg-err-other%,%aaa-req-received%,%aaa-req-timeouts%,%aaa-req-dropped%,

sgs schema sgsSch1 format

PPM,sgs,sgsSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servi
d%,%pag-req-tx%,%pag-req-retx%,%pag-req-rx%,%pag-rej-tx%,%pag-rej-retx%,%pag-rej-rx%,%service-
req-tx%,%service-req-retx%,%service-req-rx%,%dl-ud-tx%,%dl-ud-retx%,%dl-ud-rx%,%ul-ud-tx%,%ul-
ud-retx%,%ul-ud-rx%,%localupd-req-tx%,%localupd-req-retx%,

sgs schema sgsSch2 format

PPM,sgs,sgsSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servi

```
d%,%localupd-req-rx%,%localupd-accept-tx%,%localupd-accept-retx%,%localupd-accept-rx%,%localupd-
rej-tx%,%localupd-rej-retx%,%localupd-rej-rx%,%tmsi-reloc-tx%,%tmsi-reloc-retx%,%tmsi-reloc-
rx%,%alert-req-tx%,%alert-req-retx%,%alert-req-rx%,%alert-ack-tx%,%alert-ack-retx%,%alert-ack-
rx%,%alert-rej-tx%,%alert-rej-retx%,%alert-rej-rx%,%ue-actind-tx%,%ue-actind-retx%,
```

```
sgs schema sgsSch3 format
```

```
PPM,sgs,sgsSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servi
d%,%ue-actind-rx%,%eps-detind-tx%,%eps-detind-retx%,%eps-detind-rx%,%eps-detack-tx%,%eps-detack-
retx%,%eps-detack-rx%,%imsi-detind-tx%,%imsi-detind-retx%,%imsi-detind-rx%,%imsi-detack-
tx%,%imsi-detack-retx%,%imsi-detack-rx%,,,,,,,%mm-inforeq-tx%,%mm-inforeq-retx%,
```

```
#exit
```

```
#exit
```

```
end
```

```
[local]MME#
```

Scenario D. Daarna kunnen geen nieuwe regelingen worden toegevoegd. Wanneer u probeert een huidige schema te verwijderen en het opnieuw toe te voegen, wordt het schema verwijderd maar u kunt het niet opnieuw toevoegen. Maar het huidige schema was nog steeds aanwezig in het configuratiebestand (configuratiebestand in de URL).

```
[local]MME# configure
```

```
[local]MME(config)# bulkstats mode
```

```
mode - Enters bulk statistics configuration mode, where you can define what
statistics to collect
```

```
[local]MME(config)# bulkstats mode
```

```
[local]MME(config-bulkstats)# file 1
```

```
[local]MME(config-bulkstats-file-1)# mon-di-net schema mdn1 format PPM,%epochti
me%,%localdate%,%localtime%,
```

```
[local]MME(config-bulkstats-file-1)# exit
```

```
[local]MME(config-bulkstats)# file 2
```

```
[local]MME(config-bulkstats-file-2)# mon-di-net schema mdn2 format PPM,%epochti
me%,
```

```
[local]MME(config-bulkstats-file-2)# end
```

```
[local]MME# show bulkstats schemas
```

```
Bulk Statistics Server Configuration:
```

```
Server State: Enabled
File Limit: 7500 KB
Sample Interval: 15 minutes (0D 0H 15M)
```

Transfer Interval: 480 minutes (0D 8H 0M)
Receiver Mode: Secondary-on-failure
Historical Data Collection: Enabled (15 samples stored)

Bulk Statistics Server Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last collection time required: 0 second(s)
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 1

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0

Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 2

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 3 not configured

File 4 not configured

----- Schemas for File 2-----

Type	Name	Active-Only Format
------	------	--------------------

system systemSch1 No
PPM,system,systemSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-ttlarrived%,%sess-ttlrejected%,%sess-ttlconnected%,%sess-ttlfailed%,%sess-ttldisconn%,%sess-ttlhandoff%,%sess-ttlrenewal%,%sess-ttlcallop%,%sess-ttlauthsucc%,%sess-ttlauthfail%,%sess-curaaaactive%,%sess-curaaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-curaaaacctitemsmax%,%sess-curaaaabuffused%,%sess-curaaaabuffmax%,%sess-ttlaaacancauth%,%sess-ttlaaacctpurged%,%sess-ttlradacctpurged%,%sess-ttllcpup%,

system systemSch10 No
PPM,system,systemSch10,%epochtime%,%localdate%,%localtime%,%uptime%,%aaa-ttlpseudoauthreq%,%aaa-curpseudoauthreq%,%aaa-ttlauthnulluser%,%aaa-ttlacctsucc%,%aaa-ttlacctpurged%,%aaa-ttlacctcancelled%,%aaa-ttlacctkeepalivesuccess%,%aaa-ttlacctkeepalivetimeout%,%aaa-ttlacctkeepalivepurged%,%aaa-ttlradacctreq%,%aaa-ttlradacctcancelled%,%aaa-ttlradacctpurged%,%aaa-ttlradacctreqretried%,%aaa-ttlradacctrspdropped%,%aaa-ttlmgrpurgedrequests%,%diamauth-msg-mareq%,%diamauth-msg-maans%,%diamauth-msg-marretry%,%diamauth-msg-maamtimeout%,%diamauth-msg-maadropped%,%diamauth-msg-sareq%,

system systemSch100 No
PPM,system,systemSch100,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-bearerdur-24hr-qci6%,%sess-bearerdur-over24hr-qci6%,%sess-bearerdur-2day-qci6%,%sess-bearerdur-4day-qci6%,%sess-bearerdur-5day-qci6%,%sess-bearerdur-5sec-qci7%,%sess-bearerdur-10sec-qci7%,%sess-bearerdur-30sec-qci7%,%sess-bearerdur-1min-qci7%,%sess-bearerdur-2min-qci7%,%sess-bearerdur-5min-qci7%,%sess-bearerdur-15min-qci7%,%sess-bearerdur-30min-qci7%,%sess-bearerdur-1hr-qci7%,%sess-bearerdur-4hr-qci7%,%sess-bearerdur-12hr-qci7%,%sess-bearerdur-24hr-qci7%,%sess-bearerdur-over24hr-qci7%,%sess-bearerdur-2day-qci7%,%sess-bearerdur-4day-qci7%,%sess-bearerdur-5day-qci7%,

diameter-auth diameter-authSch1 No PPM,diameter-auth,diameter-authSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%servertype%,%group%,%der-req-id-sent%,%der-req-aka-chal-sent%,%der-req-retried%,%dea-chal-rcvd%,%dea-acpt-rcvd%,%dea-timeout%,%dea-badauth%,%dea-malformed%,%dea-malformed-avp%,%dea-dropped%,%rar-req-rcvd%,%raa-ans-acpt-sent%,%aar-req-sent%,%str-req-sent%,%str-req-retried%,

diameter-auth diameter-authSch2 No PPM,diameter-auth,diameter-authSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%staans-acpt-rcvd%,%asr-req-rcvd%,%asa-rsp-acpt-sent%,%asa-rsp-rej-sent%,%req-sock-write-err%,%rsp-sock-write-err%,%any-sock-read-err%,%rem-disconnect%,%loc-disconnect%,

diameter-auth diameter-authSch3 No PPM,diameter-auth,diameter-authSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%peer%,%diameter-auth-msg-multiround%,%diameter-auth-msg-success%,%diameter-auth-msg-err-protocol%,%diameter-auth-msg-err-transient%,%diameter-auth-msg-err-permanent%,%diameter-auth-msg-err-other%,%aaa-req-received%,%aaa-req-timeouts%,%aaa-req-dropped%,

sgs sgsSch1 No
PPM,sgs,sgsSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servid%,%pag-req-tx%,%pag-req-retx%,%pag-req-rx%,%pag-rej-tx%,%pag-rej-retx%,%pag-rej-rx%,%service-req-tx%,%service-req-retx%,%service-req-rx%,%dl-ud-tx%,%dl-ud-retx%,%dl-ud-rx%,%ul-ud-tx%,%ul-ud-retx%,%ul-ud-rx%,%localupd-req-tx%,%localupd-req-retx%,

sgs sgsSch2 No
PPM,sgs,sgsSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servid%,%localupd-req-rx%,%localupd-accept-tx%,%localupd-accept-retx%,%localupd-accept-rx%,%localupd-rej-tx%,%localupd-rej-retx%,%localupd-rej-rx%,%tmsi-reloc-tx%,%tmsi-reloc-retx%,%tmsi-reloc-rx%,%alert-req-tx%,%alert-req-retx%,%alert-req-rx%,%alert-ack-tx%,%alert-ack-retx%,%alert-ack-rx%,%alert-rej-tx%,%alert-rej-retx%,%alert-rej-rx%,%ue-actind-tx%,%ue-actind-retx%,

sgs sgsSch3 No
PPM,sgs,sgsSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servid%,%ue-actind-rx%,%eps-detind-tx%,%eps-detind-retx%,%eps-detind-rx%,%eps-detack-tx%,%eps-detack-retx%,%eps-detack-rx%,%imsi-detind-tx%,%imsi-detind-retx%,%imsi-detind-rx%,%imsi-detack-tx%,%imsi-detack-retx%,%imsi-detack-rx%, , , , , , %mm-infreq-tx%,%mm-infreq-retx%,

```
[local]MME# configure
[local]MME(config)# bulkstats mode
[local]MME(config-bulkstats)# file 2
[local]MME(config-bulkstats-file-2)# no sgs
sgs                - Removes sgs bulk statistics schema
[local]MME(config-bulkstats-file-2)# no sgs schema sgsSch1
[local]MME(config-bulkstats-file-2)# end
[local]MME# show bulkstats schemas
```

Bulk Statistics Server Configuration:

```
Server State:           Enabled
File Limit:             7500 KB
Sample Interval:       15 minutes (0D 0H 15M)
Transfer Interval:     480 minutes (0D 8H 0M)
Receiver Mode:         Secondary-on-failure
Historical Data Collection: Enabled (15 samples stored)
```

Bulk Statistics Server Statistics:

```
Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last collection time required: 0 second(s)
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers
```

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 2

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0

Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 3 not configured

File 4 not configured

----- Schemas for File 2-----

Type	Name	Active-Only	Format
system	systemSch1	No	PPM,system,systemSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-ttlarrived%,%sess-ttlrejected%,%sess-ttlconnected%,%sess-ttlfailed%,%sess-ttldisconnect%,%sess-ttlhandoff%,%sess-ttlrenewal%,%sess-ttlcallop%,%sess-ttlauthsucc%,%sess-ttlauthfail%,%sess-curaaaactive%,%sess-curaaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-curaaaacctitemsmax%,%sess-curaaaabuffused%,%sess-curaaaabuffmax%,%sess-ttlaaacancauth%,%sess-ttlaaaaacctpurged%,%sess-ttlradacctpurged%,%sess-ttllcpup%,
system	systemSch10	No	PPM,system,systemSch10,%epochtime%,%localdate%,%localtime%,%uptime%,%aaa-ttlpseudoauthreq%,%aaa-curpseudoauthreq%,%aaa-ttlauthnulluser%,%aaa-ttlacctsucc%,%aaa-ttlacctpurged%,%aaa-ttlacctcancelled%,%aaa-ttlacctkeepalivesuccess%,%aaa-ttlacctkeepalivetimeout%,%aaa-ttlacctkeepalivepurged%,%aaa-ttlradacctreq%,%aaa-ttlradacctcancelled%,%aaa-ttlradacctpurged%,%aaa-ttlradacctreqretried%,%aaa-ttlradacctrspdropped%,%aaa-ttlmgrpurgedrequests%,%diamauth-msg-mareq%,%diamauth-msg-maans%,%diamauth-msg-marretry%,%diamauth-msg-maamtimeout%,%diamauth-msg-maadropped%,%diamauth-msg-sareq%,
system	systemSch100	No	PPM,system,systemSch100,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-bearerdur-24hr-qci6%,%sess-bearerdur-over24hr-qci6%,%sess-bearerdur-2day-qci6%,%sess-bearerdur-4day-qci6%,%sess-bearerdur-5day-qci6%,%sess-bearerdur-5sec-qci7%,%sess-bearerdur-10sec-qci7%,%sess-bearerdur-30sec-qci7%,%sess-bearerdur-1min-qci7%,%sess-bearerdur-2min-qci7%,%sess-bearerdur-5min-qci7%,%sess-bearerdur-15min-qci7%,%sess-bearerdur-30min-qci7%,%sess-bearerdur-1hr-qci7%,%sess-bearerdur-4hr-qci7%,%sess-bearerdur-12hr-qci7%,%sess-bearerdur-24hr-qci7%,%sess-bearerdur-over24hr-qci7%,%sess-bearerdur-2day-qci7%,%sess-bearerdur-4day-qci7%,%sess-bearerdur-5day-qci7%,
diameter-auth	diameter-authSch1	No	PPM,diameter-auth,diameter-authSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%servertype%,%group%,%der-req-id-sent%,%der-req-aka-chal-sent%,%der-req-retried%,%dea-chal-rcvd%,%dea-acpt-rcvd%,%dea-timeout%,%dea-badauth%,%dea-malformed%,%dea-malformed-avp%,%dea-dropped%,%rar-req-rcvd%,%raa-ans-acpt-sent%,%aar-req-sent%,%str-req-sent%,%str-req-retried%,
diameter-auth	diameter-authSch2	No	PPM,diameter-auth,diameter-authSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%staans-acpt-rcvd%,%asr-req-rcvd%,%asa-rsp-acpt-sent%,%asa-rsp-rej-sent%,%req-sock-write-err%,%rsp-sock-write-err%,%any-sock-read-err%,%rem-disconnect%,%loc-disconnect%,

```
diameter-auth diameter-authSch3          No          PPM,diameter-auth,diameter-
authSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%peer%,%
diameter-auth-msg-multiround%,%diameter-auth-msg-success%,%diameter-auth-msg-err-
protocol%,%diameter-auth-msg-err-transient%,%diameter-auth-msg-err-permanent%,%diameter-auth-
msg-err-other%,%aaa-req-received%,%aaa-req-timeouts%,%aaa-req-dropped%,
```

```
sgs          sgsSch2          No
PPM,sgs,sgsSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servi
d%,%localupd-req-rx%,%localupd-accept-tx%,%localupd-accept-retx%,%localupd-accept-rx%,%localupd-
rej-tx%,%localupd-rej-retx%,%localupd-rej-rx%,%tmsi-reloc-tx%,%tmsi-reloc-retx%,%tmsi-reloc-
rx%,%alert-req-tx%,%alert-req-retx%,%alert-req-rx%,%alert-ack-tx%,%alert-ack-retx%,%alert-ack-
rx%,%alert-rej-tx%,%alert-rej-retx%,%alert-rej-rx%,%ue-actind-tx%,%ue-actind-retx%,
```

```
sgs          sgsSch3          No
PPM,sgs,sgsSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servi
d%,%ue-actind-rx%,%eps-detind-tx%,%eps-detind-retx%,%eps-detind-rx%,%eps-detack-tx%,%eps-detack-
retx%,%eps-detack-rx%,%imsi-detind-tx%,%imsi-detind-retx%,%imsi-detind-rx%,%imsi-detack-
tx%,%imsi-detack-retx%,%imsi-detack-rx%,,,,,,,%mm-inforeq-tx%,%mm-inforeq-retx%,
```

```
[local]MME# configure
```

```
[local]MME(config)# bulkstats mode
```

```
[local]MME(config-bulkstats)# file 2
```

```
[local]MME(config-bulkstats-file-2)# sgs schema sgsSch1 format PPM,sgs,sgsSch1,
%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%serv
id%,%pag-req-tx%,%pag-req-retx%,%pag-req-rx%,%pag-rej-tx%,%pag-rej-retx%,%pag-r
ej-rx%,%service-req-tx%,%service-req-retx%,%service-req-rx%,%dl-ud-tx%,%dl-ud-r
etx%,%dl-ud-rx%,%ul-ud-tx%,%ul-ud-retx%,%ul-ud-rx%,%localupd-req-tx%,%localupd-
req-retx%,
```

```
[local]MME(config-bulkstats-file-2)# end
```

```
[local]MME# show bulkstats schemas
```

```
Bulk Statistics Server Configuration:
```

```
Server State:          Enabled
File Limit:            7500 KB
Sample Interval:       15 minutes (0D 0H 15M)
Transfer Interval:     480 minutes (0D 8H 0M)
Receiver Mode:         Secondary-on-failure
Historical Data Collection: Enabled (15 samples stored)
```

```
Bulk Statistics Server Statistics:
```

```
Records awaiting transmission: 0
Bytes awaiting transmission: 0
```

Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last collection time required: 0 second(s)
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 1

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 2

Remote File Format: %date%-%time%

File Header: Version-20.0,%ipaddr%,%date%-%time%,%localdate%-%localtime%,%localtz%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

File Footer: EndOfFile

No bulkstats receivers

File Statistics:

Records awaiting transmission: 0
Bytes awaiting transmission: 0
Total records collected: 0
Total bytes collected: 0
Total records transmitted: 0
Total bytes transmitted: 0
Total records discarded: 0
Total bytes discarded: 0
Last transfer time required: 0 second(s)
No successful data transfers
No attempted data transfers

File 3 not configured

File 4 not configured

----- Schemas for File 2-----

Type Name Active-Only Format

system systemSch1 No
PPM,system,systemSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-ttlarrived%,%sess-ttlrejected%,%sess-ttlconnected%,%sess-ttlfailed%,%sess-ttldisconnect%,%sess-ttlhandoff%,%sess-ttlrenewal%,%sess-ttlcallop%,%sess-ttlauthsucc%,%sess-ttlauthfail%,%sess-curaaaactive%,%sess-curaaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-curaaaacctitemsmax%,%sess-curaaaabuffused%,%sess-curaaaabuffmax%,%sess-ttlaaacanauth%,%sess-ttlaaaaacctpurged%,%sess-ttlradacctpurged%,%sess-ttlcpup%,

system systemSch10 No
PPM,system,systemSch10,%epochtime%,%localdate%,%localtime%,%uptime%,%aaa-ttlpseudoauthreq%,%aaa-curpseudoauthreq%,%aaa-ttlauthnulluser%,%aaa-ttlacctsucc%,%aaa-ttlacctpurged%,%aaa-ttlacctcancelled%,%aaa-ttlacctkeepalivesuccess%,%aaa-ttlacctkeepalivetimeout%,%aaa-

ttlacctkeepalivepurged%,%aaa-ttlradacctreq%,%aaa-ttlradacctcancelled%,%aaa-ttlradacctpurged%,%aaa-ttlradacctreqretried%,%aaa-ttlradacctrspdropped%,%aaa-ttlmgrpurgedrequests%,%diamauth-msg-mareq%,%diamauth-msg-maans%,%diamauth-msg-marretry%,%diamauth-msg-matimeout%,%diamauth-msg-maadropped%,%diamauth-msg-sareq%,

system systemSch100 No PPM,system,systemSch100,%epochtime%,%localdate%,%localtime%,%uptime%,%sess-bearerdur-24hr-qci6%,%sess-bearerdur-over24hr-qci6%,%sess-bearerdur-2day-qci6%,%sess-bearerdur-4day-qci6%,%sess-bearerdur-5day-qci6%,%sess-bearerdur-5sec-qci7%,%sess-bearerdur-10sec-qci7%,%sess-bearerdur-30sec-qci7%,%sess-bearerdur-1min-qci7%,%sess-bearerdur-2min-qci7%,%sess-bearerdur-5min-qci7%,%sess-bearerdur-15min-qci7%,%sess-bearerdur-30min-qci7%,%sess-bearerdur-1hr-qci7%,%sess-bearerdur-4hr-qci7%,%sess-bearerdur-12hr-qci7%,%sess-bearerdur-24hr-qci7%,%sess-bearerdur-over24hr-qci7%,%sess-bearerdur-2day-qci7%,%sess-bearerdur-4day-qci7%,%sess-bearerdur-5day-qci7%,

diameter-auth diameter-authSch1 No PPM,diameter-auth,diameter-authSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%servertype%,%group%,%der-req-id-sent%,%der-req-aka-chal-sent%,%der-req-retried%,%dea-chal-rcvd%,%dea-acpt-rcvd%,%dea-timeout%,%dea-badauth%,%dea-malformed%,%dea-malformed-avp%,%dea-dropped%,%rar-req-rcvd%,%raa-ans-acpt-sent%,%aar-req-sent%,%str-req-sent%,%str-req-retried%,

diameter-auth diameter-authSch2 No PPM,diameter-auth,diameter-authSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%staans-acpt-rcvd%,%asr-req-rcvd%,%asa-rsp-acpt-sent%,%asa-rsp-rej-sent%,%req-sock-write-err%,%rsp-sock-write-err%,%any-sock-read-err%,%rem-disconnect%,%loc-disconnect%,

diameter-auth diameter-authSch3 No PPM,diameter-auth,diameter-authSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnid%,%vpnname%,%ipaddr%,%port%,%peer%,%diameter-auth-msg-multiround%,%diameter-auth-msg-success%,%diameter-auth-msg-err-protocol%,%diameter-auth-msg-err-transient%,%diameter-auth-msg-err-permanent%,%diameter-auth-msg-err-other%,%aaa-req-received%,%aaa-req-timeouts%,%aaa-req-dropped%,

sgs sgsSch2 No PPM,sgs,sgsSch2,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servid%,%localupd-req-rx%,%localupd-accept-tx%,%localupd-accept-retx%,%localupd-accept-rx%,%localupd-rej-tx%,%localupd-rej-retx%,%localupd-rej-rx%,%tmsi-reloc-tx%,%tmsi-reloc-retx%,%tmsi-reloc-rx%,%alert-req-tx%,%alert-req-retx%,%alert-req-rx%,%alert-ack-tx%,%alert-ack-retx%,%alert-ack-rx%,%alert-rej-tx%,%alert-rej-retx%,%alert-rej-rx%,%ue-actind-tx%,%ue-actind-retx%,

sgs sgsSch3 No PPM,sgs,sgsSch3,%epochtime%,%localdate%,%localtime%,%uptime%,%vpnname%,%vpnid%,%servname%,%servid%,%ue-actind-rx%,%eps-detind-tx%,%eps-detind-retx%,%eps-detind-rx%,%eps-detack-tx%,%eps-detack-retx%,%eps-detack-rx%,%imsi-detind-tx%,%imsi-detind-retx%,%imsi-detind-rx%,%imsi-detack-tx%,%imsi-detack-retx%,%imsi-detack-rx%,,,,,,,%mm-inforeq-tx%,%mm-inforeq-retx%,

[local]MME#

Scenario E. Het resultaat is wanneer je het optionele sleutelwoord gebruikt **schemaU** kunt geen nieuwe schema's toevoegen. U kunt elke huidige schema's verwijderen (uit het knooppunt) maar u kunt deze niet opnieuw toevoegen. De huidige schema's in het configuratiebestand (dat in het <url> aanwezig is, worden echter niet beïnvloed door de wijzigingen die in het knooppunt gemaakt zijn).

Oplossing

1. Het CLI **bulkstat-configuratieschema** <url> wordt gebruikt, waarvoor zij zich met deze kwestie hebben beziggehouden.
2. Het is een verwacht resultaat per ontwerp, dat je krijgt als het optionele sleutelwoordenschema wordt gebruikt.
3. Er zijn drie oplossingen voor deze zaak:

A. Om het CLI **bulkstat-configuratieschema** te verwijderen **<url>** en de schema's toevoeging/wissen te besturen via handmatige client/commando-prompt.

B. Om het optionele sleutelwoord **supplement** te gebruiken in de bulkstat configuratie cli. Met de CLI **bulkstat configuratie supplement <url>** kunt u de schema's in het configuratiebestand aan de schema's van het huidige knooppunt toevoegen. U kunt nieuwe schema's toevoegen of verwijderen en de huidige schema's kunnen ook via de CLI-opdrachtmelding worden verwijderd of toegevoegd.

C. Om de vereiste schema's direct in het configuratiebestand toe te voegen of te wissen en dan de configuraties opnieuw te laden met het configuratiebestand (verwijder eerst de kolom door **geen bulkstat configuratie**, voeg de schema's in het configuratiebestand toe en voeg het dan toe door **bulkstats het schema <url>**) toe. Om de schema's in het configuratiebestand toe te voegen, kunt u het met de vi-editor of door SFTP het bestand toevoegen

Met de vi-editor:

```
[local]MME-01# cli test-commands password <pswd>
Warning: Test commands enables internal testing and debugging commands
USE OF THIS MODE MAY CAUSE SIGNIFICANT SERVICE INTERRUPTION

[local]MME-01# debug shell
Last log in: Wed Dec 22 15:05:12 +0530 2021 on pts/3 from 10.227.224.108.
MME-01:card1-cpu0# ls -lrtha

total 16
-r--r--r-- 1 root root 952 Dec 15 23:30 .rhosts
-r--r--r-- 1 root root 1.7K Dec 15 23:30 .gdbinit
drwx----- 2 root root 100 Dec 15 23:30 .ssh
drwxr-xr-x 24 root root 500 Dec 15 23:30 ..
-rw----- 1 root root 118 Dec 21 14:48 .bash_history
-rw-r--r-- 1 root root 1 Dec 22 15:05 file
drwxr-xr-x 3 root root 140 Dec 22 15:05 .

MME-01:card1-cpu0# vi file
SFTP het configuratiebestand van <url> naar uw lokale station, bewerkt het en SFTP het terug naar <url>.
```