أستكشاف أخطاء السيناريو المتعلقة بمخططات العلامات المميزة والحلول البديلة في StarOS وإصلاحها بما يوصى به

المحتويات

المقدمة

يصف هذا المستند سيناريو متعلق بإضافة مخططات وحدات تخزين كبيرة وحذفها في StarOS مع المشاكل والحلول الموصى بها لهذه المشكلات.

المتطلبات الأساسية

المتطلبات

توصي Cisco بأن تكون لديك معرفة بالمواضيع التالية:

- لينكس
- StarOS

cisco يوصي أن تكون أنت تمتلقى امتياز منفذ:

- الوضع المخفي لتنفيذ debug shell أوامر موجه إلى للوصول Linux shell
- StarOS عقدة إلى (SFTP) نقل الملفات لبروتوكول الآمن الوصول الولوج

المكونات المستخدمة

تستند المعلومات الواردة في هذا المستند إلى StarOS، الإصدار 21.16.6.77063.

تم إنشاء المعلومات الواردة في هذا المستند من الأجهزة الموجودة في بيئة معملية خاصة. بدأت جميع الأجهزة المُستخدمة في هذا المستند بتكوين ممسوح (افتراضي). إذا كانت شبكتك قيد التشغيل، فتأكد من فهمك للتأثير المحتمل لأي أمر.

معلومات أساسية

1. لتكوين ملف تكوين لتخزين التكوينات المتعلقة بالعلامات العاكسة.
2. تنسيق الأمر:

```
    configure

        [no] bulkstats config [ schema | supplement ] <url>

    end
```

أين:

- تسمح كل الكلمة الأساسية **المخطط** الاختياري باستبدال المخطط فقط باستخدام الملف المتوفر واحتفاظ بتكوين الداخلي.
- تسمح كل الكلمة الأساسية **الملحق** الاختياري بتكملة تكوين اللوحات المشغلة فقط على الملفات الأساسية الكلمات فقط. تعمل هذه العمل تكوين المتوفر. بمحتويات ملف التكوين المحتويات الموجودة.
- يحدد URL موقع ملف تكوين Bulkstats.

المشكلة

يتعذر إضافة مخططات جديدة/إعادة إضافة المخطط الحالي (في حالة حذفه) عبر موجه أوامر CLI.

سيناريوهات الاختبار

1. واجهت هذه المشكلة بسبب إستخدام مخطط تكوين CLI Bulkstat <URL>.
2. إنها نتيجة متوقعة لكل تصميم عند إستخدام مخطط كلمة أساسية إختياري.
3. النتائج: نفس السيناريو تم إختباره في المعمل. وفيما يلي النتائج:
   السيناريو أ. تم تكوين واجهة سطر الأوامر (CLI) **في** البداية.

```
[local]MME# show configuration bulkstats

config

 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%,%localtzoffset%,%localdate3%-%localtime3%,%swbuild%

     footer format EndOfFile

     card schema cardSch1 format
PPM,card,cardSch1,%epochtime%,%localdate%,%localtime%,%uptime%,%card%,%cpubusy%,%cpuidle%,%numpr
oc%,%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_inpa
ckets%,%bcast_outpackets%,%rxpackets%,%txpackets%,%rxdiscbytes%,%rxdiscpackets%,%txdiscbytes%,%t
xdiscpackets%,%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%,%numpr
oc%,%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_inpa
ckets%,%bcast_outpackets%,%rxpackets%,%txpackets%,%rxdiscbytes%,%rxdiscpackets%,%txdiscbytes%,%t
xdiscpackets%,%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#
```

السطر وجاهة الأول إزالة يلزمك أو ،الاختياري الأساسية الأكلمة مخطط **الكل مخطط** إضافة ب. السيناريو
no ذينفتب اهيف موقت يتلا ةحظللا يف. **لاصتالا طاقن نيوكت مدع** لالخ نم (CLI) رماوألا

bulkstats config، يتم حذف جميع المخططات الحالية في العقدة.

```
[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#
```

السيناريو ج. ثم واجهة سطر الأوامر مخطط تكوين البلاك ستات <url> تم تكوينه. تتم
إضافة جميع التكوينات والمخططات الموجودة في ملف التكوين إلى العقدة.

```
[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%,%localtzoffset%,%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%,%servert
ype%,%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-accpt-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-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%,

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-
curaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-
curaaaacctitemsmax%,%sess-curaaabuffused%,%sess-curaaabuffmax%,%sess-ttlaaacancauth%,%sess-
ttlaaaacctpurged%,%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-ttlradacctreq%,%aaa-ttlradacctcancelled%,%aaa-
ttlradacctpurged%,%aaa-ttlradacctreqretried%,%aaa-ttlradacctrspdropped%,%aaa-
ttlmgrpurgedrequests%,%diamauth-msg-mareq%,%diamauth-msg-maans%,%diamauth-msg-
marretry%,%diamauth-msg-maatimeout%,%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%,%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%,

Info: 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%,

Info: 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%,

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-
curaaadeleting%,%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-maatimeout%,%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-
acpt-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#

يلاح ططخم ةلازإ ةلوادحم دنع .ةديدج تاططخم يأ ةفاضإ نكمي ال ،كلذ دعب .د ويرانيسلا
ال ،كلذ عمو .ىرخأ ةرم ةفاضإ نم نكمتت نل نكلو ططخملا فذح متي ،ىرخأ ةرم ةفاضإو
.(URL يف دوجوملا نيوكتلا فلم) نيوكتلا فلم ادوجوم يلاحلا ططخملا لازي

```
[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-
curaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-
curaaaacctitemsmax%,%sess-curaaabuffused%,%sess-curaaabuffmax%,%sess-ttlaaacancauth%,%sess-
ttlaaaacctpurged%,%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-maatimeout%,%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%,%servert
ype%,%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-accpt-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%,%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 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%,%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           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)# 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


 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-
curaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-
curaaaacctitemsmax%,%sess-curaaabuffused%,%sess-curaaabuffmax%,%sess-ttlaaacancauth%,%sess-
ttlaaaacctpurged%,%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-maatimeout%,%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%,%servert
ype%,%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-accpt-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%,%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 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-ttldisconn%,%sess-ttlhandoff%,%sess-
ttlrenewal%,%sess-ttlcallop%,%sess-ttlauthsucc%,%sess-ttlauthfail%,%sess-curaaaactive%,%sess-
curaaadeleting%,%sess-curaaaacctpending%,%sess-curaaaacctitemsused%,%sess-
curaaaacctitemsmax%,%sess-curaaabuffused%,%sess-curaaabuffmax%,%sess-ttlaaacancauth%,%sess-
ttlaaaacctpurged%,%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-maatimeout%,%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%,%servert
ype%,%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-accept-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%,%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 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#
```

ال، **مخطط** اختياري مفتاحية الكلمة تستخدمت ما كلما أسأستخدمت هي نتيجة متحققة إذا .E إذا السيناريو
يمكنك لا ولكن لا (العقدة من) حالية مخططات أي حذف يمكنك .جديدة مخططات أي إضافة يمكنك إضافة
في الموجودة التكوين ملف في الموجودة الحالية المخططات فإن ،ذلك ومع .أخرى مرة اهتفاضاً إضافة
<url>، لا التي تم إجراؤها في العقدة). التغييرات تتأثر بالتغييرات التي تم إجراؤها في العقدة).

الحل

1. يتم إستخدام **مخطط تكوين تنيين** واجهة سطر الأوامر <url>CLI bulkstat <url>، والذي يتجه هذه
   المشكلة بسبب.
2. وهي نتيجة متوقعة لكل تصميم، والتي تحصل عليها في حالة إستخدام **مخطط** كلمة
   أساسية إختياري.
3. هناك ثلاثة لحلول لهذه الحالة، وهي:
   A.الإزالة **مخطط تكوين** CLI Bulkstat <url> والتحكم في إضافة/حذف من المخططات من خلال موجه
   أوامر/واجهة سطر الأوامر اليدوية.

ب.لا استخدام **ملحق** مع أوامر سطر الأوامر. **ملحق** الكلمة الأساسية اختياري في واجهة سطر الأوامر مع
تاطاطخم إلى التكوين ملف في الموجودة المخططات إضافة يمكنك cli blkstat **تنيين تكوين**<url>
نكمي أيضا حالية مخططات وجديدة مخططات حذف/إضافة يمكنك. الحالة العقدة
(واجهة سطر الأوامر) CLI أمر موجه خلال من أخرى مرة اهتفاضاً/إضافة اهفذح.

c. الإضافة/حذف المخططات المطلوبة مباشرة في ملف ثم تكوين التكوين إعادة تحميل للتكوينات باستخدام no bulkstat config، بواسطة الأوامر (CLI) قم الأول بإزالة واجهة سطر الأوامر قم ملف التكوين باستخدام **مخطط** ثم قم بإضافة المخططات في ملف التكوين ثم قم بإضافتها مرة أخرى بواسطة مخطط إلى الإضافة المخططات في ملف التكوين، يمكنك اما القيام بذلك **تكوين** وحدات **التحكم url<**. إلى الإضافة المخططات في ملف التكوين SFTP بواسطة أو محرر vi باستخدام

مع المحرر السادس:

```
[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 هو مرة أخرى و قم بتحريره، وقم المحلي الأقراص صارخ محرك إلى url<> من تكوين ملف هو SFTP إلى url<>.

حول هذه الترجمة

ترجمت Cisco هذا المستند باستخدام مجموعة من التقنيات الآلية
والبشرية لتقديم دعم المستخدمين في جميع أنحاء العالم
بمحتوى مترجم. يُرجى ملاحظة أن أفضل ترجمة آلية لن تكون دقيقة كما
هو الحال مع الترجمة الاحترافية التي يقدمها مترجم محترف. تخلي Cisco
Systems مسؤوليتها عن دقة هذه الترجمات وتوصي بالرجوع دائمًا إلى
المستند الإنجليزي الأصلي (الرابط متوفر).