

# StarOSのBulkstatsスキーマおよび推奨回避策に関連するシナリオのトラブルシューティング

## 内容

[概要](#)

[前提条件](#)

[要件](#)

[使用するコンポーネント](#)

[背景説明](#)

[問題](#)

[テストシナリオ](#)

[解決方法](#)

## 概要

このドキュメントでは、StarOSでのbulkstatスキーマの追加と削除に関連するシナリオと、これらの問題に対する問題と推奨される回避策について説明します。

## 前提条件

### 要件

次の項目に関する知識があることが推奨されます。

- Linux
- StarOS

次の特権アクセス権が必要です。

- 隠しモードを使用してdebug shellを実行し、linux shellコマンドプロンプトにアクセスします。
- StarOSノードへのSecure File Transfer Protocol(SFTP)アクセス

### 使用するコンポーネント

このドキュメントの情報は、StarOSバージョン21.16.6.77063に基づいています。

このドキュメントの情報は、特定のラボ環境にあるデバイスに基づいて作成されました。このドキュメントで使用するすべてのデバイスは、初期（デフォルト）設定の状態から起動しています。本稼働中のネットワークでは、各コマンドによって起こる可能性がある影響を十分確認してください。

## 背景説明

1. bulkstatsに関連する設定を保存するようにコンフィギュレーションファイルを設定します。
2. コマンドの形式は次のとおりです。

```
configure

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

end
```

場所：

- オプションの**schema**キーワードを使用すると、提供されたファイルを使用してスキーマのみを置換し、サーバ設定を維持できます。
- オプションの**supplement**キーワードを使用すると、提供されたコンフィギュレーションファイルの内容で実行中のbulkstats設定を補完できます。これらのキーワードは、既存のファイルでのみ使用できます。
- URLは、bulkstatsコンフィギュレーションファイルの場所を指定します。

## 問題

CLIコマンドプロンプトを使用して、新しいスキーマを追加したり、現在のスキーマ ( 削除された場合 ) を再度追加することはできません。

## テストシナリオ

1. cli bulkstat config schema <URL>の使用により、この問題に直面しました。
2. オプションのキーワードスキーマを使用する場合は、設計ごとに期待される結果です。
3. 同じシナリオがラボでテストされました。成果は次のとおりです。  
シナリオA.最初は**bulkstat config <url>のCLIが設定されました。**

```
[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%, %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%, %rxdiscbytes%, %rxdiscpackets%, %txdiscbytes%, %txdiscpackets%, %rxerrorbytes%, %rxerrorpackets%, %txerrorbytes%, %txerrorpackets%,
port	portSch2	No	PPM, port, portSch2, %epochtime%, %localdate%, %localtime%, %uptime%, %card%, %port%, %frag-rcvd%, %pkt-reassembled%, %frag-tokenel%, %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#

シナリオB.オプションのキーワードschemaを追加するには、最初にbulkstat cliを削除する必要が

あります(bulkstats configを使用しないでください)。bulkstats configを実行しないと、ノード内のすべての現在のスキーマが削除されます。

```
[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#

シナリオC次にCLI **bulkstat config schema <url>** 設定されています。設定ファイルに存在するすべての設定とスキーマがノードに追加されます。

[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%,%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-ttlaaaaacctpurged%,%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-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-curaaaabuffused%,%sess-curaaaabuffmax%,%sess-ttlaaacanauth%,%sess-ttlaaacctpurged%,%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%,%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 schema diameter-authSch2 format 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 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%,%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 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%,

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#
```

シナリオD.その後、新しいスキーマを追加することはできません。現在のスキーマを削除して再度追加しようとする、スキーマは削除されますが、元に戻すことはできません。ただし、現在のスキーマは設定ファイル (URLに存在する設定ファイル) に残っています。

```
[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-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-

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-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-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%, %staans-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%, %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
```

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-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-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-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%,%staans-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-ttldisconnect%,%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-ttlaaacanauth%,%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-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-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%, %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#

シナリオE.そのため、オプションのキーワードを使用すると必ず結果が得られます スキーマ新しいスキーマは追加できません。現在のスキーマは ( ノードから ) 削除できますが、再度追加することはできません。ただし、設定ファイルに存在する現在のスキーマ ( <url>に存在する ) は、ノードで行われた変更の影響を受けません。

## 解決方法

1. cli bulkstat config **schema** <url>が使用され、この問題が発生しました。
2. これは設計ごとに期待される結果であり、オプションのキーワードschemaを使用すると得られます。
3. このケースには、次の3つのソリューションがあります。

A. cli bulkstat config schema <url>を削除し、手動cli/コマンド・プロンプトでスキーマの追加/削除を制御するには。

B. bulkstat config cliでオプションのキーワード**supplement**を使用するには。cli bulkstat config **supplement** <url>を使用して、構成ファイルに存在するスキーマを現在のノードのスキーマに追加できます。新しいスキーマの追加/削除や、現在のスキーマの削除/追加は、CLIコマンドプロンプトから行うこともできます。

C. 必要なスキーマを設定ファイルに直接追加/削除し、設定ファイルを使用して設定をリロードし

まず(最初にcliを削除して、**bulkstat config**を実行せずにCLIを削除し、その後**bulkstats config schema <url>**)。設定ファイルにスキーマを追加するには、viエディタを使用するか、SFTPを使用してファイルを追加します

viエディタ :

```
[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
```

設定ファイルを<url>からローカルドライブにSFTPして編集し、SFTPで<url>に戻します。