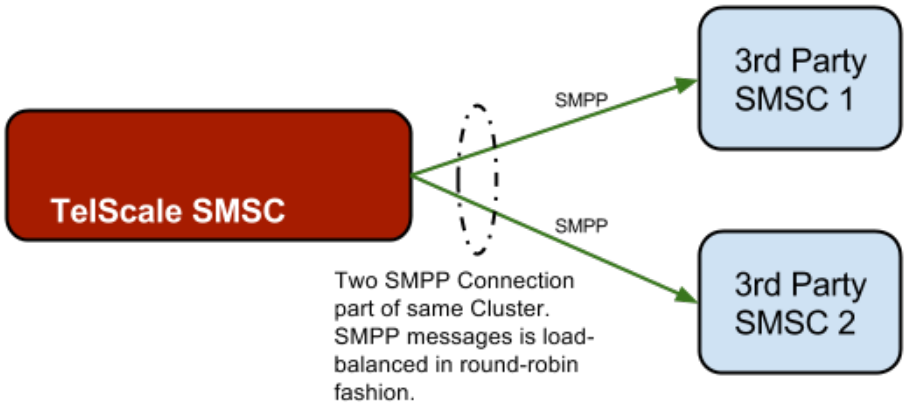
External Short Messaging Entities (ESMEs)

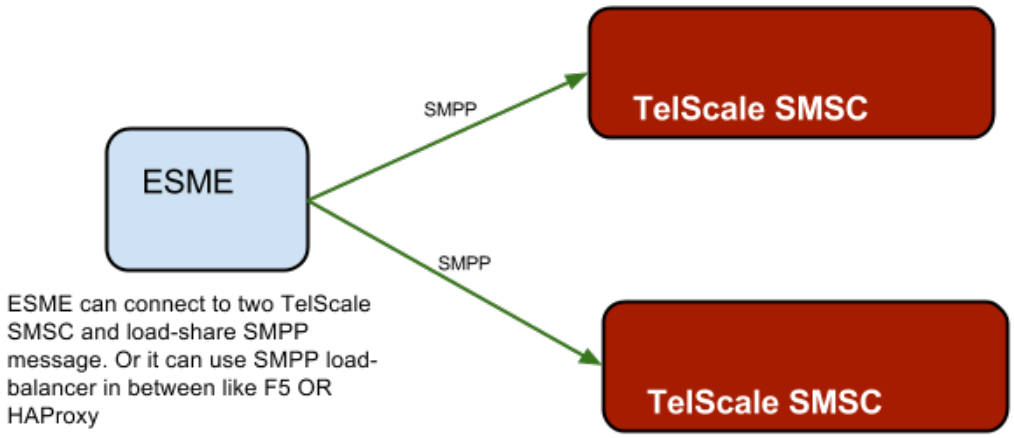
Table of Contents

&THIS.PLATFORM;&THIS.APPLICATION;can now act as ESME (initiate bind to remote SMSC) or can also act as SMSC (accept bind from remote ESME). While defining an ESME (SMPP connection), you can optionally pass the Cluster name. If it is not passed, cluster name is same as ESME name. As the name suggests, its now possible to group different ESMEs in the same cluster. This is useful only when SMS is suppose to be routed out of &THIS.PLATFORM;&THIS.APPLICATION;to ESME. If there are multiple ESME's in a cluster, the load is shared in a round robin fashion to send out SMS. In case if one of the ESME is in `UNBOUND` state, the next `BOUND` smpp connection (within same cluster) will be used. Below diagram explains the load-balancing between SMPP connections

Case 1 : SMSC acting as CLIENT



Case 2 : SMSC acting as SERVER



Case 3 : SMSC acting as SERVER - Load balancing via HAProxy

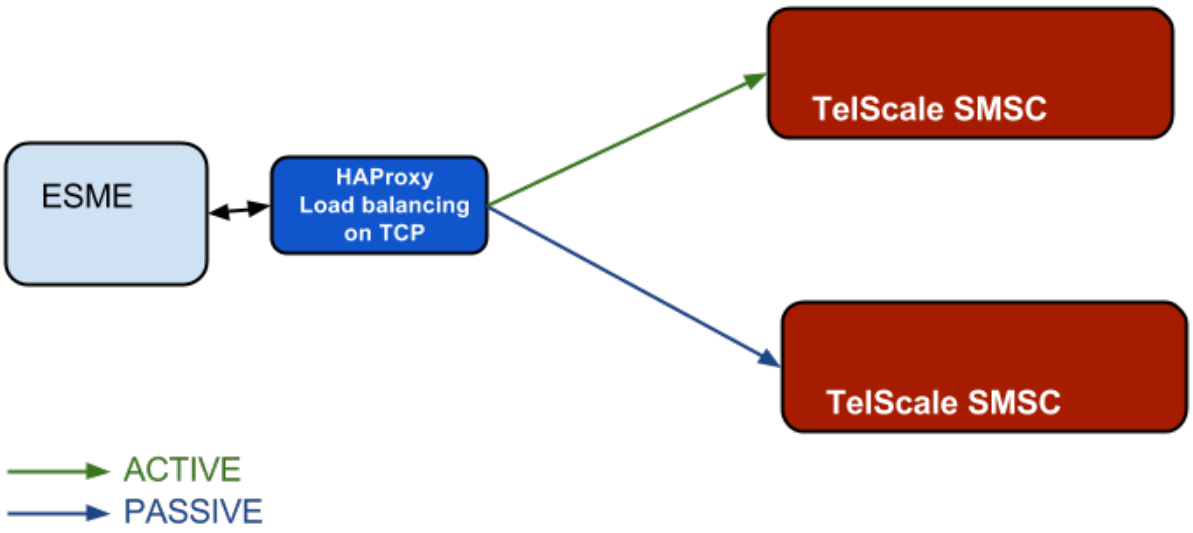


Figure 1. SMPP Load Balancing

You can define multiple ESMEs, each with a unique name but the same `systemId` and declare their `host-ip` and `port` values as -1 (only for SMPP type Server). The SMSC will now accept multiple incoming BIND requests from any `IP` and any `port` as far as the `systemId` and `Password` matches.

Alternatively, if you declare a real value for `host-ip`(say for example 10.199.7.23) and `port` as -1, the SMSC will accept as many BINDS as ESMEs defined from the specified IP but any port as far as the `systemId` and `Password` matches.

Create new ESME

Using CLI

You can configure a new ESME by issuing the command ` smpp esme create` with appropriate parameters as described below.

```
Name
    smpp esme create

SYNOPSIS
    smpp esme create name <systemId> <host-ip> <port> <SmppBindType>
    <SmppSession.Type> password <password> networkid <networkId>
    system-type <sms | vms | ota >
    interface-version <3.3 | 3.4 | 5.0> esme-ton <esme address ton>
    esme-npi <esme address npi> esme-range <esme address range>
    cluster-name <clusterName> window-size <windowSize>
    connect-timeout <connectTimeout> request-expiry-timeout <requestExpiryTimeout>
    window-monitor-interval <windowMonitorInterval>
    window-wait-timeout <windowWaitTimeout> counters-enabled <true | false>
    enquire-link-delay <30000> charging-enabled <true | false>
    source-ton <source address ton> source-npi <source address npi>
    source-range <source address range> routing-ton <routing address ton>
    routing-npi <routing address npi> routing-range <routing address range>
    ratelimit-second <ratelimitsecond> ratelimit-minute <ratelimitminute>
    ratelimit-hour <ratelimithour> ratelimit-day <ratelimitday>
    min-message-length <min-message-length value>
    max-message-length <max-message-length value>
    national-language-locking-shift <NationalLanguageIdentifier value>
    national-language-single-shift <NationalLanguageIdentifier value>

DESCRIPTION
    This command is used to configure a new ESME.

PARAMETERS
```

```
Standard Parameters

Name            - A unique name for this ESME configuration. You can
                define as many ESMEs as you want as far as the name is
                unique and the combination of
                SystemId:host-ip:port:SmppBindType is unique.

System Id       - This is used to identify an ESME or an SMSC at bind
                time. An 'ESME system_id' identifies the ESME or ESME
                agent to the SMSC. The 'SMSC system_id' provides an
                identification of the SMSC to the ESME. You can define
                multiple ESMEs, each with a unique name but the same
                <literal>systemId<literal> to allow anonymous incoming
                binds and multiple binds from the same IP depending on
                the values specified for host-ip and port.

host-ip & port      - If the SMSC is acting as an ESME, the BIND request will
                be sent to the configured IP and Port. If the SMSC is
                acting as a Server, it will accept incoming BIND
                requests from the specified IP and Port.
                If the port is unknown, you must pass '-1' as wild
                character.

                When you define multiple ESMEs with the same systemId,if
                host-ip and port values are -1 (for SMPP type Server),
                the SMSC will accept multiple incoming BIND requests
                    from any IP:port as long as the systemId and password
                match.

                When you define multiple ESMEs with the same systemId,if
                host-ip is a real value (a specific IP) and port value
                is -1, the SMSC will accept as many BINDS as ESMEs
                defined from the specified IP but any port as long as
                the systemId and password match.

SmppBindType        - Possible values: TRANSCEIVER, TRANSMITTER or RECEIVER.
                If the SMSC is acting as an ESME, it will initiate
                corresponding bind. If the SMSC is acting as a Server,
                it will accept corresponding bind from a remote ESME.

SmppSession.Type    - Possible values: SERVER or CLIENT.
                If the value is 'SERVER', the SMSC acts as a Server
                listening for incoming SMPP binds.
                If the value is 'CLIENT', the SMSC will initiate
                SMPP bind to a remote Server.

Optional Parameters

Password        - It is used by the SMSC to authenticate the identity of
                the binding ESME. The Service Provider may require
                ESME's to provide a password when binding to the SMSC.
```

```
networkId       - indicates virtual subnetwork that this ESME belongs. SMS
                  flows within same netwrokId, unless changed using mproc
                  (this is for multi-tenancy support). If this parameter is
                  skipped - networkId will be set to "0" when ESME creation.
                  If you do not use multi-tenancy support - set this value
                  to 0 or skip.

system-type         - Default value is null.
              This is used to categorize the type of ESME that is
              binding to the SMSC.

interface-version   - Default value is 3.4.

              It is used to indicate the version of the SMPP protocol.

              It is set in 'SMPPServer Settings'.

esme-ton        - Defines ESME TON. If the SMPP Session Type is CLIENT,
              this TON will be used in the BIND request. If the SMPP
              Session Type is SERVER, the incoming BIND request should
              have the same TON as configured here. If the configured
              value is null (-1), SMSC will ignore it in both cases.

esme-npi        - Defines ESME NPI. If the SMPP Session Type is CLIENT,
              this NPI will be used in the BIND request. If the SMPP
              Session Type is SERVER, the incoming BIND request should
              have the same NPI as configured here. If the configured
              value is null (-1), SMSC will ignore it in both cases.

esme-range      - Defines ESME Address Range. If the SMPP Session Type is
              CLIENT, this Address Range will be used in the BIND
              request. If the SMPP Session Type is SERVER, the
              incoming BIND request should have the same Address Range
              as configured here. If the configured value is
              null (-1), SMSC will ignore it in both cases.

cluster-name        - If it is not specified then its same as the name.
              It is possible to group different SMPP connections
              together by specifying the same cluster-name.
              All the SMPP connection's that are capable of sending
              out SMS are candidates for grouping.

window-size         - Default value is 1.
              The window size is the amount of unacknowledged requests
              that are permitted to be outstanding/unacknowledged at
              any given time. If more requests are added, the
              underlying stack will throw an exception.

              This value is set only when ESME is defined as Client
              side. For Server side this value is taken from the
```

```
                'SMPP Server Settings'.

    connect-timeout     - Default value is 10000 milli seconds.
                This parameter is used to specify the time within which
                the connection to a remote SMSC server should be
                established.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

    request-expiry-timeout  - Default value is -1 (disabled).
                This parameter is used to specify the time to wait in
                milli seconds for an endpoint to respond to before it
                expires.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

    window-monitor-interval - Default value is -1 (disabled).
                This parameter is used to specify the time between
                executions of monitoring the window for requests that
                expire. It is recommended that this value, generally,
                either matches or is half the value of
                'request-expiry-timeout'. Therefore, in the worst case
                scenario, a request could take upto 1.5 times the
                'requestExpiryTimeout' to clear out.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

    window-wait-timeout     - Default value is 60000 milli seconds.
                This parameter is used to specify the time to wait
                until a slot opens up in the 'sendWindow'.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

    counters-enabled    - Default value is true.
                When this is enabled, SMSC exposes the statistics for
                SMPP connections.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

    enquire-link-delay  - Default value is 30000 milli seconds.
                When SMSC connects to a remote server as CLIENT, it
```

```
                sends an 'ENQUIRE_LINK' after every configured
                enquire-link-delay.

    charging-enabled    - Flag to enable or disable charging for every SMS
                arriving from SIP.

    source-ton      - Every SMS coming into the SMSC via this ESME should have
                the same 'source_addr_ton' as the value configured here.

                If this configured value is null(-1) or not null and
                matches, the SMSC will compare the
                'source_addr_npi' and 'source_addr_range' as explained
                below.

                If it doesn't match, the SMSC will reject this SMS with
                an error code '0x0000000A' indicating
                Invalid Source Address.

    source-npi      - Every SMS coming into the SMSC via this ESME should have
                the same 'source_addr_npi' as the value configured here.
                configured here.

                If this configured value is null(-1)
                or not null and matches, the SMSC will compare the
                'source_addr_range' as below.

                If it doesn't match, the SMSC will reject this
                SMS with an error code '0x0000000A' indicating
                Invalid Source Address.

    source-range        - Every SMS coming into the SMSC via this ESME should have
                the same 'source_addr_range' as the value configured
                here.This is a regular java expression and
                default value is ^[0-9a-zA-Z]*.

                If it matches, the SMSC will accept the incoming SMS
                and process further.

                If it doesn't match, the SMSC will reject this
                SMS with an error code '0x0000000A' indicating
                Invalid Source Address.

    routing-ton     - The DefaultSmsRoutingRule will try to match the
                'dest_addr_ton' of outgoing SMS with the value
                configured here. If this configured value is null(-1)
                or not null and matches, the SMSC will compare the
                'dest_addr_npi' and 'destination_addr' as explained
                below. If it doesn't match, the SMSC will select the
                next ESME in the list for matching routing rule.

                DefaultSmsRoutingRule will consider ESME for routing
```

```
                only if
                1) SmppBindType is TRANSCEIVER
                2) SmppBindType is RECEIVER and
                SmppSession.Type is SERVER
                3) SmppBindType is TRANSMITTER and
                SmppSession.Type is CLIENT

routing-npi     - The DefaultSmsRoutingRule will try to match the
                'dest_addr_npi' of outgoing SMS with the value
                configured here. If this configured value is null(-1)
                or not null and matches, the SMSC will compare the
                'destination_addr' as below. If it doesn't match, the
                SMSC will select the next ESME in the list for matching
                routing rule.

                DefaultSmsRoutingRule will consider ESME for routing
                only if
                1) SmppBindType is TRANSCEIVER
                2) SmppBindType is RECEIVER and
                SmppSession.Type is SERVER
                3) SmppBindType is TRANSMITTER and
                SmppSession.Type is CLIENT

routing-range       - The DefaultSmsRoutingRule will try to match the
                'destination_addr' of outgoing SMS with the value
                configured here. This is a regular java expression and
                default value is ^[0-9a-zA-Z]*. If it matches, the SMSC
                will send the SMS out over this SMPP connection. If it
                doesn't match, the SMSC will select the next ESME in
                the list for matching routing rule.

                DefaultSmsRoutingRule will consider ESME for routing
                only if
                1) SmppBindType is TRANSCEIVER
                2) SmppBindType is RECEIVER and
                SmppSession.Type is SERVER
                3) SmppBindType is TRANSMITTER and
                SmppSession.Type is CLIENT

ratelimit_second    - This parameter is used to specify a maximum limit
                  of messages that the SMSC will accept from this ESME
                  during any one second.

                  If the ESME sends more messages (per second)
                  than the maximum limit specified by 'ratelimit_second',
                  these additional messages will be rejected by the
                  SMSC GW along with an error code - "throttled".

                  The default value for this parameter is "0" and it
                  implies "no restrictions". If this parameter is not
                  specified it implies "no restrictions".
```

```
ratelimit_minute    - This parameter is used to specify a maximum limit
                of messages that the SMSC will accept from this ESME
                during any one minute.

                If the ESME sends more messages (per minute)
                than the maximum limit specified by 'ratelimit_minute',
                these additional messages will be rejected by the
                SMSC GW along with an error code - "throttled".

                The default value for this parameter is "0" and it
                implies "no restrictions". If this parameter is not
                specified it implies "no restrictions".

ratelimit_hour    - This parameter is used to specify a maximum limit
                of messages that the SMSC will accept from this ESME
                during any one hour.

                If the ESME sends more messages (per hour)
                than the maximum limit specified by 'ratelimit_hour',
                these additional messages will be rejected by the
                SMSC GW along with an error code - "throttled".

                The default value for this parameter is "0" and it
                implies "no restrictions". If this parameter is not
                specified it implies "no restrictions".

ratelimit_day    - This parameter is used to specify a maximum limit
                of messages that the SMSC will accept from this ESME
                during any one day.

                If the ESME sends more messages (per day)
                than the maximum limit specified by 'ratelimit_day',
                these additional messages will be rejected by the
                SMSC GW along with an error code - "throttled".

                The default value for this parameter is "0" and it
                implies "no restrictions". If this parameter is not
                specified it implies "no restrictions".

min-message-length    - This paramter is used to specify the minimum
                message length (in characters) acceptable to
                the SMSC GW, for messages coming from this ESME.

                If an incoming message length is less than the
                min-message-length it will be rejected by SMSC GW.

                The default value for this parameter is "-1" and it
                implies "no limitations". Any other negative value
                also implies "no limitations".
```

```
max-message-length    - This paramter is used to specify the maximum
                message length (in characters) acceptable to
                the SMSC GW, for messages coming from this ESME.

                If an incoming message length is more than the
                max-message-length it will be rejected by SMSC GW.

                The default value for this parameter is "-1" and it
                implies "no limitations". Any other negative value
                also implies "no limitations".

national-language-locking-shift - National language locking shift
                table can be configured for messages that have come
                via SMPP (this ESME), do not have UDHs inside and
                have GSM7 encoding (DCS==0).
                The default GSM data coding table is mostly used.
                Possible values:
                = 0: default GSM data coding table
                = 13: urdu (arabic) national language shift table
                =1: the national language locking shift value must
                be obtained from the option
                national-language-locking-shift that is defined at
                SMSC GW general level.

national-language-single-shift - National language single shift
                table can be configured for messages that have come
                via SMPP (this ESME), do not have UDHs inside and
                have GSM7 encoding (DCS==0).
                The default GSM data coding table is mostly used.
                Possible values:
                = 0: default GSM data coding table
                = 13: urdu (arabic) national language single table
                =1: the national language locking shift value must
                be obtained from the option
                national-language-locking-single that is defined at
                SMSC GW general level.
```

Using GUI

Procedure: Create new ESME using GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.
2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete, update) for each row. Below this you will find the button 'Create ESME'.
3. You can create a new ESME by launching the 'Create ESME' window by clicking on the blue coloured 'Create ESME' button. The 'Create ESME' window will display all ESME paramters that must be defined by you. For more details of these parameters please refer to the descriptions of the CLI commands for the same in the preceding section.

4. Enter appropriate values for all the parameters and then click on the 'Create' button at the bottom of this 'Create ESME' window. This action will create a new ESME with parameters as defined by you.
5. If there is an error in defining the ESME, then you will find the details of the error in the Management Console Log section below.

Modify ESME

Using CLI

You can modify an existing ESME by issuing the command `smpp esme modify` with appropriate parameters as described below.

```
Name
    smpp esme modify

SYNOPSIS
    smpp esme modify <name> password <Specify new password>
    networkid <networkId>
    esme-ton <esme address ton> esme-npi <esme address npi>
    esme-range <esme address range> window-size <windowSize>
    connect-timeout <connectTimeout> request-expiry-timeout <requestExpiryTimeout>
    window-monitor-interval <windowMonitorInterval>
    window-wait-timeout <windowWaitTimeout> counters-enabled <true | false>
    enquire-link-delay <30000> charging-enabled <true | false>
    source-ton <source address ton> source-npi <source address npi>
    source-range <source address range> routing-ton <routing address ton>
    routing-npi <routing address npi> routing-range <routing address range>
    ratelimit-second <ratelimitsecond> ratelimit-minute <ratelimitminute>
    ratelimit-hour <ratelimithour> ratelimit-day <ratelimitday>
    min-message-length <min-message-length value>
    max-message-length <max-message-length value>
    national-language-locking-shift <NationalLanguageIdentifier value>
    national-language-single-shift <NationalLanguageIdentifier value>

DESCRIPTION
    This command is used to modify the settings of an existing ESME configuration.

PARAMETERS

    Standard Parameters

    Name            - The name of the ESME that is being modified.

    Optional Parameters

    Password        - Specify the new password.
                  It is used by the SMSC to authenticate the identity of
```

```
                the binding ESME. The Service Provider may require
                ESMEs to provide a password when binding to the SMSC.

                The new value takes effect when SMPP is restarted.

networkId         - indicates virtual subnetwork that this ESME belongs. SMS
                  flows within same netwrokId, unless changed using mproc
                  (this is for multi-tenancy support). If this parameter is
                  skipped - networkId will be set to "0" when ESME creation.
                  If you do not use multi-tenancy support - set this value
                  to 0 or skip.

esme-ton          - Specify new ESME TON.
                If the SMPP Session Type is CLIENT,
                this TON will be used in the BIND request. If the SMPP
                Session Type is SERVER, the incoming BIND request should
                have the same TON as configured here. If the configured
                value is null (-1), SMSC will ignore it in both cases.

                The new value takes effect when SMPP is restarted.

esme-npi          - Specify new ESME NPI.
                If the SMPP Session Type is CLIENT,
                this NPI will be used in the BIND request. If the SMPP
                Session Type is SERVER, the incoming BIND request should
                have the same NPI as configured here. If the configured
                value is null (-1), SMSC will ignore it in both cases.

                The new value takes effect when SMPP is restarted.

esme-range        - Specify ESME Address Range.
                If the SMPP Session Type is
                CLIENT, this Address Range will be used in the BIND
                request. If the SMPP Session Type is SERVER, the
                incoming BIND request should have the same Address Range
                as configured here. If the configured value is
                null (-1), SMSC will ignore it in both cases.

                The new value takes effect when SMPP is restarted.

window-size           - Specify new window size.
                Default value is 1.
                The window size is the amount of unacknowledged requests
                that are permitted to be outstanding/unacknowledged at
                any given time. If more requests are added, the
                underlying stack will throw an exception.

                This value is set only when ESME is defined as Client
                side. For Server side this value is taken from the
                'SMPP Server Settings'.
```

```
                The new value takes effect when SMPP is restarted.

    connect-timeout     - Default value is 10000 milli seconds.
                This parameter is used to specify the time within which
                the connection to a remote SMSC server should be
                established.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

                The new value takes effect when SMPP is restarted.

    request-expiry-timeout  - Default value is -1 (disabled).
                This parameter is used to specify the time to wait in
                milli seconds for an endpoint to respond to before it
                expires.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

                The new value takes effect when SMPP is restarted.

    window-monitor-interval - Default value is -1 (disabled).
                This parameter is used to specify the time between
                executions of monitoring the window for requests that
                expire. It is recommended that this value, generally,
                either matches or is half the value of
                'request-expiry-timeout'. Therefore, in the worst case
                scenario, a request could take upto 1.5 times the
                'requestExpiryTimeout' to clear out.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

                The new value takes effect when SMPP is restarted.

    window-wait-timeout     - Default value is 60000 milli seconds.
                This parameter is used to specify the time to wait
                until a slot opens up in the 'sendWindow'.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

                The new value takes effect when SMPP is restarted.

    counters-enabled    - Default value is true.
                When this is enabled, SMSC exposes the statistics for
```

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                SMPP connections.

                This is useful only when ESME is defined as Client Side.
                For Server side this value is taken from the
                the 'SMPP Server Settings'.

                The new value takes effect when SMPP is restarted.

    enquire-link-delay  - Default value is 30000 milli seconds.
                When SMSC connects to a remote server as CLIENT, it
                sends an 'ENQUIRE_LINK' after every configured
                enquire-link-delay.

                The new value takes effect immediately.

    charging-enabled    - Flag to enable or disable charging for every SMS
                arriving from SIP.

                The new value takes effect immediately.

    source-ton      - Every SMS coming into the SMSC via this ESME should have
                the same 'source_addr_ton' as the value configured here.

                If this configured value is null(-1) or not null and
                matches, the SMSC will compare the
                'source_addr_npi' and 'source_addr_range' as explained
                below.

                If it doesn't match, the SMSC will reject this SMS with
                an error code '0x0000000A' indicating
                Invalid Source Address.

                The new value takes effect immediately.

    source-npi      - Every SMS coming into the SMSC via this ESME should have
                the same 'source_addr_npi' as the value configured here.
                configured here.

                If this configured value is null(-1)
                or not null and matches, the SMSC will compare the
                'source_addr_range' as below.

                If it doesn't match, the SMSC will reject this
                SMS with an error code '0x0000000A' indicating
                Invalid Source Address.

                The new value takes effect immediately.

    source-range        - Every SMS coming into the SMSC via this ESME should have
                the same 'source_addr_range' as the value configured
                here.This is a regular java expression and
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```
                default value is ^[0-9a-zA-Z]*.

                If it matches, the SMSC will accept the incoming SMS
                and process further.

                If it doesn't match, the SMSC will reject this
                SMS with an error code '0x0000000A' indicating
                Invalid Source Address.

                The new value takes effect immediately.

    routing-ton     - The DefaultSmsRoutingRule will try to match the
                'dest_addr_ton' of outgoing SMS with the value
                configured here. If this configured value is null(-1)
                or not null and matches, the SMSC will compare the
                'dest_addr_npi' and 'destination_addr' as explained
                below. If it doesn't match, the SMSC will select the
                next ESME in the list for matching routing rule.

                DefaultSmsRoutingRule will consider ESME for routing
                only if
                1) SmppBindType is TRANSCEIVER
                2) SmppBindType is RECEIVER and
                SmppSession.Type is SERVER
                3) SmppBindType is TRANSMITTER and
                SmppSession.Type is CLIENT

                The new value takes effect immediately.

    routing-npi     - The DefaultSmsRoutingRule will try to match the
                'dest_addr_npi' of outgoing SMS with the value
                configured here. If this configured value is null(-1)
                or not null and matches, the SMSC will compare the
                'destination_addr' as below. If it doesn't match, the
                SMSC will select the next ESME in the list for matching
                routing rule.

                DefaultSmsRoutingRule will consider ESME for routing
                only if
                1) SmppBindType is TRANSCEIVER
                2) SmppBindType is RECEIVER and
                SmppSession.Type is SERVER
                3) SmppBindType is TRANSMITTER and
                SmppSession.Type is CLIENT

                The new value takes effect immediately.

    routing-range       - The DefaultSmsRoutingRule will try to match the
                'destination_addr' of outgoing SMS with the value
                configured here. This is a regular java expression and
                default value is ^[0-9a-zA-Z]*. If it matches, the SMSC
```

```
                will send the SMS out over this SMPP connection. If it
                doesn't match, the SMSC will select the next ESME in
                the list for matching routing rule.

                DefaultSmsRoutingRule will consider ESME for routing
                only if
                1) SmppBindType is TRANSCEIVER
                2) SmppBindType is RECEIVER and
                SmppSession.Type is SERVER
                3) SmppBindType is TRANSMITTER and
                SmppSession.Type is CLIENT

                The new value takes effect immediately.

    ratelimit_second    - This parameter is used to specify a maximum limit
                    of messages that the SMSC will accept from this ESME
                    during any one second.

                    If the ESME sends more messages (per second)
                    than the maximum limit specified by 'ratelimit_second',
                    these additional messages will be rejected by the
                    SMSC GW along with an error code - "throttled".

                    The default value for this parameter is "0" and it
                    implies "no restrictions". If this parameter is not
                    specified it implies "no restrictions".

    ratelimit_minute    - This parameter is used to specify a maximum limit
                    of messages that the SMSC will accept from this ESME
                    during any one minute.

                    If the ESME sends more messages (per minute)
                    than the maximum limit specified by 'ratelimit_minute',
                    these additional messages will be rejected by the
                    SMSC GW along with an error code - "throttled".

                    The default value for this parameter is "0" and it
                    implies "no restrictions". If this parameter is not
                    specified it implies "no restrictions".

    ratelimit_hour    - This parameter is used to specify a maximum limit
                    of messages that the SMSC will accept from this ESME
                    during any one hour.

                    If the ESME sends more messages (per hour)
                    than the maximum limit specified by 'ratelimit_hour',
                    these additional messages will be rejected by the
                    SMSC GW along with an error code - "throttled".

                    The default value for this parameter is "0" and it
                    implies "no restrictions". If this parameter is not
```

```
                    specified it implies "no restrictions".

    ratelimit_day    - This parameter is used to specify a maximum limit
                    of messages that the SMSC will accept from this ESME
                    during any one day.

                    If the ESME sends more messages (per day)
                    than the maximum limit specified by 'ratelimit_day',
                    these additional messages will be rejected by the
                    SMSC GW along with an error code - "throttled".

                    The default value for this parameter is "0" and it
                    implies "no restrictions". If this parameter is not
                    specified it implies "no restrictions".

    min-message-length    - This paramter is used to specify the minimum
                    message length (in characters) acceptable to
                    the SMSC GW, for messages coming from this ESME.

                    If an incoming message length is less than the
                    min-message-length it will be rejected by SMSC GW.

                    The default value for this parameter is "-1" and it
                    implies "no limitations". Any other negative value
                    also implies "no limitations".

    max-message-length    - This paramter is used to specify the maximum
                    message length (in characters) acceptable to
                    the SMSC GW, for messages coming from this ESME.

                    If an incoming message length is more than the
                    max-message-length it will be rejected by SMSC GW.

                    The default value for this parameter is "-1" and it
                    implies "no limitations". Any other negative value
                    also implies "no limitations".

SEE ALSO
    smsc get scgt, smsc set scgt, smsc get scssn, smsc set scssn, smsc get hlrssn,
    smsc set hlrssn, smsc get mscssn, smsc set mscssn, smsc get maxmapv,
    smsc set maxmapv, smpp esme create
```

Using GUI

Procedure: Modify an existing ESME using GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.
2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete, update) for each row.

3. You can update an existing by launching the 'ESME <name> properties' window by clicking on the blue coloured 'Update ESME' button. The 'ESME <name> properties' window will display all ESME paramters that can be updated by you. For more details of these parameters please refer to the descriptions of the CLI commands for the same in the preceding section.

   ESME can be setup for SSL so every connection request should first do SSL hand-shake. Settingup SSL is only possible from GUI. After creating the ESME, users can edit property and enable SSL.

   

   Only CLIENT ESME's (one that sends BIND request) can be enabled for SSL.

4. Update appropriate values for all the parameters and then click on the 'Close' button. This action will modify a new ESME with parameters as defined by you.
5. If there is an error in defining the ESME, then you will find the details of the error in the Management Console Log section below.

View ESME Details

Using CLI

You can view the details of all configured ESMEs by issuing the command `smpp esme show` as described below.

```
Name
    smpp esme show

SYNOPSIS
    smpp esme show

DESCRIPTION
    This command is used to list all configured ESMEs.
```

Using GUI

Procedure: View ESME using the GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.
2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete) for each row.
3. You can view the details of an ESME by clicking on the row corresponding to the ESME. All relevant details of the ESME will be displayed in an expanded format.

Delete an existing ESME

Using CLI

You can delete any ESME by issuing the command `smpp esme delete` with appropriate parameters as described below.

```
Name
    smpp esme delete

SYNOPSIS
    smpp esme delete <esmeName>

DESCRIPTION
    This command is used to delete an existing ESME.

PARAMETERS
    esmeName        - Name of the ESME to be destroyed.
```

Using GUI

Procedure: Delete ESME using the GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.
2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete) for each row.
3. To delete an existing ESME click on the delete icon marked 'x' in red, for the row corresponding to the ESME. You can delete an ESME only if it is stopped.

Start ESME

Using CLI

You can start an ESME by issuing the command `smpp esme start` with appropriate parameters as described below.

```
Name
    smpp esme start

SYNOPSIS
    smpp esme start <esmeName>

DESCRIPTION
    This command is used to start an existing ESME.

PARAMETERS
    esmeName        - Name of the ESME to be started.
```

Using GUI

Procedure: Start ESME using the GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.
2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete) for each row.
3. To start an existing ESME click on the start icon lit in green, for the row corresponding to the ESME. You can start an ESME only if it is currently stopped.

Stop ESME

Using CLI

You can stop an ESME by issuing the command `smpp esme stop` with appropriate parameters as described below.

```
Name
    smpp esme stop

SYNOPSIS

DESCRIPTION
    This command is used to stop an already running ESME.

PARAMETERS
    esmeName        - Name of the ESME to be stopped.
```

Using GUI

Procedure: Stop ESME using the GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.

2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete) for each row.
3. To stop an ESME click on the stop icon lit in red, for the row corresponding to the ESME. You can stop an ESME only if it is currently running.

Other ESME Operations

Using GUI

You can perform more operations in the GUI for any configured ESME. You can enable/disable Log Bytes and Log Pdu, dump window and reset counters.

Procedure: Other ESME Operations using the GUI

1. In the GUI Management Console for SMSC Gateway, click on 'ESMEs' in the left panel.
2. The main panel will display the existing ESMEs (if any), one each in a row with corresponding actions (start, stop, delete) for each row.
3. You can view the details of an ESME by clicking on the row corresponding to the ESME. All relevant details of the ESME will be displayed in an expanded format.
4. At the bottom of this expanded display you will find 6 buttons allowing you to perform the operations DisableLogBytes, DisableLogPdu, DumpWindow, EnableLogBytes, EnableLogPdu and ResetCounters.