Proxy throttling - RLPT event

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Report_login_proxyconn_throttling

Once login lookup finishes and we determine that we will have to proxy this login we create proxy task. Once created, proxy task has to pass through several phases in order to be scheduled for proxy. Time that each proxy task spends while waiting depends on multiple factors, like number of proxy tasks for that server, total number of task (all servers), number of running tasks etc.

Proxy connection states

Once task is created, we call start proxy on it. This task looks up global hash table which contains all tasks for this server. Based number of tasks queued for this server proxy task can end up in either: Pending state, Dispatching state or Finish State.

Pending State

Proxy task is placed in FIFO queue since number of running task for this server is reached.

Dispaching state

Number of running task is below maximum, hance we move this task into dispatch pool. Once task is in dispatch pool it waits for one of worker threads to pick it up. Since this pool is shared between all server on gateway time when some tasks will be picked up by worker thread depends on size of the pool.

Finished state

When thread picks up new task it opens connection to BE, sends pre login/login/ssl etc., and then moves task to finished state. When finished, we immediately trace p_l_f (Proxy Login Finish) and remove this task from dispach pool. In addition to removing, we try to add some of pending tasks for this server to dispatch pool.

Columns to check in Monlogin

- **connection_id:** used to corelate
- **logical_server_name:** server name to which we are proxying. Used for hashtable lookup

- **total_task_count:** Number of proxy task for logical_server_name. Number of tasks ~ number of pending + number in dispach pool
- **open_running_count**: Number of tasks in dispatch pool
- **dispach_pool_size:** Size of dispach pool. Size is ~ total_task_count for each logical_server_name
- **sni_conn_count:** Number of SNI connections. You can estimate that number connections are sni_conn_count / 2 (since each proxy connection takes two connections CLI -> GW and GW -> SQL)
- t**dsproxycontainer_count:** These should be number of connections proxied but I'm not sure...
- **tdssession_count:** Maximal number of tds sessions NOT used (actual TDS session is 64k - tdssession_count)

How good have you found this content?

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