Connectivity - SniReadTimeout

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Contents

Triage

This is typically a client side error involving high application CPU usage resulting in client taking > 5s to respond to a pre-login ack sent by server. After 5s, the connection is forcibly killed by the service to prevent trickle attacks.

Customer Canned RCA

As a protection, Azure SQL Database endpoints forcibly terminate connections when the client login packets take several seconds to arrive to our service. The most likely cause of this problem is high resource contention on client VMs (CPU, threads, memory) causing clients to send packets much slower than normal. In rare instances, this issue is caused by intermittent network latency.

From our telemetry, we have found that most of the cases where this error condition is hit happens while the client is processing the TLS handshake. Typically, this pattern indicates high single-core CPU pressure on the client VM.

Detection

Sample client side error msg:

- System.Data.SqlClient.SqlException (0x80131904): A connection was successfully established with the server, but then an error occurred during the login process. (provider: SSL Provider, error: 0 - An existing connection was forcibly closed by the remote host.) ---> System.ComponentModel.Win32Exception (0x80004005): An existing connection was forcibly closed by the remote host

- Prelogin timeouts

Mitigation

If the issue persists after customer resource reduction, start network troubleshooting (Azure SQL Connectivity Checker, engage CloudNet team) as packet loss might be happening.

How good have you found this content?