Ruby trunk - Feature #15215

HTTPS server name indication (SNI): explicit server_name in Net::HTTP

10/07/2018 09:20 AM - aspettl (Aaron Spettl)

Status:	Open	
Priority:	Normal	
Assignee:		
Target version:		

Description

Current behavior and problem:
At the moment, the host name or IP address given in the URL is used to provide the server name for SNI in HTTPS connections. While this behavior is sufficient in most cases, establishing a connection to a fixed IP using a certain server name is not possible.

Proposed solution:
Decouple the server name used for SNI from the address used for connecting. Add a new ssl_server_name attribute in Net::HTTP that defaults to the address (so the default behavior stays exactly the same).

Notes

- There are scenarios where a client would like to select a specific host when e.g. DNS round robin is configured. Examples: fallback strategies, monitoring of individual hosts.
- This has nothing to do with the HTTP "Host" header, which one needs to set additionally.

For my "proposed solution", a patch is attached (or see https://github.com/ruby/ruby/pull/1977).
Please let me know about any ideas for improvement or other approaches, thanks!

History

#1 - 10/07/2018 09:45 AM - aspettl (Aaron Spettl)

aspettl (Aaron Spettl) wrote:

> **Proposed solution:**
> Decouple the server name used for SNI from the address used for connecting. Add a new ssl_server_name attribute in Net::HTTP that defaults to the address (so the default behavior stays exactly the same).

One comment on a corner case:
When ssl_server_name is set, then it is always used for verifying the certificate - even when OpenSSL is old and does not support SNI yet. In such a case, the certificate presented by the server will not match probably (and, thus, verification fails). I think this is desired behavior.

#2 - 12/16/2018 06:53 PM - aspettl (Aaron Spettl)

I still like to have this feature. Any opinion on this? Especially naruse (Yui NARUSE) as a maintainer of lib/net/http(s).rb?

Thanks!

Files

ssl_server_name.patch	2.17 KB	10/07/2018	aspettl (Aaron Spettl)