

Technologies used:

AWS Cloud services

- EC2 server
- RDS server

Protocols Used:

- Http(s) (port 80 and 443)
 - HTTP: hypertext transfer protocol This protocol is used by sites
 - HTTPS:
- TCP/IP: this protocol is used to negotiate a 3 way handshake is negotiated between client and server. This handshake guarantees any data transmitted must arrive and nothing is lost.
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Walk through of the network diagram

<https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/security-group-rules-reference.html#sg-rules-web-server>

About RDS.

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html>

The diagram is read from left to right.

This diagram shows the network flow of clients in the U.S. who are trying to access our application that is hosted on the cloud.

Client A sends a http or https request (this request can come from anywhere in the U.S that traffic via port 80 (HTTP) and port 443 (HTTPS) to the web server) to access our application hosted onto the EC2 server via the domain name of our application or the public IP address given by the cloud provider. The client request is forwarded to the EC2 server but must bypass the clouds firewall to access the application.

In the 'cloud' the clients request is received by the EC2 Web server running IIS and c# language. Note that the programming files (application) is held on the EC2 server and the database on AWS RDS running MSSQL. The EC2 web server and database TCP/IP communication is over MSSQL port 1433(which is the default port).In addition traffic flow between the EC2 server and the RDS database is controlled/ restricted by enabling security groups control that permits inbound access.