Network Diagram: BitOHealth

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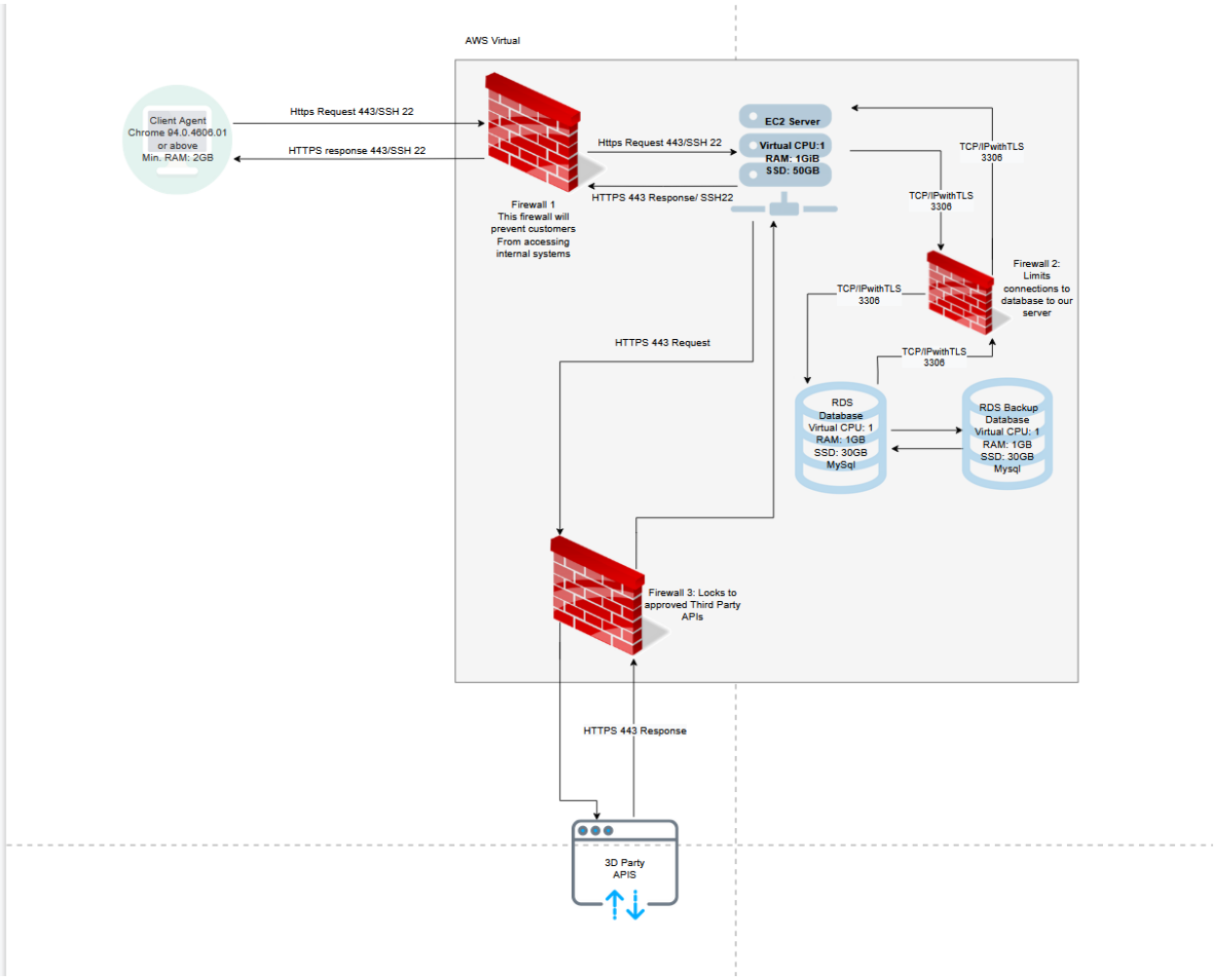
10/30/2021



The flow of graph.
The Client Agent refers to customers and developers. Customers will be using Chrome 94.0.4606.01 or above. Customers will also be required to use a system with at least 2GB of RAM. Customers will go in with an HTTPS 443 request. Developers will go in with SSH 22. All the access will have to go through an initial firewall to allow for filtering of privileges.

The EC2 Server will take in the HTTPS request and deal with everything required. Any API requests will go to only approved API databases, which will be checked with the firewall. if it involves the database will go in the database using port 3306. Otherwise, it will return a HTTPs response to the user.

RDS will be used as our database. RDS provides snapshots

Firewalls

firewall (firewall 1) will be used to filter access of the ec2 server. The firewall will allow customers to be granted access to the website and allow developers access to privileges not given to customers. The firewall will watch both requests and responses to clients.
firewall (firewall 2) will be used to prevent malicious use of the database in order to be up to date with HIPAA. Firewall Will be used for information going from server to database and database to server.
Firewall (firewall 3)- Firewall 3 will make sure only approved 3rd party APIs will communicate with the server. It will also make sure the server doesn't communicate with any nonapproved 3rd party apis.
RDS will be our main server. It will take all its input directly from the ec2 server. The RDS2 will then transfer all information to a backup RDS Server

Protocols:

TCP/IP- Protocol used to establish a connection between two devises to allow communication
TLS- Protocol to encrypt a connection to allow for extra security.
HTTPS (port 443) to transfer information into our servers with added security measures. An SSL certification will be required
SSH (port 22)- This will be left open for our team members to SSH into the ec2 server. This opens a shell for us to control the server with ease rather than using something like Remote Desktop.

Hardware

- AWS:
    - RDS
        - Database
        - Virtual CPU: 1
        - RAM: 1GB
        - SSD: 30GB
        - MySql
    - EC2 Server
        - Virtual CPU:1
        - RAM: 1GiB
        - SSD: 50GB

Works Cited

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