

Encrypted Messaging and...


File

Transfer

Application

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“Usually a whole team with individual expertise builds something like this...”

*– Jeffery Graves: CTO Spectre
Cybersecurity*

“You could use this for anything!”

*– Dr. Jaime Raigoza: CSU Chico
Professor*



SCALABILITY

10,000 CLIENTS

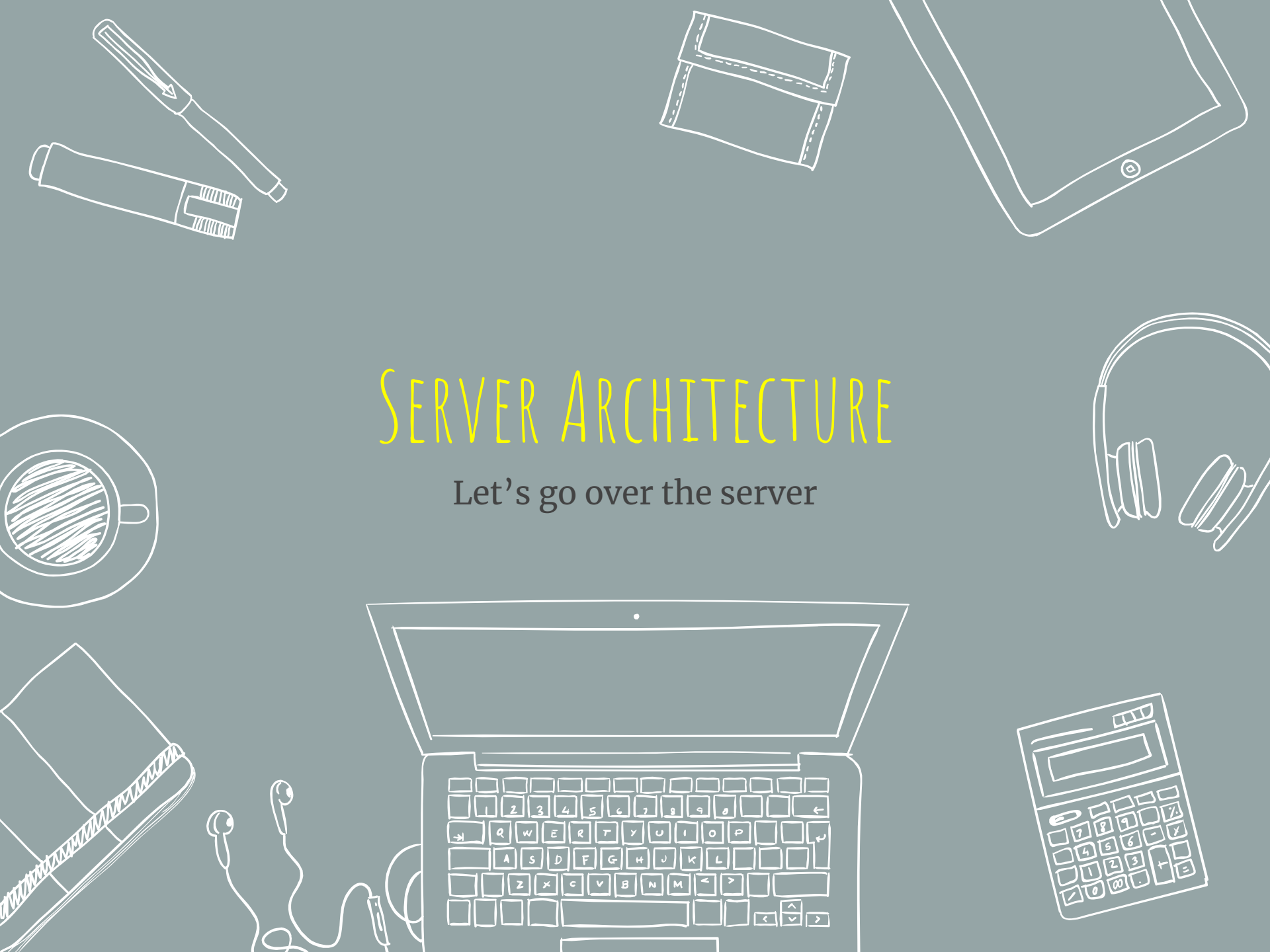
ALWAYS CONNECTED

ALWAYS SECURE

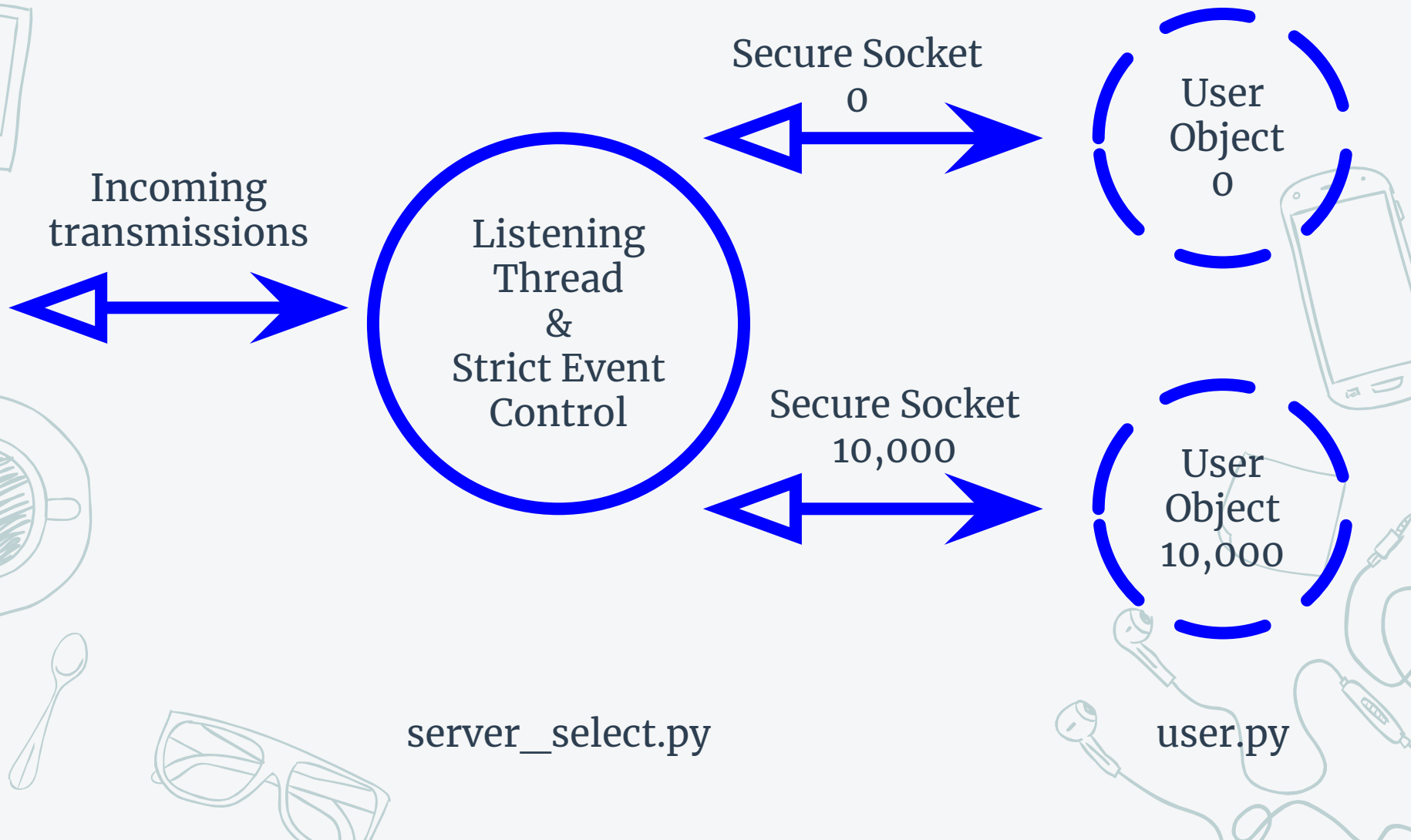
Whoa! On a single Thread? That's
a big number, aren't you proud?

SERVER ARCHITECTURE

Let's go over the server



SERVER NETWORK ARCHITECTURE



IMPORTED LIBRARIES

user.py

```
1 import os, socket, sys, ssl, sqlite3, datetime, time, logging
2 from passlib.hash import pbkdf2_sha256
3 # 'pip install passlib' on server running server code
4
```

server_select.py

```
1 #!/usr/local/bin/python3.6
2 import select, os, socket, sys, ssl # Imports all from module socket.
3 from user import User
4
```

PERFORMANCE IMPROVEMENTS

Iterable object lists provide consistent data tunneling.

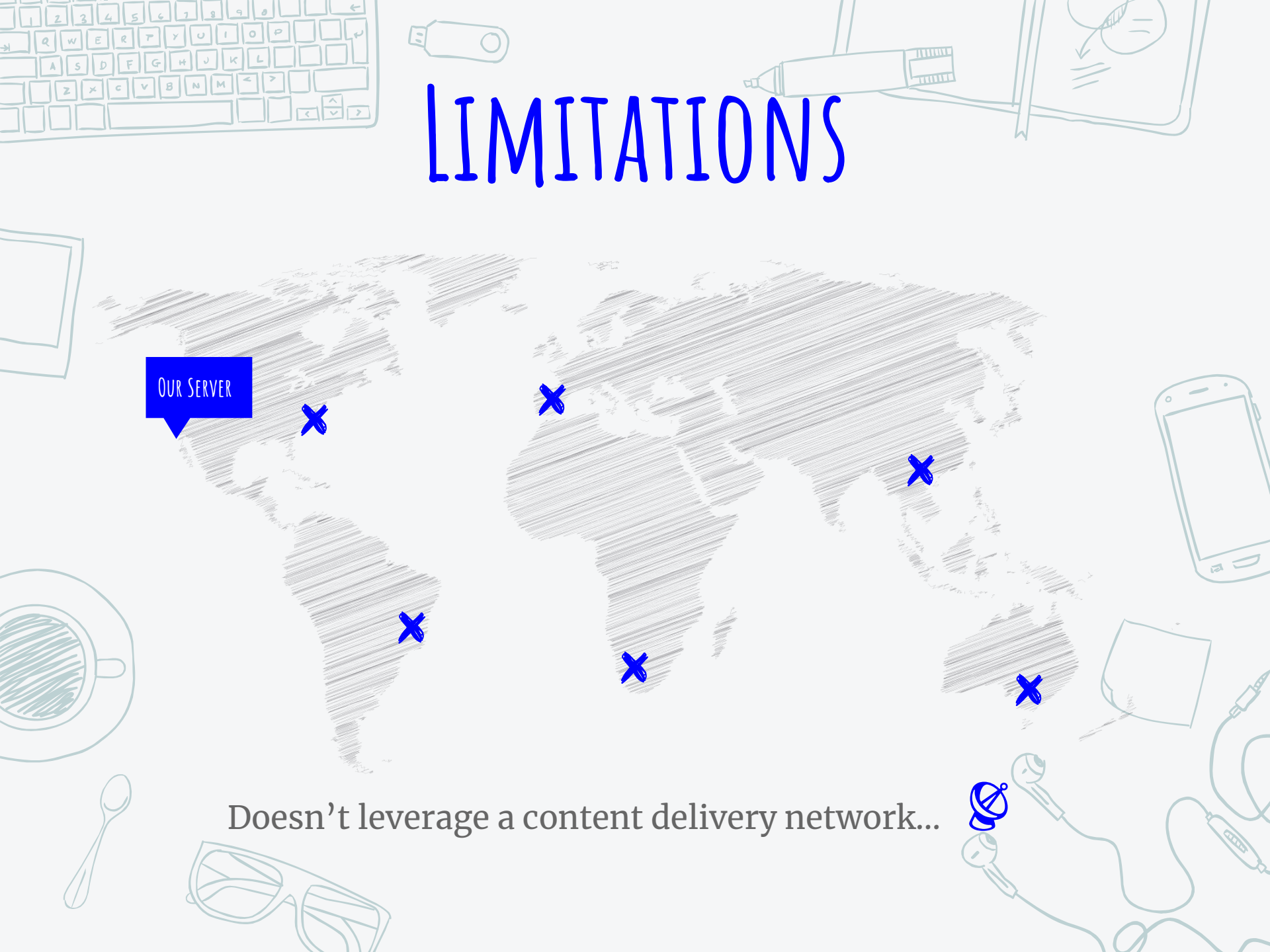
It's Easy to switch encryption types to provide different tiers of service to clients - SHA 256 to elliptic curve encryption for Federal Government Use.



LIMITATIONS

OUR SERVER

Doesn't leverage a content delivery network...





APPLICATION LAYER (7) CLIENTS

