A web browser creates a secret key in order to connect to a web server. How does the browser send the key to the server without the risk of leaking the key? Draw a diagram that includes both the symmetric and asymmetric encryption steps of this process. The diagram should have an asymmetric public-private keypair, a secret symmetric key, and a web browser and a web server.

Answer:

HTTP response

Validate security.

Response

Connect to HTTP

Server

PC

Example:

1: Alice wants to send a sensitive document to Bob

A cartoon of a person

Description automatically generated

A cartoon of a person and a key

Description automatically generated2: Bob needs passphrase key,

3: If she send the key its not secure may hacker receive that.

A screenshot of a computer

Description automatically generated

A blue circle with white text

Description automatically generated4: RSA Algorithm both create private and public keys:

A screenshot of a computer

Description automatically generated5: Exchange their public keys

A screenshot of a computer

Description automatically generated6: She can open document by Bob’s public key.

This is the way to send documents save to each other or servers.

Thanks !