What is email encryption and how to use it at PG Calc?

Encryption is the process by which information is encoded so that only an authorized recipient can decode and consume the information. Office 365 uses encryption in two ways: in the service, and as a customer control. In the service, encryption is used in Office 365 by default; you don't have to configure anything. For example, Office 365 uses Transport Layer Security (TLS) to encrypt the connection (Bank of America, PNC and Comerica use TLS), or session, between two servers.

Here's how email encryption typically works:

- A message is encrypted, or transformed from plain text into unreadable ciphertext, either on the sender's machine, or by a central server while the message is in transit.
- The message remains in ciphertext while it's in transit in order to protect it from being read in case the message is intercepted.
- Once the message is received by the recipient, the message is transformed back into readable plain text in one of two ways:
    - The recipient's machine uses a key to decrypt the message, or
    - A central server decrypts the message on behalf of the recipient, after validating the recipient's identity (TLS – BoA, PNC and Comerica).

How to use Encryption at PG Calc!

In most circumstance the employees of PG Calc do not have to do anything to use encryption in their email. If Office 365 determines that something in your email violates the policy it will automatically encrypt it for you.

However, we do have users who have the ability to type "[encrypt]" in the subject line of the email and it will make sure whatever you are sending out is encrypted. If you think you would need access to be able to use this feature, bring it up to your manager and we can get it added for you.

What is TLS?

Transport Layer Security (TLS) is a protocol that provides privacy and data integrity between two communicating applications. It's the most widely deployed security protocol used today, and is used for Web browsers and other applications that require data to be securely exchanged over a network, such as file transfers, VPN connections, instant messaging and voice over IP.

We currently have TLS enabled between us and 3 major banks. The banks are Bank of American, PNC and Comerica. If you are in regular communication with any of these banks the email will always be encrypted no matter what you are sending.