

LEARNING
INSTITUTION
ASSESSES BEST
ARCHITECTURE
TO SECURE
CLOUD APP



## **EXECUTIVE SUMMARY**



#### **ANALYSIS PURPOSE**

Prove the value of quantifiable risk analysis in evaluating alternative cloud security architectures.

#### **SCENARIO**

Understand how much risk is associated with different security encryption strategies related to cloud data.

#### **RESULTS**

- Enables business-driven prioritization of security initiatives
- Facilitates the appropriate allocation of company resources



# **SCENARIOS ANALYZED**



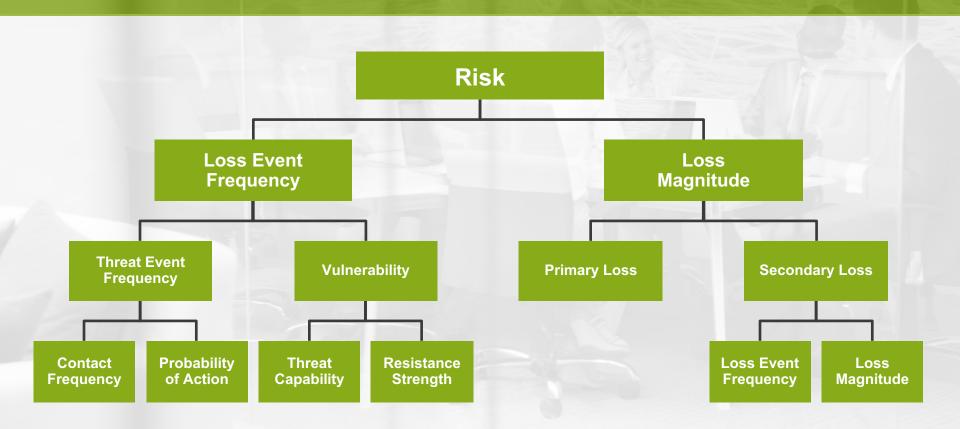


### PROPOSED SECURITY ARCHITECTURES

- <u>Current State</u>: Salesforce instance with CipherCloud encryption
- Option A: Salesforce instance with Salesforce encryption (database-level)
- Option B: Salesforce instance with no encryption

# ANALYSIS LEVERAGED THE FAIR MODEL





## ANALYSIS SCOPING



## **ASSET(S) DESCRIPTION**

Sensitive Customer Data (i.e. PII) accessed by and stored on the Salesforce App and internal Salesforce Databases.

#### **LOSS TYPE**

Confidentiality

### THREAT(S) DESCRIPTION

Cyber Criminals, General Hackers, Nation States, Institution Employees: Malicious, Salesforce Employees: Malicious

## **ANALYSIS RESULTS**



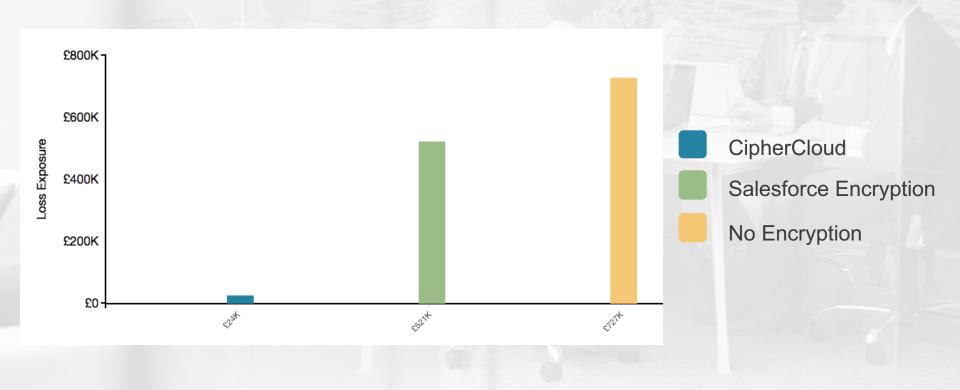
**RISK** = Frequency x Magnitude of future loss. We express risk in terms of loss exposure

## **ANNUALIZED LOSS EXPOSURE (RISK)**

Analysis	Description	Minimum*	Average	Maximum*
With CipherCloud	Encryption is performed via CipherCloud locally prior to sending any data to the cloud.	£0	£24k	£41k
With Salesforce Encryption	Encryption is performed at the database level.	£0	£521K	£2.4M
Salesforce without encryption	No encryption at rest in place.	£0	£727K	£2.8M

# AVERAGE ANNUAL LOSS EXPOSURE





## **DECISION SUPPORT / ROI**



# THROUGH RISK QUANTIFICATION THE CUSTOMER CAN BETTER UNDERSTAND

- How much risk is associated with the various security architectures?
- Is reduced risk associated with CipherCloud worth the performance and reporting limitations?
- How can we best manage the security risk while also supporting business objectives?