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## **2River’s LIFT Analytics Platform**

### ***Overview of System Security Features***

### **Introduction**

2River Consulting Group’s LIFT-Commercial (“LIFT”) platform is a SaaS-based analytics platform that integrates the customer information file (CIF) with data-science to simplify business decisions for financial services firms.

### **System Architecture**

LIFT-Commercial is a cloud-based, multi-tenant system build on Amazon Web Services (AWS). AWS is a mature cloud platform that is trusted by large financial institutions, Fortune 500 companies and the US Government to run mission critical applications. AWS cloud services comply with ISO 27001, ISO 27002, ISO 27018, SOC 1, and SOC 2.

#### ***Infrastructure Access is Highly Controlled***

Access to data within LIFT is enforced by firewall rules, whitelisted IP addresses and user accounts that limit access. LIFT is hosted within a Virtual Private Cloud (VPC), which provides a private subnet within the cloud for additional security. LIFT firewalls are configured to restrict inbound and outbound network traffic to prevent unauthorized access to LIFT’s VPC networks.

#### ***Infrastructure Designed for Security***

LIFT relies on two subnets (public and private) to control inbound and outbound traffic. LIFT website servers use microservices running on the API servers for all interaction with the database server (the microservices are only accessible from within the VPC). Only the API server can write to the database server.

LIFT uses load balancing of servers in different availability zones to deliver highly available services for our client’s production needs. Data in LIFT is backed-up automatically and archived.

### **Encryption**

LIFT uses industry best practices to secure data in transit and data at rest. All communication over the Internet is done using HTTPS to encrypt data transmission

using TLS. All data is stored at rest in an encrypted database using the industry standard AES-256 encryption algorithm.

### ***Data is secure while in motion***

LIFT uses digital certificates to keep information private as it is sent to or from the website. LIFT uses “Starfield Services Root Certificate Authority” issued certificates with the private keys (browsers store the corresponding public key). Data is encrypted with SHA-256 with RSA encryption.

### ***Data is secure at rest***

LIFT employs full database encryption (i.e., full-disk) to protect data at rest. This includes full disk encryption for database volumes (including data on the volume, database snapshots, automated backups, and read replicas).

Each database volume is encrypted with a unique 256-bit key. Snapshots of this volume (and subsequent volumes) share that key. LIFT has a unique master key, stored separately from the data.

Keys are protected by a key management infrastructure. This is on a system with strong physical and logical security control that uses Federal Information Processing Standard (FIPS) 140-2 approved cryptographic algorithm and NIST 800-57 recommendations. Data and keys are encrypted using AES-256 algorithm.

In addition to encrypting the overall database, LIFT also encrypts select fields within the database for additional security. LIFT encrypts Social Security Number and Employer Identification Number data at the field level using AES-256 algorithm when data is inserted into the database and extracted from the database.

## **Summary**

Systems built on the LIFT platform are trusted by some of the largest financial institutions in the United States. Across multiple industries, LIFT has been used by over 150 establishments and entrusted to protect data for millions of our client’s customers.

## **Contact**

For additional information about LIFT, please contact a 2River consultant at:

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*2River Consulting Group (2River) helps businesses and organizations integrate data and analytics into their operations to improve performance. Founded in 2012 in the heart of Capitol Hill, Washington DC, 2River's approach focuses equally on technology and change-management to ensure our clients successfully adopt and integrate data-analytics.*

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