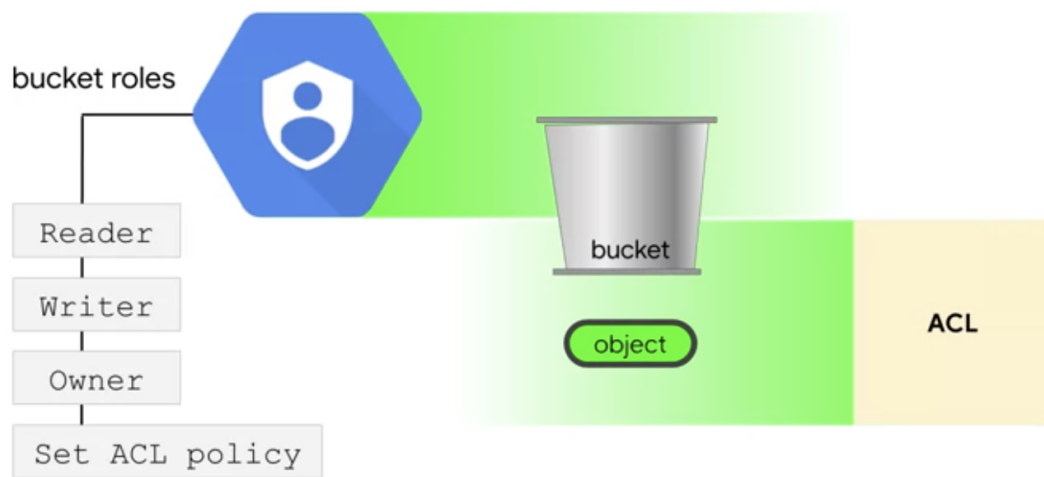


GCS Security & Storing All Sorts of Data Types

1. GCS Security

Controlling access with Cloud IAM and access lists



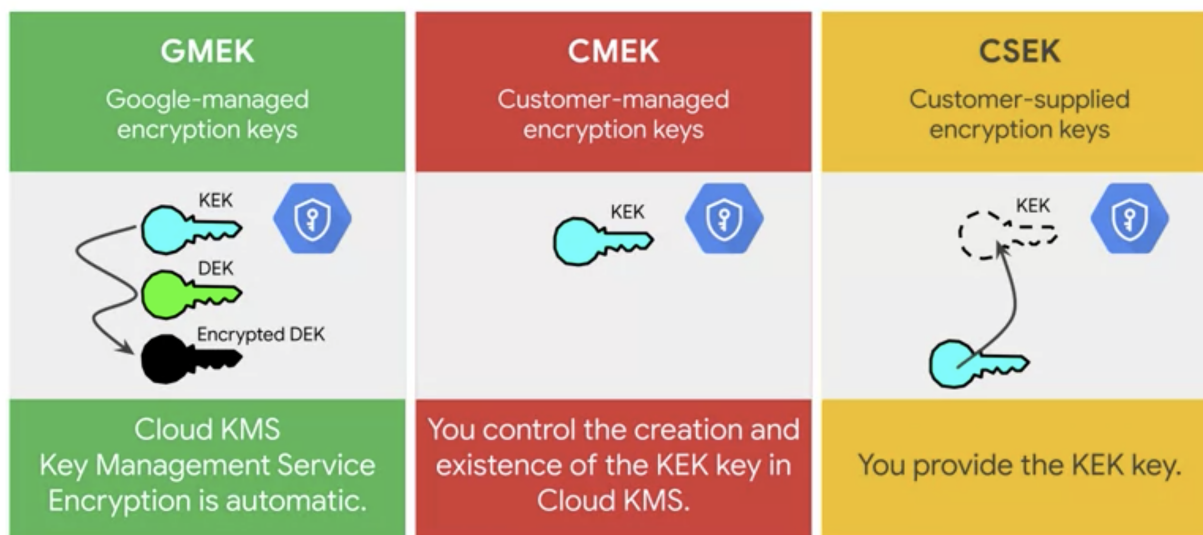
1. Cloud IAM

- 버킷수준으로 설정
- 버킷 리더, 작성자, 소유자를 설정
- ex) 메일주소에 대한 reader access

2. ACL(Access Controlling List)

- 버킷 또는 object 에 적용(IAM보다 세분화됨)
- ex) 메일주소에 대한 write access

Data encryption options for many requirements



GMEK(Google Mananged Encryption Keys)

- 암호화된 KEK를 암호화하여 저장.
- KEK는 자동으로 순환하여 변경됨
- 사용자가 직접 수동 관리하거나(CMEK), 직접 관리서비스를 피하고 자체 암호화도 가능(CSEK)

Storing All Sorts of Data Types

Transactional versus analytical

	Transactional	Analytical
Source of data	Operational data; OLTPs are the original source of the data	Consolidation data; OLAP data comes from the various OLTP databases
Purpose of data	Control and run fundamental business tasks	Help with planning, problem solving, and decision support
What the data shows	Reveals snapshot of ongoing business processes	Multi-dimensional views of various kinds of business activities
Inserts and updates	Short and fast inserts and updates initiated by end users	Periodic long-running batch jobs refresh the data
Queries	Relatively standardized and simple queries returning relatively few records	Often complex queries involving aggregations
Processing speed	Typically very fast	Depends on amount of data involved; improve query speed with indexes
Space requirements	Can be relatively small if historical data is archived	Larger, more indexes than OLTP

1. Transactional(OLTP)

- fast insert, update. simple query.
- ex. 은행거래 시스템.

2. Analytical(OLAP)

- 20% writes, 80% reads