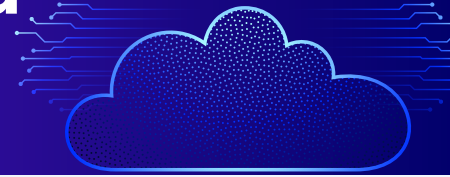# excelra

CASE STUDY

Cloud deployment and integration of university hospital optimised whole-exome pipeline
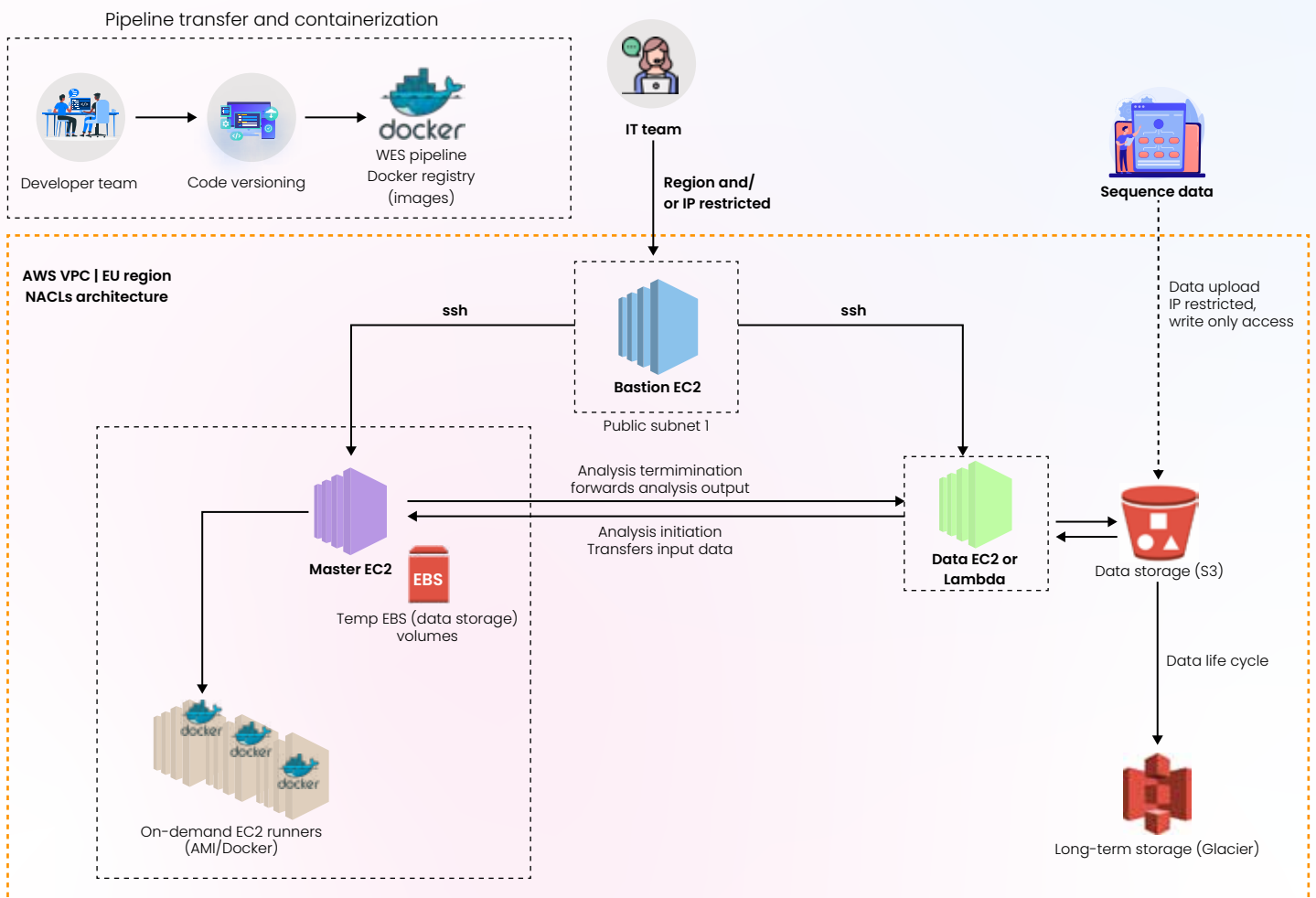
Client

Industry
Healthcare

Location
EU

Specification

The client wanted to deploy cloud migration and optimize the existing pipeline

Pipeline transfer and containerization

Developer team → Code versioning → WES pipeline Docker registry (images)

IT team

Region and/ or IP restricted

Sequence data

AWS VPC | EU region
NACLs architecture

ssh

Bastion EC2

Public subnet 1

ssh

Data upload
IP restricted,
write only access

Analysis termimination
forwards analysis output

Analysis initiation
Transfers input data

Master EC2

EBS

Temp EBS (data storage) volumes

Data EC2 or Lambda

Data storage (S3)

On-demand EC2 runners
(AMI/Docker)

Data life cycle

Long-term storage (Glacier)

Solutions provided

- Secured HPC EU Cloud compute
  - Virtual private subnets and NACLS
  - Data-life cycles
- Direct data upload from sequencers
- Versioning via shared Github

Conclusion

- 4x faster analysis at lower costs
- Highly secured cloud environment