CASE STUDY

AIS

GPU SQL

COLUMN

ORIENTATED

DB

FOR MASSIVE DATA

ANALYTICS

LET'S

TALK
USE
CASES

IMPLEMENTED

IN

just

6

MONTHS

Generic Telco Scenario

On Average 20 Times Faster than AS-IS (HIVE)

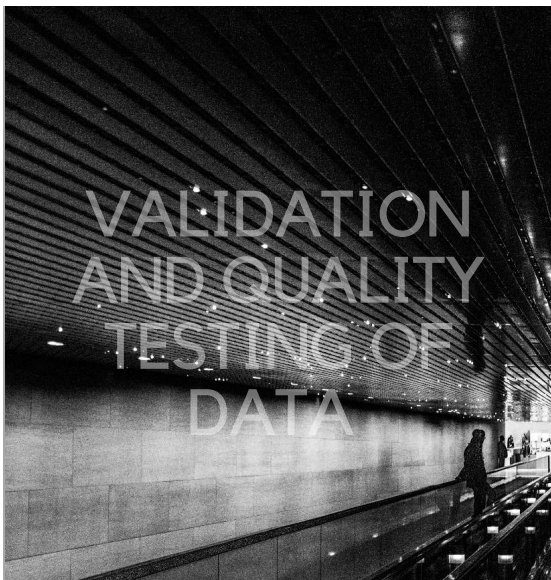|	AS-IS (HIVE)		SQream 4.2	
Query	1 Day	1 Hour	1 Day	1 Hour
Q1 APP Service Group Analysis	2:03:00	0:11:46	0:04:06	0:00:14
Q2 eNB Service Analysis	1:48:00	0:12:28	0:24:46	0:01:13
Q3 Cell Service Analysis	0:52:00	0:06:49	0:05:24	0:00:15
Q4 Analysis of Payment Plan	1:10:00	0:07:29	0:19:06	0:00:53
Q5 Device Traffic Analysis	NA	0:03:59	NA	0:00:30
Q6 IOT & POS Analysis	0:22:00	0:03:43	0:06:01	0:00:20
Q7 IOT Platform Analysis	0:23:00	0:04:50	0:05:16	0:00:17
CALL Data - count(*)	NA	NA	0:00:21	0:00:10
CALL Data - AVG setup time	NA	NA	0:00:27	0:00:14
CALL Data - Max Call Time	NA	NA	0:00:25	0:00:13
Z. join S1_CALL and SIP_REGI	NA	NA	0:02:21	0:00:54

DNS

BACKDOOR PROTECTION

INDEPTH

CUSTOMER

USAGE

ANALYSIS

THREAT DETECTION
AND DOOS
PREVENTION

Class of 2004

VALIDATION
AND QUALITY
TESTING OF
DATA

ANALYSING CALL DEFECTS AND HANGUPS

AIS

CASE STUDY

BILLIONS OF CDRs weekly

SCALING MPP SYSTEM is difficult
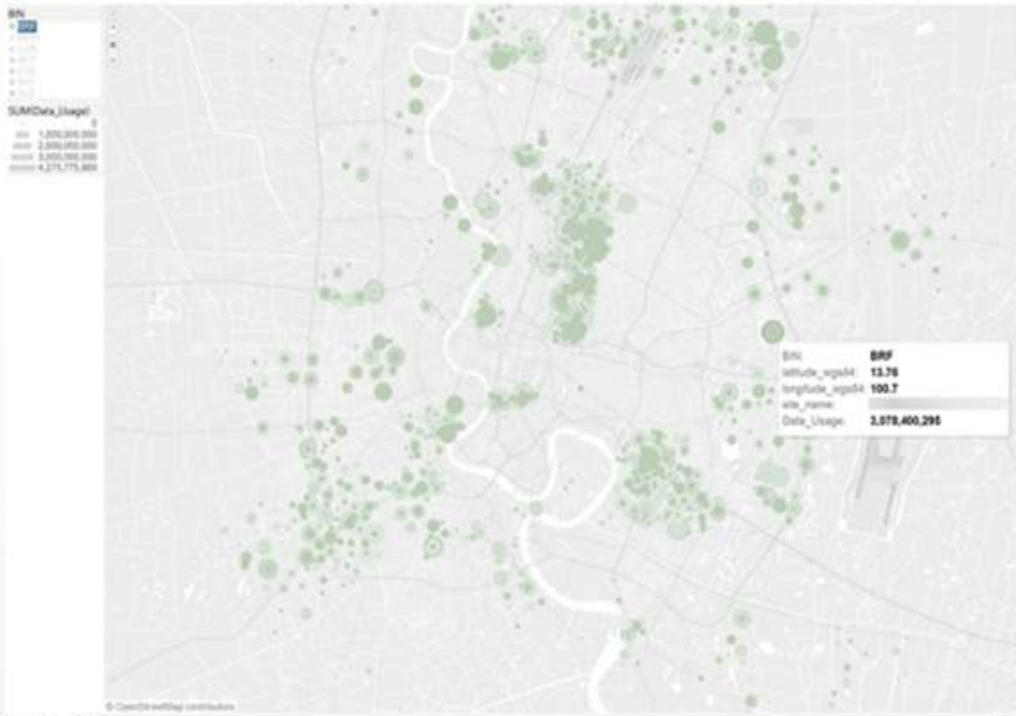(due to database size constraints)

AD-HOC QUERYING slow

AIS is the largest mobile operator in Thailand with over 40 million subscribers
Faced with increased competition, AIS wants to improve customer service and reduce churn

AIS

UNDERSTANDING 40M CUSTOMERS' BEHAVIOUR

AIS

Dashboard showing 3G/4G data throughput in Bangkok through the day (Morning, Lunch, Evening, Night, ...)

Larger circles represent better data throughput

Dashboard aggregates directly off SQream DB, with no pre-aggregation steps.

3 table join
(3.3B rows ⋈ 40M rows ⋈ 300K rows)

AIS

CASE STUDY

SIGNIFICANTLY IMPROVED CUSTOMER SERVICE

AIS deployed SQream DB to get answers to new business questions, improving revenue

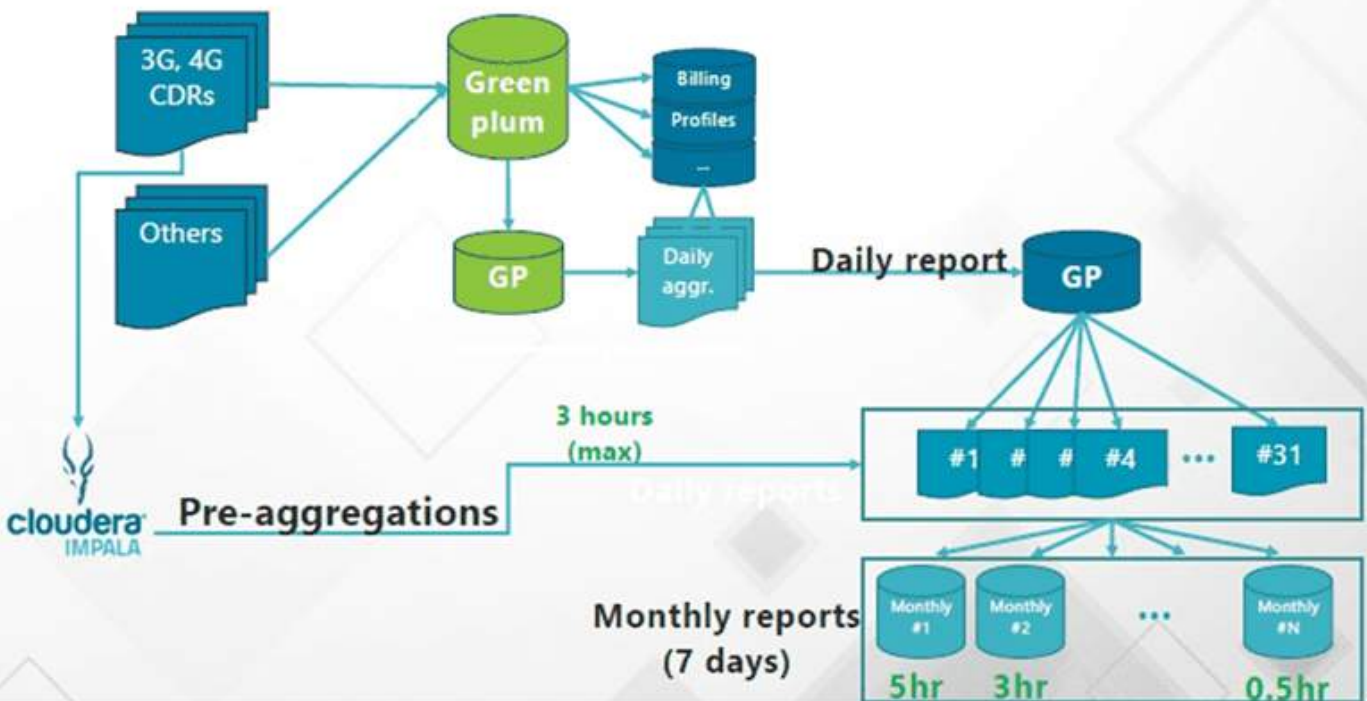| Greenplum		SQREAM
300m	Ingest time	20m
120m	Reporting time	10m
$10,000,000	Ownership Cost	$200K

80 NODES
5 full racks
7600 CPU cores

HP DL380g9
with NVIDIA Tesla GPU
96 GB RAM + 6 TB storage

- Empower data scientists, BI professionals to understand customers' experience better
- Reduce customer churn, up-sell existing customers with targeted offers
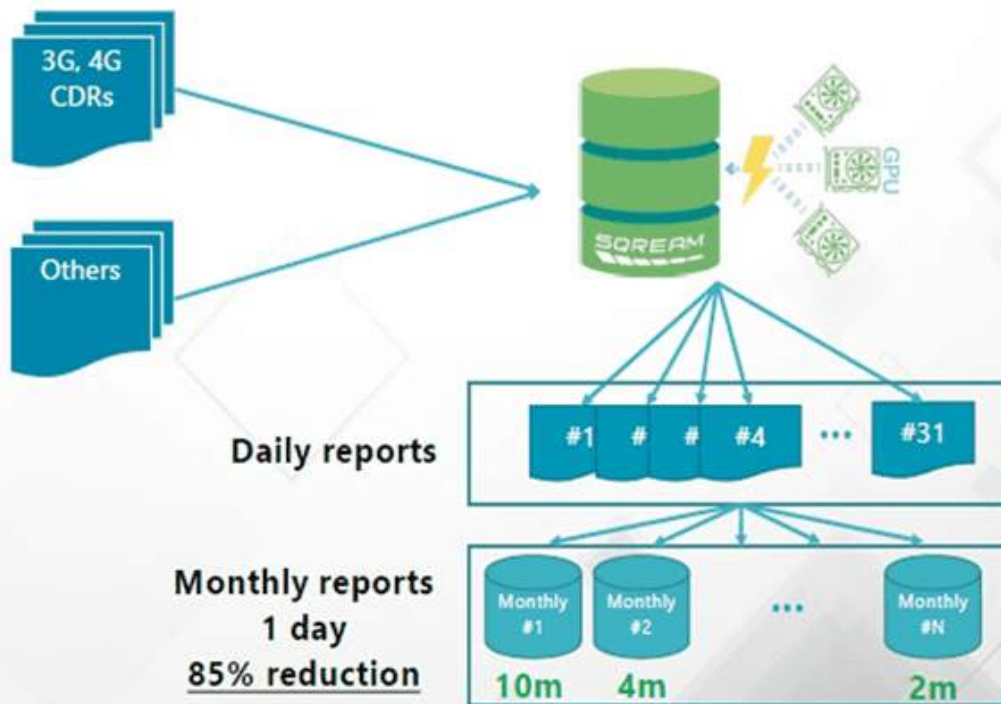- Easy deployment, reduced IT complexity, leverage existing skills

AIS

ARCHITECTURE BEFORE SQREAM DB

AIS

CASE STUDY

AIS

CASE STUDY

AIS

CASE STUDY

SAVING HOURS ON QUERIES AND REPORTS

TELECOM

Replacing legacy MPP with faster, easier to use GPU-powered analytics

AIS can drill-down on even more data.

Example: Using raw 4G Speedtest data of 3 operators from OOKLA for a whole week to compared AIS performance to competitors in a single view.

Once the dataset is loaded, AIS can switch to different KPIs and views (e.g. latency, download speed, ppload speed) with no delay!

Only 46 seconds in total for complex query of hundreds millions of raw data records.
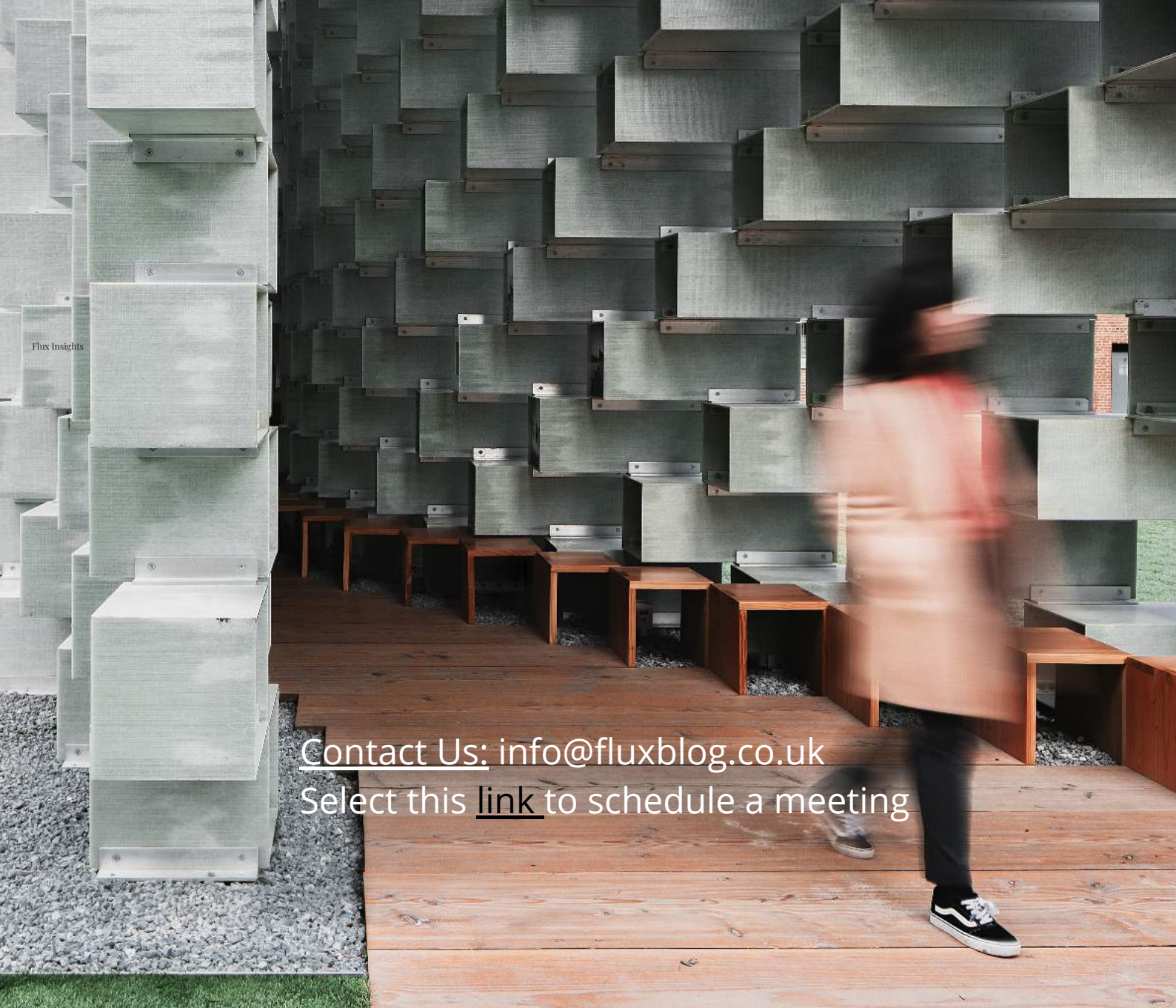
AIS

PARTNER PROFILE

CORPORATE PROFILE
FOUNDED IN 2010

90+ Employees

10 Patents

Strategic Partnership with Alibaba Cloud

HQ in 7 WTC New York

EMEA HQ Canada Square, Canary Wharf London
R&D in Tel Aviv

Flux Insights

In God we trust. All others must bring data

W. EDWARDS
DEMING, STATISTICIAN,
PROFESSOR, AUTHOR, LECTURER,
AND CONSULTANT.

The goal is to turn data into information, and information into insight

Carly Fiorina,

ISSAC ASIMOV

I don't fear computers. I fear the lack of them.

It is a capital mistake to theorise before one has data.

SHERLOCK HOLMES

DATA IS A PRECIOUS THING AND WILL LAST LONGER THAN THE SYSTEMS THEMSELVES.

TIM BERNERS-LEE

Simplicity is about subtracting the obvious and adding the meaningful.

JOHN MAEDA

If I had to pick one word to describe what a chief data officer does. It would be neither data nor analytics. It would be strategy.

CDO- INDERPAL BHANDARI CAMBIA HEALTH