GREENHOUSE DIGITAL TWIN

Ioannis Tsampras ioannis.tsampras@upnet.gr

Stavros Kanias   up1066584@upnet.gr

CONTENTS

THE PROJECT

- A Device, Cloud and Processing infrastructure for distributed digital twins of herbaceous plant type greenhouses.

- Taking advantage of dwindling power and hardware cost for edge data ingestion we implement an AI solution in top-view image mapping and detection along with a distributed database cloud solution.

- Our cable-lift low cost and easy installation robot moves through the length of a greenhouse, takes top-down images and in real time maps it's position while detecting individual plants, saving multiple snapshots for each and forwarding metrics & sensor data to the cloud.
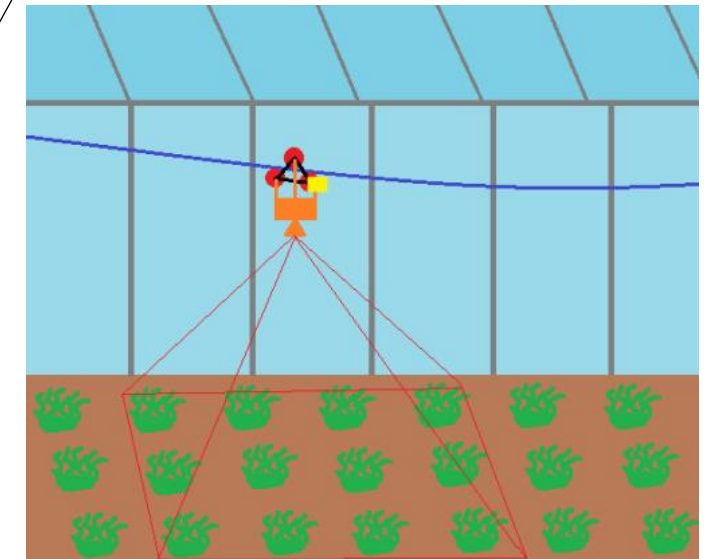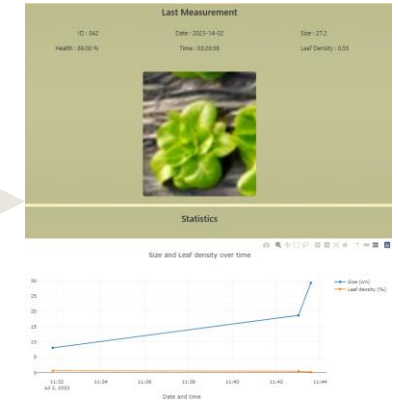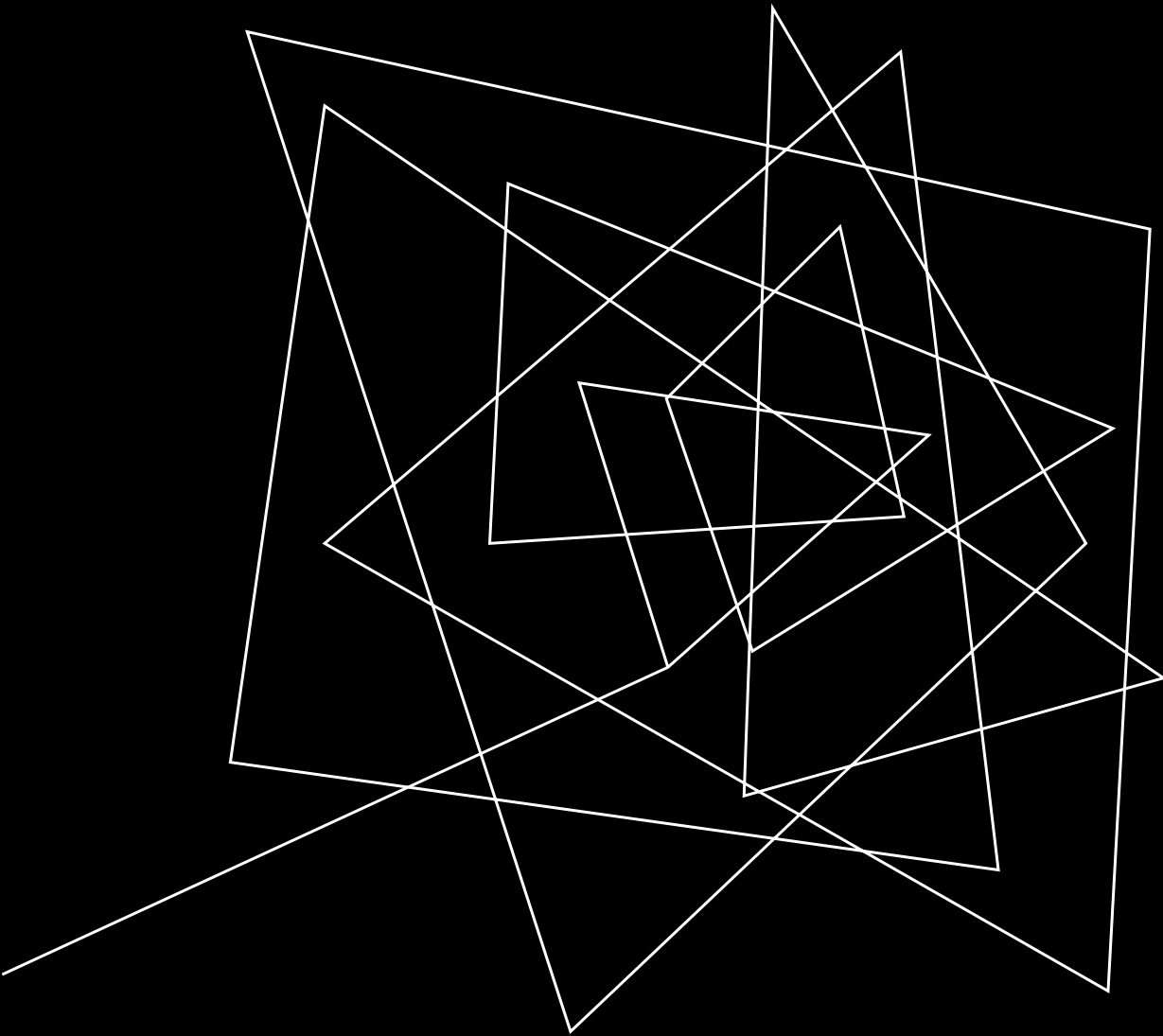
PRIMARY GOALS

Optimization Axes

- Low cellular data usage

- Inexpensive hardware & installation

- Full digital representation

ARCHITECTURAL CHOICES

System Design

- Mapping and detection on edge (cost, data usage)

- Metrics extraction on site , updating central Db only for metrics (data usage)

- On demand access to media through distributed Db, central Db cache (data usage)

- LAN option for data extraction (data usage)

ARCHITECTURE
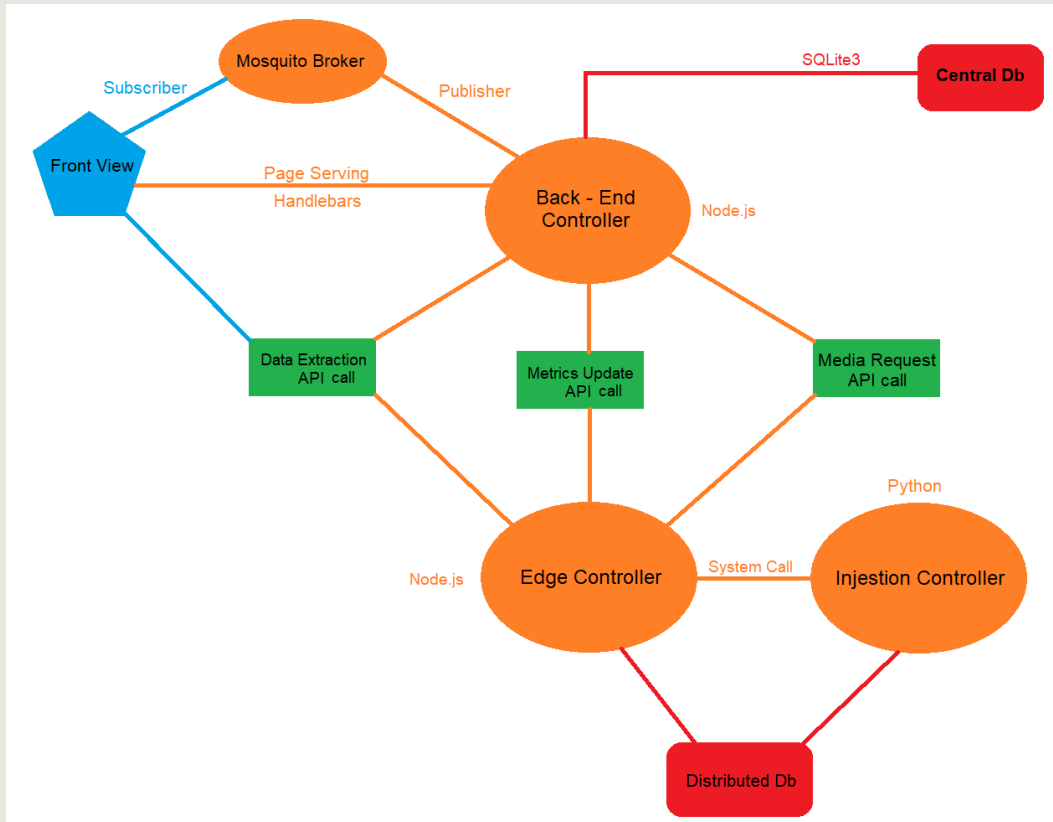
AREAS OF GROWTH

	CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4
Q1	4.5	2.3	1.7	5.0
Q2	3.2	5.1	4.4	3.0
Q3	2.1	1.7	2.5	2.8
Q4	4.5	2.2	1.7	7.0

BUSINESS OPPORTUNITIES ARE LIKE BUSES. THERE'S ALWAYS ANOTHER ONE COMING.

Richard Branson

MEET OUR TEAM

TAKUMA HAYASHI

President

MIRJAM NILSSON

Chief Executive Officer

FLORA BERGGREN

Chief Operations
Officer

RAJESH SANTOSHI

VP Marketing

MEET OUR TEAM

TAKUMA HAYASHI
President

MIRJAM NILSSON
Chief Executive Officer

RAJESH SANTOSHI
Chief Operations Officer

RAJESH SANTOSHI
VP Marketing

GRAHAM BARNES
VP Product

ROWAN MURPHY
SEO Strategist

ELIZABETH MOORE
Product Designer

ROBIN KLINE
Content Developer

PLAN FOR PRODUCT LAUNCH

PLANNING	MARKETING	DESIGN	STRATEGY	LAUNCH
Synergize scalable e-commerce	Disseminate standardized metrics	Coordinate e-business applications	Foster holistically superior methodologies	Deploy strategic networks with compelling e-business needs

Q1 ———————————— Synergize scalable e-commerce

Q2 ———————————— Coordinate e-business applications

Q3 ———————————— Deploy strategic networks with compelling e-business needs

Q4 ———————————— Disseminate standardized metrics
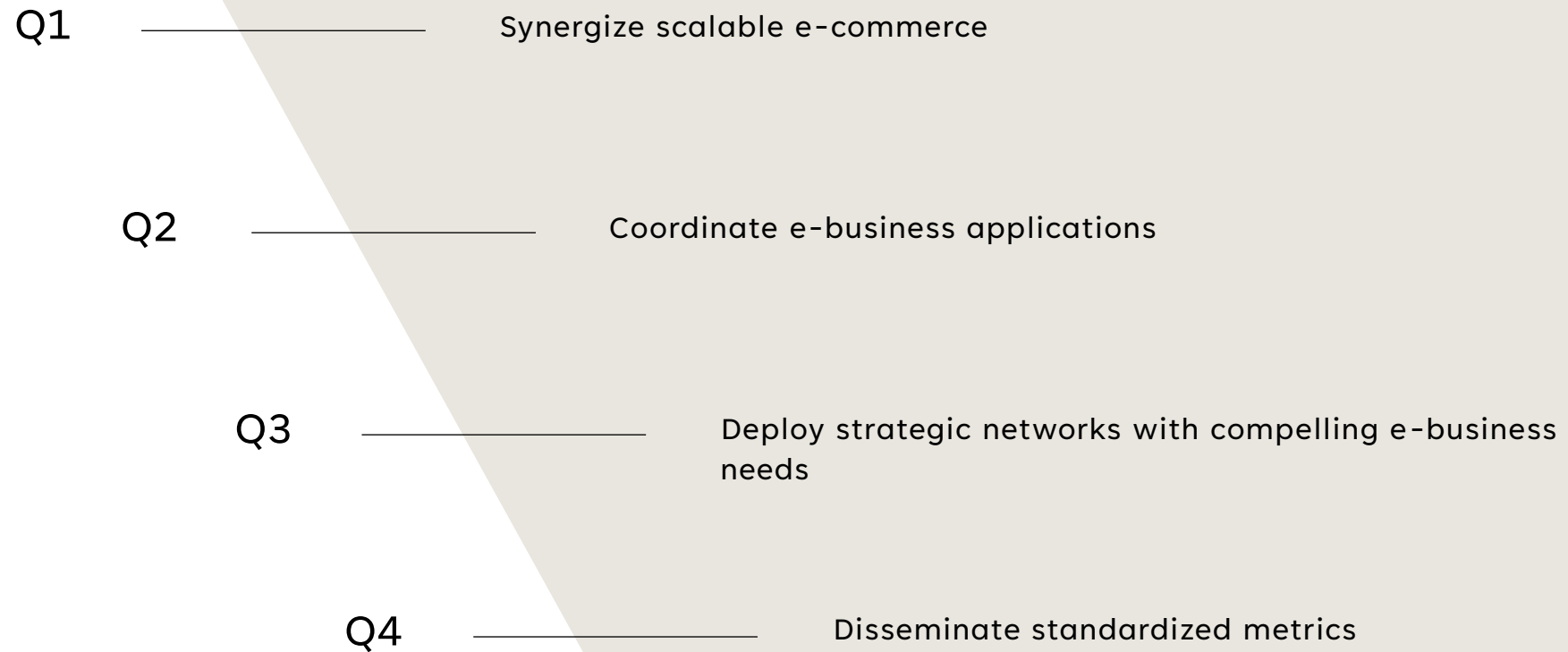
TIMELINE

AREAS OF FOCUS

B2B MARKET SCENARIOS

Develop winning strategies to keep ahead of the competition

Capitalize on low hanging fruit to identify a ballpark value

Visualize customer directed convergence

CLOUD-BASED OPPORTUNITIES

Iterative approaches to corporate strategy

Establish a management framework from the inside

HOW WE GET THERE

ROI

Envision multimedia-based expertise and cross-media growth strategies

Engage worldwide methodologies with web-enabled technologies

NICHE MARKETS

Pursue scalable customer service through sustainable strategies

Engage top-line web services with cutting-edge deliverables

SUPPLY CHAINS

Cultivate one-to-one customer service with robust ideas

Maximize timely deliverables for real-time schemas

SUMMARY

At Contoso, we believe in giving 110%. By using our next-generation data architecture, we help organizations virtually manage agile workflows. We thrive because of our market knowledge and great team behind our product. As our CEO says, "Efficiencies will come from proactively transforming how we do business."

THANK YOU

Mirjam Nilsson

mirjam@contoso.com

www.contoso.com