# Trends Report

## Silicon Valley Office

# SUMMARY

**1** **Edge computing** *will be a* **key technology in the evolution of 5G technology** *which is only slowly being deployed*

**2** **Networks with zero-touch solutions** *are starting to replace some manual processes, but are still far from fully automated solutions*

**3** **Cybersecurity** *is being challenged by the expected* **increase of IoT and Edge services**, *with needs to deploy perimeter solutions, with* **SASE** *(Secure Access Service Edge) being an example*

**4** **Emergence of IoRT (Internet of Robotic Things),** *where a robot automates decisions, enabled by the expanded processing capabilities of 5G and edge computing to manage millions of devices*

**5** *In* **Smart Home, hardware is still the largest share of sales,** *waiting for more services to become common standards*

**6** **New big players entering the video market** *(Apple, Disney, etc.), while* **new short video formats**, *including* **user generated content**, *are creating a new consumption category*

**7** **Fintech becomes a highly competitive sector** *with big internet players entering the market, while there continues to be opportunities in areas like mortgage lending and Regtech*

# SUMMARY

**8** — *Gaming leveraging the growth of 5G* (cloud gaming) and edge computing, with trends in *platform convergence, user generated content* and bundling services for telcos

**9** — *Stable coins provide good value to financial operations* in the cryptocurrency world, while there are further developments in *asset tokenization* and other blockchain use cases

**10** — Commercial versions of *quantum computers still won't be available in the near future* and once they are, will still be difficult and costly to build and program, with first models expected around 2030

**11** — In *e-commerce, omnichannel, mobile-only, and AR/VR as new channels are becoming mainstream*, accompanied by an increase in social media usage to obtain information

**12** — *Enhancing employee experience and engagement becomes a trend in HR*, also introducing chatbots to interact with employees, plus a boost in remote working

**13** — In *biomedicine, 5G is enabling remote surgeries, and real time solutions for medicine investigation* will allow for faster approval and go-to-market processes of cancer medicines
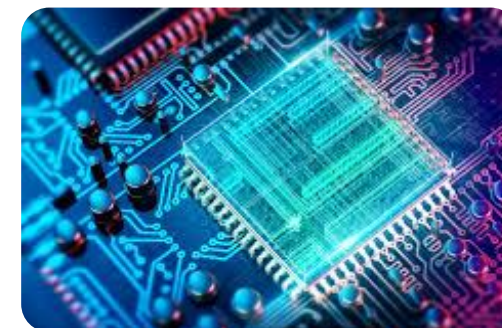
# TECHNOLOGY LANDSCAPE

## NETWORKS/EDGE

- **5G Edge**
- **Network Technology**

## APPLICATIONS

- **Cybersecurity**
- **IOT/Robotics**
- **Smart Home**
- **New Media**
- **Fintech**
- **Gaming**
- **eHealth**
- **eCommerce**
- **HR**

## NEW EMERGING TECH

- **Blockchain**
- **Quantum Computing**

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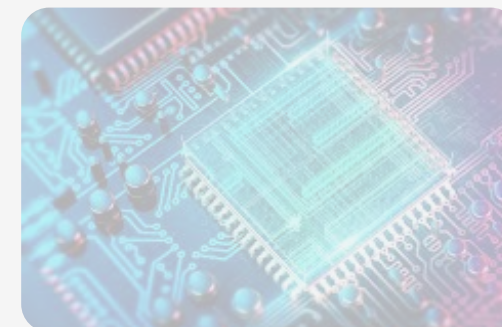
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- Fintech
- Gaming
- eHealth
- eCommerce
- HR

- Blockchain
- Quantum Computing

# 5G Edge

**Edge computing will be a key technology in the evolution of 5G technology .
Slow deployment and development.**

**AR/VR** demand **high bandwidth; low latency** is enabling new use cases (online gaming VR, Oculus)

**AI-ML shift to the edge** – the high volume of data consumption will be requiring analysis on demand

New **startups decoupling HW-SW** have been rising to compete directly with Intel and Nvidia

### Startup to follow...

MobiledgeX is a company that is developing a cloud-based model system to leverage the mobile's infrastructure and **deploy applications at the Edge**

<MobiledgeX>

# Networks

**Networks are becoming more open with the advances of software controlled networks, and new services coming with 5G as network slicing**

Improvements in AI, ML, speed and cloud computing drive complex **automated network maintenance and predictive solutions**

**New open source technologies allow faster development of AI** technologies applied to large and distributed datasets

Most Telcos are building solutions to solve a specific gap like **anomaly detection, performance monitoring, maintenance & fault prediction**

**Startup to follow...**

**Anodot provides real-time analytics and automated anomaly detection**, discovering outliers in vast amounts of data and turning them into **valuable business insights**

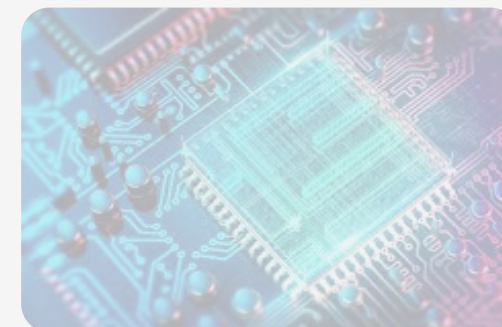# TECHNOLOGY LANDSCAPE

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# Cybersecurity

**With the increasing adoption of cloud computing and IoT , the perimeter becomes difficult to control, and solutions like SASE (**Secure Access Service Edge)** are becoming necessary**

Quantum computing is creating a threat by breaking current cyber defense paradigms, and IoT exponentially grows attack surfaces

Nation State Actors, that each time play a more relevant role in the industry, demanding more secure infrastructures and IoT and information management platforms

Secure Access Service Edge: converging network and security functions to reduce the development time of products in a complex and decentralized environment

## Startup to follow...

**Nozomi Networks is the leader in OT and IoT security unifying cybersecurity visibility** for the largest critical infrastructure, energy, manufacturing, mining, transportation, building automation and other OT sites around the world

NOZOMI NETWORKS

# IoT/Robotics

**IoT security, Industrial IoT, Smart Energy and Smart Retail are big trends in the booming IoT world**

The symbiosis of IoT and robotics is creating the field of **Internet of Robotic Things** (IoRT), where a robot is the one who processes, analyzes and automates decisions

With 5G under way as well as new Edge capabilities, **managing hundreds or thousands of complex robot sensors** (Industrial IoT) is becoming more feasible

**Ecoystem around the car**, its connectivity and new services attached to it is booming

## Startup to follow...

Vimaan Robotics provides the next-generation of **drone technology for industrial indoor environments** that is safe, quiet, efficient, autonomous and intelligent

vimaan ROBOTICS

# Smart Home

**Slow but continuous progress from pure hardware sales to subscription services**

Most revenue still generated from sales of **smart home hardware**, with **security** and **utilities** use cases leading the field

**Standardization is reaching the Home Network interface** and consumers understand that there is a place for smart home services

Regarding **WIFI 6**, it is too **early for IoT (and its device power enhancing capabilities),** but progressively enters the residential market through Mesh

**Startup to follow...**

Sweepr provides simple care for the connected home **reshaping the way technical support is provided**

SWEEPR

# New Media

**New ways of video consumption behavior are accelerating new business models and new technologies to fulfill customer demands**

**4 new important players** (Apple, Disney, AT&T Warner Media & NBC) will add up to 15 million additional users to a saturated US market

**Short video content** is opening the ecosystem to new players and **co-creators**, building platforms to validate stories and scripts

**VR** will enable to **differentiate** the content offerings, leveraging good network connectivity

## Startup to follow...

Vault's RealAudience predictive analytics and marketing platform **unlocks critical audience insights** and promotes ideation at any stage of the **content lifecycle**

# Fintech

**Fintech is turning into a highly competitive sector due to new entrants from different industries (GAFAs, Telcos, Insurance ...), and every company will be a financial company**

Open banking and **new regulations like PSD2** allow disintermediation in payments and **open access to data for third parties**, as well as **aggregators of personal finance**

**Competition of big techs**: Amazon lending to small businesses, Apple with the Apple Card and Facebook launching their crypto currency.

Trends in **Insurtech** are: **pay-as-you-drive** in car insurance, use of **big data** in claims and pricing

### Startup to follow...

Plaid is focused on enabling innovation and **democratizing financial services** building beautiful consumer experiences, developer-friendly infrastructure, and intelligent tools

PLAID

# Gaming

**Gaming leveraging exponential growth expectations of 5G and edge computing where crypto-currency could become a cornerstone for industry transformation**

The **evolution of 5G Cloud streaming** reduces access and price barriers to AAA-games for the mass market

Telcos like Verizon have **bundle**d new cloud gaming offerings like Stadia, and **new players are** entering the market (e.g. Nvidia Gforce Now)

Trends mainly driven by **platform convergence, game-as-a-service, and user-generated content**

**Startup to follow...**
Shadow.tech provides a **multi-device, bring your own games solution** for cloud gaming, enabling any game or software to be run on any PC, console or TV with their app

SHADOW

# E-Commerce

*Consumerization of everything: Consumer B2X behavior is triggering "mobile only" strategies for new emerging startups and mature companies.*

Two big trends in ecommerce marketplace: Amazon model (unique marketplace) vs Shopify model (personalized marketplace)

The strategy of emerging companies has mainly become **omni-channel** and **mobile only with AR/VR turning into a new digital channel**

**Ethical consumption**: companies with a strong social and ethical component (organic products, reducing plastic bags) are trending

**Startup to follow...**
Coveo is a cloud-based AI-powered solution focused on **improving the customers' experience of searching for products in an eCommerce** store, providing accurate, customer-relevant recommendations

## AI has found a perfect testing field in HR processes and operations

**Employee experience, measuring performance, training,** driven by Analytics through AI and **chatbots** capable of answering questions

Importance of **perks and additional benefits**, with companies arising in this space like Zenefits

**Remote working** becoming one of the most desired perks for employees, with **AR for meetings** and **VR for learning & development**

### Startup to follow...

Worklytics provides **workforce analytics** centered on **productivity and collaboration**, analyzing employee experience, uncover what drives engagement

Worklytics

# Biotech and E-health

**Telefónica** Innovation Ventures **SV**

## A new era of democratization and personalization in medicine, health and foodtech

5G allows **for remote surgery** while advanced image recognition helps to detect for example breast cancer 40x faster than the human eye.

**Digital mental health**, in B2C models as well as B2B with companies dedicating resources to improve stress and employee's mental health

**Food tech** gaining lots of traction with a record breaking $16.9B in funding recorded

**SV**

### Startup to follow...

**Chronolife builds predictive medical solutions to aid in diagnosis through a wireless, wearable technology.**

Chronolife REAL TIME INTELLIGENCE FOR HEALTHCARE

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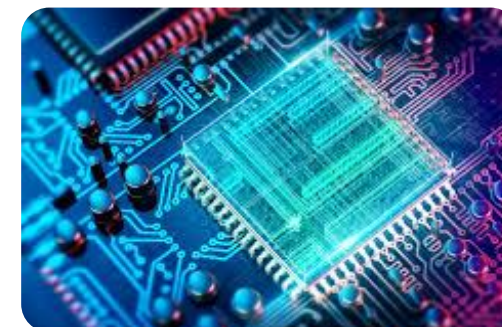- 5G Edge
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# Blockchain

**Past the (alt)coin trading-hype we start to see traction in Blockchain use cases**

**Stable coins** are proving to bring value to financial operations as they mostly yield the same features as Cryptocurrencies

**Asset tokenization** gains popularity with companies starting to use digital tokens to validate ownership of real-world assets

New companies that allow the payments with cryptocurrency and the deliver the value in real coins to the merchants

## Startup to follow...

Clear builds **blockchain-based settlement and clearing networks** for global industries

Oclear

#RECONNECT

Telefónica

# Quantum Computing

**Still in early stages, with no signs yet of reaching real commercial use cases**

Once we do reach **quantum supremacy** little will change in the near term in terms of time to market

Quantum computers will remain **difficult to build, costly, challenging to program, and not ready** for the commercial market any time soon

The **first commercial general-purpose-quantum computers** are unlikely to appear before 2030

**Startup to follow...**

Speqtral plans to launch a global secure communications network using satellites and quantum computing

SPEQTRAL