

Algodone Introduction

Enabling Silicon-as-a-Service

TOPICS

WHY SHOULD WE EMBRACE SILICON-AS-A-SERVICE?

➤ **Flexibility, Profitability, Security**

HOW DOES ALGODONE ENABLE SILICON-AS-A-SERVICE?

➤ **Silicon Activation Licensing Technology (SALT)**

WHERE DO WE SEE IT IN ACTION?

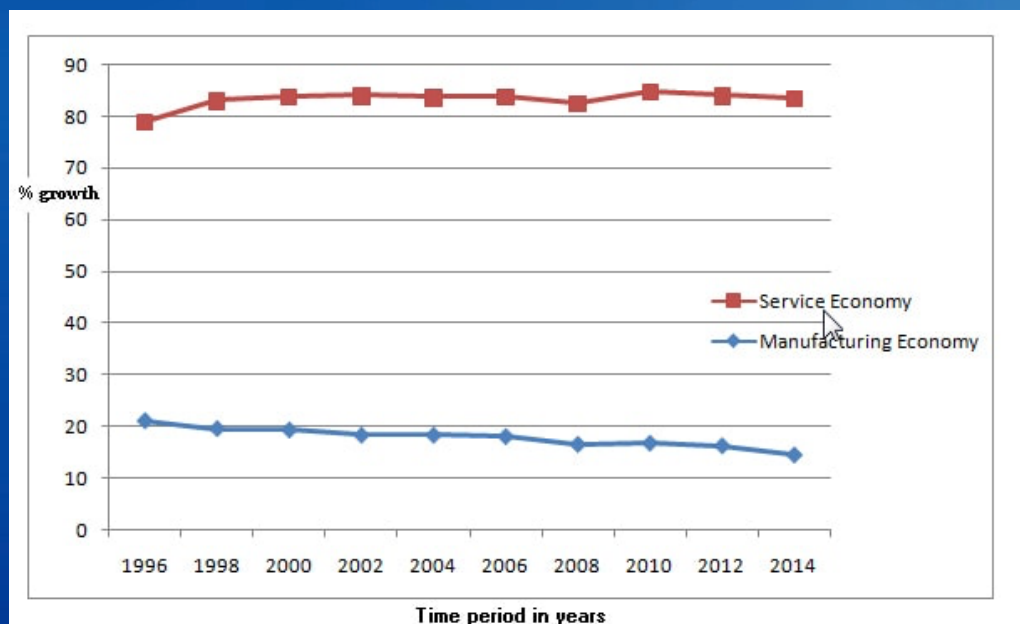
➤ **Pay-Per-Use IP in Hardware Acceleration**

A SHIFT FROM PRODUCTS TO SERVICES



BENEFITS

- Flexibility
- Personalization
- Pay-per-use
- Constant improvements
- Win-win for all



EVERY INDUSTRY IS SHIFTING

Leaders Are Adopting the New as-a-Service Business Models



IT'S TIME TO TAKE THE SHIFT FOR SILICON

Silicon
as a Product



Silicon + Licensing
as a Service

The biggest story to watch in high-tech: Shift to services

By Sami Luukkonen 2016-05-01T09:00:37.121Z News



The biggest high-tech story to watch is the shift from silicon to services and platform companies to deliver value to end users and consumers.

designlines INTERNET OF THINGS

News & Analysis

Q'comm Preps Silicon as a Service

Secure services target IoT node-to-cloud

Rick Merritt

2/14/2018 04:30 AM EST

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SAN JOSE, Calif. — Qualcomm is leaping from OEM silicon to end-user services with a kind of offering that one analyst sees as the start of a broad trend at the intersection of blockchain technology and the Internet of Things. Qualcomm Wireless Edge Services combines security and management features that are already attracting interest from the likes of Alibaba and Baidu.

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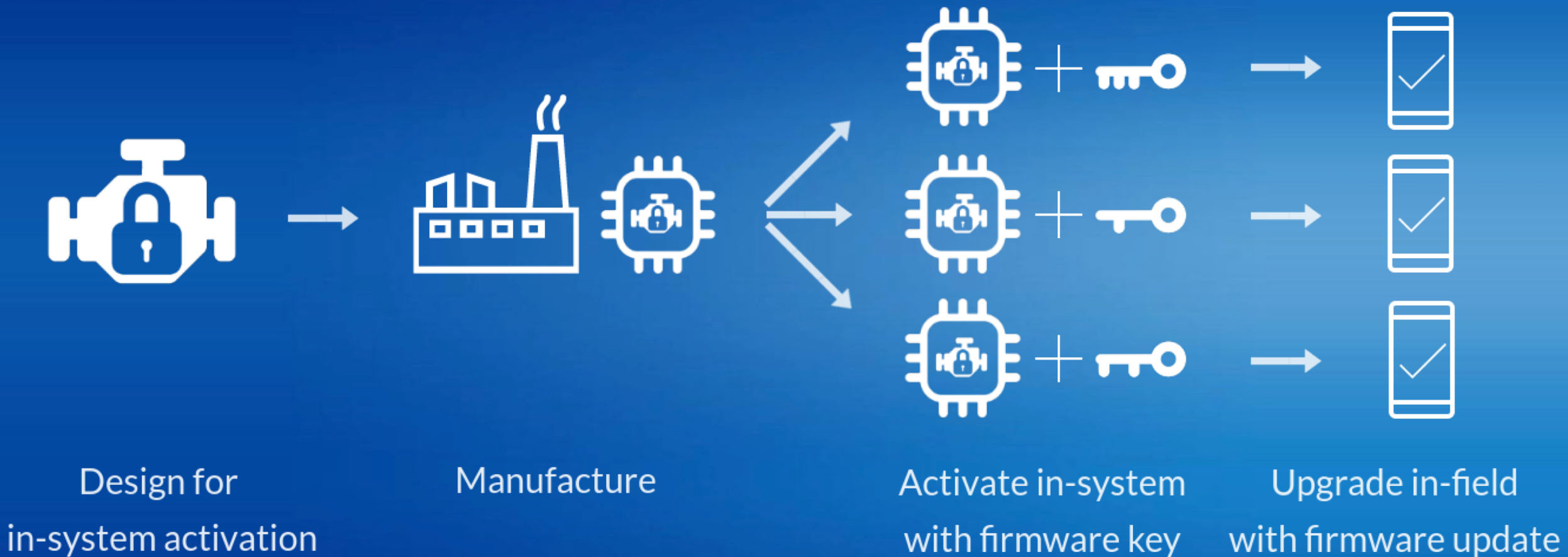
Monetizing semiconductors: From silicon to services

This entry was posted on Monday, January 29th, 2018.

In recent years, the semiconductor industry has faced a diverse range of challenges, including rising development costs, shrinking margins, market saturation and accelerating M&A activity. These challenges have only become more pronounced in 2018, as the newly consolidated semiconductor industry actively seeks a return to stability and organic growth within a viable and collaborative business paradigm.

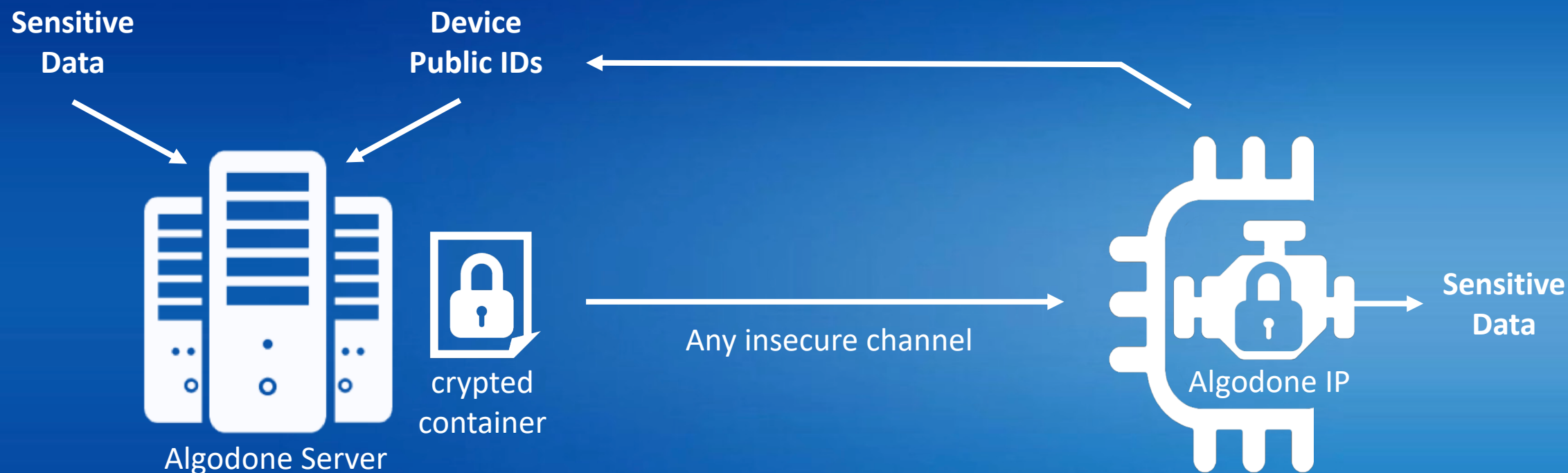
HOW ALGODONE ENABLES Si-a-a-S

Silicon Activation Licensing Technology (SALT)



HOW ALGODONE ENABLES Si-a-a-S

Cloud-to-chip Secure Provisioning



CLOUD-TO-CHIP SECURED PROVISIONING OF SENSITIVE DATA

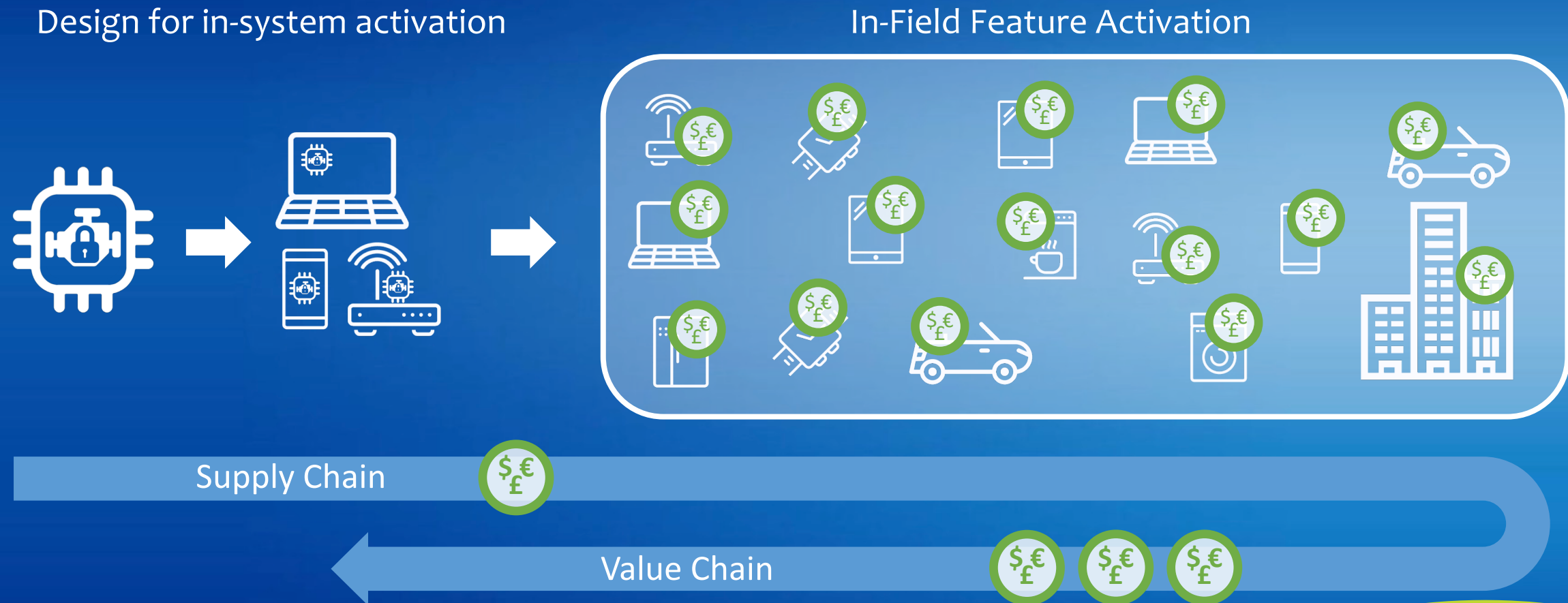
Activation Codes
Crypto Keys & Signatures
Device Configurations

ENABLING SILICON-AS-A-SERVICE

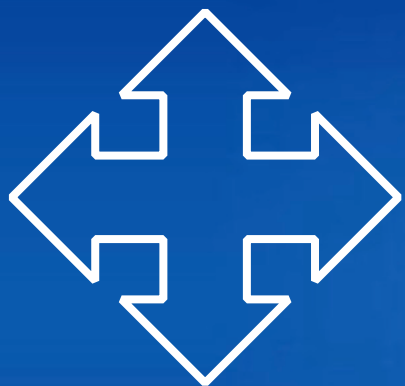
algodone

HOW ALGODONE ENABLES Si-a-a-S

Silicon-as-a-Service Value Chain



THE Si-a-a-S BENEFITS



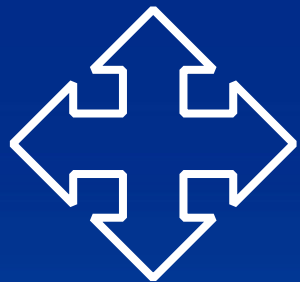
Flexibility



Profitability



Security



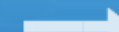
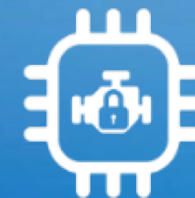
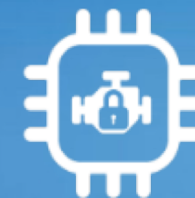
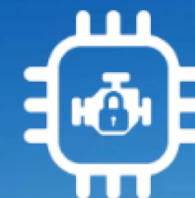
FLEXIBILITY



Manufacture a
universal device



Reduce inventory
to one SKU



Personalize in-system



PROFITABILITY

Old world

ONE-SIZE-FITS-ALL

Lots of Features ✓

High Performance ✓

Low Power ✓

Single Price \$100

New world

PERSONALIZED - UPGRADABLE

Base Feature Set	\$80	✓	✓	✓
Feature 1	\$10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Feature 2	\$10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Feature 3	\$10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Turbo Performance	\$10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ultra Low Power	\$10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A la carte Price		\$80	\$110	\$130



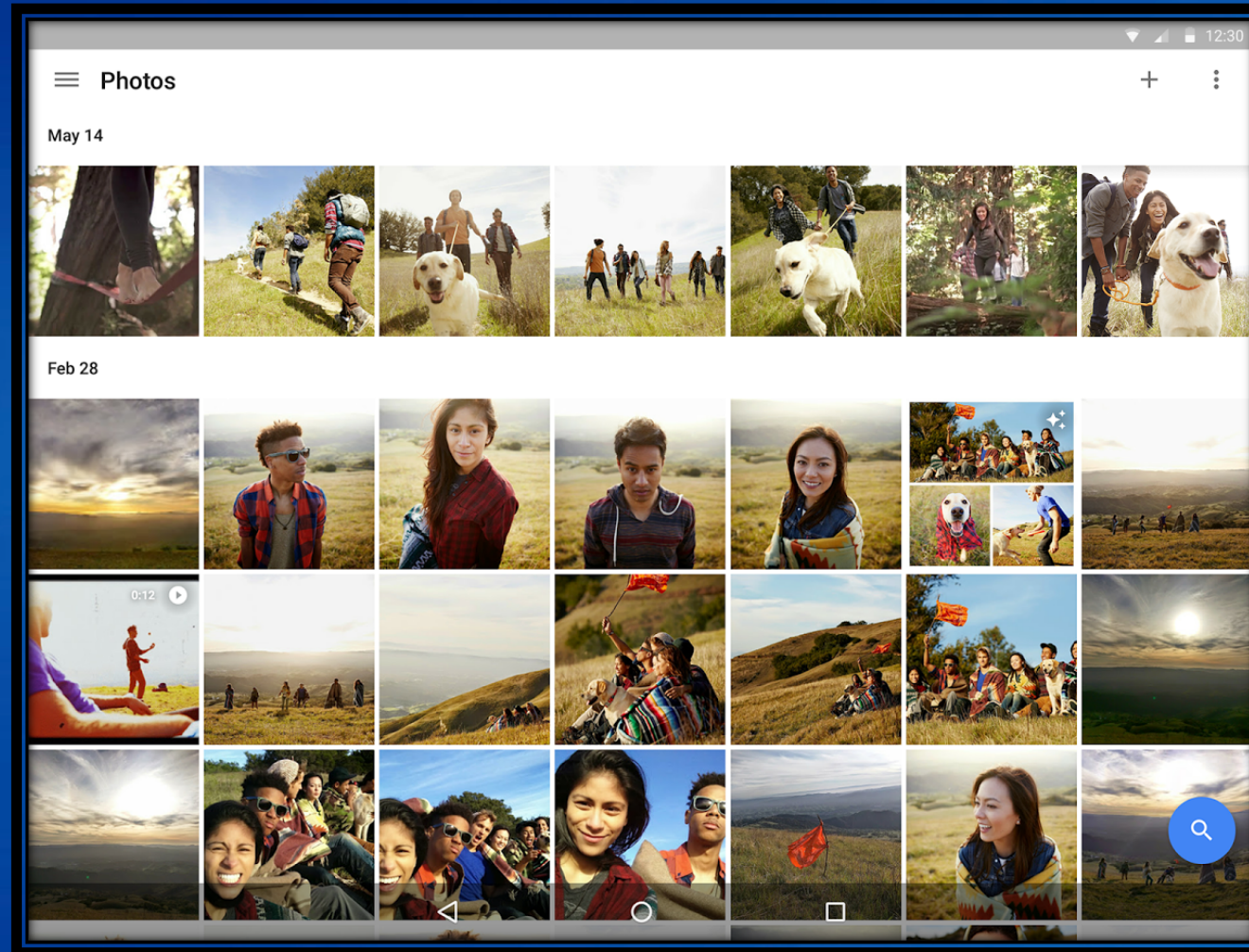
SECURITY

In-system activation
eliminates any
unauthorized use



- ✕ Piracy
- ✕ Theft
- ✕ Over-use
- ✕ Over-building
- ✕ Counterfeiting

Si-a-a-S USE CASE: HARDWARE ACCELERATION



Thumbnails generation
on the Fly

Credits: Google Photos

HARDWARE ACCELERATION IN THE CLOUD

Offered by Amazon Web Services,
Microsoft Azure, Google, Baidu,
Alibaba, Huawei, OVH..

Xilinx Powers Huawei FPGA Accelerated Cloud Server

Delivers 10x acceleration for machine learning, data analytics and video processing

SHANGHAI, Sept. 6, 2017 -- Xilinx, Inc. (XLNX) today announced at...
...ance
...part of a
...d Server
...ublish new

Why The Time is Right for Open Source Hardware and 'Chips as a Service'

August 28, 2017, anysilicon

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Microsoft unveils Project Brainwave for real-time AI

Without
by, the Web

Baidu Deploys Xilinx FPGAs in New Public Cloud Acceleration Services

Target applications to include machine learning and data security



Xilinx Selected by Alibaba Cloud for Next-Gen FPGA Cloud Acceleration

Xilinx FPGAs are accelerating machine learning and other critical compute workloads for one of the world's largest cloud providers



HANGZHOU, China, Oct. 12, 2017 -- Xilinx, Inc. (NASDAQ: XLNX) today

THE ALGODONE + ACCELIZE FLOW

IP Pay-Per-Use for Cloud Acceleration



THE SILICON-AS-A-SERVICE PROMISE

MINDSET	Chip	→	Platform
PRICING	Cost-plus pricing	→	Value pricing
FINANCE	Unit margin	→	Lifecycle value



Consumption
Based



On-demand
Fulfillment



Anywhere,
Real-time



Personalized
Service



On-going
Value

SILICON-AS-A-SERVICE

Start Your Story Today