THE OPEN IOT

IMAD SOUSOU

Vice President and General Manager
Intel Open Source Technology Center

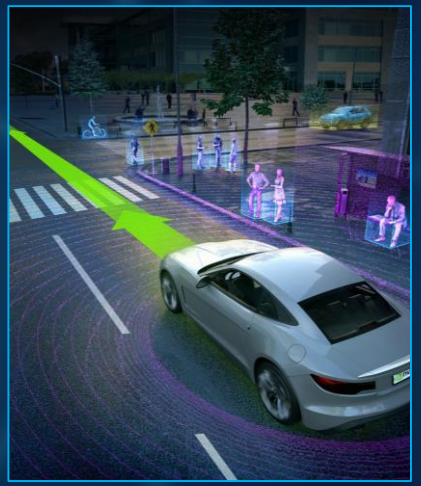
BILLIONS OF CONNECTED DEVICES & SENSORS

2020 – 1.5 GB OF TRAFFIC PER DAY/PERSON

CONNECTED PLANE
40,000 GB/DAY

SMART HOSPITAL
3,000 GB/DAY

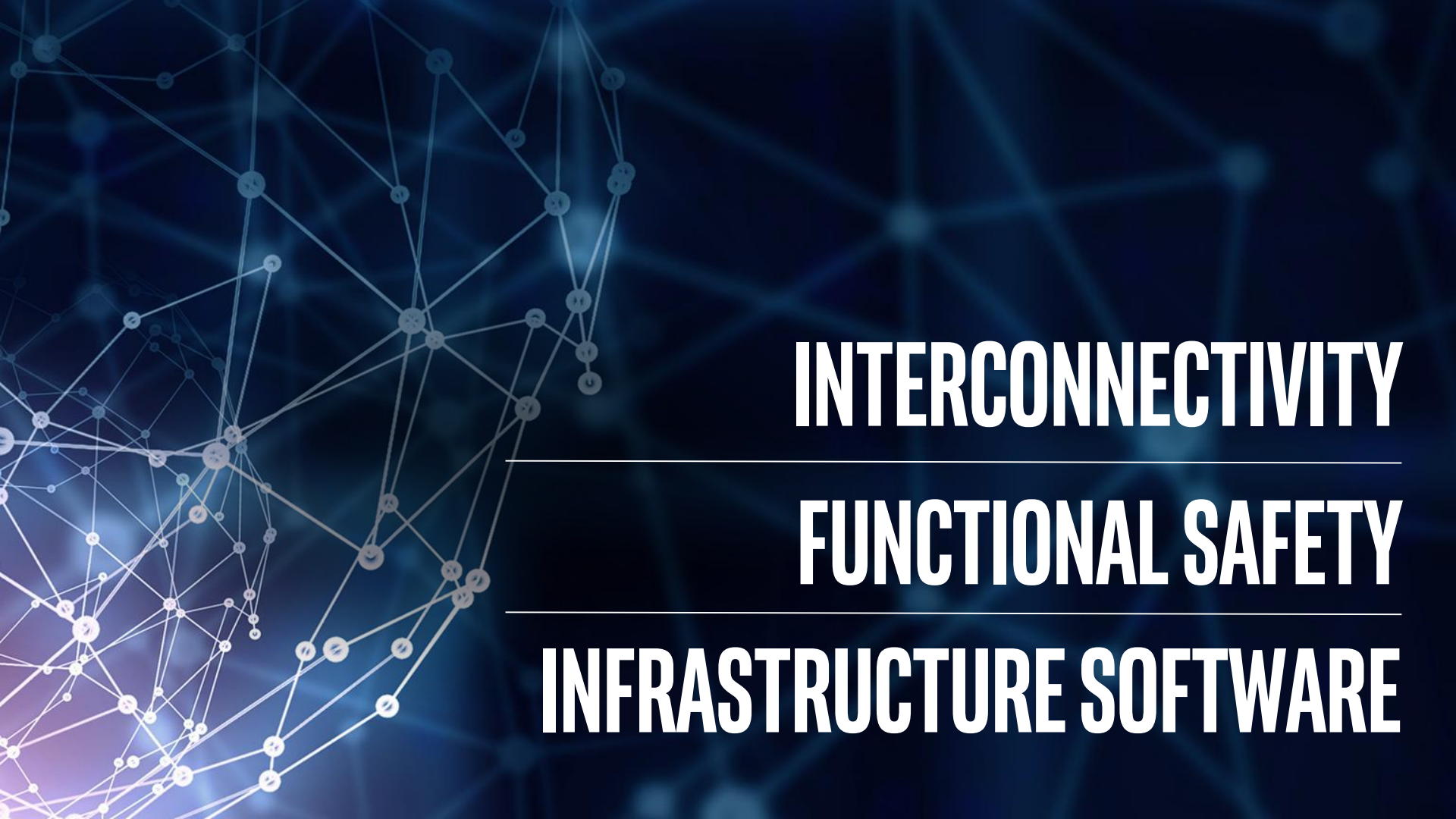
CONNECTED FACTORY
1 MILLION GB/DAY



SELF-DRIVING CARS
4,000 GB/DAY

OPEN SOURCE

FOUNDATION TO THE DEVELOPMENT OF DEVICES


INTERCONNECTIVITY
FUNCTIONAL SAFETY
INFRASTRUCTURE SOFTWARE

OPEN
CONNECTIVITY
FOUNDATION

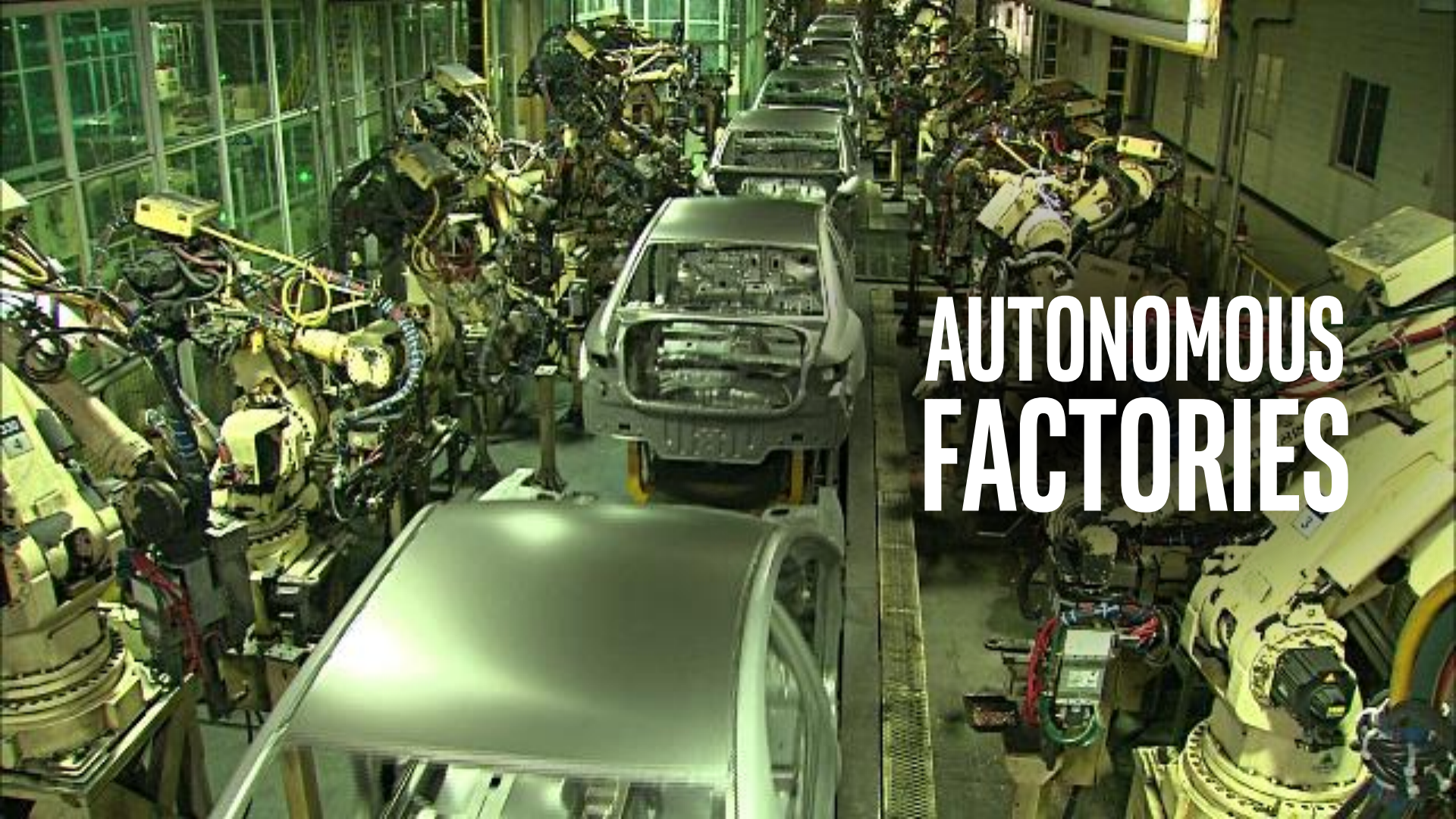
STANDARD AND CERTIFICATION
+
OPEN SOURCE PROJECT

INTERCONNECTIVITY
MORE WORK TO DO

INTEROPERABILITY
&
SECURITY

FUNCTIONAL SAFETY

AUTONOMOUS MACHINES


AUTONOMOUS
FACTORIES

AUTONOMOUS ROBOTS

AUTONOMOUS DRONES

AUTONOMOUS AND FUNCTIONAL SAFETY CHALLENGES

Modern multi-processor systems and a modern operating system required

AUTONOMOUS AND FUNCTIONAL SAFETY SOLUTION

SAFETY CRITICAL LINUX

Extends beyond static, proprietary RTOS

Modernize safety-standard certification process to accommodate large pre-existing re-usable software components

Scalability by open source and Linux

OPEN-SOURCE
SOFTWARE
OPEN
SOURCE
FREE
ACCESS
DEVELOPMENT
CULTURE
COPYRIGHT
RESEARCH
MEDIA
INTERNET
TECHNOLOGY
CULTURAL
MOVEMENT
EXAMPLE
PLATFORM
COMMUNITY
CODE
DIGITAL
PUBLIC
USERS
COST
CONTENT
SCIENTIFIC
SYSTEMS
TERM
SHARING
AVAILABLE
INFORMATION
HARDWARE
NEW PRODUCTION
ETHICS
SYSTEM
COMMONS
PRODUCTS
CREATIVE
SOCIAL
EXAMPLES
LICENSES
OPERATING
NETWORK
COMPANIES
DESIGN
MADE
POLITICAL
INDIVIDUALS
ANOTHER
BUSINESS
USE
SCIENCE
CASE
PROGRAMMING
DISTRIBUTED
LICENSE
INITIATIVE
NEEDED
FILE
OTHERS
USING
IDEA
BECAME
UNIX
COSTS
MANUFACTURERS
DESCRIBE
PRODUCT
FILM
KNOWN
MAIN
FIRST
GROUP
BEER
SOCIETY
RESOURCES
SIMILAR
CENTURY
COMMUNITIES
POTENTIAL
ARGUE
INCLUDING
INTELLECTUAL
TECHNOLOGIES
WELL
CREATED
INNOVATION
EVEN
SHARED
DATA
PROPERTY
MESSAGEBOARDS
CONCEPT
PROJECT
MAKING
CITATION
WEB
PUBLISHED
MANY
RAYMOND
WORK
ONE
COMPUTER
PROCESS
MOVIE
BBS
PROJECTS
ARTICLE
ANYONE
WITHOUT
MODEL
LIMITED
WORKS
BLOGS
GENERAL
ORGANIZED
VIRTUAL
WORLD

ZEPHYR PROJECT

Zephyr™

GrusH

Smart Gaming Toothbrush

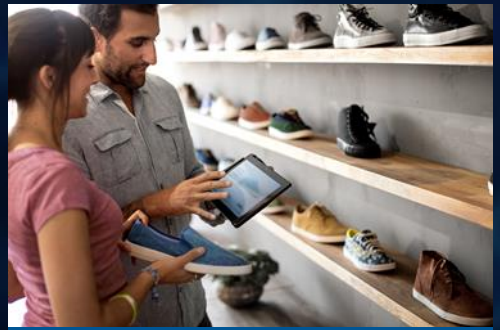
Neonatal Baby Monitor

Neopenda

yocto · PROJECT

SOFTWARE DEFINED COCKPIT

INTERNET OF THINGS



RETAIL

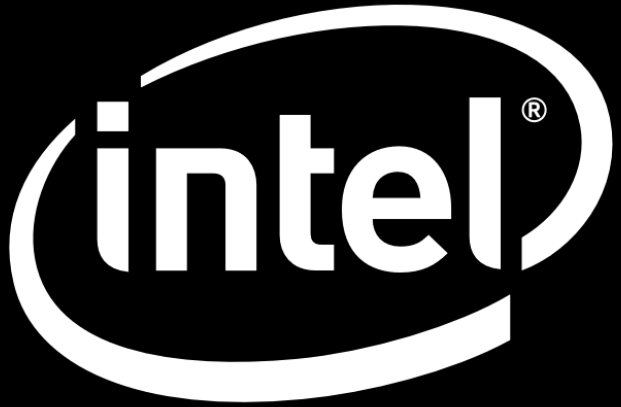
COMMS

INDUSTRIAL

Dronecode

Intel® Aero Ready to Fly Drone

Intel Aero compute board is the brains inside this open source, feature rich, and fully-assembled, ready to fly quadcopter.


intel®