



**INTEL<sup>®</sup>  
INNOVATION  
DAY**



# FOR YOUR BUSINESS. BY DEVELOPERS.



## ARE YOU READY TO REINVENT YOUR SOFTWARE SOLUTION?

*Best performance in AI, Gaming, Big data and analytics, Fast code, HPC&Cloud, Security, Networking, Virtual Reality, IoT, embedded, Open source*



## THROUGH INDUSTRIES TO END USER EXPERIENCE!

*Software - hardware, interoperability, and amazing customer experiences*



## INTEL® SOFTWARE IS YOUR PARTNER!

*Easy, open and scalable solution on Intel systems*

# ИНСТРУМЕНТЫ INTEL ДЛЯ РАЗРАБОТЧИКОВ ПО НА ПЛАТФОРМАХ INTEL

Иван Кузьмин, Директор по разработке ПО компании Intel в  
России

# THE INDUSTRY IS TRANSFORMING

# DATA DEFINES THE FUTURE

**The Economist**

Obama the warrior  
Misgoverning Argentina  
The economic shift from West to East  
Genetically modified crops blossom  
The right to eat cats and dogs

16 JULY 27th - August 3rd 2013  
Economist.com

## The data deluge

AND HOW TO HANDLE IT: A 14-PAGE SPECIAL REPORT

**The Economist**

Crunch time in France  
Ten years on: banking after the crisis  
South Korea's unfinished revolution  
Biology, but without the cells

AUGUST 5th 2013

## The world's most valuable resource

Data and the new rules of competition

**POPULAR SCIENCE**

THE FUTURE NOW

## THE CONTROL CENTERS

Using Data to Feed the World, Solve Cold Cases, Battle Malware, Predict Our Fate &...

**OFFICER ALGORITHM**  
Can a Crime Be Prevented Before It Begins? <math>x</math>

**NEW WAYS OF SEEING**  
A Gallery of Extraordinary Infographics <math>x</math>

**SPECIAL ISSUE**

## DATA IS POWER

HOW INFORMATION IS DRIVING THE FUTURE

PLUS  
Juan Enriquez Reprograms Life  
James Gleick Unspits the Bit  
AND Lawrence Weschler Questions the Cloud <math>x</math>

ISSUE 91 JULY 2013  
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www.pops.com  
COSMOSMagazine.com

8-PAGE SPECIAL POSTGRADUATE SURVIVAL GUIDE 8th BIRTHDAY ISSUE!

**COSMOS**

THE SCIENCE OF EVERYTHING

THE END OF VIOLENCE  
Steven Pinker on the new peace p36

DEFEATING POLIO  
Will politics jeopardise a cure? p48

FRAUDS AND FAKES  
Science's biggest scams p24

GENIUS OF DOGS  
Inside the canine brain p41

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## IS data THE NEW GOD?

How tracking your digital trail could predetermine your future – and why you'll benefit from today's data deluge. p46

Preventing cybercrime

GALAXIES AND NEBULAE ■ CANCER VACCINES ■ WHALES ■ FICTION ■ REVIEWS

# DATA-CENTRIC TRANSFORMATION

DECREASING COST OF  
technology

COST OF  
Compute

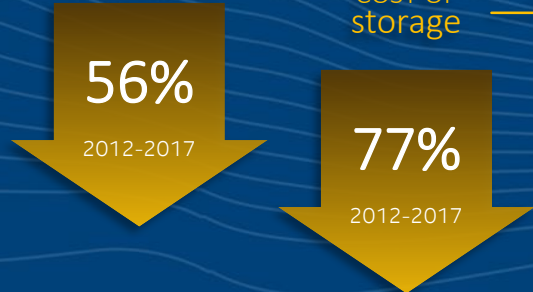
56%

2012-2017

COST OF  
storage

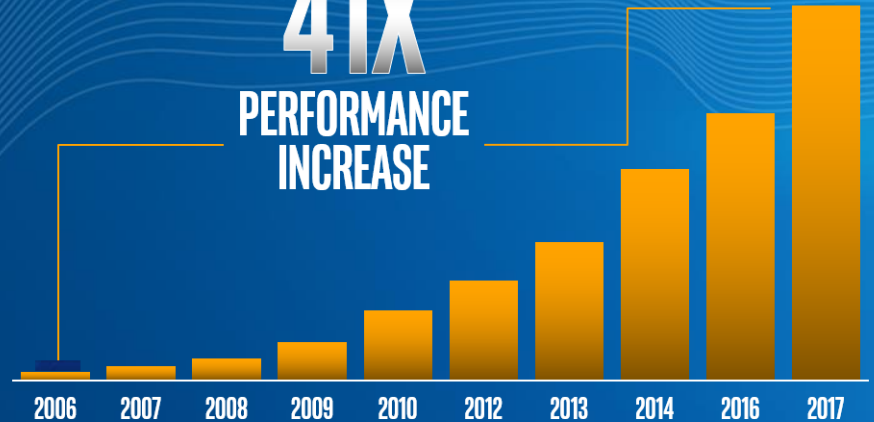
77%

2012-2017



Source: Amalgamation of analyst data and Intel analysis.

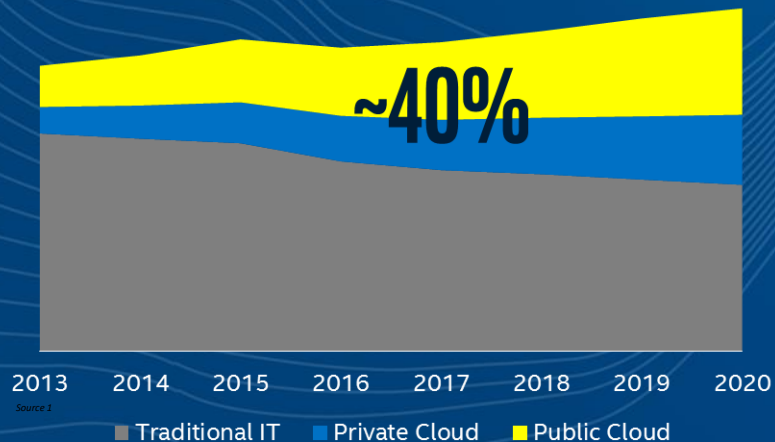
41X  
PERFORMANCE  
INCREASE



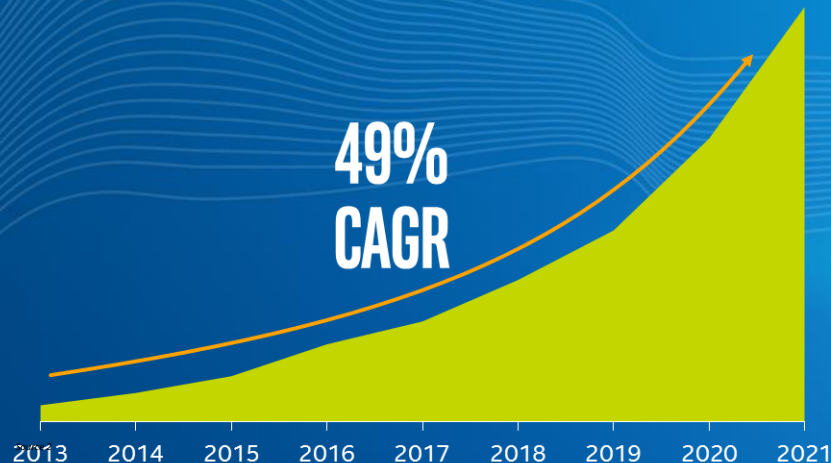
Source: Intel

# DEMAND FOR COMPUTE INFRASTRUCTURE IS SOARING

Q1'17 Cloud IT infrastructure sales significant increase from ~34% a year ago



Enterprise Compute Demand<sup>2</sup> (MIPs)



<sup>1</sup> Source: IDC WW Quarterly Infrastructure Tracker, June 2017

<sup>2</sup> Source: Intel internal data – Compute Demand, MIPS

Forecasts are Intel estimates, based upon current expectations and available information and are subject to change without notice.



**SAVING  
LIVES**



**IMPROVING  
QUALITY OF LIFE**



**GROWING  
YIELD**



**ENHANCING  
PUBLIC SAFETY**

# IOT: TRANSFORMING THE WAY WE LIVE AND WORK



**OPTIMIZING  
PRODUCTIVITY**



**DRIVING  
EFFICIENCY**



**LOWERING  
COST**



**PROTECTING THE  
PLANET**



# NETWORK DEVELOPMENT



**PACKET PROCESSING**

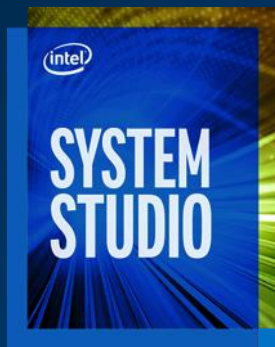
**VIDEO ENCODING**

**PERFORMANCE**

Speed application development

Simplify system bring-up

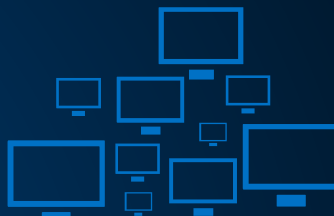
Boost system & IoT device application performance



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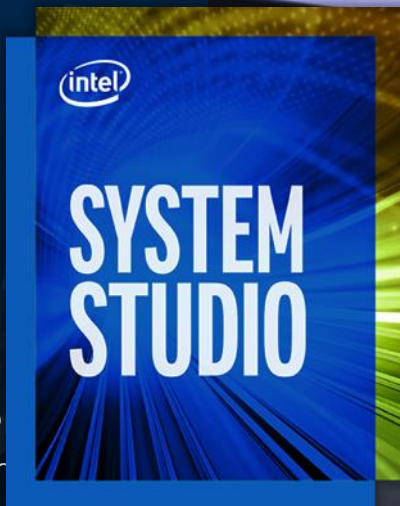




# 24X FASTER PERFORMANCE CHALLENGE

Increase performance and expand capabilities of GeoVision's intelligent network video management system

# REAL-TIME VIDEO ANALYTICS



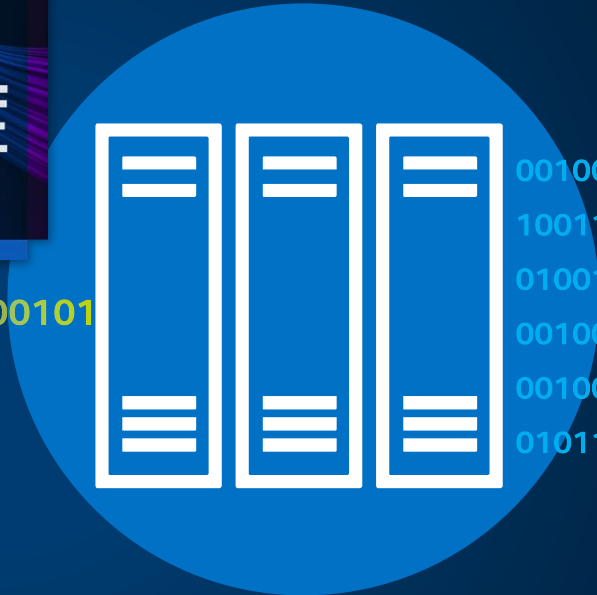
# ENTERPRISE & TECHNICAL COMPUTING



**COMPLEX**

**MATHEMATICALLY  
INTENSE**

**MISSION CRITICAL**



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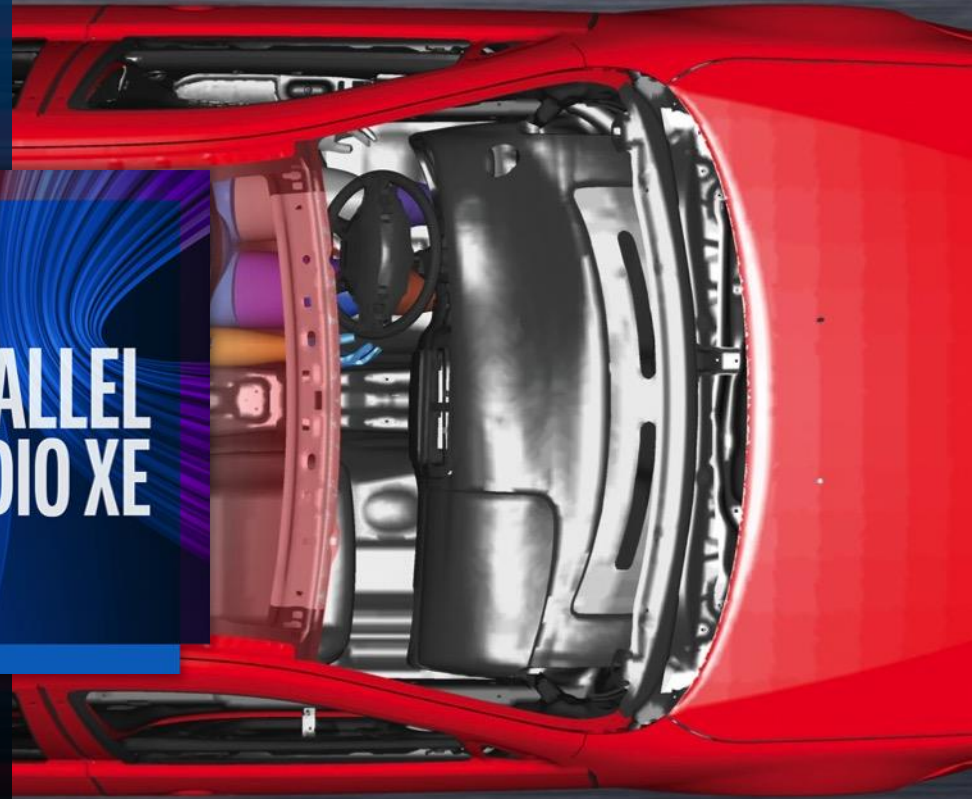
- | Create scalable and reliable code
- | Accelerate performance on modern hardware
- | Leverage AI data and insights



# 10X FASTER PERFORMANCE CHALLENGE

Deliver the first full vehicle frontal crash simulation with more than 1 million elements in <5 minutes.

## BEAT 5-MIN GOAL





# AI & ANALYTICS FROM EDGE TO CLOUD



# VISUAL DATA DEEP LEARNING INSIGHTS HETEROGENEOUS SOLUTIONS

# INTEL'S AI SOFTWARE SOLUTIONS

## EXPERIENCES



## PLATFORMS

Intel® Nervana™  
Cloud & Appliance

Intel® Nervana™  
DL Studio

OpenVINO™  
Toolkit

Intel® Movidius™  
SDK



## FRAMEWORKS



## LIBRARIES



Intel Python  
Distribution

Intel® Data Analytics  
Acceleration Library  
(DAAL)

Intel®  
Nervana™  
Graph\*

Intel® Math Kernel Library  
(MKL-DNN)

# OPENVINO™ TOOLKIT

Accelerate performance

Reduce time to market

Integrate deep learning



Image Data Capture



Intel® Platform Support



Data Connectivity



Data Results and Services

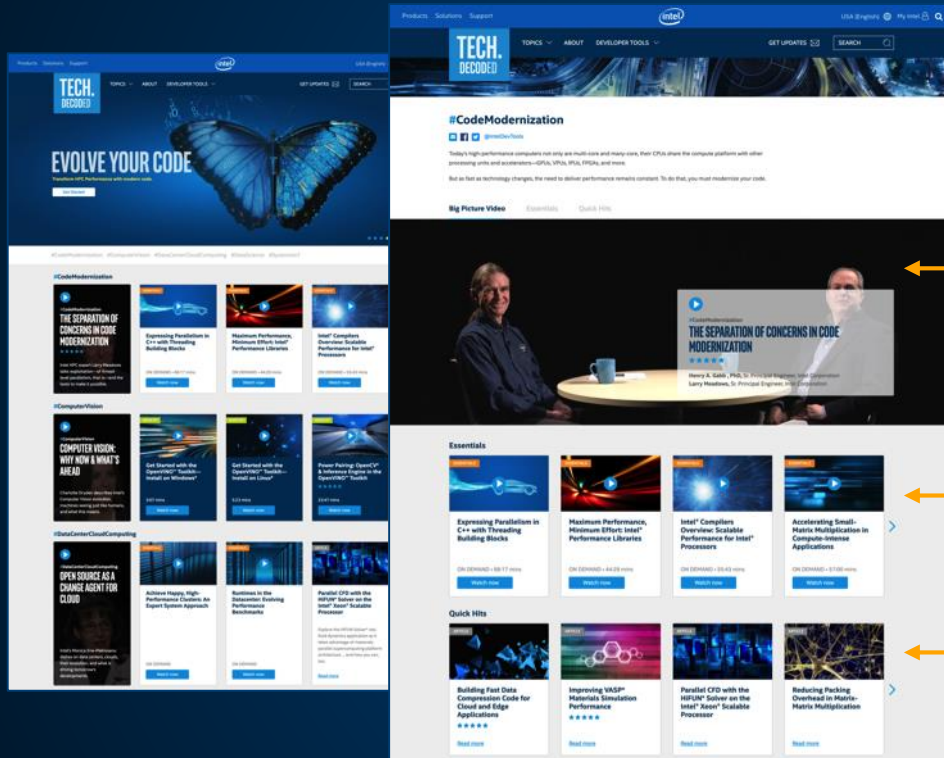
GPU = Intel® CPU with integrated graphics/Intel® Processor Graphics/GEN  
VPU = Intel® Movidius™ Vision Processing Unit

101001 010010 1001 1001 00100100 1001 01

CONNECTED VISION

101001 010010 1001 1001 00100100 1001 00

# Get the Most from Your Code Today with Intel® Tech.Decoded



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## Big Picture Videos

Discover Intel's vision for key development areas.

## Essential Webinars

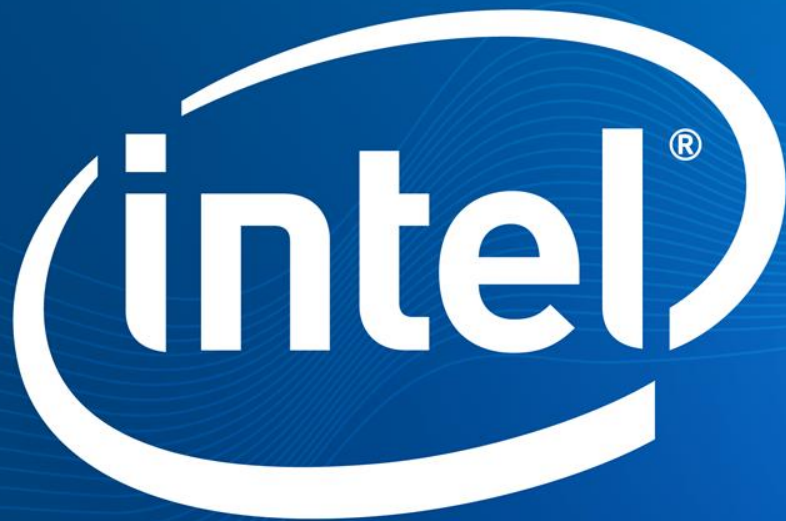
Gain strategies, practices and tools to optimize application and solution performance.

## Quick Hit How-tos

Learn how to do specific programming tasks using Intel® tools.

## TOPICS:

- Visual Computing
- Code Modernization
- Systems & IoT
- Data Science
- Data Center & Cloud Computing



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