



Multi-core CPU and server

2017.09.26

Socionext Inc.

Company name	Socionext Inc.
Headquarters	Nomura Shin-Yokohama Bldg., 2-10-23 Shin-Yokohama, Kohoku-ku, Yokohama, Kanagawa, 222-0033, Japan
Capital	30.2 billion yen
Start of business	March 1, 2015
Business description	Design, development, and sales of SoC and solutions/services centering on SoC
Shareholders	Development Bank of Japan, Fujitsu Limited, Panasonic Corporation
Employees	About 2,800
Group company	9 (North America 2, Europe 2, Asia 5)

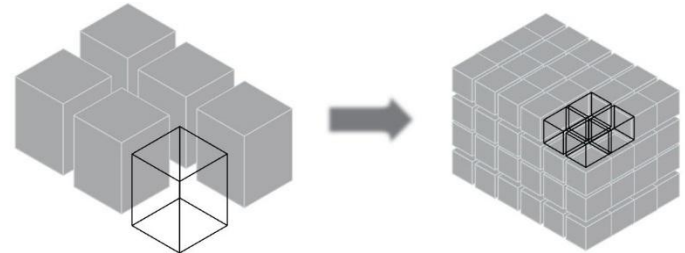


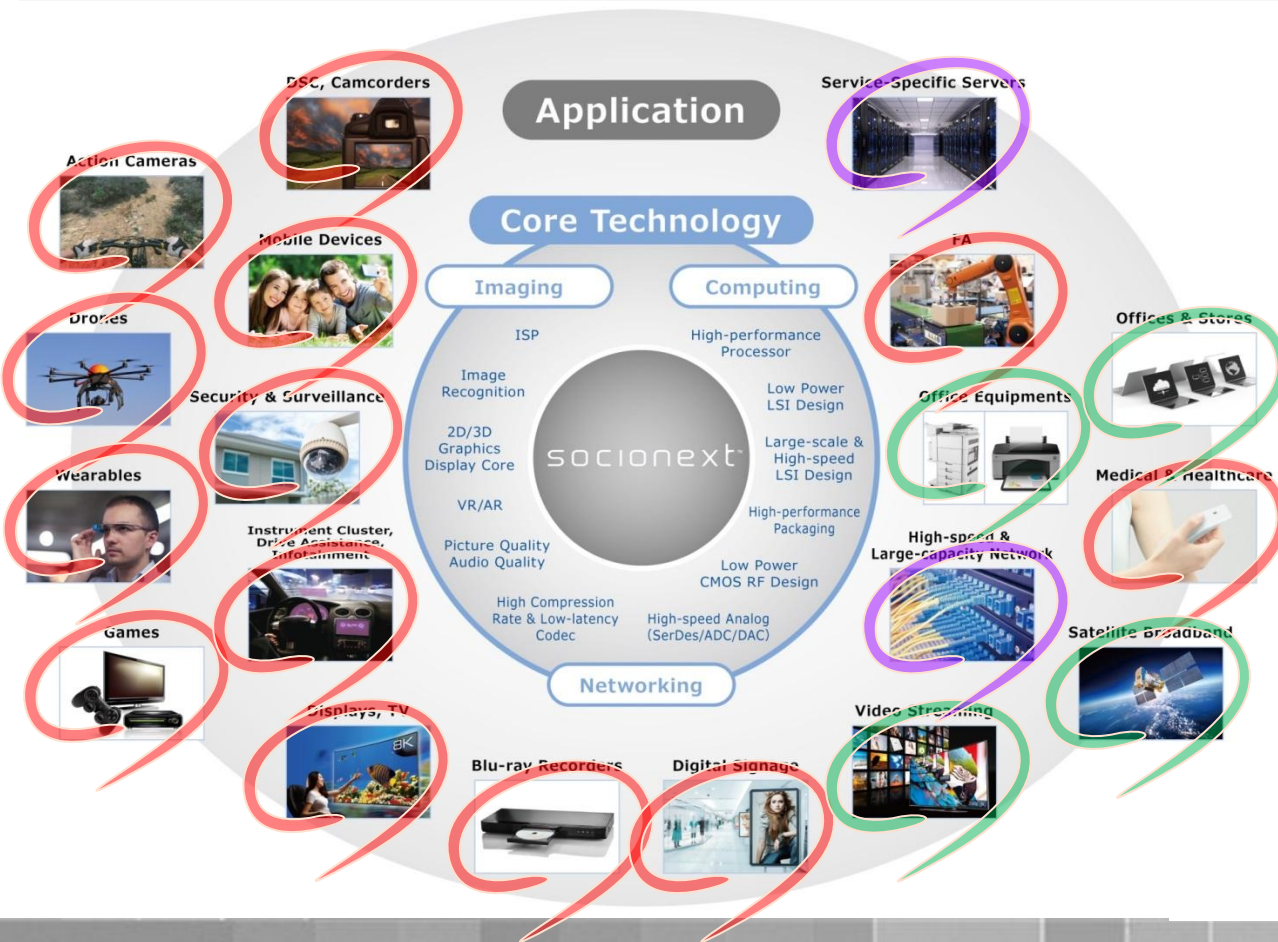
Yasuo Nishiguchi, Ph.D, Chairman and CEO

- 1975 Joined Kyoto Ceramic Company
(now Kyocera Corporation)
- 1999 President, Kyocera Corporation
- 2005 Chairman and CEO, Kyocera Corporation
- 2009 Ph.D, Management of Technology Graduate School
of Policy and Management, Doshisha University
- 2015 Chairman and CEO, Socionext Inc.

SynQuacer™

- Portfolio
- CPU
- From IoT to Cloud
- IoT gateway
- Switch SoC
- Cloud Computing
- For scaling & throughput
- Example





IoT



Edge



Cloud



Balance

1GHz core & bus

Connectivity

DDR4

PCI Express Gen2

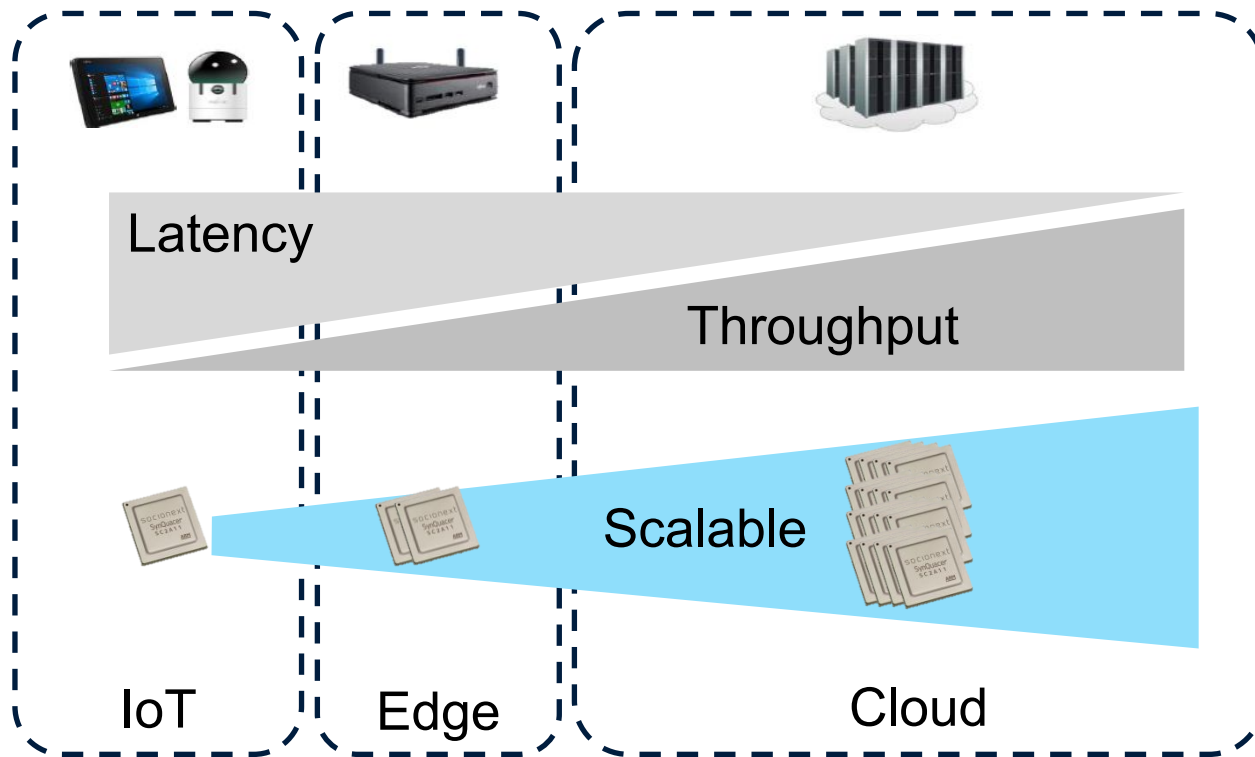
Giga Ethernet

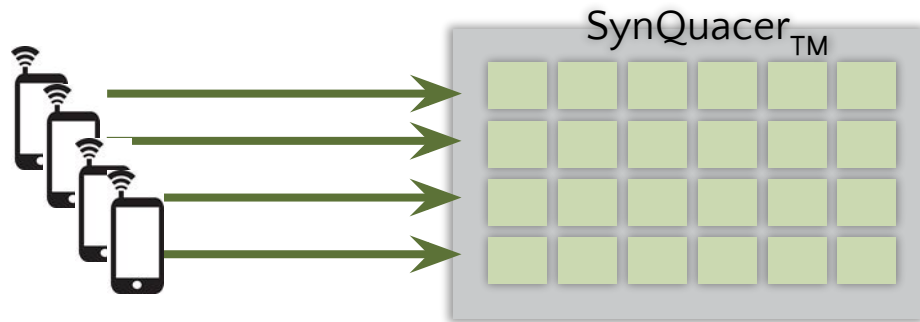
Low Power

< 5[W]/chip

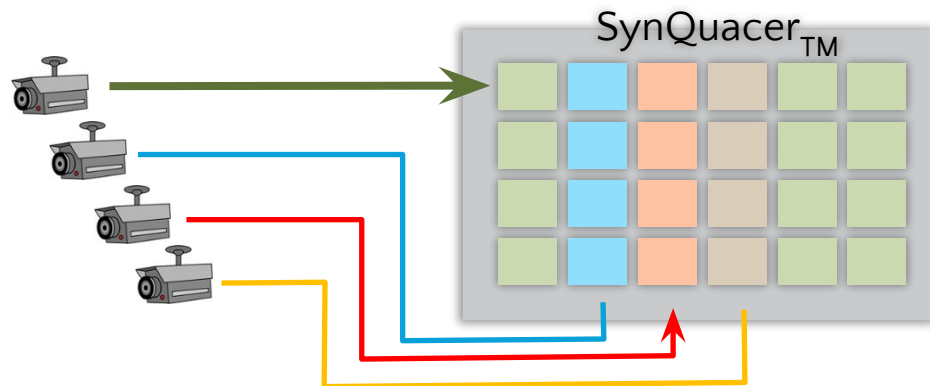
< 2[W]/chip

LOW POWER





Small signal, e.g.
beacon to be
processed by single
core



Large size signal, e.g.
video stream to be
processed by multi
core



SynQuacer™ X
powered by
Socionext DDT
(Direct Data Transaction)

Socionext proprietary high
speed switching technology

speed switching technology
socionext proprietary high

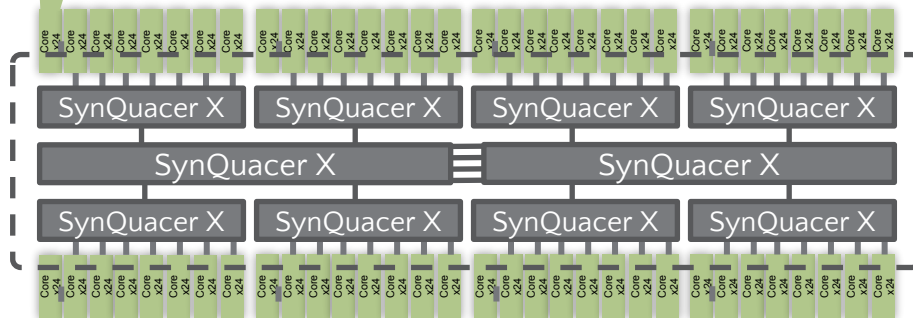


64 x CPU cards are connected
through
Socionext DDT

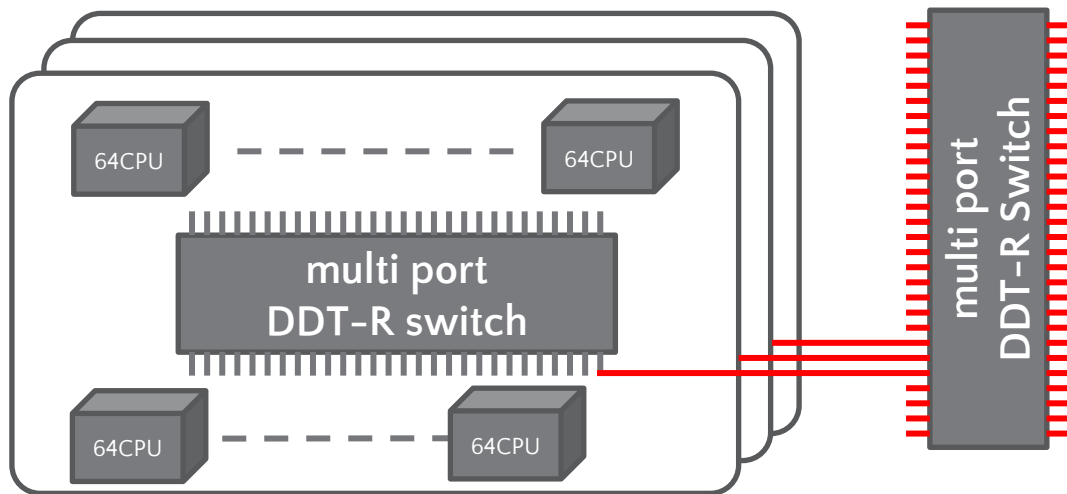
Socionext DDT
(Direct Data Transaction)

Socionext proprietary high
speed switching technology

speed switching technology



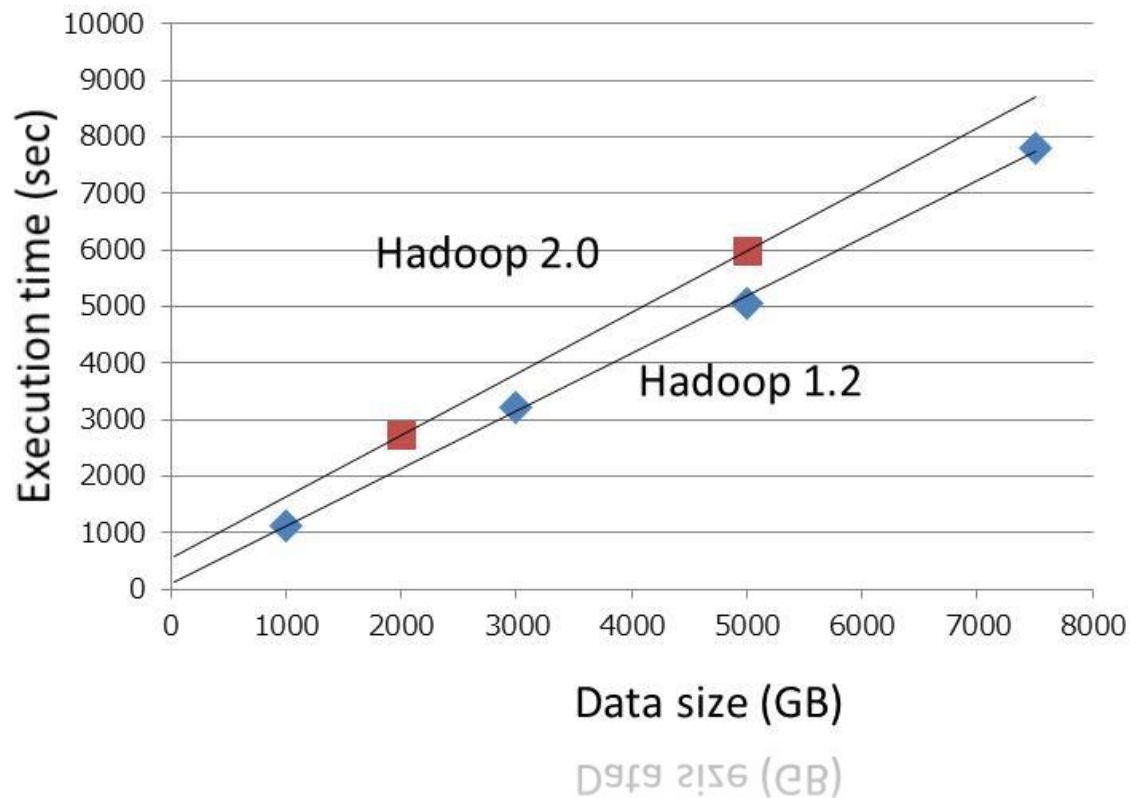
Over 3,000 server nodes' connection



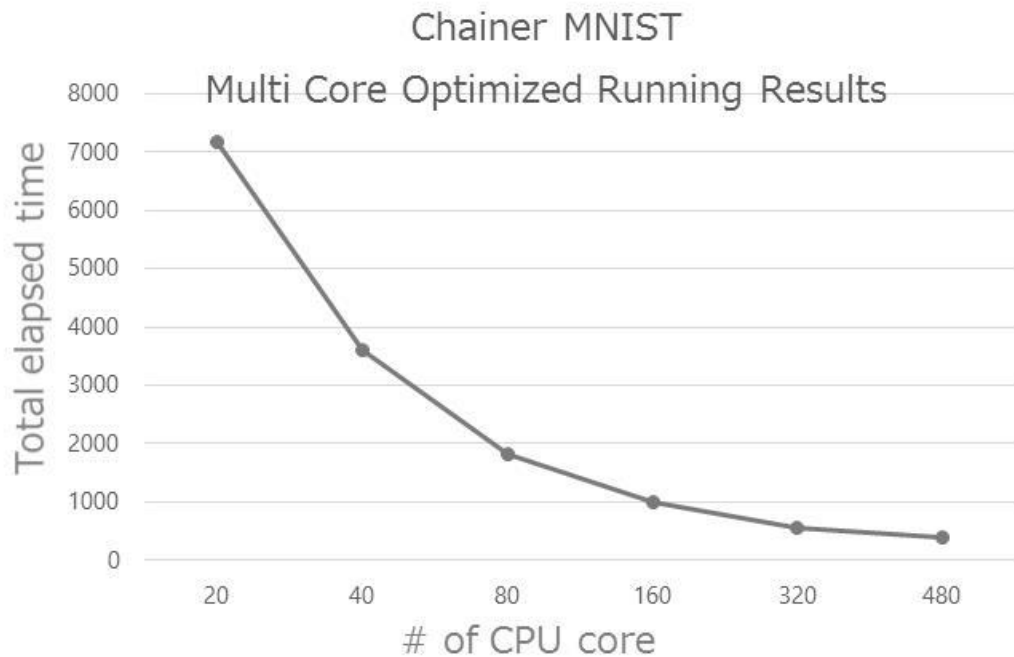
DDT-R
(DDT-Revolution)

Socionext Switch
for
>100PB data processing

>100PB data processing



<3hours
for
10TB sorting



Parallel computing
using multi-CPU is
effective !!



SynQuacer™
1st choice of 64bit
ARM based multi-core
CPU



SynQuacer™ inside
Multi-core ARMv8
64bit
Linux BSP(Linux
Kernel, UEFI, Device
Driver)

DIAGL)

socionext™

for better quality of experience