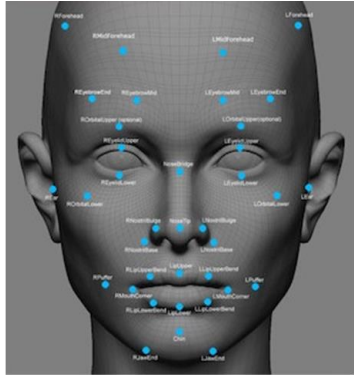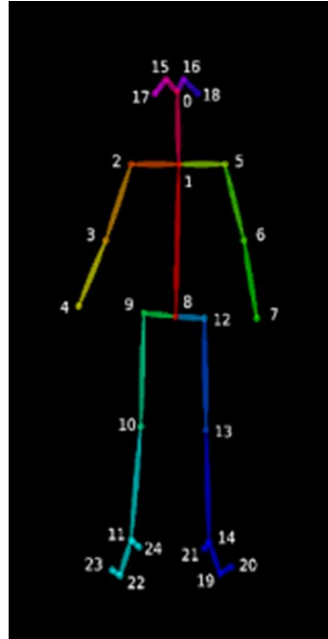# Personal tracking from behind

Pseudonymization by feature value.

Determine feature value from face image.

Multiple security cameras work together to track individuals from bone estimates.

To extrapolate the bone and tie it to the feature value.

Face recognition not support behind view

- Combine bone length balance and facial recognition to identify an individual.

- To improve accuracy, multiple security cameras keep track of the same person on with their bones.

- To link multiple cameras. our IP technology Hybrid Computing™ ( ) analyzes the captured video using distributed AI without transferring the captured movie.

WORLD-LINE authentication

- A person cannot exist in TWO PLACES at the same time. Therefore, if the personal tracking including the behind image is carried out without interruption, it becomes possible to prove the identity. We call it as "WORLD-LINE authentication".

- This allows people who do not own a smartphone to use the service which include cache-less payment, eliminating the digital divide.
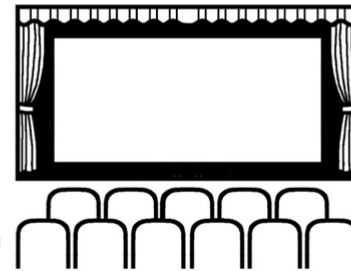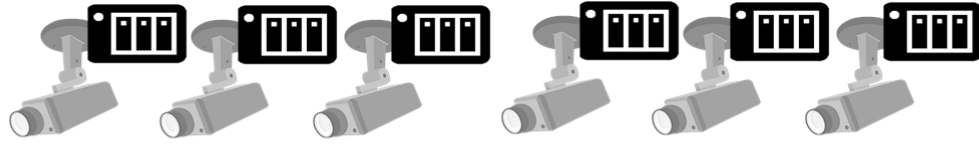
Pseudonymization tracking at shopping

Appending each items to pseudonymization cart by personal tracking.

[CHECK-OUT]
Extract PII for accounting. If the accounting is not successful, the gate will not open.

You can sign-up during the shopping. Pre-registration is no required.

No smartphone

WORLD-LINE

Keep WORLD-LINE authentication without face recognition.

[CHECK-IN]
Start personal tracking to keep pseudonymization ID.

Freehand shopping!!

Rights of recorded raw video and extracted PII

Distributed AI framework without transferring data.

Consumer end user

Masking self silhouette

Use an extracted PII

Opt-out   Opt-in

Transportation   Gate   Security camera

Pseudonymization data

Distributed AI processing

Personally Identifiable Information (PII)

Distributed AI for personal tracking

Smart city facility

On2Off business
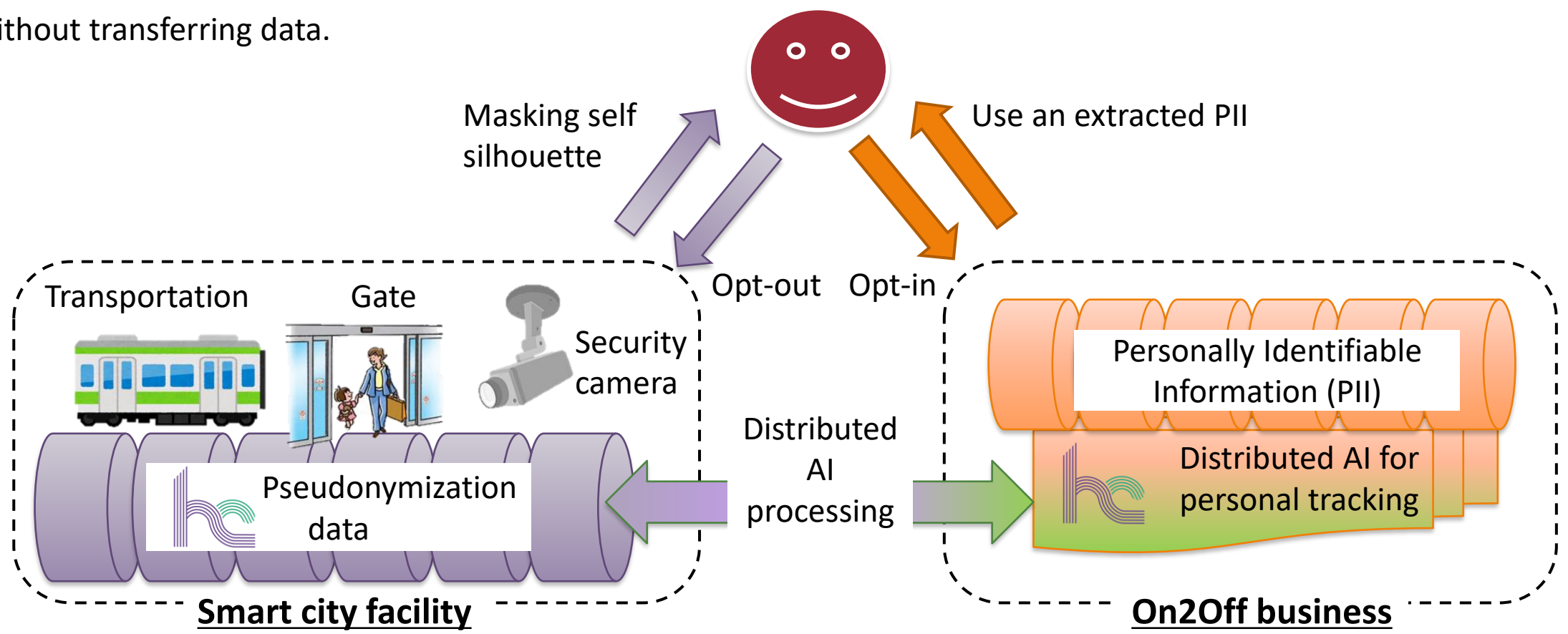
Record video and sensor data for security purpose without user agreement.

There is no PII but "personal tracking AI". When a demand of PII occur, AI extract PII by distributed processing.

Comparison

		Face recognition	Amazon Go	Personal tracking
User	Registration	Before	Before	👍 In store
	Identity	Feature value	QR code	👍 Freehand
	Check out	Check face recognition	walkthrough	👍 walkthrough
Shop	Cloud cost	low	high	👍 low
	Edge cost	👍 low	high	high
	Error rate	bad	good	👍 good

Who we are

tonoi co.,ltd.

Establishment: February 2, 2015
President: Mitsuo Koikawa
Capital: 10 million yen
HQ: Casa Goban-chou 101 Chiyoda-ku
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< Mission >
- Guardian of the digital network world.
- Toward the livable++ Internet.

＜ Vision ＞
- Building a data recycling society where AI apps circulate without collecting raw data.

＜ Business ＞
- Development of next gen data access technology :: Hybrid Computing (HC).
- Planning, design and operation of services using the Internet, etc.
- Contract software development business.

President, Founder Mitsuo Koikawa

10,000 units
7.4 Exabyte /day

Xbox basic communication protocol patent invention.
- PlayStation and others cite this patent.
- Basics of later call protocols such as LINE and Zoom.

Maintain and sponsor a network interoperability lab for 13 years in the Microsoft.
- Interoperability testing with more than 130 carriers, ISPs.
- Interoperability testing with more than 30 communications equipment vendors.

MIT Venture Forum of Japan 2018 Business contest First Prize.