CK&B

CONTENTS KEEPER & BEYOND

Company & Product Introduction

HiddenTag®
No.1 Product Authenticity Verification Service

ScanHit®
Content DNA Search Service

SSELF™
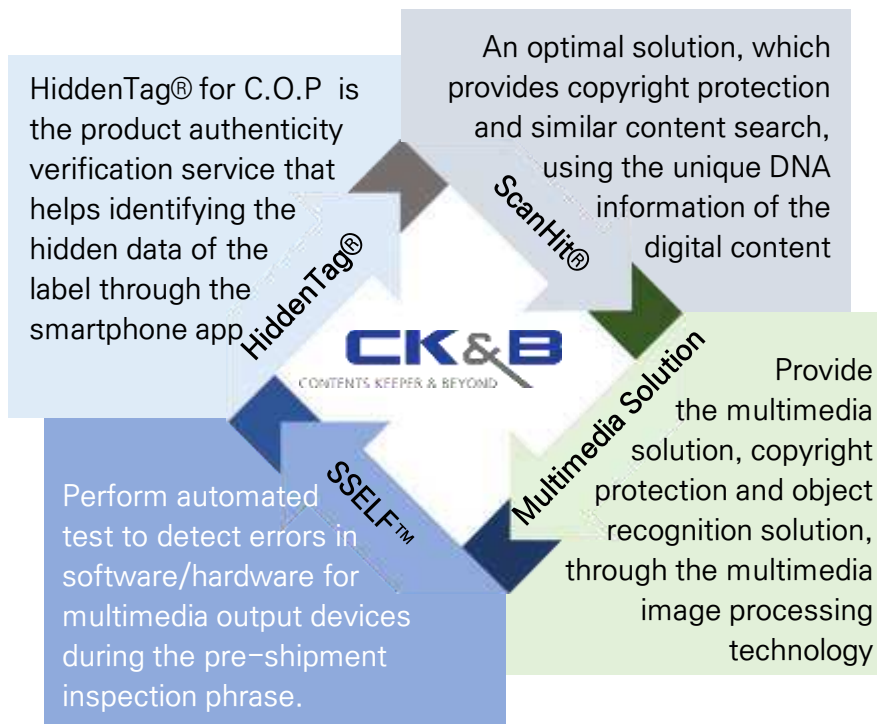Product Test Automation Solution

Multimedia Solution
Multimedia Application Solution

Company	CK&B Co., Ltd.
Established	December 3, 2007
CEO	Ki-Hyeok Bae
Business parts	Product Authenticity Verification Service, Mobile Solution Multimedia Solution, Content DNA
Address	#409-412 5, Seongsuil-ro 7-gil, Seongdong-gu, Seoul, Korea
TEL/FAX	+82(0)2-453-8416 / +82 (0)2-453-8417
Homepage	www.cknb.co.kr

Leading company using the latest technology in the brand-authentication field

- Provide the product authenticity verification, content monitoring service and copyright protection by the digital watermarking and image recognition technology.
- Launch the HiddenTag® which enables watermarking images to be scanned in a digital way via smartphone.
- Over 700 brands have partnered with HiddenTag and selected as an official authenticity verification organization by KITA&KOTRA.

Business parts

HiddenTag® for C.O.P is the product authenticity verification service that helps identifying the hidden data of the label through the smartphone app.

An optimal solution, which provides copyright protection and similar content search, using the unique DNA information of the digital content

ScanHit®

HiddenTag®

Multimedia Solution

SSELF™

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Provide the multimedia solution, copyright protection and object recognition solution, through the multimedia image processing technology

Perform automated test to detect errors in software/hardware for multimedia output devices during the pre-shipment inspection phrase.
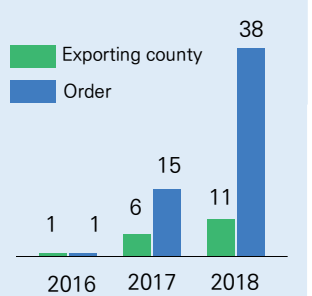
Competitiveness

Advanced Technology

- We have domestic patents and intellectual property rights including America, japan and China
- More than 30 domestic/ international patents
- HiddenTag has been cer-tified by CTAAC to provide anti-counterfeit solution

Global competence

Exporting county
Order

Year	Exporting county	Order
2016	1	1
2017	6	15
2018	11	38

- The number of international partners consistently increase
- Partnership with various fields of business including cosmetic, medicine, fashion and home appliance

Reference

- Official organization

kotra   KITA
대한무역투자진흥공사

- Partners

LG생활건강   AGE 20's
HUROM   CLIO
SOME BY MI   W.Lab
3CE   Huons Global
LG Chem

Partnered with over 700 brands

History

Established the business foundation

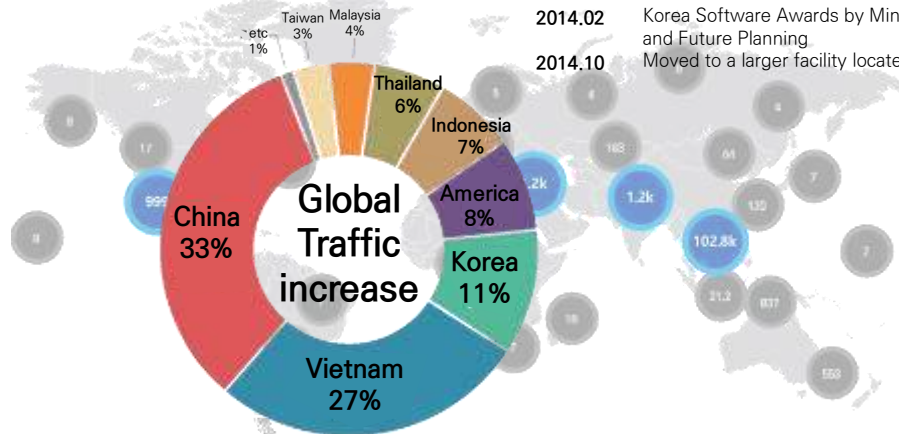| Date	Event
2007.12	Establishment
2008.05	Watermarking Solution to KBS
2008.11	Recognized as a Research Institute
2009.03	Completed the Transmission of Terrestrial broadcasting connecting with UCI for SBS
2009.12	Supply Contract on Automation Monitoring System with Samsung SDS
2010.10	Moved to a larger facility located in Samsung-dong
2010.12	Excellent IT performance for National IT industry Promotion Agency

Accelerated the market share

Date	Event
2011.05	Acclaimed as a Patent Star Company by Seoul Business Agency
2011.08 2011.10	Acquired the certification for INNO-Biz –Best Entrepreneur among Small and Medium Sized Enterprises
2011.12	Awarded at Korea Invention Patent Exhibition by the Korean Patent office for Intellectual Property Protection
2012.04	Received the IT Convergence Enterprise Award by the Ministry of Knowledge Economy
2012.05	WIPO award for the best inventor at Korea Invention Patent Exhibition(KIPO)
2013.10	Received the President's Award on the Day of Electronics and IT
2014.02	Korea Software Awards by Ministry of Science, ICT and Future Planning
2014.10	Moved to a larger facility located in Sungsu-dong

Leading the Brand-Authentication Field and International Expansion

Date	Event
2018.02	Received the International Expansion Excellent Firm Award
2018.05	Awarded as role model enterprises from "2018 small and Medium-Size Enterprises Award"
2018.12	Prime Minister Citation by Mobile Technology Awards
2019.10	Selected as an official brand protection solution of "Export Voucher" program by KITA
2019.11	Selected as the IBK innovator
2019.11	Selected as one of the world-class goods
2019.12	Selected as an official organization by China Trade Association for Anti- Counterfeiting
2019.12	Selected as a promising small and medium exporting company
2020.02	Received the excellence award in the 'SW Enterprise Competitiveness Award
2020.04	Participated the Global Start-Up Fostering Program by Seoul Business Agency(SBA)
2020.09	Received the Prime Minister's Award at the small and medium business competition

Global Traffic increase

- China 33%
- Vietnam 27%
- Korea 11%
- America 8%
- Indonesia 7%
- Thailand 6%
- Malaysia 4%
- Taiwan 3%
- etc 1%

Sales statuses

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020(E)

■ Domestic/International Patents

	Patent rights	Trademark rights
Domestic	23(1)	5
International	4(5)	10(1)

Authenticity Verification App with the Highest User Awareness in the industry

Operates Subsidiaries and Agencies around World

- We have been operating several overseas subsidiaries and agents to provide tailored solutions globally.

- HiddenTag technology has been certified in China by the CTTAC(China Trade Association of Anti-Counterfeiting) to sell anti-counterfeit technology HiddenTag since 2019.

Global Authenticity Verification Service

- HiddenTag app is registered in app markets around the world and has been accessed and used in over 150 countries.

- HiddenTag App has been ranked #1 in app evaluation/ 1# in cumulative downloads among all product authenticity verification apps.

- Multi-languages support → Korean, Chinese, English, Japanese, Vietnamese, Indonesia. Also, Hindi, Spanish and Arabic will be added soon

Export Voucher

HiddenTag®

SBC   CK&B   kotra

Selected as an official agency in the field of authenticity certification for export vouchers for 5 consecutive years

- HiddenTag has been selected as an official organization of export voucher by KOTRA and KOSME for five consecutive years, from 2016 to 2020.

Optimized service for your international expansion

The only Korean technology obtains a certificate from CTAAC

- HiddenTag had certified in China by CTAAC(China Trade Association of Anti-Counterfeiting) and passed through technology examination from CTAAC in 2016 as the first Korean Technology

- Since 2016, HiddenTag passed through a test that renews technology certificate for 3 years in 2019.

Will aid with client's effort in internationalization – client centered approach

- HiddenTag aims to provide effective counterfeit control services in cooperation with public institutions with judicial authority in China through the data reported by users.

- It protects the products of companies that have not fully secured trademark rights in China. Provision of service with intention to aid increase of overseas sales.

Acquired Chinese ICP (Internet content provider certification of China)

- An ICP(Internet Content Provider) license is a state-issued registration number that allows you to host your website on a mainland Chinese server and operate business online

- HiddenTag acquired IP license to provide trusted and stable service at WeChat application which has 1 billion users.
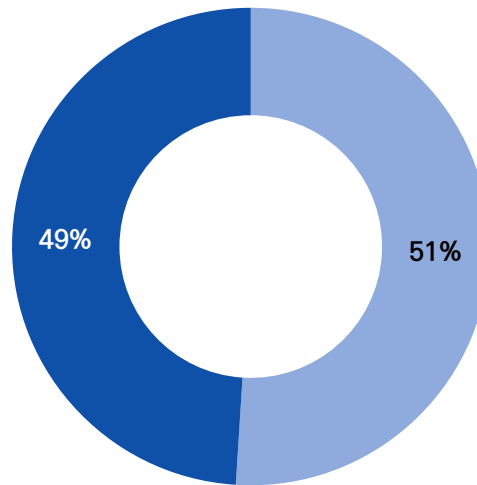
The number of partners increase and high rate of reorders

Partner growth rate in 2019 compared to 2014 – 2,971%

2014   2019

Order growth rate in 2019 compared to 2014 – 8,127%
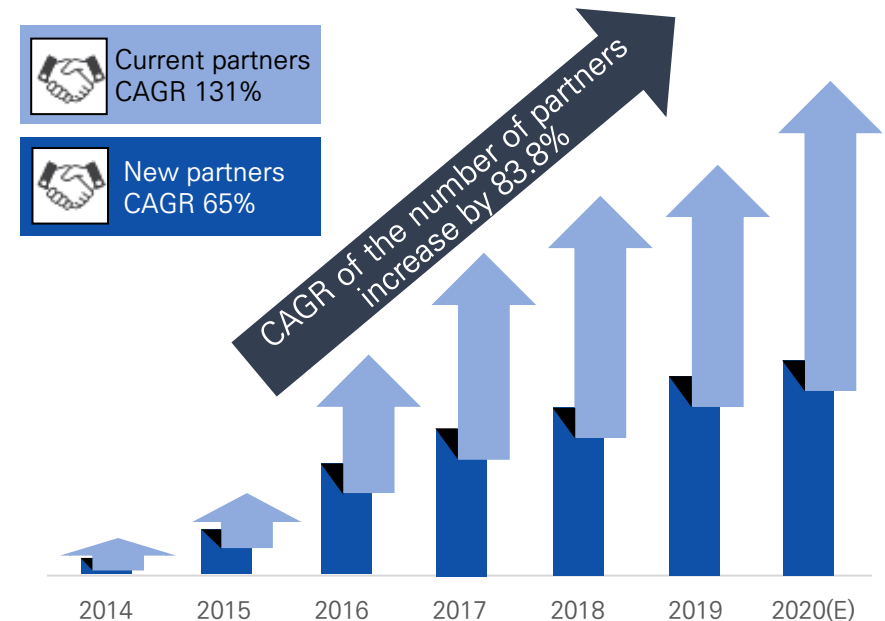
BUY NOW

2014   2019

- The rate of current partners and new partners is 51% and 49% respectively. Current partners have increasingly reordered HiddenTag due to satisfaction with our services.
- CAGR of new partners is 65% and of current partners is 131%.

■ The rate of current partners and new partners

49%   51%

current partners   new partners

■ Increase of partners rate by year

Current partners CAGR 131%

New partners CAGR 65%

CAGR of the number of partners increase by 83.8%

2014   2015   2016   2017   2018   2019   2020(E)

The Solution: An easy-to-use authenticity verification service HiddenTag®

A Simple User Experience

After purchasing a product, consumers can easily verify the product's, authenticity by using their smartphones to scan a label.
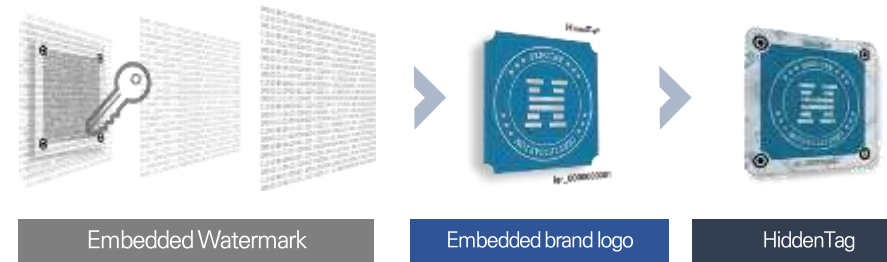

Scan the label

Check authenticity! Easily find counterfeit products!

Secure Authentication

[Data encryption]

| Embedded Watermark | Embedded brand logo | HiddenTag |

[Data decoding]

| Extract HiddenTag data by scanning via our app | Server analyzes decoded data | Send data verification results |

HiddenTag with Security, convenience, expandability

The major services

HiddenTag label

- Hard to differentiate with naked eyes
- One-of-a-kind data
- Prevent illegal counterfeit through leading authentication technology
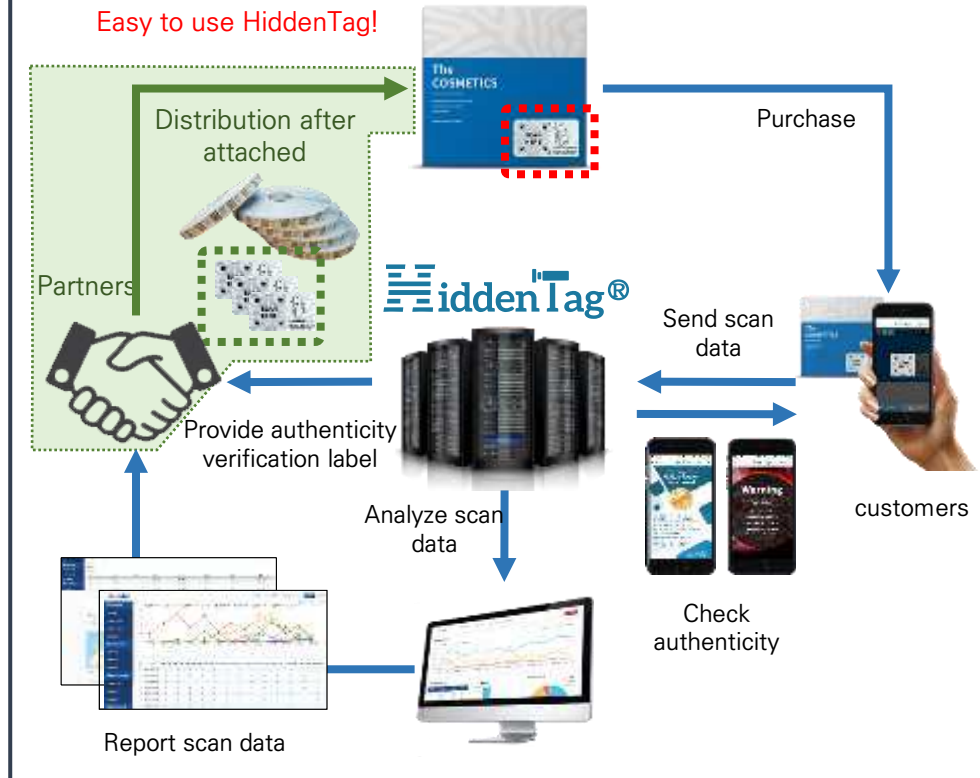
HiddenTag mobile application

- Authenticity verification possible via HiddenTag app
- Provide the services by 6 different languages for global customers

HiddenTag server

- Produce the label data, collect authentication data and analysis
- Check authenticity and additional services available
- Analyze scan data
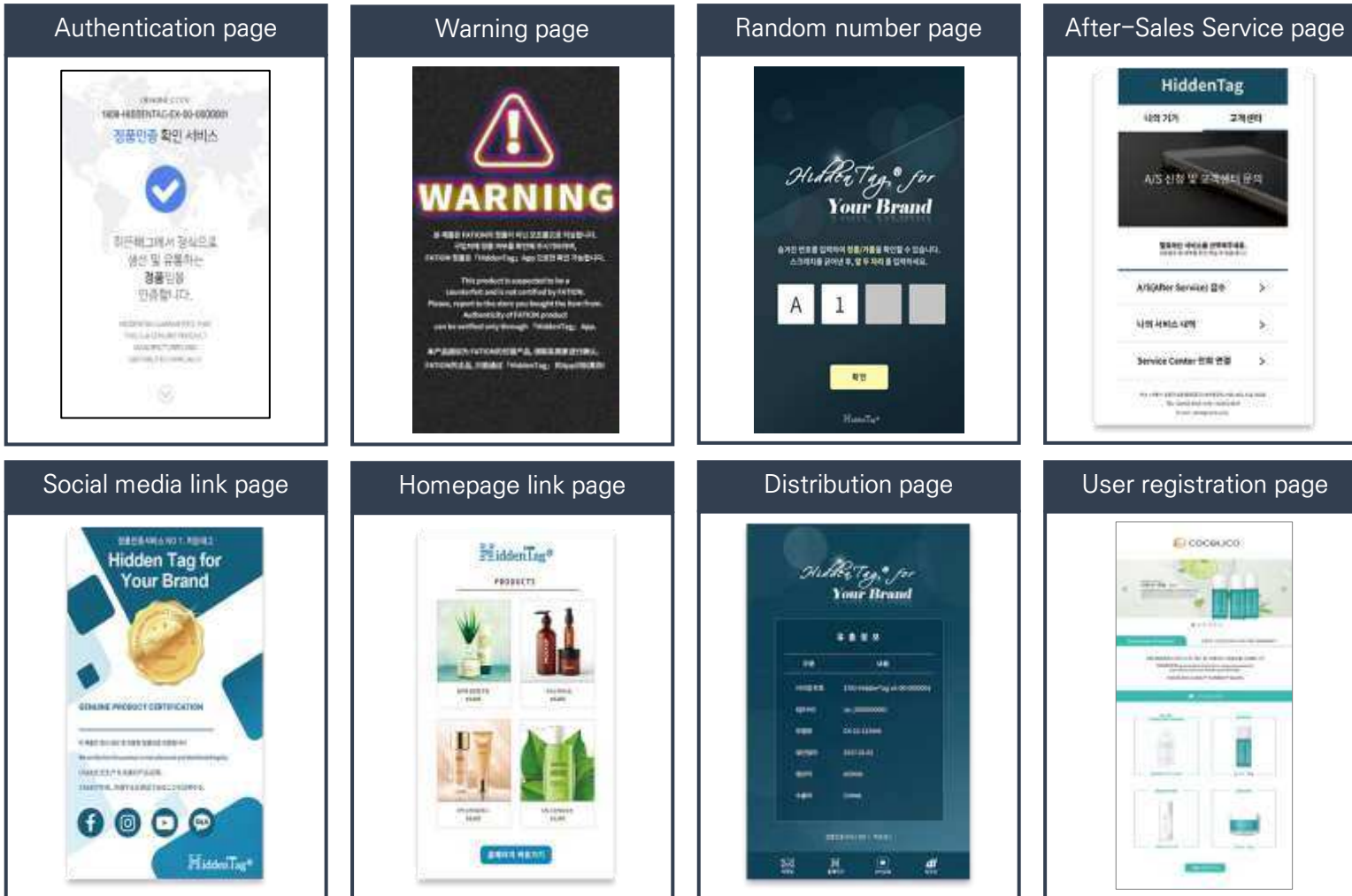
The process of HiddenTag introduction

Easy to use HiddenTag!

Distribution after attached

Partners

Provide authenticity verification label

HiddenTag®

Purchase

Send scan data

customers

Check authenticity

Analyze scan data

Report scan data

HiddenTag allows brands to have customized designs of the labels

Label Types
Can be further customized

Design			OPTION		**Destructive Type** • All sizes available • Various shapes • Label breaks apart when removed • non-reusable
Minimum Size	12mm * 12mm [Scratch area + 2mm]	20mm * 8mm [Scratch area + 2mm]			**Seal Type** • Application to append • Package seal • Seal part on desired area
Material	Hologram + Transparent PT				

Material Types
Can be further customized

Type				
	Pouch	Care Label	Hangtag	Epoxy
Minimum size	140mm * 190mm	30mm * 84mm	50mm * 90mm	Can be customized
Material	PET	PP	Snow White art paper 200g	

User customized mobile landing pages for better content-engagement

Authentication page

Warning page

Random number page

After-Sales Service page

Social media link page

Homepage link page

Distribution page

User registration page

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Each label has an embedded identification
"Digital Analogue" – authenticity verification secure label

Outwardly identical label → unique data per label → unique data per product

How its created?

| Base Material | Data Code | Main Image | Protect Cover |
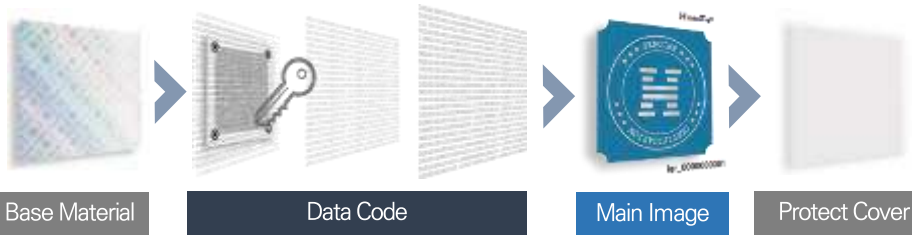
Hard to differentiate with the naked eye:
HiddenTag authenticity verification secure label

One-of-a-kind data

Data embedded in HiddenTag is different per product type per brand!

- Using unique technology to identify authenticity
- Same appearance but unique data per label

Using the latest technology in the brand-authentication field

Leading authentication technology

Division	Hologram	Material	QR Code	RFID/NFC	HiddenTag®
Way of authenticity	Analog	Analog	Digital	Digital	Digital
Image					
Features	▪ Vulnerable to counterfeit ▪ Few effective authentication solutions	▪ Verification purpose susceptible to individual error ▪ Non-objective method ▪ Requires training and previous experience	▪ Overly Accessible technology ▪ Easy to create → easy to duplicate → easy to manipulate ▪ Vulnerable to hacking ▪ Hard to trace	▪ Costly ▪ Low sensitivity and specificity = high error rate ▪ Verification requires specific tools	▪ Specialized verify-cation technology ▪ Impossible to duplicate unique data sets ▪ Track and trace possible ▪ One of a kind compatible app data cannot be scanned otherwise
Security level	very low	high	very low	very high	very high
Convenience of use	normal	Low	high	low	high
Ease of production	high	normal	high	low	very high

Real case of counterfeit tracking and tracing:
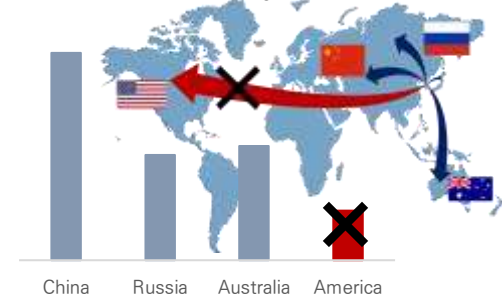
▪ Verifying real products

Results of Monitoring
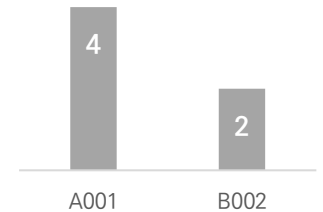
▪ Tracking and tracing illegal counterfeits example:

Number of scans (5~100 times) recorded indicates illegal activity

Identifying counterfeits through tracing abnormal/illegal distribution networks

- Provide the production and distribution information of each product
  (manufacturer, vender date of production, batch/lot number)

- Customized distribution information pages depending on client' need
- Can be a accessed both from smartphone and web system

① **HiddenTag, Landing page**
  - Scan the label on the product
  - Click the hidden button in the landing page

② **Admin Login Page**
  - Enter Administrator's ID and password

③ **Landing page**
  - Check distribution information

④ **Admin webpage for data analytics**
  - Individual product information is linked to each HiddenTag data
  - Select the search fields e.g. serial number and name of products
  - Individual and mass search possible, excel format download functions available

Abnormal distribution monitoring

- Inventory protection, labor force control, reduction of unnecessary costs
- Enable efficient product supply and check global distribution channel
- Adjust production through sales volume and consumer real−time information

Manufacturer

On−off line Store and Consumer

Domestic

Online A   Online B

Overseas

- ▪ Products are connected with blockchain via HiddenTag
- ▪ Observe the production, distribution and consumption process without risk of forgery
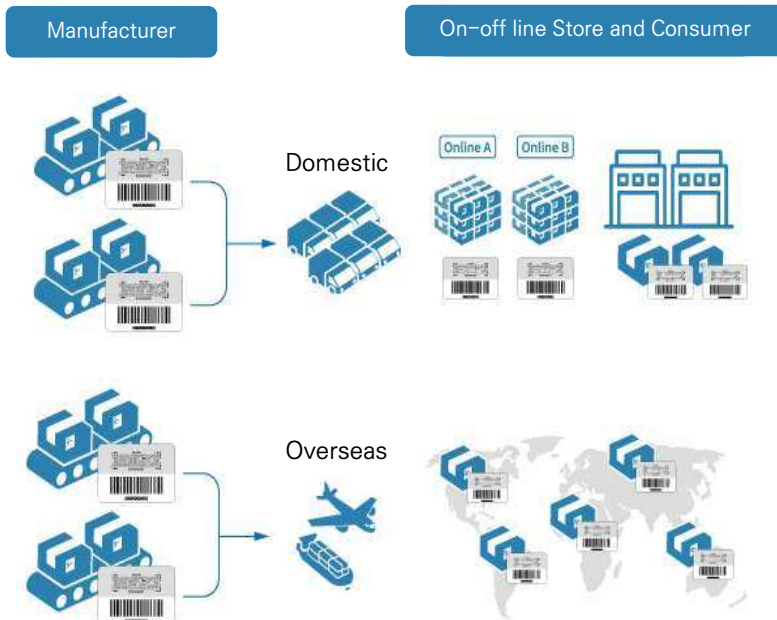
① Consumer monitoring

- – Consumer purchase pattern and quantity analysis possible
- – Analysis of intermittent time between purchases made by the same customer

② Vendor monitoring

- – Tracking unusual vendor activity
- – Can analyze market success depending on specific distribution channels

③ Sale monitoring

- – Monitoring sales status by time periods
- – Distribution channel details by product available
- – Can record time spent at each stage of distribution

④ Market monitoring

- – Area distribution analysis by nation and city
- – Monitoring areas of unusual distribution activity

- Scan the GPS data → Global monitoring possible
- Available information:
  - Number of Scans
  - Country/ Scan location
  - Duplicated data monitoring

① **View all HiddenTag scan records**

- Check the scan records of each product separately

② **Scan data statistics (number of scans, country of scan etc)**

- Show different types of scan data through specific search criteria/filters(number of scans, country) and check graphs

③ **Duplicate attempt detection**

- Show overall scan statistics as well as statistics of suspicious scans

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- Channels for collecting consumer data
- After-sales information service for the purchased products
- Using collected consumer data to create consumer-specific marketing strategies

① **Scan the labels**

- Consumers scan the label on the product

② **Enter consumer's information**

- Once consumers enter their information, the server records user information as related the product

③ **HiddenTag provides consumer reports**

- User information data reports can be delivered to brands daily, weekly or quarterly

HiddenTag® Event

- Stage plenty of marketing events through management of products
- Targeted Ads by language
- Various coupon drawing events

① **Scan HiddenTag**

– Scan HiddenTag label on the product

② **Authentication page or Event winner page**

– Pop-up of the general authentication page + random event winner pages
– HiddenTag can be used to optimize marketing strategy access

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HiddenTag® **for Name Card**

- Prevention of illegal identity theft
- Can check the identity accurately by smartphone
- Proper information can be easily collected by smartphone without specific tools

① Check the name card holder

– Check out whether the photo on the name card and the name and holder are the same person

② Verification

③ Check the identity

– Check whether the information on the name card coincides with the one in the DB

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HiddenTag® solution for Document

- Document security technology regardless of on/offline
- Insert authenticity information inside the corporate logo and seal
- Proper information can be easily collected by smartphone without specific tools

Original document registered in DB

Forged document

① Check the document   ② Verify the suspected document   ③ Detect the forgery

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HiddenTag® solution for Multimedia
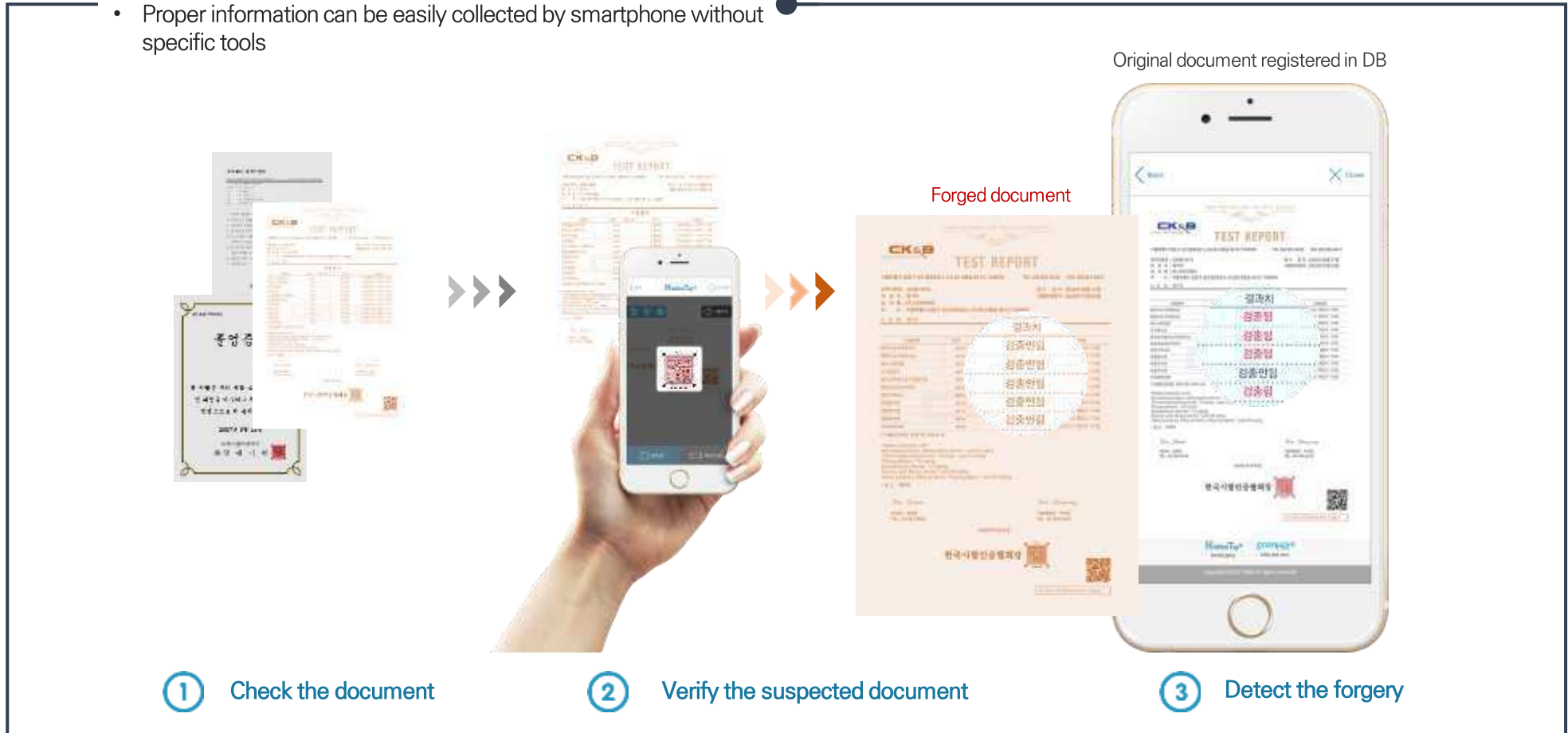
- Accurate content tagging and detecting technology
- Provide copyright protection for both on and offline multimedia contents
- Detect watermark as various forms of transformation of watermarked contents

| ① Ownership of content | ② Exposure of suspicious content | ③ Watermark verification | ④ Proof of ownership |
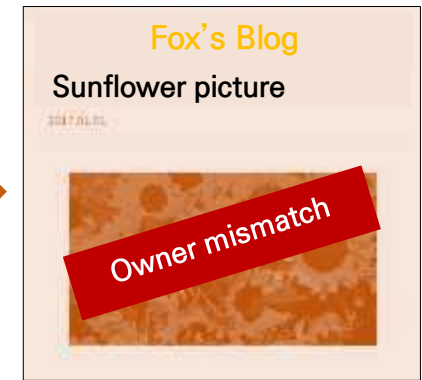
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- Protect copyrights of the broadcasted content
- Create new value-added services that can be connected to commerce/advertisement
- Monitor the effects of your advertisement
- Inserts unique ID watermark to the HD level broadcast and transmit it

Copyright Protection

Watermark insertion to the broadcasted

Content-transmission Service

Creation of additional Service

Indirect Advertisement(PPL)

Commerce Linkage Service

Monitoring Service

Real-time Ad Monitoring Service

ScanHit®

for Mobile

- O2O(Offline to Online) service – connect on and offline channels based on the image search technology
- Use the effective marketing strategies regardless of on and offline

Online

Catalogue

Offline Store

Mobile

for Rights

- Report copyright infringement of images to you by tracking images available online
- After registration of images on server, find pirated images by the image collection technology

Ownership of image

Online tracking

Exposure of pirated image

Track result

for Search

- Search for similar images and identical objects
- Mainly search trademarks, designs and patents
- Can search accurately and quickly with the customized search of using key word and image together

KIPO

* .KIPO EXAMPLE

Search objects

Choose search type

Search result

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- The new convergence of new generation computer and manufacturing technology
- Perform automated test to detect errors in software/hardware for multimedia output during the pre-shipment inspection phase

for Display Device

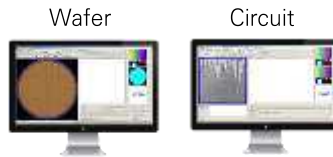| Test subject	Real-time monitoring	Error Detection

Monitoring instantaneous error in video/audio files

for Semiconductor

Real-time report on the search result

Wafer   Circuit

Stain   Scratch

broken   overlap   length

Wafer/Circuit	Detection	Error Detection	Reporting

for Object

Object extraction	2D image conversion	Measurement

Automated numerical measurement, length, thickness, area for converted objects

VISION

3D Content Solution

Copyright protection and quality test for 3D content

Artificial Intelligence and Pattern Recognition Solution

Production and editing tool solution for image processing

Computer Vision Solution

Image technology – object recognition, machine learning and pattern recognition

AUDIO

Voice Recognition Solution

Application on wearable devices

Multimedia Recognition Solution

Integrated content recognition technology

Object

Image Object Recognition Solution

Trademarks, designs and patents search technology

Video Object Recognition Solution

Utilization in behavioral pattern and context recognition technology

Development of Anti-Counterfeiting Technology and Innovation

Leading the Brand-Authentication Field and International Expansion

2010

12 Received the Research & Development Award by National IT Industry Promotion Agency
10 Moved to a larger facility located in Gangnam-gu

2009

05 Developed Copyright Protection Monitoring System
04 Excellent IT performance for National IT Industry Promotion Agency

2008

11 Established a Research Institute
08 Recognized as a venture business
06 Moved to a larger facility located in Gwangjin-gu
05 Approved as a Software Company(No.2008-08504)

2007

12 Established(New company name: CK&B Co., Ltd)

2015

12 Business partnership with Daegyeong Investment Inc.
11 Received a letter of appreciation by KB Financial Group Inc.
10 Acknowledged as an official brand protection mark of KITA

2014

10 Moved to a larger facility located in Sungdong-gu
02 Korea Software Awards by Ministry of Science, ICT and Future Planning
02 Acquired the "GS" certification for ScanHit®
01 HiddenTag ® C.O.P. developed

2013

10 Received the President's Award on the Day of Electronics and IT
02 WIPO award for the best inventor at Korea Invention Patent Exhibition(KIPO)

2012

11 Awarded at Korea Technology Transfer Agents Association
05 WIPO award for the best inventor at Korea Invention Patent Exhibition(KIPO)
04 Received the IT Convergence Enterprise Award by the Ministry of Knowledge Economy

2011

12 Awarded at Korea Invention Patent Exhibition by the Korean Patent office for Intellectual Property Protection
10 Best Entrepreneur among Small and Medium Sized Enterprises
08 Acquired the certification for INNO-Biz
05 Acclaimed as Patent Star Company by Seoul Business Agency

2020

09 Received the Prime Minister's Award at the small and medium business competition
04 Participated the Global Start-Up Fostering Program by Seoul Business Agency(SBA)
02 Received the excellence award in the 'SW Enterprise Competitiveness Award'

2019

12 Selected as a promising small and medium exporting company
12 Selected as an official organization by China Trade Association for Anti- Counterfeiting
11 Selected as one of the world-class goods
11 Selected as the IBK innovator
10 Renewed the Certificate by Anti-Counterfeiting Trade Association of China
10 Business partnership with Hana Financial Investment Co., Ltd.
10 Selected as an official brand protection solution of "Export Voucher" by KOTRA

2018

12 Prime Minister Citation by Mobile Technology Awards
05 Awarded as role model enterprises from "2018 Small and Medium-Size Enterprises Award"
02 Won the excellence award in the " SW Enterprise Competitiveness Award" by Ministry of Science and ICT

2017

09 Established a Hong Kong Corporation
06 Established a Chinese Corporation
05 Selected as an official brand protection solution of "Export Voucher" program by KITA.

2016

08 Certified by Anti-Counterfeiting Trade Association of China
02 Business partnership with Korea Investment Partners

Industry Credibility
Number 1

HiddenTag has been chosen as the go-to product authenticity verification tool for various public institutions and associations

China Trade Association for
Anti –counterfeiting

First Korean company acknowledged
by the Chinese government as an
official anti–counterfeit solution

K I T A.NET
Korea International Trade Association

Korea international Trade Association

Selected as K+ mark
certification

kotra

Korea Trade-
Investment
PromotionAgency

한국육계협회
KOREA BROILER COUNCIL

Korea Broiler Council

FASHION *STYLE*

Korea
Fashion&Culture
Development Agency

The highest number of references by industry
750

Over 750 brands have already partnered with HiddenTag

Contact

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(#409-412, SK V1 TOWER, 5, Seongsuil-ro 8-gil, Seongdong-gu, Seoul, S. Korea)

━━━ 4 min walking distance from exit 4 of Tukseom Station

━━━ 6 min walking distance from exit 1 of Seongsu Station

	Kakaotalk		LINE		WeChat
TALK	히든태그	LINE	@HiddenTag	WeChat	HliddenTag

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