IMPROVING CONSUMERS EXPERIENCE

NAGRA
KUDELSKI GROUP

CONTENTS

READY FOR NEW CHALLENGES

Interview with André Kudelski,
Chairman and Chief Executive Officer of the Kudelski Group

How would you describe the Group's activity in 2015 ?

During the second half of 2014, we were looking for solutions that would significantly enhance profitability; we also initiated several projects aimed at growing our top line. Unfortunately, much of this work was undercut when the Swiss National Bank (SNB) dropped the CHF/EUR floor in January 2015. However, we didn't let up our efforts, pushing hard throughout the year to make up for the negative impact of the SNB decision. And our work paid off, with some help from the progressive strengthening of the American dollar: our year end financials outperformed the rest of the Swiss economy.

More concretely, we launched several growth initiatives in 2015 and we improved our positioning in our core markets. Deteriorating macro-economic conditions in some countries, especially in Brazil, had a negative impact on the Group's performance in emerging countries.

Today, we are continuing our transformation, further leveraging our innovation capacity. The solutions we develop are optimized to address the needs of end users while offering an ever-higher degree of security.

Our corporate strategy is to build the future on the basis of our three pillars: the distribution of digital media content, public access and cyber security.

How is the Group positioned in the digital media industry ?

In the digital content distribution sector, various ecosystems are colliding. On the one hand, traditional operators have a strong legacy presence in people's homes; they are also highly regulated. On the other hand, there are new entrants with appealing and relevant content who, thanks to the use of new technologies, are often able to avoid the regulatory framework. In the end, what is disruptive is not technology as such, but the combination of technology and regulation.

When these worlds collide, there are opportunities for cooperation in terms of market penetration, access to content catalogues and user experience streamlining. The Group is well positioned to play a driving role in the interaction and to benefit from this evolution by improving the quality of the offering for end users while preserving the interests of operators and content providers.

Our solutions must evolve always more rapidly to ensure an increasingly simple and intuitive experience for digital content consumers.

What are the products that the Group developed to make this happen ?

We worked hard this past year on intuiTV, which we unveiled at CES 2016 in Las Vegas. This product, an integrated Cloud-based content distribution platform, demonstrates how we're innovating to tailor the experience to our consumers' preferences. The challenge here is to combine the anytime-anywhere accessibility of the Cloud with the speed and simplicity of a high-performance device and a particularly innovative remote control resulting from several years of research.

And what about your Public Access business line? Can you tell us about the latest developments there ?

We've continued to expand our Public Access business globally, capitalizing on our leading position in this sector. We moved ahead in 2015 with the integration of our recent acquisitions in the U.S. and Australia, and continued to develop our three core segments in Public Access: parking management, ski resorts and stadiums. The "digital technology" approach is one of SKIDATA's strengths and represents a clear differentiator of our offer, in particular for the remote management of infrastructure and the optimization of profitability for managed infrastructure.

What are this year's highlights regarding your growth initiatives ? Are they still on track ?

The IP initiative we launched in 2012 is running smoothly. We've continued with our cross licensing approach, which protects our clients from risk of patent infringement claims while at the same time helping us monetize our portfolio of 4 500 patents.

The quality of the companies we have partnered with in 2015 (Bloomberg, Disney, Google, Netflix) confirms the quality of our patent portfolio and our fundamental research, especially for the most innovative players in the industry.

In cyber security, a market which is expected to grow from USD 77 billion in 2015 to USD 170 billion in 2020 with 60% of cyber security capex in the U.S. alone, we have decided to further develop our capacity and to fundamentally reinforce our presence in the U.S. In this perspective, we have appointed Rich Fennessy as CEO of Kudelski Security.

"Today, we are continuing our transformation, further leveraging our innovation capacity."

And regarding operational excellence ?

It's less visible than what we've just discussed, but the Group has indeed made significant progress on an operational level in the past year. Beyond optimizing the existing operational structure, we have combined our Multiscreen and Middleware divisions into one dedicated unit that focuses on the entire user experience value chain, with the goal of improving our solution offering and speeding up evolution.

And what about the 2015 distribution to shareholders ?

We are extremely focused on striking the right long-term balance as we distribute the value the Kudelski Group creates among our various stakeholders. We manage our investments and our employees with a long term vision. Regarding the distribution to shareholders, considering the solid performance of the Group in 2015 and the prospects for 2016, the Board of Directors is proposing to the Annual General Meeting a capital distribution of CHF 0.35 per bearer share and CHF 0.035 per registered share rather than a classic dividend.

What are the Kudelski Group's objectives for 2016 ?

We're aiming to continue growing the business across all our sectors in 2016. We also want to sharpen our R&D focus on solutions that can become future growth drivers for the Group.

In the content protection space, we're building an integrated end-to-end platform that will provide a market-leading degree of security. It will function as a distribution hub and offer the most advanced traceability techniques currently available, while at the same time providing an unparalleled user experience that will set us apart from the competition.

In Public Access, our clients are faced with increasing operational constraints. Combined with a fast-moving shift towards a digital paradigm, this opens up particularly interesting opportunities for us.

In cyber security, our planned development in the U.S. based on our avant-garde solutions should enable us to progressively take advantage of the strong growth potential of this market.

Our R&D, combined with our cross-licensing approach, should enable us to further expand our IP portfolio.

Globally, we will continue to pay close attention to our cost structure, while keeping in mind the Group's long-term development.

Overall in 2016, the Group expects to maintain the positive momentum from the previous year with expected revenues of around CHF 1 billion and operating income of CHF 75 to 90 million (assuming 1USD equals 0.99 CHF and 1 EUR equals 1.10 CHF).

"The digital technology approach is one of SKIDATA's strengths and represents a clear differentiator of our offer."

What will be the impact of exchange rate evolution ?

Since the Swiss National Bank dropped the CHF/EUR floor in January 2015, the Swiss franc has become more volatile compared to other leading currencies. This volatility has become a new reality, which requires the Kudelski Group to reduce its structural exchange rate exposure to the euro and the American dollar. While the Group has already substantially reduced its structural dependency on the CHF/EUR exchange rate, it still must act to further reduce its exposure to the American dollar.

These efforts are all the more justified given that the international macro-economic environment is particularly volatile at the beginning of 2016 with a real risk of further substantial currency fluctuations. While the Group protects itself with the use of short-term financial instruments, only an approach aimed at aligning revenues and costs by monetary zone will enable us to reduce medium and long term currency risks.

What is the Group's outlook for 2016 ?

The growth initiatives launched during 2015 and the prospects observed in our core markets are rather encouraging for 2016. However, recent history has shown that the world is volatile. The environment might be better than anticipated, but we must be prepared to be very proactive should the situation deteriorate in some part of the world. In order to be prepared, we place a special focus on simplifying our decision processes, shortening our time-to-market and staying one step ahead of our clients' needs.

On behalf of the Board of Directors and of our teams, I would like to thank our clients and shareholders for their continued trust throughout the year.
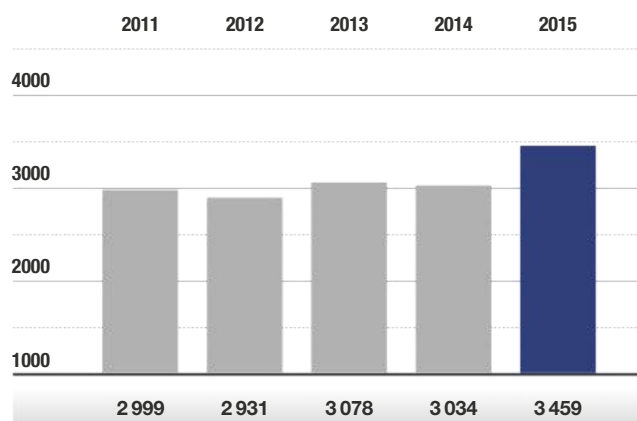
"The cyber security market is expected to grow from USD 77 billion in 2015 to USD 170 billion in 2020."

KEY FINANCIAL DATA 2015

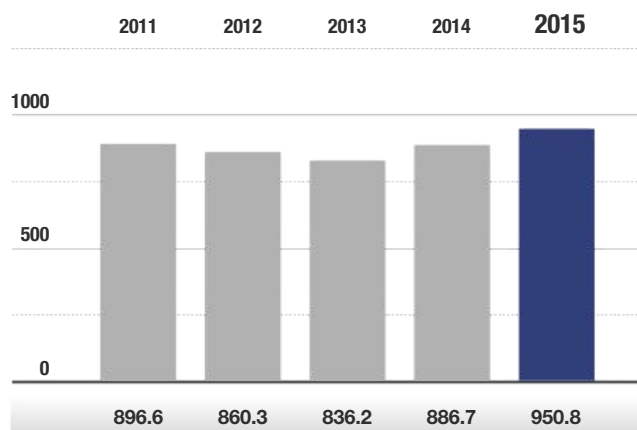|		31.12.2015	31.12.2014	Change
Total revenues and other operating income	CHF million	**950.83**	**886.67**	**7.24 %**
Operating income before depreciation, amortization				
and impairment (EBITDA)	CHF million	**122.55**	**104.37**	**17.42 %**
in % of total revenues	%	12.89	11.77	
Operating income (EBIT)	CHF million	**81.22**	**61.19**	**32.74 %**
in % of total revenues	%	8.54	6.19	
Net income attributable to equity holders of the company	CHF million	**44.42**	**26.03**	**70.65 %**
Earnings per share	CHF	**0.8191**	**0.4800**	**70.65 %**
Money returned to shareholders (proposed per bearer share)	CHF	**0.35**	**0.30**	**16.67 %**
Share price at December 31 (bearer shares)	CHF	**14.45**	**12.10**	**19.42 %**
Market capitalization at December 31 (bearer shares)	CHF million	**714.71**	**596.22**	**19.87 %**
Equity attributable to equity holders	CHF million	**423.14**	**430.71**	**-1.76 %**
Cash flow from operating activities	CHF million	**106.39**	**109.26**	**-2.63 %**
Cash and cash equivalents	CHF million	**136.84**	**92.38**	**48.12 %**
Financial debt	CHF million	**323.12**	**331.02**	**-2.39 %**
Number of employees at December 31 (headcount)		**3 459**	**3 034**	**13.94 %**

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Except for headcount information, 2015 and 2014 figures include retrospective application of new accounting standards and change in accounting policy.
2011-2013 information has not been retreated for comparison purposes to include such changes.
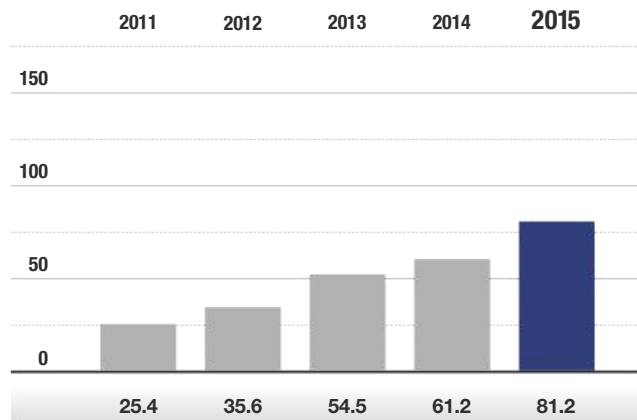
EMPLOYEES (HEADCOUNT)

2011	2012	2013	2014	2015
2 999	2 931	3 078	3 034	3 459

TOTAL REVENUES AND OTHER OPERATING INCOME

In million CHF

	2011	2012	2013	2014	2015
	896.6	860.3	836.2	886.7	950.8

OPERATING INCOME

	2011	2012	2013	2014	2015
	25.4	35.6	54.5	61.2	81.2

NET INCOME

	2011	2012	2013	2014	2015
	-17.7	15.1	39.4	33.4	49.3
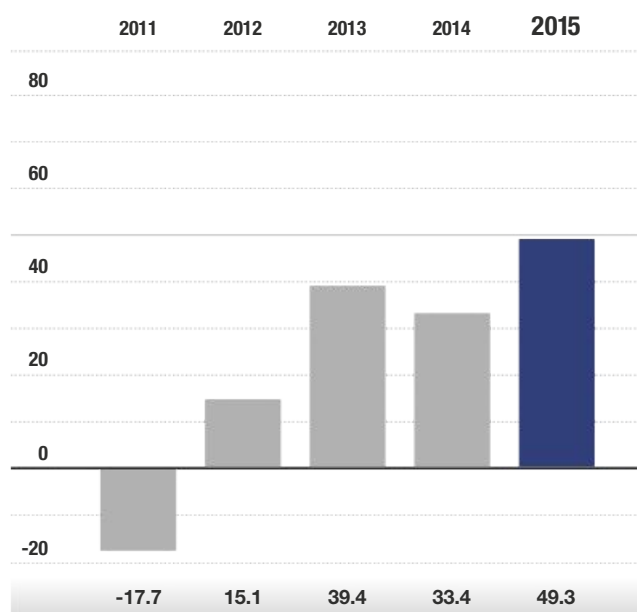
REVENUES PER SEGMENT

INTEGRATED DIGITAL TV

70.4 %

PUBLIC ACCESS

29.6 %

EBITDA

2015

122.6

2014

104.4

EARNINGS PER SHARE

2015

0.82

2014

0.48

A GROUP WITH A PIONEERING SPIRIT

A GLOBAL TECHNOLOGY LEADER
> A GROUP WITH A PIONEERING SPIRIT

The Kudelski Group is the world leader in the development and delivery of state-of-the-art technologies to secure the revenues of content owners and service providers for digital television and interactive applications across broadcast, Internet and mobile delivery networks.

The Group is also engaged in a number of initiatives designed to drive its long term growth.

These include cyber security solutions and services focused on protecting companies' data and systems.

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Furthermore, the Group has laid a solid foundation in the area of intellectual property both in cross access to state-of-the-art technology patent portfolio and licence agreements which demonstrate the relevance of innovation within the Group.

Similar to the digitization of media, Public Access is evolving towards integrated people and vehicle management solutions enabling the optimization of infrastructures. The Group is the world leader in this area.

61
SITES IN 32 COUNTRIES

3 459
EMPLOYEES

WE ASSEMBLE TEAMS OF HIGHLY SKILLED, CREATIVE AND COMMITTED PROFESSIONALS IN OUR MAIN RESEARCH AND DEVELOPMENT CENTERS AND AS CLOSE AS POSSIBLE TO OUR MARKETS, WHERE THE TALENTS ARE

A SOLID COMPANY PORTFOLIO

INTEGRATED DIGITAL TV

CORE ACTIVITIES

Integrated content protection and multi-device user experience solutions to reach users wherever they are

NAGRA

Innovative, flexible and cost-efficient solutions to deliver pay-TV content securely over broadcast, Internet and connected devices

Conax

Renewable Conditional Access Modules for digital TV access; range of broadcast, Internet and hybrid set-top boxes

SmarDTV

GROWTH INITIATIVES

Tailor-made cyber security solutions and services for enterprises, financial institutions, government administrations and media customers

Kudelski Security

Development, protection and licensing of the Group's innovations

Intellectual Property

PUBLIC ACCESS

Integrated access and management solutions for car parks, ski resorts as well as sports, cultural, entertainment and exhibition facilities

SKIDATA

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INNOVATION AS A KEY GROWTH DRIVER

Innovation is a key growth driver for the Kudelski Group. The company creates value day after day for its customers, shareholders and employees. In nearly 20 years, revenues have been multiplied by 50, demonstrating the Group's ability to sustain strong long-term growth and to seize opportunities outside its core integrated digital television market.

GROUP REVENUES IN CHF'000

YEAR	1951 – 1980	1983	1986	1989	1991	1992	1995	1997	1998	1999	2001	2003
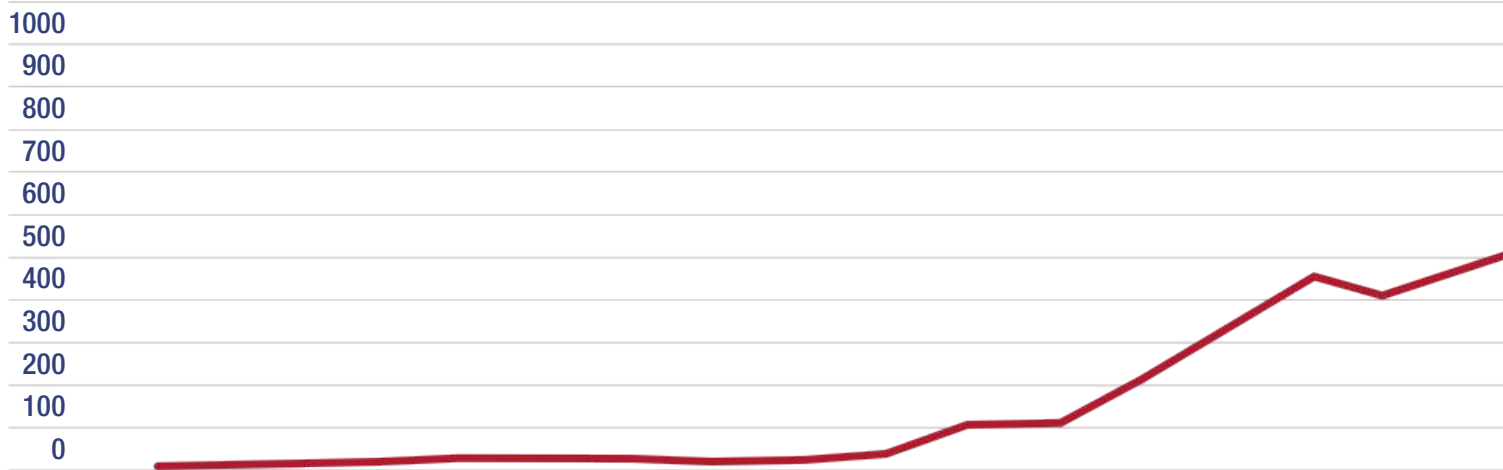
THE AUDIO AGE

Creation of the company by Stefan Kudelski (1951).
Launch of the first professional portable recorder, NAGRA I (1951).
This invention was the start of a series of world-famous recorders that revolutionized sound recording in the audio and movie industries, such as the NAGRA III and the NAGRA SN, a miniature recorder.

FROM AUDIO TO VIDEO

Launch of the AMPEX-NAGRA VPR-5, the world's smallest, lightest professional portable C-format video recorder. Entry into the video technology industry.

The company is listed on the stock market.

PAY-TV: FROM NICHE TO MASS MARKET

First encryption systems for television and entry into the pay-TV sector.

André Kudelski succeeds Stefan Kudelski as Chairman and Chief Executive Officer. Conditional access TV systems become Kudelski's core business.

Creation of NAGRA+, a joint-venture with CANAL +.
Launch of the Nagra D, first portable digital recorder.

First digital TV access solutions.

Digital pay television becomes the company's core business.
Nagra Audio launches a range of high-end Hi-Fi products.

Creation of NagraStar, a joint-venture with EchoStar.
First systems offering mixed pay-TV / Internet solutions.

The Group creates the first encryption systems designed for broadband networks.

ENTRY INTO PUBLIC ACCESS

The company diversifies into the Public Access sector with the acquisition of SKIDATA.

The Group becomes the world leader in the field of conditional access solutions.

The Group's history and heritage revolve around the flagship name of "NAGRA", originally referring to the world-famous recorder developed by Stefan Kudelski. The company has ever since been a technology pioneer driven by an acute vision and a sharp sense of innovation.
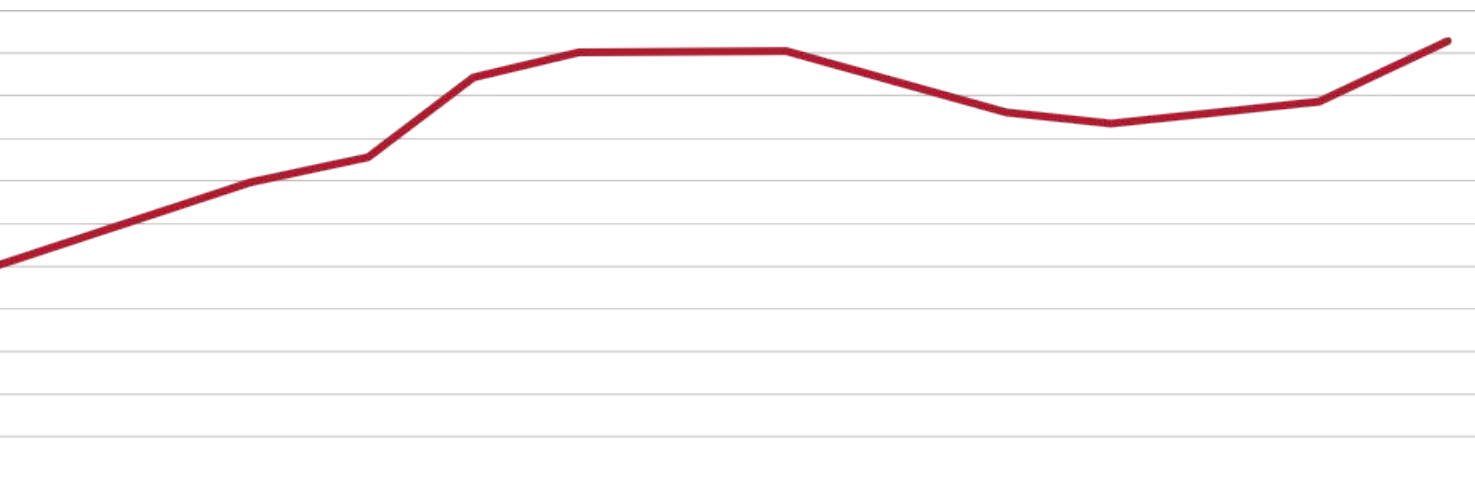
2004

Launch of security technologies for mobile phones.
Launch of pre-paid cards giving access to premium content on a temporary basis.

2005

New content security solutions for IPTV networks.
Launch of Push VOD and Digital Video Recorder solutions.
SKIDATA launches the first touch-free turnstiles for ski access.

2006

Acquisition of the Digital TV activity of SCM Microsystems resulting in the creation of SmarDTV: the Group adds removable security modules to its offering.

2007

Acquisition of a controlling interest in OpenTV.
First solutions designed for hybrid networks.

2008

First end-to-end digital television solutions.
Third generation security solutions based on a diversified and segmented approach to security.

EXPANDING IN THE DIGITAL TV ECOSYSTEM

2009

Acquisition of 100% of OpenTV: the Group's solutions manage the entire pay TV ecosystem.
Launch of multiscreen solutions.

ENTRY INTO CYBER SECURITY

2012

Creation of Kudelski Security: the Group diversifies into the cyber security sector.
Creation of the Intellectual Property activity to manage the Group's strong IP portfolio.
Creation of digital TV multiscreen and high definition (4K) security solutions.

2013

Production launch of OpenTV 5, the Group's new generation middleware solution.

#1 IN DIGITAL MEDIA CONTENT PROTECTION

2014

First major patent license agreement signed with Cisco.
The Group is the N°1 CAS provider worldwide with the acquisition of Conax.

2015

Deployment of next generation technologies.
Success of integrated security, next-generation middleware and multiscreen solutions.
Kudelski Security launches the first Swiss Cyber Fusion Center.
SKIDATA launches the first illuminated parking access barriers.

HIGHLY RECOGNIZED TRACK RECORD OF INNOVATIONS

1965
US agencies
start using the miniature
NAGRA SN secretly.

1951
First professional
portable recorder, NAGRA I,
allowing high quality
recording in the most
extreme conditions.

1968
Launch of NAGRA IV,
the most successful
NAGRA in the world.

1983
World's smallest,
lightest professional
portable C-format
video recorder,
NAGRA VPR-5.

1995
First
digital TV
access solutions.

2006
Extension of Group's offering
to include best-in-class
removable conditional
access modules based on
the CI+ standard.
SmarDTV is a founding
member of the CI+ forum.

2012
Creation of new
digital TV multiscreen
security solutions.
Launch of 4K solutions.

| 1965 | 1970 | 1972 | 1977 | 1978 | 1984 | 1986 |

1987

**SKIDATA,
who joined the Group
in 2001, invents
the first handsfree
ski access system.**

1988

**Launch of NAGRA RTU,
a 1.2 GB per second embarked
digital recorder for military
applications able to support
a 5G acceleration.**

1989

**Adoption by CANAL+
of Kudelski's access
control system for pay TV.**

2013

**Launch of
OpenTV 5 Connectware,
a new-generation,
feature-rich television
operating platform.**

2015

**Launch by
Kudelski Security of K-Sonar,
the first proprietary solution
to monitor in real time
the activity and the level
of security of the Internet.**

2016

**Launch of NAGRA's
intuiTV, a cutting-edge,
end-to-end user experience
turnkey platform.**

| 1991 | 1996 | 2008 | 2010 | 2011 | 2012 | 2015 |

IMPROVING CONSUMERS EXPERIENCE

› A GROUP WITH A PIONEERING SPIRIT

Every day in the world, more than
300 million households receive content on various
screens via NAGRA security technologies.

More than 500 million users enjoy Kudelski Group solutions every day

During the Miami Dolphins' soccer matches, 76 000 fans
can use their access and loyalty card simultaneously
within the stadium to buy food and drink and collect
points, on SKIDATA's digital ecosystem.

Every time Real Madrid and FC Barcelona play their "El Clasico" game,
more than 500 000 Internet TV viewers access NAGRA's
infrastructure in real time, from all types of devices.

Every month, consumers place some
25 million orders on a video-on-demand service
in Israel using NAGRA's security system.

Thanks to SKIDATA technologies, 50 000 fans enjoy secure
and smooth access and exit of the Cape Town Stadium
in South Africa in the record time of 1 hour.

WORLD LEADER
IN INTEGRATED DIGITAL TELEVISION

CAPITALIZING ON A STRONG FOOTPRINT

Leveraging on 25 years of experience in the digital television industry, the Kudelski Group develops and delivers highly secure content protection solutions to operators and content producers. Its wide range of products addresses the needs of the digital television ecosystem across Internet, satellite, cable, terrestrial and hybrid end-to-end transmission systems.

Over the past 20 years, the digital television industry has undergone substantial changes. The Group is operating in an expanding market, with new ways of content dissemination and content consumption.

Kudelski's multi-network and multi-device technology solutions enable the deployment of advanced services with the appropriate level of protection, providing consumers with a thrilling viewing experience.

Pushing further the innovation, the Group launched two growth initiatives. The first, Kudelski Security, is aimed at leveraging the more than 25-year security expertise in pay-TV to other industries. The second, Intellectual Property, is aimed at optimizing the Group's 4 500-patent portfolio.

CONTENT
PROVIDERS

▼
▼
▽

CONTENT
AGGREGATION

▼
▼
▽

SERVICE
CREATION

▼
▼
▽

CONTENT
PRODUCTION

▼
▼
▽

CONTENT
CONSUMPTION

▼
▼
▽

VIEWERS

CONTENT PROTECTION

End-to-end multi-device security platform

Compelling interfaces for a seamless viewing experience

USER EXPERIENCE

INDUSTRY CHALLENGES WE ARE ADDRESSING:

Securing content in a connected environment to enable financial viability of the ecosystem

Great TV experience – seamless, anywhere, on any device

Support operators and content providers in developing their business

Optimize integration and deployment speed & costs for operators

$ 90B
protected revenues

+300M
devices deployed

$ 200M
R&D investment (2015)

530
clients operators worldwide

NAGRA
PREMIUM CUSTOMIZED SOLUTIONS
› WORLD LEADER IN INTEGRATED DIGITAL TELEVISION

NAGRA, together with its Kudelski Group sister companies, has unparalleled know-how and experience in the design of complete end-to-end secure digital pay-TV solutions. It is the leading provider of content security solutions worldwide and the strategic content security partner to more than 130 of the world's largest and most innovative digital television service providers.

NAGRA can take responsibility for overall system integration, from set-top box selection and production to the deployment of a complete multi-device TV system and the integration of an end-to-end platform.

AMERICAS

ASIA / PACIFIC

EUROPE

25

NAGRA IS PROUD
TO SERVE ITS CUSTOMERS
WORLDWIDE

NAGRA
END-TO-END CONTENT PROTECTION

In order to protect the interests of both pay-TV operators and content owners, NAGRA takes a comprehensive system approach to security. The NAGRA anyCAST range of solutions is designed to be capable of continuous evolution and dynamic upgrades to counter any security risks, based on the use of state-of-the-art security tools and the extensive experience gained in worldwide deployments for broadcast and IPTV environments.

SOLID SOLUTION PORTFOLIO LEVERAGING A LONG-STANDING EXPERIENCE

NAGRA provides operators with the right combination of technology and services enabling them to achieve their business objectives and address consumer expectations. NAGRA's full range of broadcast and connected security solutions is designed to deliver any content over any network to any device. The solution portfolio also includes media risk management services ranging from anti-piracy to more advanced cyber security services to protect a service provider's delivery infrastructure, CRM systems, payment systems and brand reputation.

EVOLVING MARKET WITH STRONG OPPORTUNITIES

The continuous evolution of the content distribution industry is bringing new players such as telecommunications and Internet companies, while also enabling traditional operators to seize new opportunities, expand their offering and create new business models. An increasing number of pay-TV operators are becoming multi-network, driven by strong broadband penetration, mass consumer adoption of open consumer electronics devices, and the business need to create attractive services. Multi-network service providers need a unified security solution that allows them to implement the appropriate levels of protection on any device for any type of content.

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END-TO-END CONTENT PROTECTION

	BROADCAST — ON SITE – HOSTED			CONNECTED — ON SITE – HOSTED – PUBLIC / PRIVATE CLOUD		
LEVEL OF PROTECTION VALUE OF CONTENT						
NAGRA SOLUTION NAME	PROTECT	GUARD	COMMAND	CONNECT		
DESCRIPTION	Chip-secured embedded solution for medium value content	Premium smartcard-based solution for high-value content	Next-generation solution for exclusive and 4K content	SECURE PLAYER — Pay-TV-centric software player for open consumer electronics devices	TRUSTED EXECUTION ENVIRONMENT — Solution supporting broadcast, multicast, OTT and in-home distribution of premium content to devices	NAGRA ON-CHIP SECURITY — Provides the highest possible level of security using NAGRA On-Chip Security giving service providers an IP-native, 4K-compliant security solution
ADDITIONAL CONTENT PROTECTION SOLUTIONS	PERSISTENT RIGHTS MANAGEMENT (DRM) - anyCAST					
	WATERMARKING AND FINGERPRINTING - anyMARK					
	ANTI-PIRACY INTELLIGENCE					

State-of-the-art content protection solution combining CAS and DRM technologies

This solution is designed to allow the secure delivery of any content over satellite, cable and IPTV networks to any device.

<div align="right">

anyCAST

</div>

Content security solution for premium 4K content

This solution redefines the limits of digital TV content security on broadcast and hybrid networks.

<div align="right">

anyCAST COMMAND

</div>

Next-generation content protection solution for connected devices

Designed for connected devices including set-top boxes and TVs, NAGRA anyCAST CONNECT allows service providers to integrate a single client for the secure delivery of broadcast, IPTV and OTT content to the home and extends the security to the redistribution of content within the home. It enables them to optimize costs and make operations more efficient.

<div align="right">

anyCAST CONNECT

This solution won the 2015 "Best Content Protection" CSI Award

</div>

Secure framework for implementing, controlling and updating anti-piracy

NAGRA anyMARK embeds a secure watermarking client in the set-top box, while also implementing a server-side watermarking solution for content delivered to any device. Watermarking is poised to become one of several key technologies that will enable pay-TV service providers to acquire rights to exclusive, high-value content like Ultra HD, and better track and shut down illegal redistribution of exclusive linear content like live sports.

<div align="right">

anyMARK

</div>

Security certification

NAGRA Advanced Security Certification (NASC) is a specification and certification process for the entire pay-TV ecosystem, ensuring the basis for the highest level of protection over time.

<div align="right">

NASC

</div>

Media content delivery continues to be transformed by the adoption of ultra-high definition screens, smartphones, tablets and other devices with multimedia capabilities.

New technologies, in particular 4K definition, represent another major TV upgrade cycle and bring new opportunities in terms of user experience. The user experience is going to play a major role in users' choices and subscriber retention in the pay-TV landscape of the future.

A DEDICATED USER EXPERIENCE STUDIO

NAGRA's user experience studio team based in California develops groundbreaking user interfaces, from standard definition to 4K ultra-high definition, whose simple and efficient design captivates viewers, engenders loyalty and offers operators the opportunity to reduce churn and monetize their services.

The platform includes a suite of user experience solutions enabling operators to deliver feature-rich pay-TV services with a seamless user experience.

The content protection solution ensures the secure delivery of content to the set-top box and to all other connected devices.

A CONSISTENT EXPERIENCE ACROSS ALL DEVICES

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NAGRA's lineup of user interface and user experience products helps pay-TV service providers respond to the challenges created by the rapid evolution of television technology and television consumption habits.
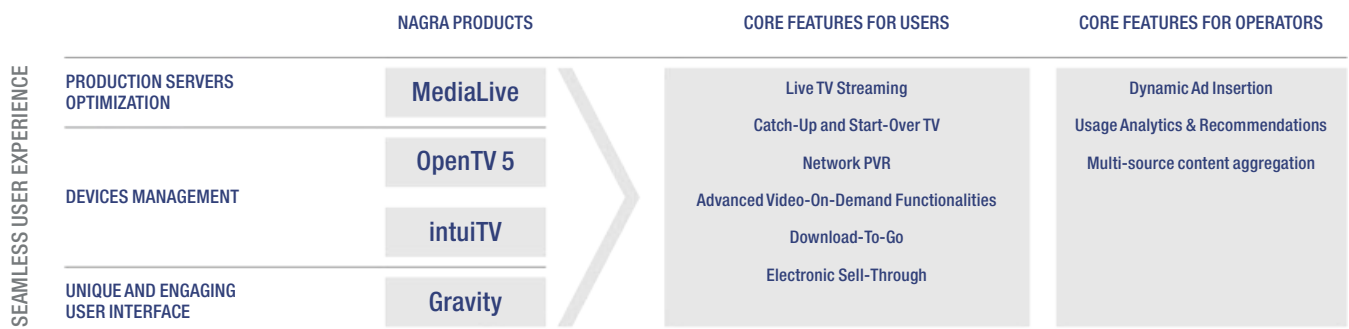
These products are designed to deliver an engaging, entertaining and fully immersive, connected entertainment experience to consumers, seamlessly blending the broadcast and Internet worlds.

ALL-IN-ONE PLATFORM TO SERVE THE WHOLE ECOSYSTEM

NAGRA's operating platform enables service providers to deliver an integrated TV experience to consumers across different networks and services. It serves as the foundation for a multi-service home platform.

SEAMLESS USER EXPERIENCE	NAGRA PRODUCTS	CORE FEATURES FOR USERS	CORE FEATURES FOR OPERATORS
PRODUCTION SERVERS OPTIMIZATION	MediaLive	Live TV Streaming	Dynamic Ad Insertion
		Catch-Up and Start-Over TV	Usage Analytics & Recommendations
DEVICES MANAGEMENT	OpenTV 5	Network PVR	Multi-source content aggregation
	intuiTV	Advanced Video-On-Demand Functionalities	
		Download-To-Go	
UNIQUE AND ENGAGING USER INTERFACE	Gravity	Electronic Sell-Through	

ON SITE – HOSTED – PUBLIC / PRIVATE CLOUD

From TV to mobile phone, from PC to tablet

MediaLive

NAGRA MediaLive Multiscreen is a complete suite of modular components offering service providers the tools to manage, secure and operate a wide range of media services across multiple delivery networks, devices and content types in a totally seamless manner.

Latest-generation television operating platform

OpenTV 5

NAGRA's OpenTV 5 HTML 5 Connectware is a new breed of operating system for set-top boxes. It combines the reliability of broadcast with the flexibility of Internet to deliver a wide range of services, features and functionalities (Live TV, VOD, nVOD, catch-up, start-over, follow-me, games, social TV) and a whole range of connected home services.

Cutting-edge end-to-end user experience turnkey platform

intuiTV

A managed, configurable cloud-based platform delivering the best of live television and streaming services for the pay-TV industry, through an intuitive and immersive "all-in-one-place" viewing experience in 4K Ultra HD and HD.

intuiTV leverages NAGRA's expertise and harnesses state-of-the-art user experience, device, content security, streaming and cloud technologies that seamlessly work together in the background.

State-of-the art user interfaces

Gravity 4K

NAGRA's range of user interface / user experience solutions provides a pulsating and exciting experience incorporating social media and the Internet of Things. It offers consumers a consistent experience when navigating through content across any device, at home or on the go.

NAGRA
SUPPORTING OUR CUSTOMERS IN THEIR NEW CHALLENGES

NAGRA's focus is clearly to help its customers grow their business. Its bundled offerings, integrated solutions and additional services are designed to deliver the most efficient response to the market challenges that operators are facing. NAGRA provides the tools that enable customers to keep costs under control, save time while being efficient and rolling out the most attractive services to retain consumers and attract new ones.

REDUCING SETUP AND OPERATIONAL COSTS

NAGRA provides integrated solutions enabling operators to launch new operations and services with quick time-to-market in the most cost-efficient manner. Its open architecture solutions integrate easily into an existing infrastructure, thanks to NAGRA's partnerships with multiple set-top box providers and other technology providers.

NAGRA's scalable solutions address the current needs of operators, with the ability to increase capacity as business requires.

INCREASING THE RELEVANCE OF OPERATORS THROUGH NEW BUSINESS MODELS

NAGRA provides solutions as well as innovative and flexible business models that are designed to accelerate the pace of innovation in the digital television industry and deliver next-generation technology. Its solutions and services enable operators to be more pro-active, anticipate market trends and needs and launch new services and functionalities cost-effectively while managing the related risks.

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MAKING THE MOST OF THE RELATIONSHIP WITH USERS

NAGRA's user interface experts develop stunning user experience tools and interfaces, taking into account the ever increasing importance of the consumer within the digital TV ecosystem. NAGRA also provides operators with the tools and the analytics enabling them to know their customers better, understand the trends and offer consumers the best experience.

Design of end-to-end systems and infrastructure

Integration services

NAGRA manages full system integration for its customers. Integration projects focus on on-time and on-budget delivery, ensuring no service interruption for the whole duration of projects. These services rely on NAGRA's extensive knowledge of solutions and ecosystems gained over the past 25 years.

Connected home solution

JoinIn

JoinIn is the perfect home solution. It enables multi-room and multi-device scenarios leveraging NAGRA solutions. It is designed to deliver premium entertainment to every screen and ensure the interoperability of media devices found in the home.

Cloud TV services

NAGRA Cloud

NAGRA offers a cloud-based platform for service creation and management. It is a modular and scalable solution for both public and private cloud services.

Development of applications for digital TV

Apps

NAGRA's Apps Team develops applications especially designed for television. NAGRA's app store includes more than 50 applications developed to date. These apps are an ideal add-on to TV programs, allowing users to enhance their experience.

AMERICAS

In 2015, NAGRA continued to roll-out advanced digital pay TV products for the Latin American market.

In Brazil, the Sat HD Regional project has become widely available across the country using NAGRA's geo-control system. This system allows broadcasters to localize advertising on the direct-to-home (DTH) platform and provides channels such as Globo in HD digital format.

In 2015, NET mass deployed the OpenTV 5 Connectware solution and extended the reach of its TV services to open devices and PCs. To support the OpenTV 5 deployment, several new set-top box platforms were developed and launched. All existing HD models were retrofitted with an enhanced OpenTV 2 middleware version to allow to level features with OpenTV 5. A new user interface was developed on both OpenTV 2 and OpenTV 5 to match the user experience. OpenTV 5 Connectware will continue to bring innovation to NET in the coming months and years.

Telefonica Colombia, Peru, Chile and Brazil continued to sell and deploy a DTH platform to bundle with their other telecommunications services to consumers in these countries. NAGRA also deployed new set-top box platforms for Telefonica based on NAGRA's advanced OpenTV 5 Connectware. One of the benefits of this platform is that it enables operators to author and develop the user experience by themselves, allowing them to have more control over it and to be more innovative, while improving the time to market for upgrades.

America Moviles, another large wireless and broadband provider in the region, started to roll out a NAGRA advanced services platform in Colombia to upgrade its cable network. NAGRA provides an end-to-end MediaLive platform for new advanced set-top boxes including user experience and OpenTV 5, enabling America Moviles to migrate its services (such as video on demand) to IP. NAGRA's DRM solution is providing security for these video services over IP.

In Peru, Telefonica's cable network, Cable Magico, continued to deploy NAGRA's digital products as they digitize their cable system. The major benefit of the upgrade is that Cable Magico can free up cable TV bandwidth to provide subscribers with higher speed broadband services.

In Panama, NAGRA deployed its MediaLive technology, enabling Cable & Wireless to offer a pay-TV service platform to both iOS and Android retail devices. Cable & Wireless' platform provided by NAGRA now offers both live channels and video-on demand content to subscribers who want to access their cable TV services on these alternative devices. NAGRA supplied its DRM solution to secure video content on iOS and Android devices.

In the US, Cable ONE continued to digitize its entire cable network with NAGRA technology. In 2015, NAGRA built out another group of US cities for Cable ONE allowing them to move from analog to all digital video services. This allowed Cable ONE to upgrade its customers' user experience. NAGRA provided the entire package for digitizing the network, including the digital terminal adapter set-top box.

In 2015, NAGRA announced the launch of new features of its MediaLive Secure Player solution with DISH Network L.L.C and EchoStar Technologies L.L.C supporting a new dynamic video-on-demand advertising platform for DISH and EchoStar. NAGRA now supports Dynamic Ad Insertion (DAI) and audience measurement capabilities for the DISH Anywhere video-on-demand multiscreen service – capabilities that are increasingly becoming key requirements for the major studios for content licensing.

ASIA - PACIFIC

India cable digitization has seen renewed momentum in the second part of 2015. In addition to the 3 major national multi-system operators (MSO) already supplied by NAGRA, NAGRA has been selected by 5 new regional MSOs in 2015. NAGRA was also selected for the largest Headend-in-the-sky (HITS) platform launched by the Hinduja group. NAGRA also commercially deployed its OpenTV middleware in the cable segment.

In Vietnam, NAGRA has been selected by VTVCab to deploy a complete end-to-end solution for zapper and hybrid set-top boxes supporting linear channels, video on demand, catch-up services, for both set-top boxes and open devices (smartphones, tablets, PCs) with NAGRA's conditional access, OpenTV 5 Connectware and MediaLive solutions.

In Singapore, StarHub has awarded NAGRA as their System Integrator for the entire TV headend relocation, a large project ranging across 2016 and 2017.

NAGRA sees the continuous growth of its major customers in China: Beijing Cable, Shandong Cable and Guangdong Cable, the largest cable operators in the country.

Taiwan is showing that after hitting a critical penetration of digitization, cable operators are moving on to deploy advanced services. As proof points, TBC has undertaken a mass deployment of NAGRA's OpenTV 5 Connectware with broadcast and hybrid capabilities and Kbro has awarded NAGRA with their OTT project to deliver video and video on demand to smartphones and tablets over the Internet.

In South Korea, KT-SkyLife has successfully launched in June 2015 the world's most advanced 4K live 24/7 service on direct-to-home (DTH), with such high value content protected by NAGRA's conditional access solution.

NAGRA deployed an end-to-end solution for JSAT's satellite music service in Japan.

In Australia, Foxtel launched their new iQ3 set-top box with a very modern, intuitive and feature-rich user experience. Such advanced services as start-over, reverse electronic program guide, subscription video on demand, transaction video on demand and pay-per-view, are delivered by the NAGRA MediaLive IP Service Platform.

ER-Telecom in Russia has continued a mass deployment of the NAGRA conditional access system and has selected NAGRA anyCAST CONNECT for two-way security to support catch-up functions on existing hybrid set-top boxes.

AFRICA

Following its launch in Uganda, Kenya and Rwanda, Azam is following strong growth and is well on its way to reaching half a million set-top boxes deployed. For its part, South Africa has announced the launch of its digital migration appointing Sentech as signal distributor. Sentech will launch the satellite Gap filler (areas not covered by the DTT network) with NAGRA in 2016.

NAGRA, which is successfully protecting CANAL+ Afrique growth in Africa over satellite, has been selected to protect the content of the DTT operations that will be launched in 2016.

EUROPE

SFR, an Altice Group company and one of France's largest pay-TV operators, launched in December 2015 France's first 4K Ultra HD subscription video-on-demand service, "ZIVE". The service is available on a variety of multiscreen devices as well as on the ZIVE set-top-box, the next generation Ultra HD device launched by SFR. The ZIVE service is enabling a brand new and feature-rich experience for viewers, marking one of the country's most advanced 4K Ultra HD offerings from the world major studios and production companies (Disney, Disney·Pixar, ABC Studios, Warner Bros, Europa, Miramax, Sony Pictures Televisions and France Télévisions). NAGRA anyCAST content security and MediaLive multiscreen technologies enable the secure delivery of 4K Ultra HD content, as well as advanced catalogue-based features for SFR's "VideoStore" video-on-demand service and "ShareCast" streaming functionality.

In addition to its success with SFR, NAGRA has also signed an agreement with Altice to extend the deployment of its video-on-demand and multiscreen solution MediaLive to other Altice properties such as Tricom / Orange Dominicana in Dominican Republic, and HOT Telecom, the largest provider of pay television services in Israel and one of the world's most successful and innovative video-on-demand service with more than 40 000 hours of content, 25 million orders every month and a variety of innovative features such as Start Next enabling the viewer to start viewing the next program before it is scheduled to begin.

After its CANAL+ Spain acquisition, Telefónica embraced the NAGRA MediaLive-based OTT service Yomvi and made it available to all its Spanish customers in July 2015. From that date, Yomvi's growth has been dramatic, surpassing 1 million of monthly users, on the right track to doubling the number of monthly users for the end of 2015.

In Italy, Mediaset Premium and SmarDTV have deployed a new innovative Conditional Access Module called Premium SmartCAM that allows users to watch live and VOD Pay TV content on any digital TV in the market. The innovation is due to the Wi-Fi capabilities of the Premium SmartCAM that enables DGTVi Silver Bollino-certified television sets to become "Smart TVs" by connecting them to the Mediaset Premium Play portal. In addition, thanks to its revolutionary Premium SmartCAM Control application suite available on Apple App Store and Android Google Play, users can access almost 10 000 titles on demand on Premium Play using a smartphone or a tablet as an enhanced remote control to play the movies on their TVs.

Liberty Global has renewed its confidence in NAGRA by signing a new contract; this will give access to the proven NAGRA anyCAST conditional access solution to secure Liberty's present and future digital content delivered to any device including the HORIZON platform. This technology will allow Liberty Global to comply with the most advanced security requirement proposed by the Hollywood studios to broadcast Ultra HD content.

In September 2015, VOO, a leading Belgian cable operator launched CI+ Conditional Access Modules in its network. SmarDTV's SmarCAM-3.5 modules embed the latest generation of the NAGRA conditional access system anyCAST GUARD, ensuring the highest security for all VOO channels. Thanks to the SmarCAM-3.5 module, these channels are directly accessible on integrated digital televisions with the original TV remote control, SCART or HDMI cables or power leads being no longer necessary.

In October 2015, DIGI Slovakia, a subsidiary of Slovak Telekom and the country's largest multimedia operator offering services based on cable, satellite, OTT and IPTV in Slovakia, launched CI+ Conditional Access Modules in its network. SmarDTV's SmarCAM-3.5 modules embed the latest generation of the NAGRA anyCAST conditional access system which secures DIGI Slovakia pay-TV services since 2014, ensuring the highest security for its digital DIGI Pay-TV offering. The CI+ module complements the digital product offer of DIGI Slovakia and meets cable and satellite subscribers' needs for accessing services without any extras. This product can be used with integrated TVs compliant with the CI+ standard that is widely deployed in Slovakia.

"We chose to grow our business with NAGRA for its comprehensive suite of digital TV solutions and their expertise in bringing new and advanced services to market quickly and efficiently."

Nam Bui, Chief Technical Officer

"Thanks to NAGRA, we are able to meet a tight deadline to deliver the world's largest lineup of 4K Ultra HD channels to our subscribers and gain the trust of Hollywood studios for licensing premium 4K content."

Han Lee, Chief Technical Officer

"We have a highly successful history of deploying our Premium Broadcast services using conditional access modules, the logical next step for users to now access our Premium Play services via OTT."

Franco Ricci, Mediaset Premium CEO

CONAX
MODULAR COST-EFFECTIVE SOLUTIONS
› WORLD LEADER IN INTEGRATED DIGITAL TELEVISION › CORE ACTIVITIES

conax
KUDELSKI GROUP

Conax provides content security solutions and total service protection for digital TV services for telecommunications, cable, satellite, IP, mobile, terrestrial and broadband operations.

Acquired by the Kudelski Group in April 2014, Conax is very favorably positioned to capture further growth in the global market. In 2015, the company began tapping the unique opportunities and synergies available through the Group.

Through a highly agile organization, coupled with Kudelski development collaborations, the company significantly extended its portfolio of highly efficient, standardized and cost-effective content security solutions.

HIGHLY EFFICIENT, MODULAR, COST-EFFECTIVE OFF-THE-SHELF SOLUTIONS

Conax's modular solutions approach enables operators to select their service offerings, device platforms and security clients and then scale as they grow. Operators of all sizes can establish a small operation with limited initial investment and then incrementally add support for higher subscriber volumes and new services.

In 2015, synergies with the Kudelski Group enabled Conax to extend its solution portfolio with SmarDTV INSTANT ACCESS Conditional Access Modules, secure end-to-end watermarking architecture, Android TV, next generation IPTV security and Media Gateway.

MORE THAN 200 TECHNOLOGY AND SERVICE PROFESSIONALS FROM OVER 26 COUNTRIES

With main activities and core development teams in Oslo, Norway, Conax employs over 200 technology and service professionals from over 26 countries, with regional offices in EMEA, the Americas and Asia, including a Global 24 / 7 Support Center in Delhi, India. From 2015, the company has captured Kudelski Group synergies through shared infrastructure in Delhi, Singapore and Beijing.

GLOBAL PARTNER NETWORK

In 2015, Conax further developed its network of strategic technology partners and client device partners for enabling delivery of complete broadcast solutions. This partnering strategy allows Conax to offer its leading security technology with complementary technologies to any operator, on a variety of scales, anywhere in the world.

INCREASING FOOTPRINT IN EMERGING MARKETS

Conax's focus moving forward is on new customers in emerging growth markets such as Africa, Asia / Pacific and Latin America and deployment of new and advanced services with existing customers. Conax has a strong project pipeline within advanced solutions projects.

ISO CERTIFIED FOR ORGANIZATIONAL EXCELLENCE AND DEVELOPMENT STANDARDS

Commited to quality and security, the Conax management system is built on a structure of robust processes for quality and continuous improvement based on the strict regimes required for ISO 9001 and 27001 certificates. It uses best practices in development methodologies (KanBan, Scrum and DevOps) and project management (Prince2).

In 2015, Conax introduced new testing services for partners, leveraging NAGRA's Beijing test & certification center, complementing the existing test centers in Europe and India.

Unified content security back-end

The Conax Contego content security back-end provides consistent handling of conditional access and DRM across OTT, terrestrial, IPTV, cable and satellite delivery networks and devices.

Conax's benchmark Conax GO Live solution, designed for the secure delivery of live TV to iOS and Android tablets and smartphones, received two prestigious industry awards.

In 2015 Conax launched four new advanced solutions:

– end-to-end secured forensic watermarking;

– next-generation premium hybrid cardless security;

– Trusted Link, a purpose-built security client for the in-home distribution of content;

– complete multi-DRM feature for the Conax Contego back-end.

Best-in-class security-compliant Conditional Access Modules

Conditional Access Modules (CAMs) provide operators with a user-friendly consumer device for accessing digital broadcast content. Removing the need for a set-top-box, CAMs are highly suitable for both the main TV and additional TVs in the home. It is a highly cost-effective option for converting analogue subscribers to digital services. The latest product is the CI+ 1.3 SmarDTV INSTANT ACCESS CAM.

AMERICAS
STRENGTHENING COMPANY POSITIONING

Conax experienced stable volumes in South America, Mexico and the Caribbean. Strategic partnerships in the Americas continued to create significant added value throughout the region. Conax secures over 10 million active devices and 40 DTH, cable, terrestrial and IPTV operators across the Americas and has experienced positive continued development since its first deployment in this region in 2005.

First movers in the Americas featuring Conax multiscreen solutions and multi-DRM include Cable & Wireless, Supercanal in Argentina as well as Nuevo Siglo and Montecable in Uruguay – the latter two sharing hosted multiscreen services based on Conax's technology and provided by strategic integration partner BOLD MSS. The hosting solution is creating strong interest from tier 2 operators as best practice model for offering fast time to market with a proven solution for providing advanced consumer services.

In 2015, Conax's benchmark multi-DRM solution was launched in advanced Caribbean consumer market at Cable & Wireless, further extending the customer's highly successful operations.

Argentina's Supercanal chose Conax-secured end-to-end solution to launch a future-ready new digital TV Everywhere service platform.

ASIA / PACIFIC
SIGNING MAJOR NEW CONTRACTS

With continued traction in the Asia / Pacific region, Conax entered 4 new contracts and deployed upgrades with its existing client base. A key customer, the Essel Group, continued to display robust growth. In the Asia / Pacific region, the first INSTANT ACCESS Conditional Access Module was deployed by Conax and SmarDTV at VTV in Vietnam.

An early player in India, Conax established operations in Delhi in 2002 and has since then played a leading role in guiding Indian operators through digitization. Conax has long-term partnerships serving the largest multi-system operators and customers including Essel Group's DISH TV and Siticable, Digicable, KCCL, IMCL and Fastway.

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"Conax has a proven track record as a strong security partner and provides a highly attractive service offering including local support. Conax and BOLD MSS are providing Supercanal with a pre-integrated, fast-time-to-market and cost-effective platform that will enable our business to flourish and grow with flexible support for advanced, secure, consumer offerings."

Daniel Vega, Chief Technical Officer

AFRICA
INCREASING SALES FORCE

With over ten years of presence in Africa, Conax continued to strengthen its position in the region with new contracts, such as regional Ghana DTT operator First Digital. Conax also experienced significant growth with partner Strong Technologies in Africa and the Middle East who brought several new operators to the Conax-secured platform.

Already securing content revenue, operations and STB infrastructure for 34 DTH and DTT operators across the continent, Conax is a leading driver for Africa's pay-TV. With a strong track record in securing digital migration, Conax continued to be committed to the African market by providing pay-TV operators with future-ready solutions, expertise and the guidance to build and grow their business for next generation consumers. In 2015, Conax strengthened its regional sales team to drive business in the region.

Conax's partnership with Chinese operator StarTimes continued to grow and evolve around new DTT deployments as well as next-generation consumer propositions pan-Africa. With operations in 16 countries and growing, Star Times is showing exceptional volume growth in Africa and is executing on its very forward-thinking strategy for planning for next-generation consumer services. In 2015, Conax entered a contract with StarTimes to deliver a media gateway solution employing Conax Trusted Link to further boost the operator's pan-Africa DTH and DTT expansion. The cooperation includes partnering to design advanced multi-room service & unique consumer offering for households without Internet – easy and secure sharing of Live TV to multiple devices, where Conax is guiding StarTimes' first initiative in developing advanced platform for multiscreen and evolving new services in Africa.

EUROPE
BUILDING ON A STRONG EXISTING CUSTOMER BASE

Conax has for many years held a strong presence in Europe, serving a wide variety of operators in its traditional markets of Northern, Western and Eastern Europe. The European market showed robust Conditional Access Module performance, in addition to strong volumes at market leading customers including Russia's ER-Telecom and Scandinavia's Canal Digital.

In addition, Conax signed ten contracts during 2015 encompassing a broad spectrum of developments including new customers, upgrades and deployment of advanced services.

A key focus in 2015 was on further developing Conax's existing customer base through the introduction of the newest generation of Conax solutions, such as Android-based platforms and services at current customer operations, positioning them for integrating and tapping next-generation consumer services. An additional core focus was on delivering a strong roadmap of additional new solutions that provide tier 2 and tier 3 operators with off-the-shelf, low risk business models for secure entry into multiscreen services – preparing operators for the next wave of opportunity in content distribution and platforms. In general, Eastern and Western Europe showed positive volume growth, while Russia experienced challenges due to the current political and economic climate.

"As we plan our advanced platform, the new solution with Conax provides an extremely attractive service offering."

Mr.Pang Xinxing, Chairman and President

SMARDTV
DEVICES DESIGNED TO PERFECTLY HOST
NAGRA AND CONAX SOLUTIONS

SMAR⬛TV

SmarDTV is active in consumer electronic devices. It provides CI+-based Conditional Access Modules and a full range of operator and retail set-top boxes ranging from entry level (broadcast, HbbTV) to media servers and gateways designed to operate on satellite, cable, terrestrial and IPTV networks.

SmarDTV includes the latest security solutions from the Kudelski Group including NAGRA anyCAST PROTECT, NAGRA anyCAST COMMAND and Conax card-based and cardless conditional access solutions.

PREMIUM CONTENT DELIVERED DIRECTLY TO TV SETS

SmarDTV's Conditional Access Modules, the SmarCAMs, enable access to premium digital pay-TV whether delivered through broadcast or broadband IP. By integrating SmarDTV's Conditional Access Modules in their television ecosystem, operators can deliver premium content directly to integrated TV sets. Conditional Access Modules enable consumers to access multiple encrypted services directly on their integrated digital TV set using the TV's remote control.

EASY-TO-DEPLOY AND MAINTAIN SET-TOP BOXES

SmarDTV offers a range of standard definition and high definition set-top boxes for all networks. The latest version supports Ultra HD (4K) content.

JOINING FORCES WITH ECHOSTAR

In March 2015, the Kudelski Group and EchoStar Corporation announced the signing of an agreement whereby EchoStar will become a shareholder in SmarDTV SA. The partnership with EchoStar is designed to reinforce its presence and positioning in the set-top box sector by enabling the transfer and integration of the assets and the international activities and teams of EchoStar (based in Steeton and Madrid) to SmarDTV. This agreement represents an opportunity for SmarDTV to reinforce and accelerate its development and competencies. SmarDTV completed the acquisition of EchoStar's European set-top box operations in May 2015, thereby extending the Group's set-top box portfolio.

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	MAIN PRODUCTS	FEATURES	KEY BENEFITS
SMARDTV PRODUCT RANGE	4K CABLE / SATELLITE SET-TOP BOX	Ultra High Definition	High security
	HYBRID OPENTV 5 SET-TOP BOX	Hybrid Over-The-Top / Broadcast	Low total cost of ownership
	ZAPPER HIGH DEFINITION SET-TOP BOX	Broadcast only	Evolutive definition
	CONDITIONAL ACCESS MODULES	Directly on TV sets	Long length of life
			Design and User Friendly

Conditional Access Modules

SmarDTV is the worldwide leader in Conditional Access Modules (CAMs) relying on the DVB CI (Common Interface) and CI+ standards. The modules are plugged directly into the TV set to decrypt pay-TV services. SmarDTV is promoting innovation in CAMs as a driver in CI standards, including CI+.

In 2015, SmarDTV launched a new range, the INSTANT ACCESS Conditional Access Modules, with Conax security. They are designed to ease subscriber acquisition by allowing consumers to instantly access pay-TV services, and to reduce subscriber acquisition costs.

The SmarCAM range also includes WiFiCAM modules launched in 2015, which enable the seamless reception of hybrid services without the need for a set-top box.

Ultra-High Definition set-top boxes

SmarBOX HYBRID 4K

SmarDTV has a family of set-top boxes supporting broadcast, hybrid and OTT distribution networks up to 4K.

SmarBOX is the latest product in the range. It is an ultra-high definition (4K) set-top box enabling content storage and distribution to multiple screens and devices in the home. It is pre-integrated with OpenTV's Connectware as well as NAGRA and Conax's conditional access solutions and includes a WiFi connexion. The hybrid version, SmarBOX HYBRID, ranges from entry-level to ultra HD models.

KUDELSKI SECURITY

With more than 150 security experts, Kudelski Security is a trusted security service provider delivering end-to-end consulting, technology, managed services and threat intelligence to help organizations build and run successful security programs. The global reach and cyber solution focus of Kudelski Security are reinforced by key international partnerships.

25 YEARS OF EXPERIENCE SECURING DIGITAL CONTENT

Kudelski Security leverages the Group's long-standing expertise in securing digital content and fighting piracy for some of the world's largest television operators and content providers.

It benefits from the Group's significant investments in innovation, cryptography research and knowledge development.

Its solutions offer a revolutionary approach to monitoring private / public networks, analyzing threats and fighting cyber attacks.

Kudelski Security is also a trusted partner to provide digital forensic on hardware or software, for legal or engineering purposes.

Kudelski Security provides fully secured mobile communication solutions, with high speed and high reliability.

BEST-OF-BREED TECHNOLOGIES

Kudelski Security offers best-of-breed technologies and an unparalleled sum of software, hardware and intelligence competencies in fighting threats. It provides state-of-the-art data analytics expertise in monitoring corporate and Internet networks to detect piracy activity and potential attacks.

SERVING MULTIPLE SENSITIVE INDUSTRIES

The Group's know-how is made available to multiple industries where the loss of data is a strategic risk.

Kudelski Security has a network of security experts and partners specialized in the finance, defense, media and telecom sectors. Its next-generation Security Operations Center provides tailor-made managed security services.

PROVIDING MISSION-CRITICAL INTELLIGENCE

Kudelski Security is aggregating intelligence from a wide spectrum of sources to allow real-time analysis and response to threats, and help customers prevent and fight attacks in the most effective and relevant way.

Advanced labs and solutions

SECURITY, EVALUATION & ATTACKS LAB
Advanced digital forensics for any digital devices, system security & intellectual property infringement.

SECURE 4G SOLUTION
Secured broadband wireless solutions, offering increased speeds, improved latency and greater bandwidth.

Managed security services / real-time threat monitoring

K-SONAR
Fast automatic or on-demand private / public network situational awareness.

ADVANCED THREAT INTELLIGENCE SERVICES
Aggregated actionable intelligence based on specific threat landscapes.

Business / operation impacts of new vulnerabilities and security breaches.

CYBER FUSION CENTER
Monitoring and analysis of private / public networks to detect and predict attacks on mission-critical infrastructures.

Actionable risk mitigation recommendations and management reporting.

Cutting-edge risk management services

CONSULTING AND TRAINING
Security strategies, risks and compliance management plans.

Standard and tailored cyber security training programs.

PENETRATION TESTING
Discovery and exploitation of vulnerabilities in business networks, systems and infrastructure within defined testing parameters to assess the risks.

INCIDENT RESPONSE
Multi-disciplinary team of crisis management professionals.

360° SECURITY ASSESSMENT
Evaluation of security risk posture.

KUDELSKI SECURITY
2015 MARKET HIGHLIGHTS

NEW CEO APPOINTMENT TO ACCELERATE GROWTH

Kudelski Security continued to develop throughout 2015, building on the successful launch of the Cyber Fusion Center in January 2015.

The outlook for 2016 looks promising. Reflecting Kudelski Security's vision to increase the company's global footprint, Rich Fennessy has been appointed as Chief Executive Officer of Kudelski Security. Mr Fennessy will extend the reach of Kudelski Security's activities beyond Europe and accelerate the entity's growth.

PURSUING R&D INVESTMENTS

Innovation, fueled by solid investment in R&D, has continued to drive Kudelski Security's strategic competitiveness, enabling the company to offer highly specialized, tailored solutions to meet the cyber security needs of its broad customer base.

Research papers have increased the visibility of Kudelski Security in cyber security debates and have helped position the company as an authority on emerging issues in cybercrime and threat prevention. In 2015, focus topics included quantum computing, Advanced Persistent Threats (APTs) and machine learning in cyber security.

DEFENSE AND PUBLIC SECTOR
MAJOR PARTNERSHIP DEVELOPMENTS

In 2015, the "Defense and Public Sector" practice delivered solid overall performance with consolidation of activities in emerging economies and within Switzerland.

– Kudelski Security established a strategic partnership with Athonet, provider of an innovative mobile core network solution, delivering a groundbreaking solution for secure 4G-LTE communications to the defense and public sectors and critical businesses.

– The Latin American region continued to be a key focus for Kudelski Security. The Cyber Defense Center, Secure Data Sharing and Secure 4G-LTE were among the flagship defense and public sector cyber security solutions promoted in the region.

– Kudelski Security signed an exclusive partnership agreement with Brazilian company Kryptus Information Security Solutions, for the distribution of Secure 4G-LTE, Cyber Defense Centers and the delivery of a range of managed security solutions including advanced threat monitoring and security audits and assessments.

– Two major, multi-year contracts were awarded for managed security services in support of government services within Switzerland.

The outlook for 2016 is positive with a strong customer pipeline in Latin America and Europe.

FINANCIAL SERVICES
ONE OF THE FASTEST-GROWING MARKETS IN CYBER SECURITY

2015 represented a year of steady progress for the "Financial Services" practice. Globally, the banking and financial services sector continues to be the fastest growing cyber security market outside of the government sector, with sustained strong demand for cyber security expertise. For the "Financial Services" practice, this has led to the doubling of its client base year on year and an increase in mandates for managed security services, professional services and enterprise security assessments, including:

– Several contracts with global firms, including a global top-5 bank.

– A multi-year contract with Allianz Global Corporate & Specialty SE (AGCS), provider of business insurance for over half of the Fortune Global 500, to provide incident response services to its customers in case of cyber breach. The partnership covers Germany, Austria and Switzerland and includes both cyber incident preparation planning and cyber incident response and support.

– More than 30 Open Source Intelligence (OSINT) training sessions within the financial services sector, developing the specialist cyber security knowledge of over 300 professionals.

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In 2016 and beyond, the financial services practice will build on the strengths of its core cyber security offering, with a firm focus on managed security services delivery. Kudelski Security will seek to capitalize on the growth prospects in the regions where it currently operates as well as in new markets, including the Middle East / Africa region and the USA.

MEDIA & TELECOM
LEVERAGING THE GROUP'S UNPARALLELED NETWORK OF OPERATORS

The "Media & Telecom" practice continued to deliver comprehensive security solutions to the media and entertainment industry, safeguarding digital assets throughout the full value chain.

Core business focused on multi-year contracts and the renewal of strategic partnerships with key anti-piracy alliances.

– Alianza, the Latin American anti-piracy body, delivered a year-on-year increase in sales revenue, expanding its program of systematic harassment against content pirates.

– International Broadcasters Coalition Against Piracy (IBCAP) won major victories in its efforts to monitor and investigate illegal online streaming, taking down infringing streams, sites and platforms, and pursuing legal action against key global players.

– Under the contract with a major broadcaster, the Media & Telecom practice continued to meet its objective to contain and reduce the commercial viability of control word sharing.

In addition, Kudelski Security worked closely with NAGRA, a digital TV division of the Kudelski Group, to provide cyber security components to NAGRA's anti-piracy solutions. Collaborations included the following:

– Support to anyMARK, the NAGRA watermarking framework introduced in 2015. Anti-piracy specialists deliver the forensic monitoring, investigation and response services to track down illegally distributed premium content and ensure its removal from the Internet.

– Investment in the development of tools and services to curb illegal content streaming through the Internet.

– Development of a range of anti-piracy tools for customers in the Latin American region who use the NAGRA conditional access system.

The outlook for 2016 is positive. A number of high-profile cyber attacks in the media sector in 2015, coupled with the ongoing challenge of piracy, have prompted stronger interest for cyber security solutions. These cover everything from the creation, consumption and delivery infrastructure of content, to the transversal business activities and business processes relating to media customers.

INTELLECTUAL PROPERTY
MANAGING THE PATENT PORTFOLIO

As a company rooted in over 60 years of innovation with award-winning products dating back to the pioneering NAGRA line of portable recording devices, the Kudelski Group and its subsidiaries have placed a worldwide emphasis on intellectual property. We believe that the establishment of well-defined intellectual property rights allows for collaborative development and economic growth that would not be possible otherwise. We therefore work to preserve our own intellectual property rights around the world.

The Kudelski Group and its subsidiaries hold over 4 500 patent assets worldwide in a variety of technology areas, including digital security, access control, digital television and rights management, among other areas.

Many of these patents relate to fundamental and valuable technologies with broad impact across many businesses. We work on establishing relevant licences of certain patents of our porfolio.

FOSTER INNOVATION AND DEVELOP LICENSE IP

The Group's Intellectual Property organization is responsible for protecting, developing, managing and licensing the Group's worldwide patent portfolio and leading the overall innovation program within the Group.

In 2015, the Group continued to make substantial strides in executing on its strategic intellectual property and innovation plan by entering into IP-based technology relationships with industry leaders like Netflix.

We recognize that there is no "one-size-fits-all" approach to product partnerships and intellectual property licensing. Different businesses have different needs and different technology requirements.

We seek business relationships that extend beyond patent licensing. We seek to incorporate product relationships, technology transfers and cross-licenses into the engagement when possible.

BUILD RECIPROCAL IP PRODUCT PARTNERSHIPS WITH KEY PLAYERS

The strength of the Group's patent portfolio and its intellectual property strategies were further validated in 2015 through additional patent licenses with well-known companies including Google, Disney, Netflix and Bloomberg.

The Intellectual Property organization completed a number of IP-based transactions in 2015 and is on track with its licensing and innovation plan and strategy. For example, the Group recently announced a broad patent cross-license with Google. This relationship, along with the earlier Cisco cross-license and the growing list of other completed IP relationships, provides substantial IP clearance for the Group's Integrated Digital Television products and services.

The Group continues to engage with a number of other companies around licensing, technology collaboration and cross-licensing. The Group will keep executing its plans to invest in innovation and protect and license its intellectual property portfolio.
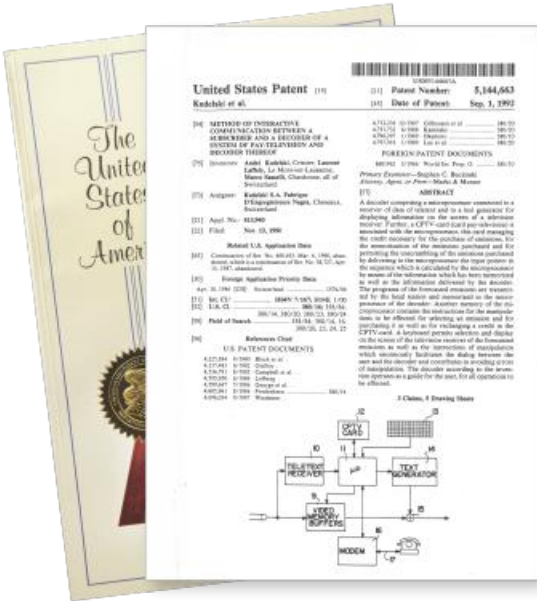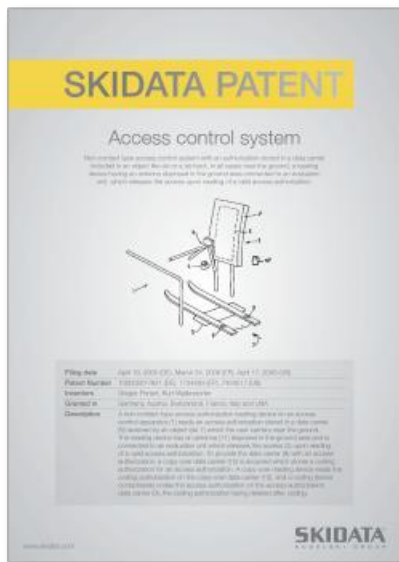
KUDELSKI / 1992

Method of interactive communication between a subscriber and a decoder of a system of pay-television and decoder thereof.
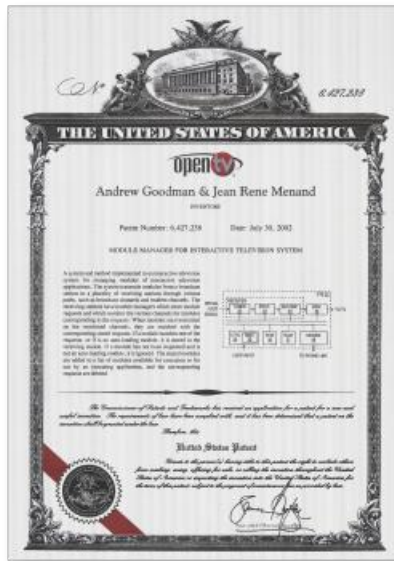
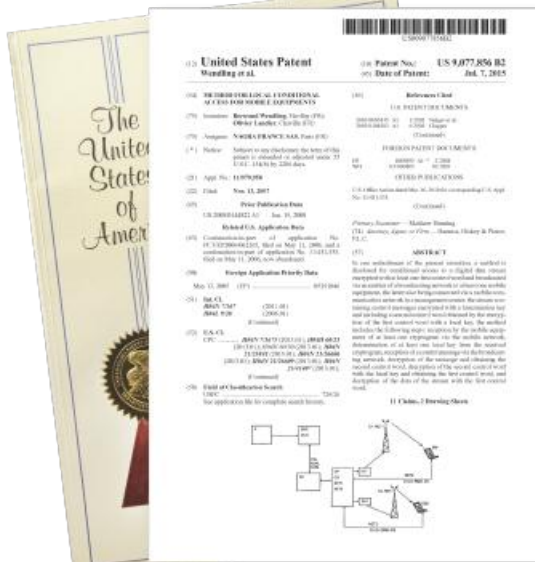

OPENTV / 2002

Module manager for interactive television system.

SKIDATA / 2005 / 2006

Non-contact type access control system.

NAGRA FRANCE / 2015

Method for local conditional access for mobile equipments.

WORLD LEADER IN PUBLIC ACCESS

DESIGNING AND MARKETING COMPREHENSIVE SOLUTIONS TO MANAGE PUBLIC ACCESS

The activities of the Public Access segment are carried out by the Group's affiliated company SKIDATA, based in Salzburg, Austria.

SKIDATA designs and markets comprehensive solutions to manage access to ski resorts, stadiums, fairs, amusement parks and parking facilities such as car parks at international airports and shopping malls.

SKIDATA manages large-scale, complex projects that involve technological challenges as well as innovative marketing and new business models.

50

SKIDATA has been on the cutting-edge for 38 years. It provides operators with constantly evolving solutions that are easy to roll out, simple to manage and powered by the latest technology, to optimize the operations of its customers day after day.

1200 INTERNATIONAL
ACCESS EXPERTS

10 000 INSTALLATIONS WORLDWIDE
DEPLOYED IN 97 COUNTRIES

23 SUBSIDIARIES

700 NEW INSTALLATIONS IN 2015

38 YEARS OF SUCCESS AND INNOVATION

SKIDATA
EMPOWERING CUSTOMERS TO DRIVE
THEIR BUSINESS FORWARD

› WORLD LEADER IN PUBLIC ACCESS

SKIDATA
KUDELSKI GROUP

SKIDATA is a global leader in access and revenue management solutions, providing fast and safe access for people and vehicles. Over the past years, the company has grown to become the market leader with over 10 000 installations in 97 countries and more than 1 200 international access experts spread over 23 subsidiaries and 3 joint-ventures.

SKIDATA increased its international footprint during the past year by entering new markets with installations in Latvia, Botswana, Guatemala, Panama and Paraguay. In 2015, SKIDATA achieved more than 700 new installations and celebrated its 7 000th parking facility installation. The company also opened offices in Tunisia and India.

COMPLETE SOLUTION FROM A SINGLE SOURCE

SKIDATA offers innovative and perfectly sized solutions including not only comfortable and secure access systems but also customized sales and marketing channels, easy integration with third-party systems, optimized business processes and professional data management, all from a single platform.

ADDRESSING COMPLEX CLIENT REQUIREMENTS

The daily business demands of SKIDATA are becoming increasingly diverse and complex: ensuring quick and convenient access, profiting from the evaluation results of data collected, customizing an efficient workflow, generating sales, integrating third-party systems and satisfying a wide variety of customer demand.

SKIDATA helps to simplify operations management and to ensure sustainable efficiency and revenue optimization to continually drive the customer's business forward.

INNOVATIVE TECHNOLOGIES

Always marked by a culture of innovation, SKIDATA today is not only the world leader in the field of access and revenue management, but also the innovation leader in the industry. Around 200 developers at six development sites are working to continue to deliver innovations. SKIDATA customers have access to an extensive network of innovative technologies.

A PIONEER IN SKI ACCESS

SKIDATA is a pioneer and the world leader in the field of access and ticketing solutions for alpine regions. The skiing experience, as guests are accustomed to today, has been crucially shaped by SKIDATA.

In 1977 SKIDATA introduced a cash register as well as printed ski tickets to the market. The second generation of access readers made complete billing possible in 1983, allowing ski resorts to team up in larger pools for the first time.

By 1987 SKIDATA had developed tickets for touch-free access based on RFID technology. With inconvenient manual ticket scanning gone, ski tickets could be read on the go from skiers' pockets, allowing them to hit the slopes in no time.

INVESTING IN STRATEGIC GROWTH AREAS

SKIDATA will continue to invest in the strategic growth areas that have brought success until today: further expanding its global presence, delivering complete solutions with a focus on quality, usability and future-readiness of systems and innovations, and continuously developing employees' know-how.

Capitalizing on its steady growth and technological expertise, SKIDATA is well on track to continue shaping the future of access management by delivering innovative, intelligent and customer-oriented solutions.

In order to grow qualitatively and profitably, the company will also continue placing a major focus on the development of structures and processes, targeting to deliver as much benefit as possible for customers, operators and end-users.

Off-street parking management solutions
1 worldwide

Operators worldwide rely on SKIDATA's expertise for their parking management.

The latest generation solution is a ticketless parking solution relying on license plate recognition technology. Benefits include hassle-free entry and exit, less queuing and a purpose-built digital application enabling customers to link their license plate number with payment.

Access and ticketing solutions for alpine resorts
1 worldwide

EasyBoarding.Gate

The latest product is an innovative entry portal for gondolas, the EasyBoarding.Gate. The fully automated system allows passengers to enter their respective portal until the correct group size is reached and assigns them to the gondolas. The new gate increases the profitability of gondola operators through the optimal use of the available load capacity.

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Access and visitor
management solutions

Vario.Gate

The main challenge in visitor access is speed and safety. With its world record-holding Vario.Gate turnstile, SKIDATA provides the fastest access control on the market, capable of managing more than 2 000 people passing through a gate in one hour. More than 200 stadiums worldwide benefit from SKIDATA's access systems.

Services supporting implementation
and daily system operation

Expert Services

Along with hardware and software, services are an important part of SKIDATA's offering. They include support processes, coordinated solution delivery, know-how transfer through training sessions as well as on-call support provided by specialists in their respective areas.

SKIDATA
2015 MARKET HIGHLIGHTS
› WORLD LEADER IN PUBLIC ACCESS

AUCKLAND INTERNATIONAL AIRPORT - NEW ZEALAND

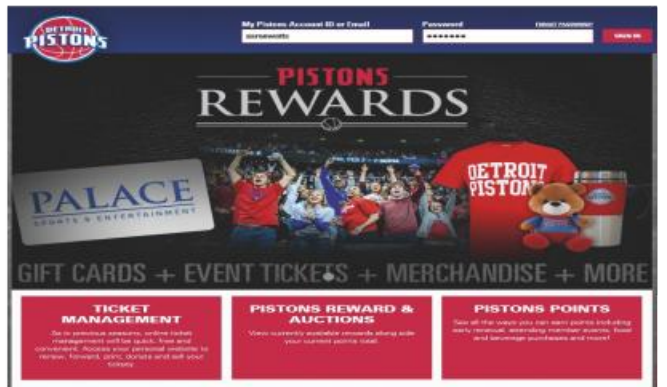## MERRION CENTRE LEEDS - UNITED KINGDOM

WINTER PARK RESORTS - USA

CAPE TOWN STADIUM - SOUTH AFRICA

SALALAH INTERNATIONAL AIRPORT - OMAN

DETROIT PISTONS BASKETBALL TEAM - USA

REAL PLAZA SALAVERRY - PERU

FÈS-SAÏSS AIRPORT - MOROCCO

BAD GASTEIN - AUSTRIA

GRAN TORRE SANTIAGO - CHILE

STEAMBOAT RESORT - USA

AS MONACO FOOTBALL CLUB - MONACO

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Corporate Communication, Kudelski Group

PHOTOGRAPHY
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PRINTING
Genoud Entreprise d'arts graphiques SA
Le Mont-sur-Lausanne

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Paper from
responsible sources
FSC® C003464

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