Connected Objects

Connecting & securing the IoT

IDEMIA

Connected objects, a part of our daily life

We have experienced tremendous technological advancements in recent times. The rise in connected objects is changing the lives of individuals as well as companies. The barriers once put in place by time and distance fade away. People and objects can now connect wherever and whenever necessary to exchange data, opening opportunities for new services based on powerful analytics.

Homes can be secured and monitored remotely with a few clicks on a smartphone. Connected cars can save lives by calling emergency services in the case of an accident. Secure and convenient mobile devices used for payment, transportation and identification have become indispensable. Electronic devices that were once isolated are now connected and can be operated from anywhere in the world. And it's no longer just humans interacting with technology, electronic equipment now interacts with other equipment.

While this connectivity surely brings about countless benefits, it also opens digital doorways, letting through an endless stream of data and creating the need for a user experience that is not only streamlined, but also secure.

At IDEMIA, we draw upon decades of expertise, we innovate and we pave the way forward as a leader in this market. We understand that the connected objects ecosystem is fragmented and that it will continue to evolve. With this in mind, we are committed to securing current and future digital services that will emerge from the IoT leveraging our unequalled hardware, software and service offers. We care about what you care about, hence, our solutions help our clients not only make it through the digital transformation, but come out on the other side with even stronger connectivity, more secure end-to-end security and solutions that truly add value.

Our clients

Automotive industry

M2M & IoT devices and services providers

Consumer devices

Chipset vendors & electronic distributors

Managing connectivity in our digitalized world

Nearly every electronic element in the world today can be connected — and most likely already is. In fact, the rise of connected objects will continue to expand in the coming years, with industry experts estimating that there will be 27 billion connected objects by 2025.

Key Figures

2+
zettabytes of data
generated by IoT
in 2025

2.2Bn
cellular connections
in 2025

24.8Bn
non-cellular connections
in 2025

While this includes the obvious, can't-live-without-it devices such as smartphones, laptops and fitness wristbands, connectivity goes far beyond these classic items. Objects are becoming more intelligent — even autonomous — knowing what you need before you need it. Just imagine never running out of milk ever again because your refrigerator will order it for you. In the consumer and automotive markets, connected devices have generated a major market trend towards an increasing digitalization of the end-user experience. In this context, our clients, the companies that produce connected objects, need to manage the connectivity of devices in a flexible, straightforward and simple way around the world and across multiple wireless networks. They turn to us for our longtime expertise in connectivity management and in biometrics to create enhanced, completely digital, and fully secure services.

When we look at the trends shaping industry 4.0, smart energy and smart cities, we see the need for end-to-end data security, particularly when it comes to managing unprecedented amounts of data. Once connected, these objects require a deeper integration of security measures to ensure the security of the device itself as well as the integrity of the big data streaming into the cloud. Take for example a smart city where traffic lights and highway signs can be controlled remotely or adapted to the traffic conditions using sensors. Our clients, and citizens as well, need the peace of mind knowing that these traffic lights and signs, as well as any sensors they may integrate, are secure, that the data on the cloud server is secure and that the chain between the two is secure as well.

As technology continues to advance rapidly, we cannot only address the security threats of today. These connected devices need to remain up-to-date — via remote updates — to stand up to the emerging security issues of tomorrow and beyond.

Ultimately, seamless connectivity and future-proof security are the two pillars for device manufacturers and service providers to deploy and maintain critical value-added services during the full lifecycle of any smart device or equipment. These are the pre-requisites to create value and bring additional convenience to our everyday life thanks to these connected objects.

What drives us

At IDEMIA it is our mission to make our world a better and more secure place for everyone. For decades, we have been securing access to mobile networks. Today our clients turn to us to enable and secure the connectivity of objects to any type of network.

Key Figures

Top
automotive brands
are working with us

250M+
embedded secure elements
deployed globally

3
of the top 5 handset makers
are IDEMIA clients

Over the past couple of years, we have earned the trust of consumer OEMs, M2M module players, automotive vendors, major electronic component distributors and chipset vendors. With our solutions, they can seamlessly CONNECT any object — and once those devices are connected, we ensure the security of the device itself as well as the integrity and confidentiality of the data it collects and transmits. We develop end-to-end solutions to PROTECT the most critical and sensitive assets: autonomous vehicles, smart meters, residential and commercial security systems, healthcare devices and industry 4.0 infrastructures.

In order for connectivity to truly be a part of our lives, we believe that it must not only be secure, it must also be straightforward and intrinsic. Our expertise in this field is bolstered by our unparalleled ability to merge embedded security and advanced biometrics to bring trust to the IoT and optimize the end-user journey. Our solutions ENABLE digital value-added services on consumer devices and adapt the objects around us to our modern world, where what used to be a simple product is now a service.

THEY TRUST US

"Through this combined IoT solution with IDEMIA, we enable all customers - as well as their customers - regardless of size, to "plug & play" which optimizes and ensures competitive advantages including secure and flexible global connectivity with our mobile network operator partners."
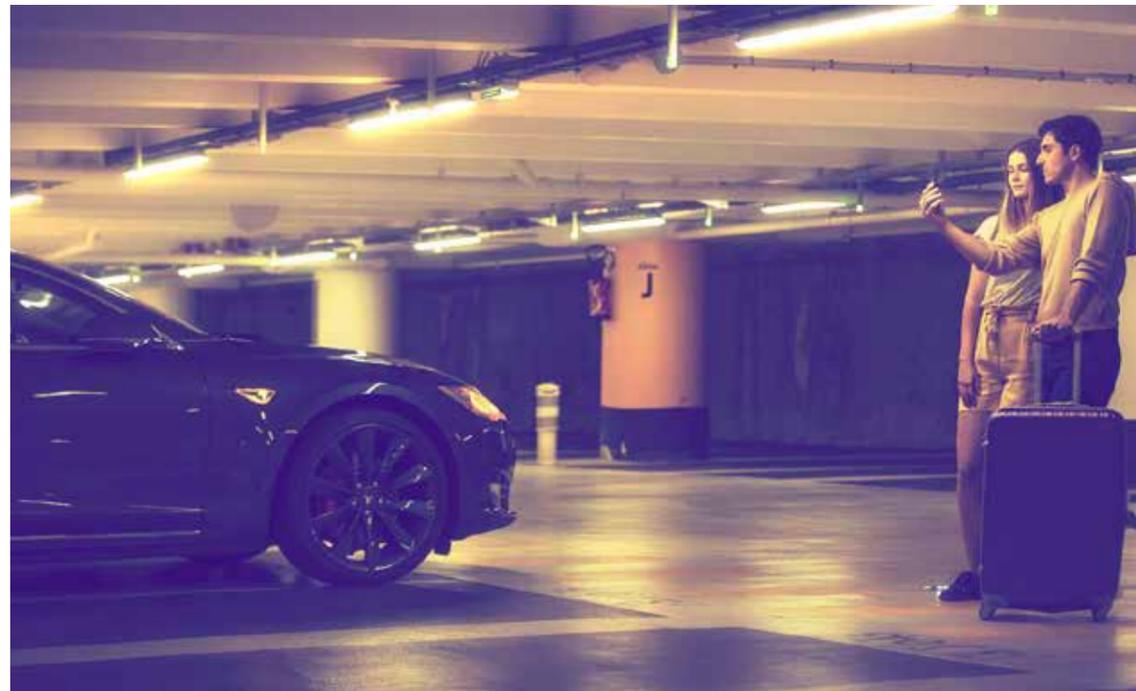PHILIPPE FREMONT, VICE PRESIDENT OF IOT FOR AVNET EUROPE

"We are delighted to grant this [Best Supplier for Electronics 2016] award to IDEMIA which is one of our most trusted partners. We have been working closely together to always improve our collaboration and this award is a way for us to value the high performance of IDEMIA concerning the quality of the products and customer support provided."
FRANCESC OLLÉ, ELECTRONICS CORPORATE COMMODITY MANAGER & PURCHASING MANAGER AT FICOSA ELECTRONICS

Our promise to you

At IDEMIA we work with clients of every size, whether directly with large OEM players or indirectly with our small and mid-sized end-customers through strategic partnerships and distributors. And while we are an industry leader with a global presence, we make it a point to maintain a strong local presence in key cities across the world.

When asked about their biggest concerns about a world of connected IoT devices, **62% of respondents said privacy and 54% said security.**

The non-cellular market is growing and will represent **more than 90% of IoT connections** by 2025.

2Bn spent on security and identity of IoT in 2020

Connectivity

At IDEMIA we transform our world with seamless connectivity. In addition to eSIM solutions to simplify access to cellular networks for consumer and M2M devices, we provide additional security measures to secure access to non-cellular networks as well. Our offer is network-agnostic. Frequent business travelers are all too familiar with the eternal hunt for WiFi. But as more and more PC makers adopt our eSIM technology, newer laptop models allow users to connect to the local cellular network on the spot — making connectivity issues a thing of the past. In the meantime, we also ensure that all the connected objects in homes or wherever users may be, from smart meters to health devices or security cameras, can securely connect to cellular or non-cellular networks to simplify their life with the same peace of mind.

Confidence

At some point, hacking can happen to the best of us — whether it impacts attractive targets in the physical world, such as production plants, cars or homes, non-tangible assets such as a company's reputation, or human safety. With more and more devices connected through cellular or other networks, new security concerns emerge about confidentiality, privacy, integrity and the control of data. At IDEMIA, we understand that our clients need to secure data and ensure that it will not be tampered with, cloned or accessed by unauthorized parties. Our aircraft clients, for example, need remote software updates they can depend on. And like with any type of information, these updates are only valuable if the data sent and received is truly reliable.

Convenience

What is more secure, unique and convenient than your own face, your fingerprint or your iris to identify yourself? Our expertise in biometrics, applied to connected objects, is taking the hassle out of our everyday life. Relying on who you are we enable our clients to digitalize the consumer journey, combining security and ease of use. Remember the last time you stepped off the plane after a long flight, and then you saw it: the zigzagging line at the car rental desk. "There has to be a better way!" you thought to yourself. Thanks to IDEMIA, there is. No need to go to the rental desk anymore. Our solutions make it possible for you to securely register with the rental car service on your smartphone, identifying yourself with your ID document and a quick selfie. Next, the keys will be dematerialized and sent to your phone. All that's left to do is to unlock the car with your phone, and off you go!

Augmented Identity

Whatever the IoT need at hand, IDEMIA adapts security levels to ensure that only you are in total control of your connected devices. This is exactly what Augmented Identity is all about.

Our innovations

3D face recognition

Our real-time 3D face recognition solution for mobile devices achieves extremely accurate and fast matching, even in poor lighting conditions. Rejecting all known spoofing attacks thanks to built-in liveness detection, it ensures a swift and reliable authentication to unlock phones and secure access to sensitive services such as mobile commerce or banking applications.

Capture your unique facial features with your phone

Let our solution calculate the precise 3D geometry of your face

Simply present your face to securely access your services

Combined connectivity and security capabilities

PEARL Connect by IDEMIA combines capabilities of an embedded Secure Element to secure sensitive services and of an eSIM to manage connectivity to cellular networks. This two-in-one product is a real breakthrough in the wearable market where the space constraints are so demanding.

Turn your smartphone or you watch into a payment & transport means

Get greater connectivity capabilities on your laptop or your smart watch

Secure access to critical services on your devices

Security from connected objects to the Cloud

With IoThrive™ solution we ensure the management of the entire security chain in the IoT from hardware to services on non-cellular networks. In 4.0 manufacturing plants for instance, our goal is to manage the identity of objects and protect all data exchanged with the Cloud to ensure that no one could illegally take control of the machines or tamper with critical information such as the inventory levels or the temperature of a room.

Authenticate sender & receiver

Ensure data confidentiality

Protect data integrity

Digitalization of the car rental experience

In the digital area, cars become smarter and increasingly autonomous, offering a full range of applications. Our end-to-end keyless solution creates a new car sharing and rental experience, offering incredible flexibility and security to dematerialize digital keys into mobile devices. It enables a hassle-free and fully digital journey while guaranteeing strong user authentication.
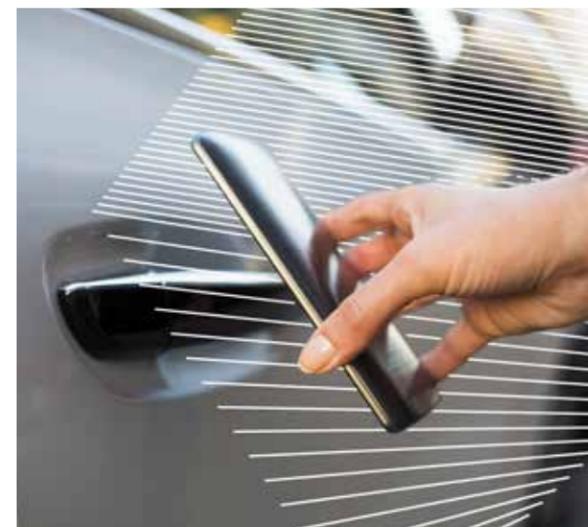
Book a car

Receive the digital key over-the-air

Unlock the car & start engine

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