The eSIM Revolution Is Here

Are You Ready?

What you need to know about eSIM.

June 2019

Once upon a time,

consumers used to go to Blockbuster to rent videos of the movies they missed at the theater. They also used to go to Tower Records to buy their favorite band's new album.

But today,
this is all a thing of the past.

The move from consuming music and videos via physical media to downloading or streaming digital content is here to stay. The days of CDs and DVDs are long gone, in favor of cloud-driven, on-demand, real-time services.

With this change, new business models and services have come to the fore. New players, such as Amazon, Spotify and Netflix, have entered the arena, with powerful, digital experiences to capture and lead their respective mega-markets.

Now, it's time for the communications and media industry to make a similar move and create a new mega-market by also evolving from physical to digital.

This is the eSIM revolution.

In comes
eSIM

"As an increasing number of devices offer eSIM technology, we are likely to see more mobile operators offering support for the service, particularly as it gives them an opportunity to up and cross-sell new service plans to their customers across the consumer and enterprise markets." (IoT Now)

The humble SIM (subscriber identity module) has been around since the Nineties, storing subscriber data faithfully for decades, including user identity, location and phone number, network authorization data, personal security keys, contact lists, and stored text messages.

Indeed, removable SIM cards have suited the consumer mobile market well. But now all this is changing due to the eSIM:

the embedded (hence the "e") SIM. Built into the mobile device, the eSIM never needs to be removed. Using the global specification of the GSMA, it enables remote SIM provisioning for any mobile device.

It also allows users to download multiple digital profiles from the cloud directly onto their device and maintain up to eight profiles at any given time. This empowers subscribers with the freedom to switch service providers with unprecedented ease.

While most existing phones still have a physical SIM slot, eSIMs are already taking hold. The latest smartphone models, including the newest iPhone, Samsung Fold, and Pixel, as well as the Apple Watch Series 4, 14 new Windows laptops by multiple OEMs, and numerous tablets and other smartwatches, all include a built-in eSIM.

"IoT is the future, and the e-SIM is the entity which would drive for the success of IoT"

Suresh Kumar, Senior Chief Engineer at Samsung Electronics.

eSIM is slated to be a key driver of growth for IoT – as this is what will power the connections among the billions of consumer and enterprise IoT devices.
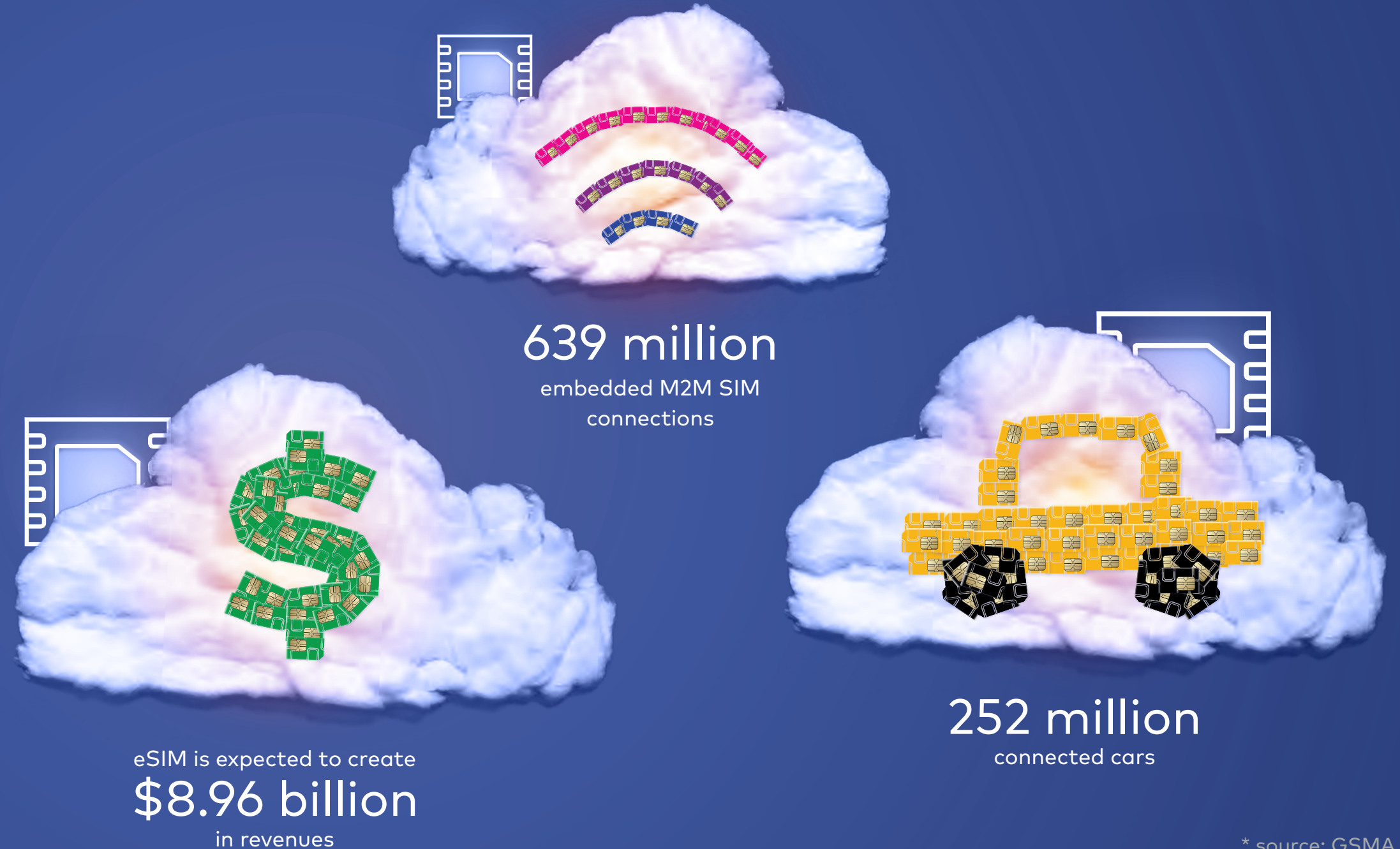
In fact, by 2021 the eSIM market is estimated to grow by nine-fold to nearly one billion shipments.

The eSIM
Opportunity by 2020*

The opportunity for service providers is tremendous. With the growing proliferation of smart devices, the demand for mobile, wireless connections will skyrocket. The smart home, smart car, consumer wearables and so on in the consumer market, as well as industrial machinery and equipment in the enterprise sector will all require networked connectivity services.

Moreover, with 5G on the horizon, cellular is likely to become the new standard for seamless and reliable connectivity.

639 million
embedded M2M SIM connections

eSIM is expected to create
$8.96 billion
in revenues

252 million
connected cars

Numerous benefits for multiple stakeholders

The many benefits eSIM promises for the different stakeholders in the mobile device ecosystem include:

- Consumers: reduced cost of connected products; an enhanced customer experience through a simplified device setup that eliminates the need to insert or replace a SIM card; increased number of worldwide connected devices that can operate independently of a tethered smartphone

- SIM card suppliers: new opportunities for previously untapped markets; reduced cost of physical card production

- Service providers: new market opportunities with machine-to-machine communications, IoT-driven services, and the connected car; reducing the cost of SIM handling, integration, and handling
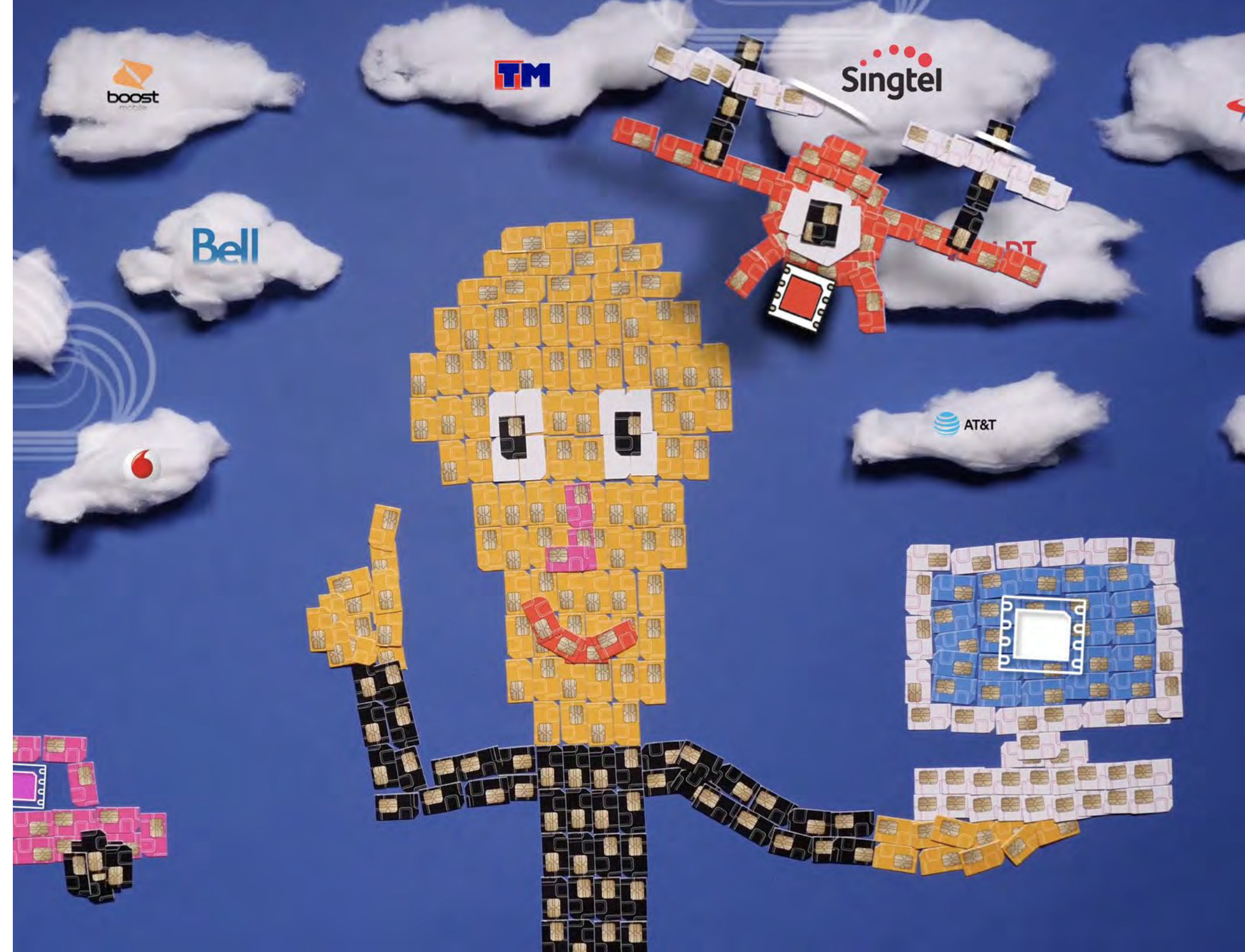
The many challenges that come with disruption

The introduction of eSIM, however, is not without substantial business and technology challengens for service providers

- The existing customer experience is complex and cumbersome as each OEM has its own proprietary processes and interface. The consumer is also limited in performing basic functions such as SIM swap and device upgrade, as well as in analyzing and fixing issues

- Onboarding OEMs is complex, each requires developing new protocols and processes, as well as integrations and certifications

- Call center support representatives today lack the ability to address all eSIM enabled devices from one screen, to be able to analyze and troubleshoot profile download issues, and to perform proactive corrective actions

- BSS integration and modification per OEM is likewise complex

- Integration with other ecosystem players, such as stores, point of sale, channels, roaming, and more, also requires a solution

The question now is
*what can service providers do
to overcome these critical challenges
and capture the opportunity?*

Clearly, they can't afford not to make it easy and seamless to adopt eSIM technology, both for consumers and enterprises.

For, once they do overcome these challenges, they will be introducing a great tectonic shift to the industry – increasing device penetration and driving new uses cases and business models across all of their markets – and generating new and very lucrative revenue streams.
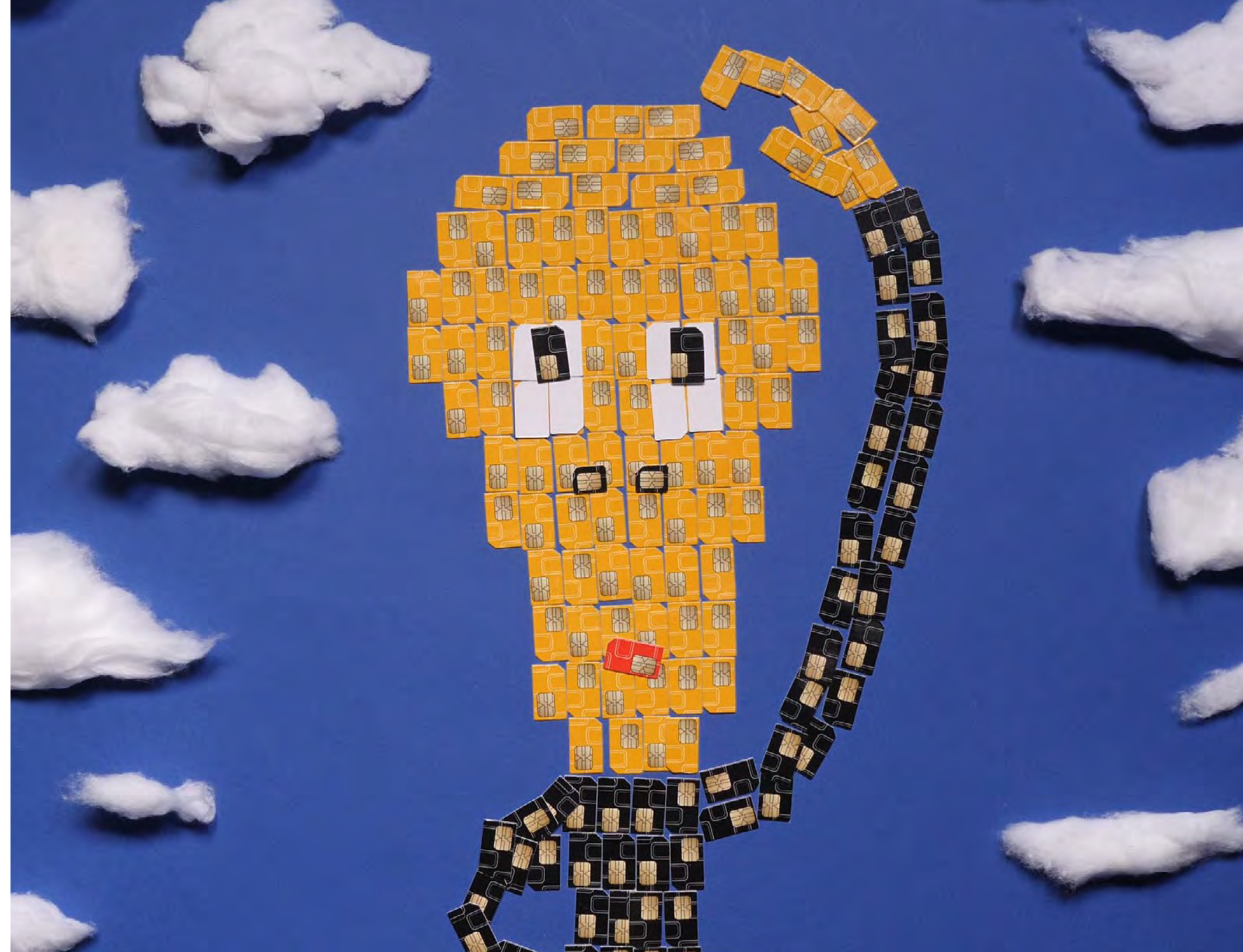
Overcoming the eSIM challenge

The key to eSIM success includes:

- Enabling a simple and intuitive customer experience, with seamless support for all the functionalities and capabilities to which customers are accustomed;

- Providing visibility and control to customer service representatives

- Compatibility with the full scope of device and eSIM vendor download and activation methods

- Integrating billing systems with all the relevant players and platforms in the ecosystem

Without the introduction of a key enabler, achieving such capabilities is impossible.

The enabler - an eSIM cloud serving as a single point for:

- Integration to all device OEMs and service providers, enabling a one-time integration, i.e. to the Hub, and eliminating the need to integrate with all the different players hundreds of times or more

- A unified experience in eSIM lifecycle management, for every device type, every OEM, channel, and location

- Effectively and seamlessly managing settlement among all ecosystem stakeholders

Introducing the
Amdocs eSIM cloud

To deliver these capabilities, facilitate the accelerated proliferation of eSIM, and empower service providers to seize the opportunity, Amdocs has introduced the eSIM Cloud.

Understanding the imperative of eSIM for service providers, the Amdocs eSIM Cloud was developed, taking a SaaS approach to provide a modern and comprehensive solution.

This unique service serves as that single point of integration for all stakeholders – service providers, OEMs, and eSIM vendors. It delivers seamless compatibility for all devices and relevant systems, eliminating the complexity of the numerous integrations, downloads, and activations needed today.

It aggregates, standardizes, and provides a unified experience for the entire eSIM lifecycle.

The eSIM Cloud also enables service providers to leverage Amdocs' close partnership with leading eSIM-enabled device manufacturers, including Apple, Samsung and Microsoft, supporting each of their unique device entitlement requirements.

Furthermore, the Amdocs eSIM Cloud empowers contact center agents, point of sale representatives, and NOC personnel, with all the information and capabilities they need in real time, including the status of the eSIM profile, device, and servers, enabling them to troubleshoot effectively and deliver superlative customer care.

This new and innovative service is robust and field proven, and is being used at multiple service providers around the world.

The future is here
Are you ready?

There is no doubt, the eSIM revolution has begun.
And as service providers seek to leverage the new business
opportunities offered by billions of eSIM-powered connected
devices, Amdocs is here to enable innovation and growth through
simplicity, flexibility, and compatibility.

The future of connectivity is here.
The future of connectivity is eSIM.

**To learn more about how Amdocs can help you capture the eSIM
opportunity, we invite you to contact <u>shahar.yaacobi@amdocs.com.</u>**

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