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MANAGEMENT DISCUSSION SECTION

Jennifer Como

Vice President-Investor Relations, Visa, Inc.

Good morning. I'm Jennifer Como from Investor Relations. On behalf of the entire leadership team, welcome to Visa's 2020 Investor Day. We have a very packed agenda, so I will just cover a few items and then we'll get started.

The first of which is the forward-looking statements page. Over the course of today, we will make many statements about the future and, as you all know, actual outcomes may differ from expectations, so please review our forward-looking statements disclosures for the necessary context.

Here is our agenda for today. We have a lot to share with you. Let me walk you through how the day will work. We've organized the day into three sessions. Before the start of each session, we will load the slides for that session on to the IR website, and we'll hand them out to all of you in the room. Our breaks are short. And we will start each session at the designated time. We know many of you have flights that you need to catch, so we will end at 2:30. And we encourage those of you who are here to visit our Visa showcase during the breaks and at the end of the day, where you can experience many of the products, strategies and themes that you'll hear on the main stage.

And with that, I think we're ready to begin. Let me welcome our Chairman and Chief Executive Officer, Al Kelly.

Alfred F. Kelly, Jr

Chairman & Chief Executive Officer, Visa, Inc.

Good morning, everybody. Thank you very, very much for making the effort to be here, and I welcome not only the people in the room but the people on the webcast as well. As Jennifer showed you, we had a long day ahead of ourselves, but one that I hope you are going to find it to be interesting and helpful so let's jump into it.

My job this morning is to update you on some of the progress since our last Investor Day, provide some context for our strategy and share our strategic framework for the next few years. Our ecosystem continues to change in meaningful ways. This slide illustrates some of these changes, the emergence of fintechs, new flows beyond payments, more government activity, the proliferation of wallets, the growth of e-commerce, the use of technology to ease the process through accepting digital payments, and the evolution of new ways to pay such as tap to pay and click to pay are just some of the factors that are advancing payments, an amazing amount of change in a small period of time.

Since Visa's first days in 1958 in Fresno, California, when the Bank of America launched the Bank of America card pilot, Visa has been focused on providing secure, ubiquitous global infrastructure to make it a seamless as possible to pay for goods and services. Over the years, we've broadened the reach of our network, added new capabilities and developed new solutions. And today, we are looking to move beyond cards and beyond payments to enable the movement of money anywhere in the world for everyone.

Our industry is quite unique in two ways. First, in the number of players that participate together to grow this market, a large number of unique organizations. You will see throughout today that partnerships are not something that we just seek, partnerships are truly fundamental to every element of our strategy. And while the number of partners is growing and will continue to grow, we remain committed to be the best possible partner in the world to all of our clients. Second, this money movement and payment facilitation industry is unique as the pie grows every day. There are precious few industries that see their addressable market growing year-over-year like the one we are in. And you can see on this slide that there are numerous meaningful factors that are driving this market expansion.

And let me share some data to illustrate this point. Despite the incredible growth in digital payments, the amount of cash and check usage has increased since 2016. Retail digital spending has grown a compounded 23% in the last three years. Yet, it is only 14% of global retail spending and we estimate that there's a $185 trillion of money movement flows to be captured that are still utilizing checks, wires and ACH.

So, we clearly see a new growth inflection point, and there's opportunity to move money via our network of networks. New flows, new players, new partnerships and connected devices will open tremendous opportunities for us in the next 5 to 10 years. And our goal is to take advantage of this inflection point to continue to drive our key business indicators and financial results as we have over the last number of years.

Looking ahead, our strategy is grounded in achieving two very important objectives. Number one, accelerating our revenue growth. And number two, fortifying the key foundations of our business model.

Let me discuss each of these over the balance of my time this morning, starting with accelerating revenue growth. Beyond the expansion of Visa's network there are significant opportunities to grow digital payments. To capture this growth, we're focused on three areas. Number one, consumer payments, our historic power ally. There's still so much room to grow in consumer payments. You'll see clearly today that there're still many consumers to reach, and there are still enormous opportunity to move consumers to electronic and digital payments. Equally, on the other side of this two-sided model, there are a tremendous amount of sellers for bring on to our network. To be successful, we are also going to work even more closely with our clients on driving greater levels of engagement with their consumer customers.

The second area of focus in driving revenue growth is new flows. New sources of payment and money movement. And the third area is value-added services. Over the years and especially recently, Visa has developed impressive list of capabilities, tools and solutions to help our clients, and we have a real opportunity to grow substantially beyond the levels of today.

We're going to spend all the time today, after my remarks, talking about the incredible opportunities in consumer payments, new flows and value-added services. So, I thought I would spend a couple of minutes previewing some of the themes that you're going to hear today from my colleagues.

Let's start with consumer payments. Consumer payments is different in different markets. So you will see that we build solutions that are locally relevant, tailored, bespoke approaches by country. In all our markets, there are three levers to pull. The first is credentials. In this area, you will see that we are dramatically increasing the number of partners we are integrating with and we're doing it at greater speed. You will hear about our leading position that we have with traditional large banks, the attractive portfolios at those issuers and the industry-leading co-brands around the world that run on the Visa network. You'll hear about the great inroads we're making with fintechs, neobanks and wallets. And the opportunity to increase credentials with these new players is massive.

In terms of acceptance, the themes are as follows. We have millions of opportunities to add locations to our network around the world. In most parts of the world, it is the many long-tail small businesses, but even in developed markets, we have big opportunities in categories such as vending, laundry, gaming, parking, electric vehicle charging, rent and tuition. Advances in technology are making it easier for sellers to conduct to our network without telecommunication lines and even without terminals. The on ramps to payments are really being streamlined.

The third lever in consumer payments is engagement. In this area, you will hear that we have numerous leverage to pull, including a huge cash conversion opportunity everywhere around the globe, even in the more matured markets. You'll hear about a focus on affluent, new movement of truth experiences, including tap to pay and click to pay which have knock-on positive impacts and driving card credential use in other categories. Transit is a huge area of focus for us. It represents a powerful use case to drive the habit to user your card or payment credential versus cash in all kinds of other buying situations. And you'll hear about some very cool loyalty solutions.

Onto the second revenue growth opportunity, new flows. First, you're going to learn the size of the prize is 10 times greater than the opportunity for consumer payments and it cuts across five different categories of flows. We will bring the network of network strategy to life with real examples. We will share some real compelling examples of our Visa Direct platform working in various used cases. And I will assert that Visa Direct is the best way in the world to move high-volume low-value transactions around the globe, and we will show you why we believe this later today. We will also though talk about low-volume, high-value transactions. This area of money movement has numerous challenges today, and we are building a solution which we believe will be best-in-class. B2B Connect will be our newest network in our network of networks, and it will be low friction with a number of meaningful advantages versus current solutions.

The third area for growing revenue will be a greater emphasis on value-added services. In this area, you will see and hear about a rich and growing set of capabilities and solutions for our different types of clients. These value-added services fall under the following areas: issuer and consumer solutions, acquirer and seller solutions, security and identity, data solutions, and consulting and analytics.

We believe that these services not only drive revenue, but very importantly, they embed us deeper with our clients, which has numerous other positive implications for Visa. During the day, we will bring a select number of tools and solutions to life in our presentations and in our Visa Showcase outside.

I will spend the balance of my time on the foundational elements of our strategy. In doing so, I will be assisted by Lynne Biggar, who is our Chief Marketing and Communications Officer. Once Lynne and I are finished, we will spend the remainder of the day on the three growth areas. And I would like to introduce you to the executives who bring these opportunities to life with more content, compelling data and some great examples. Our President, Ryan Mcinerney will provide the next level of depth relative to the growth areas. Our five regional presidents will spend approximately 15 minutes each providing an overview of the fantastic opportunities that they see in their regions: Oliver Jenkyn runs North America; Chris Clark, heads Asia Pacific; Charlotte Hogg is the leader of our European business; Andrew Torre is the President of Central Europe, Middle East and Africa; Eduardo Coello is the Regional President of Latin America.

Ryan will come back and tee up the section on new flows. And you will hear from Bill Sheley, our Global Head of Push Payments; and Kevin Phalen, our Head of Global Business Solutions. Our Chief Product Officer, Jack Forestell, will set up the section on value-added services. And in that section, you will hear from Mary Kay Bowman, Head of Consumer and Seller Solutions; you will hear from Carleigh Jaques, General Manager of CyberSource; and Melissa McSherry, Head of Security Identity and Data Products. And then, Vasant Prabhu, our Vice Chairman and Chief Financial Officer, will discuss our investment proposition.

Before I dive into the foundational elements of our strategy, a few words on Plaid, because we'll not talk very much about Plaid during our presentations today. Almost a month ago, we announced our intention to purchase this impressive fintech company. Plaid, we believe, is a natural fit for Visa as it is a network which connects many financial institutions to many app developers, so it extends our network of networks. We see the union of Plaid and Visa as an opportunity to drive Plaid's scale in the United States, where today one in four people with a bank account use Plaid to connect more than 2,600 fintech developers through 11,000 financial institutions.

We plan to expand Plaid around the world, beginning with countries that Plaid has begun to enter already, including Canada, the UK, France, Spain and Ireland. For open banking and real-time payments, we will deliver initiation and value-added services to partners globally for non-card and RTP payments. And Plaid will serve as a source of growth for our core business as we work more closely with fintechs on payment, money movement and value-added services use cases. Until we get through the regulatory approval process, we'll not be commenting on Plaid in any more detail.

That said, I would like to play a short video interview with Zach Perret in which he shares his reflection on the union of Plaid and Visa. If you could play the video, please?

[Video Presentation] (00:14:59-00:17:52)

I have to tell you, Zach and his team are terrific and we really look forward to working with them.

So, the second objective of our strategy is to fortify our foundation. And when we reference our foundation, we are talking about four key building blocks. Four elements of Visa that go right to the essence of what this company is all about, our brand, our technology platforms, security and our talent, the people of Visa.

So, let's start with our brand. And to tell the story of this great asset, I'm going to ask my partner Lynne Biggar, our Chief Marketing and Communications Officer, to take on the challenge of highlighting the power of this brand in 10 minutes. Lynne?

Lynne Biggar

Chief Marketing & Communications Officer, Visa, Inc.

Good morning, and thanks, Al. It's my pleasure to spend these 10 minutes sharing how we think about our brands today and how we're evolving it for the future. The Visa brand was created through an employee contest in 1976. And over the past 44 years has grown to be one of the most powerful brands in the world. Standing for trust, security, reliability and global acceptance, our brand regularly appears in high-profile brand rankings and was recently valued by BrandZ, a leading brand measurement agency at over $178 billion, making it the fifth most powerful brand in the world.

We continuously improve our brand position. As an example, Visa is the highest ranking financial services brand on the Forbes Most Valuable Brands list, and increased brand value by 43% in the past five years. While we certainly appreciate this external recognition, the work that we focus on every single day is ensuring that our brands and our marketing activities deliver tangible results and ROI, not only to Visa but to our increasingly broad set of clients and partners.

As such we continue to invest and evolve our brands, anchoring in the values that have delivered these outstanding impacts today. In addition to looking at external studies, we regularly conduct our own measurement of consumer perception towards the brand and the outcomes that it delivers. When we do so, including with our most recent measurements in these featured countries, we find that consumers tell us that they clearly prefer Visa over the next largest global payment network.

In markets as diverse as Japan, Argentina, the UK and the UAE, Visa currently is preferred by at least 1.4 times and, in some cases, more than 8 times the rate of the next largest global payment network. This clear preference for Visa extends across markets and a variety of valued audiences, including women, millennials and audiences of varying socioeconomic levels across the globe.

In India, for example, Visa has close to three times the brand preference advantage amongst all the audiences that you see on the slide. The versatility and ubiquity of the Visa brand enables us to deliver impactful broad-based and targeted messaging that can influence network and partner choice. And by influencing this choice, we can clearly demonstrate impact to our clients. Preference drives outcomes. And when consumers prefer Visa, they choose Visa. For example, a consumer in Mexico who prefers Visa spends five times more on Visa; a consumer in Russia, nine times more; and in India, 13 times more; and in Germany, 17 times more on Visa. And this repeats across a multitude of measured markets.

This dynamic certainly benefits Visa, but it also has a direct impact on the share of wallet and top line growth for our clients. And it's one of the main reasons our clients select Visa as their partner of choice globally.

In the US, through the use of a leading external credit bureau and Visa proprietary data, we've been able to define this Visa brand premium even more clearly. Based on this analysis of over 300 million US consumer credit cards, we've measured over a 10% spend lift and a 2% risk-adjusted balance lift versus the leading competitor network, which we believe is influenced by our clients' use of the Visa brand mark in their marketing efforts with their consumers.

Given Visa's brand preference with consumers and the associated lift in spend and share of wallet, our clients are eager to partner with us to leverage a variety of unique-to-Visa assets. One highly differentiated opportunity for our clients is the access that they're given to Visa's iconic global sponsorship properties. These properties help drive their desired business outcomes, be it acquiring new customers, building loyalty with existing ones or creating awareness and usage of new ways to pay. Visa is the only brand in the world that sponsors the Olympic and Paralympic Games, the FIFA World Cups and the National Football League. These partnerships are longstanding. And our expertise in leveraging them to deliver value for Visa and our clients is unparalleled.

For example, with the FIFA Women's World Cup in France in the summer of 2019, we issued over 5,000 commemorative cards and contactless payment bands with our clients, and hosted 1,000 guests for once-in-a-lifetime experiences. Visa clients across 30 markets and all five regions use the momentum behind this global event to drive key customer metrics through sweepstakes offers and their own unique experiences. For example, one merchant in Latin America saw an 18% year-over-year lift in transactions per card as a result of their targeted cardholder usage campaign.

We expect the Olympic and Paralympic Games Tokyo 2020 this summer to be one of the most activated events yet by clients around the world. With 164 days until opening ceremonies, we're already partnering with close to 400 clients across 86 countries who are lighting up this asset in the ways that are the most relevant to them. By the opening ceremonies, we expect our clients' collective marketing investment to exceed Visa's substantial investment by almost 40%. Onsite, Visa will have the most robust suite of cutting-edge payment innovation experiences to date that will leave a lasting impact on the digital payment enablement progress within the host market of Japan.

In addition to sponsorship activities, we focus our marketing efforts on moving markets further towards digital payment adoption through cash conversion and contactless campaigns. As you'll also hear from my regional colleagues, one area of focus across a number of markets has been driving awareness and usage of tap to pay functionality in transit systems. Whether in London or Vancouver, Rio or Singapore or most recently with the MTA in New York City, Visa's brand and marketing efforts can drive meaningful consumer behavioral shifts that benefit visa, our clients and the ecosystem. For example, on transit for London Services, we started double the transactions and 70% higher growth in spend by tap to pay transport for London users versus those not using tap to pay.

In New York City, Visa is patterning with Chase to promote tap to pay in and around subway stations that are contactless-enabled. As a result, Visa has crossed 4 million taps within the MTA system and contactless payments would be accepted system-wide by the end of 2020.

We're also working closely with our product and business leaders to support their efforts to drive awareness and adoption for some of our newer client solutions and target audiences including B2C, P2P, and B2B. And you'll hear much more about this work throughout the day today.

We also tailor messaging to support audiences demonstrate high-growth potential and we invite our clients to participate in our efforts. For the last two holiday periods in the UK, we've supported the local high street, through integrated campaigns that feature local shopkeepers and deliver a meaningful message about both acceptance and usage. As a result of our 2018 campaign, we generated a 5% greater left in over-year-over visa transactions for high speed merchants as compared to larger merchants in the same category. This work has recently been extended to Australia to support local businesses there in the wake of their devastating fires.

Women are half the global workforce. And this year, their earnings globally will be bigger than the economies of the US and China combined. Women-owned businesses increased by 45% from 2007 to 2016, and 250 million women worldwide are entrepreneurs. With the recognition of women as a powerful force of business owners and consumers, Visa has launched a variety of efforts to create greater access for women to business training, job skills and critical financial resources. Some of our largest clients in North America are partnering with us and benefiting from this work. And we'll have much more to share here in the coming months.

As a result of the access to our sponsorship assets, our powerful brands and our marketing expertise, 8 in 10 of our issuer, merchant, digital and fintech clients tell us that the Visa brand is stronger than any competitor brand. This ability to generate strong value for clients also helps make Visa the global leader in co-brand partnerships, where we enable global payments across a majority share in the top 20 portfolios. We continue to expand existing partnerships in new markets such as with Costco in Mexico and China, and to enable new-to-the-market co-brand products at partners such as Rappi, Uber and Venmo.

Visa's brand investments and our clients' investments add to the 3.4 billion Visa cards and over 61 million merchant locations that reinforce the Visa brand mark to drive billions of impressions for Visa with our core audiences every single year.

As we look forward, we are confident that our brand extends as the payments ecosystem and Visa strategy evolves. For example, in 2017, we launched a suite of multi-sensory brand elements which are now present in points of payment choice in over 27 markets. With a variety of point-of-sale terminal providers and notable partners such as Carousell, the largest market place in Southeast Asia, these brand expressions ensure consumers mean trust in the security of payments across the variety of new form factors. This is critical, as we know that the Visa brand is more trusted than other global networks by consumers and influencers in virtually every market that we measure.

And as we expand to the new types of flows with new types of partners, our brand and its core equities are serving to open doors and drive outcomes. So in conclusion, Visa is a sought-after brand by consumers and our increasingly diverse array of partners. It is sought after for its global reach, and its track record of enabling business metrics such as spend less, increased engagement and consumer preference.

With a clear foundation centered on global acceptance and trust, the Visa brand is well positioned to support Visa's evolving strategy and customer sets. Over 30 years ago, Visa began using the tagline Visa: Everywhere You Want to Be. In a pre-digital world, it was a clever way to convey cardholder engagement with the Visa brand globally. In today's world, everywhere you want to be has grown to be much more than that, encompassing digital payments, new IOC form factors, new audiences and new flows. And Visa's brand is uniquely positioned to deliver continued value as we move forward. Al?

Alfred F. Kelly, Jr

Chairman & Chief Executive Officer, Visa, Inc.

Lynne, thank you. I am a huge believer in brands and the power of brands and we certainly have a tremendous brand in Visa. And I believe that Lynne provided some compelling data to tell you what a real differentiator our brand is. I failed to introduce four key colleagues, who are very important executives of the firm, who won't be presenting here today that are here, and I just want to acknowledge them: Kelly Tullier is our General Counsel; Rajat Taneja is our President of Visa Technology; Jennifer Grant is the Head of Global Human Resources; and Paul Fabara is our Chief Risk Officer. We're delighted to have them with us as well.

Now, let me turn to the three other foundational elements of our business starting with technology platforms. Our core belief for technology is very simple, a transaction flowing over VisaNet provides the most value to all participants of the ecosystem. And our goal is to remain always on it to deliver continuous service 24x7x365. We are doing a ton in technology. With the limited time we have today, it is impossible for me to do more than scratch the surface. So I would just share a few points illustrating our incredible commitment to our technology.

In the last five years, we have invested $9 billion in technology, clearly a healthy level of spending. Our availability is 99.999%, very impressive. We connect thousands of client endpoints with redundant data connections, routing traffic from multiple data centers enabled by 10 million miles of privately leased telecommunication lines. In the last five years, we've invested significant effort to open our network and our systems to all our clients. We currently have approximately 600 APIs opening access to our systems and we're currently receiving over 1 billion API calls per month, demonstrating the value that we provide to partners. We have created localized versions of VisaNet to accommodate data localization requirements in countries like India.

And all of these activities happen because we have a strong team, 10,000 colleagues at Visa work in technology with over 6,000 of them being engineers. Across our technology and risk teams, we have an unrelenting focus on security as a top priority. To that end, we are focused on the ecosystem and its totally, and we have built one of the most sophisticated cybersecurity systems in the world, to protect the Visa network.

When we think about security, we're certainly focused on the ecosystem and our clients as well as our systems. As it relates to the ecosystem, we enabled various experiences and offer a various tools to assist with authorization, fraud prevention, authentication, and dispute management among others. We've also invested heavily in devaluing data, via tokenization. And today, we have over 750 million tokens in the markets around the world supporting 6 billion tokenized transactions. And we have continued to build out Visa's transaction controls to give cardholders the power to manage their accounts though capabilities that we offer such as transactions thresholds and alerts, ATM withdrawal alerts and travel notifications.

In terms of Visa and our infrastructure, we're executing against a multi-year information security strategy that unifies and drives proactive action to protect Visa from data breaches, and maintain trust in the payment ecosystem. As you see on this slide, we have a multi-layered approach to protecting the data on our systems. We have implemented a formal program, to devalue sensitive and personal data in our infrastructure through various cryptographic means, embedding security throughout the software development lifecycle.

And at the heart of Visa's cybersecurity strategy is a concept that we call Cyber Fusion, which forms a framework for collecting analyzing and leveraging cyber threat intelligence to enhance our detection and response capabilities. First opened in 2015 and now expanded into three locations, Visa Cybersecurity Centers are state-of-the-art secure locations designed to enable rapid cyber threat detection, real-time visualization and a centralized command to control for Visa's cyber defense from operations.

As a component of our Cyber Fusion framework, Visa has built a Threat Intelligence fusion platform that automatically ingests cyber threat information, analyzes that data, and is the central system for enriching and enabling the 24x7x365 monitoring of our network. This system collects threat information from hundreds of cyber intelligence sources, including many governments, and leverages machine learning to analyze the risk of each threat to Visa.

We collect and analyze over 9 billion security events every day, an amazing amount. And these events give us deep insights into what is happening in our infrastructure and our network on a real-time basis. And this information is used to protect Visa against new threats. Technology, operations and cybersecurity functions are deeply integrated and are the foundation of our business. They are the bedrock of our network and our network of networks architecture.

On to our last foundational element, Visa's workforce. Our global team continues to grow from approximately 5,000 people, when the company went public 11.5 years ago, to 19,500 employees at the end of fiscal 2019. And we continue you to invest in developing our workforce. Millennials are now greater than 50% of our global employee base. And with staff additions outside the United States in recent years, almost half the employees at Visa work outside of this country.

Increasing the representation of women and underrepresented minorities remains an area of focus for management. Visa's commitment to diversity recruiting includes partnering with organizations such as AfroTech, AnitaB.org, Catalyst, Diversity Best Practices, the National Society of Black Engineers, the Society of Hispanic Professional Engineers, Watermark – Silicon Valley Conference for Women, Women in CyberSecurity, Women in Payments and many others to support and develop a diverse talent pipeline.

We are fully also committed to wage equality regardless of gender, ethnicity or race. To that end, we also continue to invest in and support individuals and business and economies around the world so they can thrive. An area of focus for our company is expanding access across the 1.7 billion people who remain largely excluded from formal financial services. As a global leader, it is imperative that we constantly explore ways to improve people's lives, drive economic and societal progress in parallel to increasing shareholder value.

And we aim to do our part to contribute to improving the world in which we live and the local communities where we live and work. This slide provides some of the actions we've taken and I'm particularly pleased that we've reached a 100% renewable electricity at Visa. Visa also empowers our employees to give back. In fiscal 2019, we continued to offer our matching gifts program, our Volunteer Time Off program that expanded Visa-organized team volunteer opportunities. Just last year, over 6,000 employees gave back to their local communities. 3,800 employees donated over $4 million to over 4,700 charities and volunteered over 40,000 hours for over 800 charities. I have to say I'm very proud of our colleagues and what they do for people outside of the four walls of Visa.

We've also had a real focus on engaging governments and regulators around the world. And we focus on proactive management and engagement with a goal that governments will look at Visa as a real partner and a trusted advisor.

Now, let me turn to stockholders and the results since our last Investor Day, which I believe should provide confidence in our ability to deliver going forward. Visa continues to make tremendous progress leading a dynamic industry and advancing the growth of digital payments globally. Against the backdrop of the geopolitical challenges and uneven global economic conditions, Visa continues to deliver outstanding financial and operating results. In the almost three years since, we've gathered in this very same room, we've achieved compounded growth rates of approximately 15% in net revenue, 24% in adjusted EPS and 29% in shareholder returns. This performance is a direct result of excellent advances in our business drivers over the same period of time.

We are continually focused on extending, enhancing and investing in our network, VisaNet. While seeking new ways to offer products and services, we continually strive to become a single connection point for initiating any transaction both on VisaNet and in our network of networks.

The numbers say it all. We've seen an increase across all key drivers since 2016, 34% growth in payments volume to $8.8 trillion in 2019. We now have over 61 million merchant locations, increased 42% from 2016. And again and importantly here, keep in mind that this – in reality, this number is tens of millions higher as partners such as PayPal, Stripe and Square only count as one location.

In terms of money movement, we have doubled the number of bank accounts that we can reach. Over 130 markets have been enabled for fast funds, and B2B payments growth has grown by 41%. The ultimate measure of engagement is transactions and more specifically growth in transactions. And we have seen strong growth all over the world. Payments transactions grew faster than volume in most of our markets around the world, particularly in Asia Pacific, Central Europe and Middle East and Africa and Europe, where transaction growth is at least 20 percentage points faster than volume growth. Payment transactions in Asia and Europe each grew over 50% during that same period, and 10 percentage points faster than the rest of Visa. And CEMEA transactions in this last three years grew over 100%.

So, in summary, Visa remains at a strong position with a seasoned and diverse management team, a clear approach in strategy, a fabulous technology infrastructure, a unrelenting focus on security, the best people and a great brand. As you will learn from my colleague leaders today, over the past three years, we have evolved our corporate strategy with a greater focus on a culture to pursue growth, and we're committed to the sustained delivery of value over the long-term.

With that, to start putting more detail on this, let me turn it over to our President, Ryan McInerney. Ryan?

Ryan McInerney

President, Visa, Inc.

Thanks, Al. Good morning to all of you in the room, and to those of you joining us on the webcast. My name is Ryan McInerney. I've been the President of Visa for almost seven years. Al laid out our strategy for the future and spent some time on how we're fortifying our foundation for growth. The rest of the day is going to be all about how we're accelerating Visa's growth into the future.

I'll provide an overview of the three primary growth engines, and then we'll have focused deep dives in each area. I can't think of a time in Visa's history, where there's been more opportunity for growth. This starts with our core consumer payments business with $18 trillion in cash and checks still available for digitization globally. Beyond our core business, we have an opportunity to capture new flows of money, using our expanding network of networks. Finally, value-added services have the potential to meaningfully expand our revenue growth into the future. So we're going to dive into our strategies in each of these three areas.

On the left, you see in core consumer payments, we're focused on continuing to grow the endpoints of our network both user credentials and acceptance, while also driving engagement and usage. In new flows, in the middle there, we're utilizing our network of networks to capture new sources of payments and money movement. And then, finally, in value-added services, we're helping our clients and we're deepening our partnerships.

So, in this slide, you can see how we're approaching each level. In consumer payments, it's simple, grow both sides of the network with credentials and acceptance, and increase engagement by improving the payments experience.

In new flows, there's five specific areas that we're targeting: B2B, B2b or small businesses, B2C, P2P and G2C. Each of these segments requires a combination of different capabilities, platforms and networks to effectively meet the needs of our partners. And then, in value-added services, we're delivering our partners a full suite of capabilities to drive their growth and enable their strategies.

For the rest of my time up here, I'm going to talk about our overall approach and the specific opportunities in each of these three areas. And then, you're going to hear a lot more about the specific initiatives and our traction in each area for many of our Visa leaders that work on these strategies every day.

So, let's dive into consumer payments. In consumer payments, there's five forces fueling this enormous opportunity. As I mentioned, the amount of personal consumption expenditure or PCE around the world that still cash and check is $18 trillion, about double our annual Visa payments volume today. What's amazing is that even with all the success that Visa has had electronifying payments around the world, this number continuous to grow. I'll talk more about this in just a moment.

Second, the shift from physical to digital continues, and there are very long runway remains. This works in our favor, because Visa's share of digital commerce is approximately three times greater than the physical point of sale. Third, many, many new issuers are being created all around the world, which is growing credentials by creating new experiences in mature markets, and on ramps to financial services for the unbanked and under-banked in emerging markets.

Fourth, it is never been easier to accept digital payments. Sellers no longer need dedicated payment devices, and new types of acquirers with innovative products, solutions and pricing are helping to meaningfully expand acceptance. And then, finally, governments. Governments globally see the benefits of digitizing payments and are taking specific steps to accelerate this transition. In many markets, the government has become one of our most important partners.

So, I'll walk through each of these in more detail starting with cash and check. Since 2012, Visa has grown its payment volume by several trillion dollars. Mastercard, American Express, PayPal, and others have also grown significantly during this time. Notwithstanding the fact that trillions and trillions of dollars of consumer payments have moved from cash and check to electronic payments, the amount spent using cash and check around the world has still gone up, it's still grown. This is a huge tailwind for our business. We electronify cash and check payments. While we do this, economies continue to expand all around the world, and so does the opportunity to displace more cash and more check. Most people think that the $18 trillion in cash and check is largely limited to developing countries. It's not. There is $4 trillion in cash and check in North America alone. Keep in mind that just about the size – this is just about the size of our total Visa payments volume in North America, and there's $3 trillion in Europe. There are very few countries in Europe or North America where cash and check is not, at least, 30% of PCE.

Beyond North America and Europe, there's another $11 trillion in cash and check across Latin America, Asia, the Middle East and Africa. You'll hear more from our regional Presidents in a bit about the cash conversion opportunities and the specific strategies that we are using to continue electronifying these payments.

Now let's talk about the Digital Commerce opportunity, the second of the five opportunities in consumer payments. Since 2016 Digital Commerce has grown at a 23% CAGR as eCommerce continues to chip away at traditional retail globally. Importantly though, eCommerce is still only 14% of global retail spending. Going forward digital growth is projected to continue at a very rapid rate. This is a very important and also an especially positive trend for Visa. In Digital Commerce cash is often not an option, when it is an option it's usually a relatively terrible customer experience. So Visa's natural share of the spend is much, much higher, approximately 3 times higher as you see on the right hand side of this slide.

And on this slide you see the other three opportunities in consumer payments, new issuers, expanding acceptance and government engagement. Let's start on the left with new issuers. This is a relatively new and a very positive trend around the world. Historically, traditional banks were the primary issuers of payment credentials. Today, we're seeing a tidal wave of new issuance from neobanks, fintechs, ride-hailing companies, marketplaces, digital wallets, the list goes on and on. These new issuers are growing credentials and often reaching new unbanked or under-banked populations. We have 3.4 billion cards today. And our current wallet partners could add 1 billion credentials to that number. I'll talk more about this in a couple of moments.

The fourth opportunity is acceptance, acceptance of Visa credentials is spreading like wildfire all around the world. For many sellers plugging into the Visa network is as simple as printing a QR code or downloading an app and activating their phone to accept contactless payments. What we call tap to phone. Accepting Visa payments is massively cheaper, faster and easier than ever before.

Finally governments, they're playing a very important role in helping to accelerate digital payments. Chris Clark, our regional President of Asia Pacific will spend some time talking about India and Japan as great examples, but the trend extends way beyond these two examples. All five of these trends in consumer payments are very real and very meaningful. And as you see on this slide, Visa is uniquely positioned to capture these opportunities, the scale, the reach and the breadth of the Visa network is unrivaled.

Our large and diverse network of issuer and acquirer partners has enabled us to grow to 3.4 billion cards and 750 million tokens. So more than 4 billion credentials in total. We have sellers with more than 60 million locations and as Al said tens of millions more sellers that are enabled by partners, such as Square, Stripe, PayPal, [ph] Skrill (00:54:12) iZettle and many, many others and we're just getting started. We see an opportunity for significantly more user credentials, more acceptance and importantly, much more engagement across our network.

As we move through the day, my colleagues will describe our strategies and initiatives to grow Visa credentials, grow acceptance and drive engagement. I'll give a brief overview here in the following few slides. First, to grow credentials, we're working with traditional and new issuers. We're developing new products and capabilities to reach the unbanked and under-banked. And additionally, we're supporting entirely new buying experiences with capabilities like tokenization. On the right hand of the slide to expand acceptance, we're working with fintechs, acquirers, wallets and many other players to light up Visa acceptance for new sellers.

We've developed new form factors such as tap to phone to enable simpler and easier acceptance. And we're focused on our efforts to further penetrate new use cases in developed markets, such as rent and tuition. In the middle of the slide, you see engagement. This is critical. To continue growing engagement, we're making it easier to facilitate payments, removing friction from the ecosystem with tap to pay in the physical world or click to pay online, all while enabling the next-generation of connected devices.

On the next slide, I want to talk about a very important trend that is fueling all three of these opportunities. One of the single most important things happening in payments around the world is the opening up of previously closed Digital Commerce ecosystems. Looking back a few years, we saw the rapid rise of entirely new commerce ecosystems. Starting in China with Ali and WeChat, but quickly spreading to the rest of Asia, Latin America, Africa and the Rest of the World.

Most of these ecosystems were closed to Visa. Proprietary closed-loop payment wallets were used for buying and for selling. But today, we are seeing a fundamental shift from closed ecosystems to open ecosystems. These digital platforms are moving from being competitors to being very important partners. They're becoming issuers of Visa credentials and enablers of Visa acceptance. And the opportunity for Visa and for our partners is enormous.

On this side you see a selection of some of our partners, together this group of partners represents an opportunity for more than 1 billion credentials and about 70 million sellers. Most of these sellers are not on the Visa network today. Our partners are issuing Visa Prepaid, Debit and Credit credentials to their users to enable their users to buy goods and services everywhere Visa is accepted. They're also opening up their own acceptance networks, so that any and all Visa customers can make purchases.

Paytm is a great example. Most of you know Paytm well. They grew like a rocket ship in India over the last several years, using a closed-loop payments wallet. Paytm has more than 500 million users and more than 16 million sellers. Going forward we're working with Paytm to issue digital and physical Visa Credit cards and Debit cards to their 500 million users. We're working with Paytm to open up Visa acceptance at millions of their sellers. It's a win, win, win for Visa, Paytm and Paytm's users.

You can learn more about our work with Paytm from Ram, who's sitting at the back our India Country Manager. Ram will be out at the Visa Showcase and he can also talk with you about two other great examples of this trend in India. Our work with Google to embed Visa credentials into the Google Pay wallet and our work India with Ola, a leading ride-hailing company in India to issue Visa credentials in to the Ola wallet.

Beyond this very important trend, let me briefly touch on some of our other initiatives to grow credentials and acceptance, as well as engagement, and give you a brief overview of what you're going to hear from our regional Presidents.

We're growing credentials through five primary sets of initiatives, expanding issuance with neobanks, fintechs and digital platforms. We also continue to lead and grow share with traditional issuers as well. And I just shared the great work that we're doing with digital wallets. Additionally, we're reaching the unbanked. We've issued 500 million Visa credentials to previously unbanked consumers, since 2015. And finally we've made enormous progress with tokenization and we now have about 6 billion token transactions annually.

To further expand acceptance, we are partnering with acquirers, big and small, to grow acceptance around the world. We added 5.5 million seller locations in 2019. We're working with fintechs and leading wallets to enable new acceptance methods. For example with Alipay and WeChat opening up acceptance in China, we will add more than 50 million acceptance locations for Visa travelers into China. Attracting smaller cash-based acceptance through QR codes and mPOS, tap to phone and other solutions. And as you see on the slide, there are now 19 million mPOS devices globally and we're investing in underpenetrated use cases around the world. Transit is a great example. You're going to hear a lot more about the work we're doing here that has led to more than 180 cities to enable tap to pay for their transit systems.

And finally I'll spend a minute on engagement. Engagement is about driving usage and this has helped through one, the use of Visa's value-added services in data, analytics and consulting. Melissa McSherry is going to dive into this more later, but I'll give you an example. Value-added service we call Travel Predict, it helps issuers assess the likelihood that one of their clients is going to take a trip overseas has helped increase cross-border spending by 15%.

Our work to improve authorization rates and reduce fraud in eCommerce is having significant positive impact, which provides benefits to everyone in the ecosystem, especially including consumers. Driving the usage of click to pay and tap to pay, which, we believe, are the most friction free ways to pay in eCommerce and face-to-face respectively. And then finally we'll continue integrating Visa payment capabilities into the partners and the operating systems that will power the Internet of Things.

So my colleagues, the regional Presidents will come up here in a bit to dive deep on how we're executing these strategies and what we're doing in specific countries to have impact. For example Oliver will share with you why the United States is now primed and ready to go with tap to pay. Chris will show you our traction partnering with some of the digital wallets that I mentioned across Asia. Charlotte will show you how we're expanding acceptance across Europe. Andrew will show you how we're partnering with players across Africa to grow credentials, acceptance and engagement. And then Eduardo will show you some examples of how we're converting previously closed-loop cards into Visa open-loop credentials across Latin America. The consumer payments opportunity for Visa is significant. We will continue to invest to grow credentials, acceptance and drive engagement.

Now, I'll talk about our second major opportunity, growing new flows. As Al mentioned, new flows represent $185 trillion. It's an enormous opportunity. I'm going to give you an update about how we think about this market. Our strategy and how our network of networks enables our growth.

First thing, I'll do is breakdown the $185 trillion. We break the $185 trillion into five segments. B2B, on the left there, which we estimate to be a $120 trillion, this includes spending that can be addressed with card-based solutions, accounts receivable and payable flows as well as cross-border. Then there's B2b or small business, which is about $5 trillion and includes merchant settlement, marketplace payouts and alternative lending. B2C is about $30 trillion and includes opportunities, such as insurance payouts, on-demand payroll and gig economy payroll and spending as well as many other use cases. P2P is about $20 trillion. And then on the right you see the more nascent G2C, which we estimate to be $10 trillion and represents opportunities, such as government benefits payouts and tax refunds.

The $185 trillion isn't limited to any one geography. The opportunities are sizable in every region around the world. Throughout the day, you'll hear more about our specific strategies to capture these opportunities in different markets and different countries around the world.

Al spoke earlier about, how we are enabling the movement of money for everyone, everywhere, by being a single point of connection for any transaction, whether it's on the Visa network or beyond the Visa network. We're doing that with our expanding network of networks. In summary, our network of networks is about moving money from all endpoints to all form factors. We use all available networks and we provide a single connection point to our partners. We facilitate liquidity and guaranteed payments through our Visa Settlement Service and we provide our value-added services on all Visa transactions, no matter what network is being used.

I'll go through some more specifics to help describe the strategy and bring it to life. First, let's start with the networks themselves. We, of course, use VisaNet, but even with the enormous scale of VisaNet, we're not able to reach every business consumer and government account on the planet. And even with innovations, such as Visa Direct, we do not have all the capabilities we need to enable every type of money movement. So, we are increasingly using other networks to reach accounts we could not otherwise reach and/or enable new types of money movement. These include other Visa networks, networks that we own and we manage as well as non-Visa networks.

Let me start with the other Visa networks and Plus is a great example. Plus is the Visa ATM network which is enabled on many non-Visa branded debit cards around the world. This extends our reach and grows the number of cards that we're able to reach. For example because Plus is enabled on Interac debit cards in Canada, we are able to push funds to these customers using Visa Direct, even though these customers do not have a Visa branded debit card.

Earthport another Visa network is a company we purchased in July of last year, which expands our reach to 99% of bank accounts in 88 countries. This added 1.5 billion incremental bank accounts that we could not previously reach. Now we're able to reach these 1.5 billion accounts with the Visa Direct. Earthport also significantly expanded our money movement capabilities.

Finally in the Visa networks we have B2B Connect designed from the ground up to deliver cheaper, faster, better, more transparent, high value cross-border transactions. Kevin will talk more about Visa B2B Connect in his presentation.

In addition to these Visa networks, we also use non-Visa networks, such as other card networks, local RTP and ACH systems, SWIFT, correspondent banks and several other networks. This network of networks allows us to provide end-to-end money movement solutions with best-in-class capabilities, using all available networks to optimize speed, security and price of a transaction for consumers, businesses and governments around the world.

I'll try to further bring it to life with a couple examples. The first example that you see on this slide; number one at the top of the page is a bank that uses Visa Direct to enable its consumers to send money to other countries. In this example, the consumer sending it to Canada, think about a consumer maybe a father using the bank's mobile banking app to send his daughter in Canada money for her monthly living expenses. In this example, they both have Visa Debit cards. So when the father sends, say, $500 to his daughter on the bank app, it's an end-to-end VisaNet transaction.

In the second example, a consumer in the US is sending money to someone in the Philippines, who has a bank account, but does not have a Visa card. For example, they could be using an app from one of our money transmitter partners such as MoneyGram, Remitly or Western Union. In this transaction the initial leg of the transaction is a Visa Direct transaction that stays on VisaNet, but the second leg of the transaction is an ACH transaction that deposits the funds into the account of the consumer in Philippines Our Earthport network enables the second leg of the transaction.

Then as you move down the page you see other examples, these are all just examples to try to bring this to life, there is many, many other use cases. In the third example, you see a transaction that is not run on VisaNet at all. For example, a US-based marketplace might use a treasury bank in the US to send payouts to small businesses that use its platform to sell goods in the US. In this example, the treasury bank relies on Earthport to use a combination of ACH and RTP to deliver the money to a small business in Germany.

And then, a final example is a treasury bank in the UK initiating a cross-border supplier payment through Visa B2B Connect to a large corporate in Singapore delivered via Earthport. Hopefully, these examples help bring to life what we mean when we say we are using our network of networks to enable money movement for consumers, businesses and governments around the world. This is also a good opportunity for me to talk about our real-time payment strategy. As we mentioned, we acquired Earthport, which provides access to RTP and ACH systems in 88 countries. And we have a very clear point of view on how we will engage with RTP systems globally.

Let me go through this now. RTP ecosystems typically have three layers. The application layer of the ecosystem is comprised of end user applications that access the RTP infrastructure to move money or to enable payments. The services layer, which is used by participants and/or operators to enhance the transaction, for example, with tokenization or with fraud scoring. And then, finally, you have the core infrastructure layer, which is about building and sometimes operating the RTP system itself.

As you can see represented in yellow on the chart, the bulk of available revenue and profit is in the application and services layers. The infrastructure layer is generally a high investment, low return business. It's hard to scale, by which I mean, when you build one RTP system, it generally is highly customized and little of the work can be transported or used to build another RTP system. There is usually strong government control. So even if you build the RTP and operate it, the price is typically set by the governments or an association of banks and furthermore typically anyone can use the RTP system at the regulated price.

So when the core infrastructure layer you make a considerable investment to build it, if you operate the RTP system, you generate a price that is set by the government or the consortium of banks. However, in many situations, you do not even have the opportunity to operate the system. It is often simply a software licensing arrangement. In any case, RTP systems are typically open and can be accessed at the regulated market price. What this means is the per transaction revenue that you generate is quite low relative to the other two layers. Some make the argument that by being in the core infrastructure layer and maybe operating in RTP, you have a better chance to capture more of the services and applications layer revenue. But in our experience that isn't the case.

Lastly, the owner of these RTP systems is either the governments, the central bank or the regulator or an association of banks. The owner of the rails as they're sometimes called is never the company that builds the software and may or may not operate the system. So given all of this, our strategy is to invest where the greatest opportunity exists. Our goal is to primarily have a role in the applications and the services layer. Our recently announced acquisition of Plaid allows us to have a very significant role in connecting fintechs to financial institutions. And as the trend toward open banking continues, we will be very engaged in the applications layer.

We've made a number of acquisitions recently, so that we can also provide services that run on RTP networks as part of the Visa transaction. Bell ID tokenization capabilities allow us to tokenize bank accounts. Verifi provides dispute capabilities. Cardinal provides authentication capabilities and we can also offer our security and analytics services to RTP systems around the world.

In the core infrastructure layer, we will leverage RTP networks as we're doing with Earthport. In terms of building and operating a RTP system, our primary focus will be in the applications and services layer, but we will opportunistically participate in some strategic markets through a combination of our own solutions and partners.

Now let me build on some of the comments, that I just made about Visa's value-added services and talk about the third of our growth engines. Driving utilization of our services to help our clients grow profits and in the process deepen our partnerships. Value-added services are an extension of our core business. They represent a significant opportunity for us to, one, help our clients grow their businesses, often resulting in additional growth for our core business; two, deepen our client relationships, which, this then gives clients more reasons to want to keep doing business with Visa; and three, deliver new sources of revenue for our business.

In addition to these three, our value-added services have been especially helpful recently winning partnerships with fintechs and neobanks around the world. These partners want to scale fast and they need partners to bring platforms and expertise that they can leverage to achieve their objectives. Our issuer processing capabilities, consulting resources, security and identity services, they've all helped us become the partner of choice for many of these players. As digital and omni-commerce grows consumer expectations increase and innovation is occurring at an even faster rate. More and more of our clients are seeking help from Visa. We've invested in a very robust set of services to help our issuing, acquiring and seller clients.

We organize our value-added services into five primary areas, Issuer & Consumer Solutions, up there on the left, Acquirer & Seller solutions, Security & Identity, Data Solutions, up there on the right, and then Visa Consulting & Analytics. Visa Consulting & Analytics is foundational to the other sets of services, because our frontline consulting teams are often the ones that are introducing our services to our clients. But then working with them to implement and optimize the performance of our services. These services will drive revenue growth of more than 20% in 2020 equating to about $3.5 billion in fiscal year 2020 revenue, that will show up primarily in data processing and in other revenue.

So let's take a quick down into some of our services, and just give you a sense of some of the examples of many of the services that we deliver to our clients. This afternoon, Jack, Mary Kay, Carleigh and Melissa will dive much deeper into several of these services. Issuer & Consumer Solutions includes our Debit Processing Service (sic) [Solutions] (01:20:02) or DPS, as it is known in the industry. Visa DPS is one of the largest debit issuer processing businesses in the world. We also provide a range of other services to issuers, such as account controls, digital issuance and consumer experiences.

Acquirer & Seller Solutions include our acceptance services, our CyberSource and Payworks businesses and services such as urban mobility enablement, tap to phone capabilities, and our Account Updater service. You also see we have loyalty, installments, dispute management and open banking offerings for both issuers and acquirers and sellers.

Security & Identity, includes our token, fraud management, authorization and authentication services. Later in the day Melissa will share with you some of the specific products in a couple of these areas. For example, she will walk you through two of our market-leading fraud management services, Advanced Authorization for issuers and Decision Manager for sellers. She'll also talk to you about Centinel one of the cornerstones of our suite of authentication services.

Data Solutions harness Visa data to help our clients with a variety of business decisions including benchmarking, marketing and underwriting.

And then you have Visa Consulting & Analytics, which ties it all together with over 500 dedicated consultants and data scientists providing over 1,000 impactful and meaningful consulting projects in 2019. They assist with strategy, product development, risk and marketing, essentially leveraging Visa's payments expertise to help our clients analyze and run their businesses.

I'll finish with two slides. Stepping back each of these three growth opportunities is very meaningful. Collectively they provide the opportunity to continue delivering double-digit revenue growth for many years. In consumer payments cash and check are $18 trillion and continue to grow. We are very well-positioned to electronify these payments.

New flows are 4 times the size of total consumer-to-business PCE and 10 times the size of cash and check. Our penetration is very low and we have strategies and capabilities to capture these flows on our network of networks. In value-added services, we have built a very robust set of services and we are now growing 2 times faster than our core business.

To quickly summarize, the opportunities for growth are significant and we're confident that we have the right strategies to accelerate our growth globally. In consumer payments, we're deepening partnerships with traditional players and expanding access with new players. This is all about removing friction in the ecosystem. We're making significant progress to capture new flows as part of our network of networks strategy and our value-added services expand the revenue growth opportunity beyond payments and money movement.

Thank you for spending the time with us this morning. We're going to take a brief break. We will start the next presentation promptly at 9:45. Thank you.

[Break] (01:23:49-01:43:45)

Oliver Jenkyn

Executive Vice President and Regional President, North America, Visa, Inc.

Well, good morning again everybody. As mentioned, my name is Oliver Jenkyn and I am Regional President of North America. I've been at Visa for 10 years and in this role for nine of those years. The main message that you'll hear from me today is that notwithstanding the maturity of the North America market relative to our other markets around the globe, the fact is that there's still a very long runway for growth. The truth is we are just getting started with electronifying payments in North America.

And this slide makes the point very clearly, on payment credentials in the first row Visa has almost 1 billion cards in North America today. However the opportunity is to more than double the number of payment credentials in use by embedding them in new use cases, including digital wallets, new fintech applications and IoT opportunities such as cars, electronics and appliances.

Similarly on acceptance, in the second row, in North America, we have 10 million merchant locations, but we have an opportunity to at least double this as new payment technology makes it easier for sellers to accept payment without all of the traditional hardware and software.

Finally with engagement on the bottom row even with the $4 trillion in Visa payments volume in North America today, there is still another $4 trillion of consumer cash and check for us to capture and this doesn't even include the new payment flow opportunities that Ryan mentioned earlier. There is more cash and check in North America today than there was when Visa went public 10 years ago. Again even with our existing success in North America, we still have a huge opportunity.

I'm going to go deeper into each of these three pillars of credentials, acceptance and engagement in my remarks. However to foreshadow the key points will be the following. On credentials in the first row North America clients prefer Visa because of our brand, our platform and our experience. Visa leads with the largest partners in North America 19 of the largest 25 portfolios in North America are with Visa. This is measured by volume against Mastercard, American Express and Discover 19 of the top 25. That's pretty powerful, partners are choosing Visa. And the same is true with new players. We're winning with fintechs with what we estimate to be a 70% win rate for new deals in North America.

In the second row on acceptance, Visa is opening up new acceptance in underpenetrated segments and enabling new use cases. Every year we have a target of approximately 1 million new acceptance points, and we have a team dedicated to nothing, but this. A great example of this is the 25 North America transit systems that are currently active or actively working on tap to pay Visa card acceptance.

Finally in the third row on engagement, Visa is driving innovation to make it easier to pay. In-store, we're focused on tap to pay, where there would be 300 million Visa cards in market by the end of this year, and we're 83 of the top 100 merchants except tap to pay today. Online, we have several initiatives underway to continue to improve the digital checkout experience, including the new industry click-to-pay solution that will increase sales by improving the consumer experience. More on each of these messages now, and let me start by saying more about this first row relating to partnerships strength.

Leading partners choose Visa and through the partnership outperform peers. Starting on the left hand side, Visa has the leading share with the largest and most influential partners. As just mentioned 19 of the largest 25 portfolios in North America are with Visa, by portfolio we mean Sapphire, Venture, United, Avion, et cetera since this is how a consumer would define the card that they have. And this metric is measured across all consumer credit and debit products across Mastercard, American Express and Discover. Looked at through different lenses, Visa has the leading share of 8 of the top 10 US issuers versus Mastercard, four of the top five Canadian issuers versus Mastercard, 8 of the top 10 largest North America co-brands versus all networks. This is a very strong position.

Moving to the middle, the clients that partner with Visa outperform their peers. If you look over the past three years, the growth rate of the top Visa issuers is over 1 percentage point faster than the growth rate of the top issuers of our competitor network. This generated over $65 billion in incremental volume for these issuers, which in turn generated $1 billion to $1.5 billion in incremental revenue over the period. This is real value for our clients.

Moving on the right hand side, there are several causal reasons for the success of our partnerships. Our partners attribute it to our brand, our people, our technology, our data, our analytics and our insights. The two that have been most powerful over recent years have been brand and consulting.

On brands, as Lynne mentioned, the Visa brand has long been a key strength, and by any measure, Visa ranks among the top global brands, and we're very proud of this. However, at Visa, we focus on the tangible value that our brand can generate for our clients.

To codify this, we decided to conduct extensive econometric research with TransUnion to answer a very simple question. If you had two cards that were the same in every way, you controlled for the difference in line size, FICO score, product type, et cetera. So the only discernible difference between the two cards was that one was Visa branded and the other was competitor branded. Then, how would those two cards perform differently? The answer is that Visa, the Visa branded card has over 10% higher spend as well as over 2% higher balances. Consumers simply prefer Visa and it shows in the numbers.

The second area where Visa works their clients to drive this outperformance in North America is with their consulting and analytics teams. Visa has some of the best minds in payments and we put these minds to work alongside our clients to drive their business forward with new product design initiatives, risk optimization, digital marketing engagements, consumer spend trend analytics and much more. The work we do in partnership with our clients drives genuine growth and value for our clients.

Still talking about partnerships, but turning to the fintech space, this is a very important and powerful dynamic in the payments space today. As such, Visa has been focusing on meeting the needs of the fintech space, and I'm pleased to say that in North America, Visa's fintech approach is successfully driving growth.

On the left hand side, let me tell you something you already know. Consumers are embracing fintechs for the simple reason that developers are building solutions that consumers want to use. Over 70% of North America consumers used a fintech app in 2019, and frankly I'm not entirely sure what the other 30% are doing with their time.

Moving to the middle, the need for these fintechs, the needs of these fintechs requires a different approach and Visa has worked hard to meet fintechs where they are, not trying to force fit them into our traditional model and it's working well, fintechs are choosing Visa and they are choosing Visa for three reasons.

First, brand. As fintechs build their business, their reputation and their own brand, having the Visa brand to lean on to provide a halo of security and trust is very powerful. Expertise and trust, we dedicate Visa resources and experts to our fintech partners to provide a real-time advice at every step in the process. This is easy for us given our experience and valuable for fintech partners since many of them are new to the ecosystem. And the addition of Plaid will provide further expertise and credibility for us in this space.

Thirdly, Fintech Fast-Track. Fintech players want to move quickly and they want partners who can move quickly with them, more focused on ideas, expertise, access and speed, less on paperwork, process and bureaucracy. So Visa introduced our Fintech Fast-Track program with streamline onboarding, turnkey access to ecosystem partners and simple commercial agreements. These three elements have greatly helped for momentum in the fintech space.

As a result, on the right hand side, Visa is winning with top partners. Our win rate with fintech deals which we measure closely is over 70% by our estimate and is the clearest measure of our success. Some of our recent partnership wins are listed here, but we picked one to share with you in more detail. Chime, the very popular mobile fee-free bank. So please roll the Chime video.

[Video Presentation] (01:53:31-01:54:38)

It's worth noting that we know that we have to continue to pivot and adjust to be successful in the fintech space. So, we are constantly listening for feedback from fintech founders, technology partners, venture capitalists and others to get them to really tell us what they think it's like working with Visa. Sometimes, it's hard to hear, but it always makes us better and that's how we plan to stay ahead.

Now, let's turn to growth from new acceptance. As I mentioned earlier, notwithstanding the relative maturity of North America, the fact is there's still a very long runway for growth by simply expanding where Visa credentials can be used. The single biggest opportunity for Visa to grow is to electronify the enormous reserves of cash and check that people are still using today.

Expanding acceptance is one of our top priorities in North America every single year. We have teams that are focused on nothing but this everyday with specific goals in specific segments. The opportunity is clear, attainable and measurable, and we're going after it.

The categories that we target are numerous and large, including rent, tuition, sports wagering, micro mobility like scooter, bike and car rentals in urban centers, unattended retail, parking, crowdfunding, and of course transit. Perhaps, the most exciting and tangible example to spotlight is tap to pay in the transit space where North America is making great progress.

The value to consumer is clear. Rather than buying a separate metro card that you use solely for your subway train or bus, instead simply walk up to the turnstile with your regular Visa card, tap it, and get onboard, simple, pay for transit like you pay for everything else.

The global poster child for success is in London with Transport for London and in United States the poster child is now the MTA in New York. The MTA began roll out of tap to pay in May of last year. We'll have full roll out on subways and buses by the end of this year. The MTA has already well over 4 million taps with 60,000 taps per day and consumers absolutely love it.

Moreover, the MTA is blazing the trail for 25 other transit systems across North America, who are making the transition to tap to pay in their networks. This is an important exciting and impactful change since transit helps build consumer habituation for tap to pay more broadly, which I'm going to turn to next.

One thing that Al Kelly frequently talks about internally at Visa is that the best consumer payment experience will always win over time. So, we at Visa need to be constantly evolving to better more seamless consumer experiences. For in-store payments, tap to pay is the best experience. It's been proven time and again in markets around the globe. Consumers love it.

In North America, Canada has already made the shift. The United States, however, is earlier in the journey, but is picking up steam. The story in the United States is the following. On the left hand side, you can see just how much cash we still have in the United States. The average American still makes over 12 cash transactions per month and over 55% of all transactions under $10 are made in cash. In short, despite the progress in electronifying payments, there's still a ton of cash to displace in the US.

And on the right, you can see the ability of tap to pay to remove that cash. This is important, not only does this tap to pay bring an improved customer experience, the ease of use changes consumers' actual payment behavior. It changes their habits. Specifically, the ease of use results in consumers using the card more often for small ticket transactions during their daily journeys. And the data proves this out.

Globally, we've seen a 20% lift in card transactions following the rollout of tap to pay, and already in the United States, we've seen a lift on tap to pay cards of plus four transactions per month and plus $160 of spend per month. This is real value for Visa, for our clients and for the consumer.

Importantly, although the US is just beginning its journey to ubiquitous tap to pay, the infrastructure is in place and we're poised for significant acceleration. On the left hand side, there are 145 million Visa tap to pay cards in the US right now. There will be 300 million in the US by the end of the year. 17 of the top 25 issuers in the United States are issuing tap to pay.

Equally importantly, on the right hand side, the merchants are ready. 8 of the top 10 merchants are accepting, 83 of the top 100, and 69% of all in-store transactions are taking place at tap to pay terminals. All this to say the cards are ready, the merchants are ready, now we are focused on building the consumer habituation. In short, we are one year into the tap to pay journey in the United States and we are ahead of our expectations based on the evolution we see in other markets around the globe.

Turning now to the digital world, again, our philosophy is that the best consumer experience will win in payments. In the online world, this is a bit more complicated. Paying for things in the digital world is a mixed bag. In situations where you're known shopper and have stored your payment credentials with the merchant or the platform such as Amazon, then the experience to use your Visa card is relatively easy. The site remembers you, stores your credentials and you just need to click checkout and it's done. No problem.

However, this accounts for only about half of online purchases. For the other half, we face the less efficient and daunting guest checkout experience. Here, the site does not recognize you and you have some real work to do. A picture is worth a thousand words, especially to remind you of something you already know.

To make a payment in the guest checkout experience, you need to first enter all of your payment details, your name, card number, expiration date, three-digit security code, your billing address and, of course, you'll make mistakes that you need to go back and correct especially if you have fat thumbs like me, and God help you if your billing and delivery addresses are different. The whole process can take 23 steps and three or more minutes, far from ideal.

There are several solutions that are being developed to solve this experience. And in 2019, the industry body EMVCo worked with ecosystem players, including all of the payment networks, to develop a single, simple, intuitive and secure click-to-pay button that solves these complications of guest checkout, an approach that is consistent across all payment cards.

In contrast to what you just saw, the new click-to-pay button is very straightforward. You simply look for and click on the click-to-pay button, select the card that you want to use, and you're done. For the consumer, this makes the guest checkout experience feel the same as the card-on-file experience. That is, although the merchant site does not recognize you, the click-to-pay checkout button does, and hence can facilitate the transaction in a simple and secure manner. The solution is rolling out now and we're very excited for 2020.

So, in conclusion, I will end where I began with my main message that notwithstanding the maturity of North America relative to our other markets around the globe, the fact is, there is still a very long runway for growth. The truth is we are just getting started with electronic payments in North America.

Thank you, all, again very much for your time today. And with that, I will turn it over to my friend and colleague, Mr. Chris Clark.

Chris Clark

Executive Vice President and Regional President, Asia Pacific, Visa, Inc.

Well, thank you, Oliver. Good morning, everyone. My name is Chris Clark, and I'm responsible for Visa's business in the Asia-Pacific region. So I've been in this role for the past 7 of my almost 18 years at the company, during which I've had a full range of geographic roles across most of the region. But what I'm really looking forward to talking to you about today is the growth story of Visa in Asia-Pacific.

So, first, I wanted to talk about some key facts about our Asia-Pacific business. Now, up above the map on the right-hand side, you'll see that our cash and check penetration opportunity stands at 48% of personal consumption expenditure or PCE, that's just over $6 trillion. We've got a strong base with over 1,000 issuing clients, nearly 1 billion visa credentials and 20 million acceptance locations, and that increased to 23 million locations in the December quarter. Those credentials generated $1.9 trillion and 30 billion transactions in FY 2019.

Now, last time we met in 2017, I highlighted the fact that more than half the world's population, almost 4 billion people and growing, live in Asia-Pacific. So whilst positive demographics and strong economic growth momentum continue to propel growth, half the region still runs on cash, almost 50% of PCE remains unpenetrated by electronic payments. And that massive $6 trillion cash displacement opportunity provides a long runway of growth, driven by an unbanked population of almost 770 million, that's one quarter of all adults in the region, and over 100 million as yet untapped merchants.

Look at the map. Japan, China and India represent the bulk of this $6 trillion opportunity. And today, I'm going to be sharing more about our approach in these markets. And not to forget that collectively Southeast Asian markets represent another $1.1 trillion opportunity. So we continue to invest heavily in developing markets such as Indonesia and Vietnam to position for longer-term growth.

So, how we're going about unlocking this opportunity? Well, we've got several specific growth levers on which we're very focused. Firstly, we're partnering and investing with a diverse set of clients to rapidly grow credentials. We've now got more than 20 market-leading wallet partners across the region and are working to bring their more than 1 billion users into our network over the coming years.

Second, we continue to rapidly scale acceptance. We've more than doubled acceptance points over the past three years, with a very strong focus on new merchant segments and enabling new use cases.

Third, making the consumer payment experience frictionless is key for us to drive higher engagement. We know that tap to pay uses drive up to nearly 4 times greater transactions than non-tap to pay in some markets. And this has been a key focus area with Asia-Pacific tap to pay transaction penetration now reaching 41% in 2019, up from 29% in 2016.

And finally, Asia-Pacific is a very diverse region. We operate in 46 markets. Our approach is tailored to each market and its unique needs. Now, this is the key to unlock that massive opportunity. And India, Japan and China collectively represent $4.5 trillion of that $6 trillion cash opportunity.

Now, I also want to share how we're partnering with market-leading wallets across Asia to grow credentials and acceptance, bringing these traditionally closed-loop ecosystems into our open network. I know that Ryan touched on this earlier, but I want to elaborate on it. So examples in Asia-Pacific include Paytm in India, Toss in South Korea, Alipay and WeChat Pay in China, as well as other multi-market wallets such as LINE and Gojek. All of these collectively have over 1 billion users and more than 65 million merchants in the region.

Now, take LINE, originally a messaging platform and now a super-app that has 164 million users across Japan, Taiwan, Thailand and Indonesia. Now, in Taiwan alone, our very successful partnership over the past couple of years has enabled 2.5 million new credentials that generated $8 billion of volume just last year. It's amazing growth in such a short period of time. And we're now working together to replicate this success in LINE's other markets like Japan, Thailand and Indonesia across that 164 million user base.

Gojek, the ride-hailing and delivery service turned super-app from Indonesia is another great multi-market player for us. They've got a very large and fast-growing user and merchant base across Southeast Asia that's going to help us capture that $1.1 trillion cash conversion opportunity I mentioned earlier. Working with them, we're planning to access over 200 million unbanked in markets like Indonesia, Vietnam and the Philippines. So digital acceptance and new issuing solutions are key to unlocking this opportunity, but let's hear a little bit more about this from Gojek themselves.

[Video Presentation] (02:08:42-02:09:43)

Okay. So, we've spoken about growing credentials and acceptance. Now, let's talk more about driving consumer engagement, and I want to double-click now on how frictionless payment experiences like tap to pay are instrumental in doing so. You heard some stats just now from Oliver about North America. So, let me tell you about what's happening in Asia-Pacific.

We've got real-life proof points of how tap to pay drives higher consumer engagement. In some markets in Asia, it drives nearly 4 times more transactions, and nearly 2 times higher spend than non-tap to pay. And what's even more exciting is that most of the increase comes from habitual everyday spend categories like grocery, convenience stores, restaurants, and transit.

Now, markets generally follow a pretty similar growth trajectory where the first 10% penetration in any market is the toughest to achieve. So it takes two to three years before we see that hockey stick growth kick in. And we've made significant investments and are working with all our partners to drive the momentum of tap to pay growth.

Now, check out that chart on your right. Looking across key markets, the first wave, like Australia, Singapore, and New Zealand are now in advanced stages of adoption, with Australia being the gold standard for the region at 96% penetration, and Singapore hot on its heels at 88% penetration. And that success in Singapore has been fueled over the past year with the enablement of the entire mass transit network on subways and buses, with 30,000 new readers activated just overnight, one night last June.

Now, the next wave of markets, Taiwan, Hong Kong, and Malaysia continue to show strong growth momentum, having grown three to nine times over the past three years. India, Japan, and the Philippines have strong growth potential also. Penetration in India grew 14 times to 8% in the year to September 2019, and has grown from that 8% up to 12% in just the past four months.

And technologies like tap to phone will help scale this even faster in the future by targeting acceptance in the large untapped small merchant population. And most importantly, as I mentioned earlier, Asia-Pacific wide penetration has grown from that 29% in 2016 to 41% in 2019, which makes it clear that the growth trajectory for the next three years is going to be very interesting.

So, I mentioned at the start of my presentation that tailoring our approach by market is imperative for our continued success in Asia-Pacific. Every market is unique and has its own unique growth strategies. So I wanted to zero in on three examples today to bring this to life and the ones that represent the bulk of that $6 trillion opportunity, India, Japan and China.

So, first to India, now, remember how back in November 2016 we had that one-time demonetization event that reset the base of our business, almost doubling it. Well, what's really exciting is when you look at the charts on your left of this page, you'll see that even with this doubled base, we're continuing to show strong post-demonetization growth in transactions, in volumes and in acceptance and we very proudly retain our market share leadership position.

And we've got three very clear areas of focus for our growth in India. First, fintechs are instrumental in growing electronic payments and we're partnering with players like Google and Paytm to scale credentials and acceptance alongside our long term FI partners.

Second, credit remains a huge untapped opportunity. India today has over 800 million debit cards, but only 50 million credit cards. So we're working on some unique market solutions to expand credit to this large debit base. Alongside our long-term FI partners, we're working closely with consumer platforms like Ride Halo, Ola and Amazon Pay to expand the credit base. And we're also seeding new solutions such as installments that we're piloting with a tailored market-specific solution.

Now, third, we're doubling down on delivering the best consumer experiences across e-commerce and face-to-face payments. We're developing a strong capability set in creating innovative consumer experiences, like our recurring payments platform and our Visa Safe Click technology, and that eliminates the need for one-time passwords for the majority of mobile e-commerce transactions.

And as mentioned earlier, we've seen that tap to pay penetration jump 14 times in 2019 alone. So given everything happening in India, as Ryan mentioned earlier, we've set up a special showcase outside, so please do stop by to check it out, come and experience these innovative solutions for yourselves, we've designed specifically for the market.

Now, let's turn to Japan. Now, that is one of the world's most advanced economies. It's the world's third largest economy, but at the same time, it's very cash-centric when compared to other highly developed countries. Growing electronic payments has become a big agenda item for the government.

As Ryan said, it has set a cashless Japan goal to grow penetration to 40% by 2025 from the 24% it is today. Now, three years ago, this cash penetration figure was 19%. So the 5% increase over the past three years is a very strong start. So, along with the upcoming Tokyo 2020 Olympics, this presents a unique opportunity for Visa and its partners to continue to drive domestic infrastructure change and build strong momentum.

We talked about India being an underpenetrated market for credit. Well, in Japan, it's the large untapped debit opportunity that's a major focus for us, given that there's less than 10% debit penetration there today. And our multi-year investments in creating a debit market in Japan have yielded impressive results to-date. Today, we partner with 31 issuers, including all three mega banks. We've issued 11 million Visa debit cards to-date and both debit volume and transactions have grown threefold over the past three years.

And in keeping with our market-centric approach, we continue to develop innovative debit solutions to drive further growth. For example, we've launched mobile wallets with four debit issuers just in 2019. And we're also focused on working with our fintech partners to rapidly scale credentials and acceptance. Some examples include Paidy which is a buy-now-pay-later player, and Kyash which is a digital wallet and issuing platform and LINE Pay which I mentioned earlier.

What I want to do now is just draw your attention to the bottom right hand corner of this slide, process transaction penetration. This remains a core focus for us, and our progress here has been consistently impressive. We well more than doubled our domestic processing penetration over the past decade. We added another 10% in the past three years and we expect some very strong growth in the coming years. The more transactions that run over the Visa network, the more value-added services such as risk solutions, tokenization, data products and cyber source we can provide to our clients and our partners.

Turning to China, now, in China, we continue to have a very strong and growing cross-border business built over the course of more than 30 years presence in the market. And today, we've got the leading share amongst the international schemes at seven of the top eight issuers. That represents almost 120 million credentials. And we're partnering hard with both fintechs and bigtechs in the market.

Growing our acceptance footprint has been a key focus for Visa in China. And we've invested heavily in this and continue to work with our long-term partners to drive acceptance. All that hard works resulted in 18 times increase in [ph] pass (02:18:52) acceptance in the past three years to over 6 million merchants, diversifying largely from the travel and lodging segment into a wide range of segments, and penetrating further into smaller cities.

But this 18 times growth is still not good enough. We've still got lots more to do, and that's why we're partnering with leading wallet platforms like WeChat pay, Alipay and UnionPay to enable more than 50 million QR merchant locations to accept inbound Visa credentials.

We're also investing with our clients and partners both in China and globally to develop innovative solutions for China and ones that can be exported to the world. Now, Al and I opened our Beijing Innovation and Development Center in March last year. And since then, we've hosted over 50 clients and partners from China and all over the world for specialized China payments and merchant programs.

Looking ahead, our strong presence and growth in acceptance makes us very well placed for when we enter the domestic market. And we're continuing our efforts in that direction by working closely with the Chinese government to prepare everything needed for a successful domestic license application.

So, to wrap up, I want to reiterate the four key points that I've made today. First, in Asia-Pacific, we're continuing to grow credentials in partnership with an increasingly diverse roster of FI and non-FI partners, including market-leading wallets. Second, we continue to rapidly scale acceptance, growing penetration into new merchant segments and adding new use cases.

Third, making the consumer payment experience frictionless is essential for us to drive higher engagement. Tap to pay is key to this, and it's going to continue to be. It's now proven to drive higher consumer engagement. And finally, don't forget that Asia-Pacific is a very diverse region and we operate in 46 markets. The key to unlock that $6 trillion cash opportunity is to tailor our approach to each market and its unique needs.

So today, I showcased just three places: India, Japan and China, but emerging Southeast Asia and the many other markets in the region all have very strong growth potential. So, now I'm sure you can just – you can get a sense for just how enormous the Asia-Pacific opportunity is.

Well, thank you very much and I'd like to introduce my friend and colleague, Charlotte Hogg.

Charlotte Mary Hogg

Executive Vice President and Chief Executive Officer, Europe, Visa, Inc.

Good morning, everyone. My name is Charlotte Hogg and I lead Visa's business in Europe.

Let me start by saying that as you all know Europe is a tremendous opportunity for Visa. Visa Europe comprises 38 countries, the UK, the 27 countries of the EU, Turkey, Israel and the Baltics. Europe has four of the top global economies, Germany, France, Italy and UK. With 560 million Visa account credentials in market, we have a strong base and a further runway for growth. The opportunity to displace cash and checks is $3 trillion. However, the adoption of cashless payments varies across Europe.

For example, the Nordics is a highly advanced market with cashless payments accounting for 99% of all payments, whereas Germany, France and Italy are still reliant on cash payments and domestic schemes, which have not encouraged digital adoption and cross-border commerce.

There is room for growth in acceptance, both physical and digital. For example, in Eastern Europe, many consumers still pay for e-commerce purchases on delivery in cash and utility bills in person. In total, we believe there's an opportunity to increase acceptance by 10 million merchants in locations across Europe.

Visa Europe today is almost unrecognizable from [ph] the business (02:23:40) we acquired in 2016. We've invested in our teams, more than doubling our resources in our local markets since the acquisition of Visa Europe by Visa, Inc. All of our European leadership team are new, bringing diverse skills and backgrounds, and 39% of our senior leaders are women. The migration of Visa Europe onto the global systems in 2018 was vital. It was one of the biggest financial services migrations in recent history, and all of our clients migrated successfully without incident.

Our European clients now benefit from Visa's global resilience and innovation capabilities, including first-class cyber security facilities. The benefits of being part of Visa's global network has been a contributory factor in the 37% increase in our client satisfaction NPS scores since fiscal year 2017, which is a significant uplift and a great endorsement of the approach we're taking. Our investment in Visa's European business has realized greater financial benefits than expected. Profit is double that outlined in our acquisition business plan.

Without question, Europe is one of the most exciting payments markets in the world due to a unique combination of factors, affluent, urban, digital-first consumers who are looking for greater speed, control, security and convenience in their payments and embracing new ways to pay as they emerge. Neobank customers are expected to reach 85 million by 2023, which would represent around 20% of Europe's population.

Europe has seen a true takeoff in fintech. $39 billion was invested in fintech in 2018. Many of the world's largest fintechs launched first in Europe, Revolut, TransferWise, N26, Klarna and some are now looking to go global.

With European consumers embracing new technology, we're broadening into new verticals, opening up transit opportunities across Europe. As a result, we've grown the number of acceptance locations in Europe by 20% since 2017. Far reaching regulation, such as the Payment Services Directive 2, PSD2, which includes open banking and strong customer authentication, SCA, General Data Protection Regulation and Interchange Fee Regulation are driving change and opportunities for Visa. In just 12 months, we've seen the number of new service providers register for open banking licenses reach over 250.

We have transformed our engagement with fintech and we're seeing the benefits of that change. 18 months ago, we launched our Fintech Fast-Track program, enabling fintechs to join our network in a matter of weeks. We supported them with tailored solutions and specialized relationship management initiatives, including agreements with intermediaries to accelerate their progress.

Fintechs are attracted by our brand, global offering, package and bespoke relationship management approach. We've seen real success, signing 46 deals across all our major markets and a wide variety of segments since the program was launched.

In the largest segment, digital banking, we've won global deals with players such as with players such as Revolut, you'll be familiar with, as well as with exciting local players like ininal who are targeting the unbanked in Turkey and already issued 4 million credentials. Our pipeline continues to grow, and we're in active partnership discussions with 84 fintechs across Europe.

While you can hear my passion for this, I'd like you to hear it from our clients themselves in the video.

[Video Presentation] (02:27:54-02:30:19)

That's what we want to strive for with every client that joins the Visa family.

Turning now to acceptance, some of you might think that cards are accepted everywhere in Europe. Truth is they're really not. However, European consumers are now increasingly expecting acceptance in both the physical and virtual realms and beyond the traditional carded sectors. Our acceptance initiatives focus on all of these and I'd like to share some examples.

We've rolled out initiatives to target the long tail of merchants, who are extremely underpenetrated when it comes to card payments, and we know that SMEs comprise 99% of all businesses in Europe. In Germany, 37% of German SMEs have never even been approached by a payment provider. We're reaching them in creative ways.

For example, Acquirer Rallye is a partnership where the acquirer is using gamification and has exceeded expectations. In Poland, we partnered with First Data and Samsung to enable card acceptance for mobile devices. We're partnering with vendor operators and other unattended merchant segments to take advantage of increased tap to pay.

Finally, we're pushing into new sectors such as mobility, take electric vehicle charging stations. Currently, consumers have to go through a lengthy registration process with individual operators to pay via bank transfer. We're now piloting charging stations with Shell and Allegro in London and plan to roll this out across the UK, the Nordics, and Central Europe. We're working with parking providers and apps like AppyParking as well as exploring connected car solutions.

As you heard, transit is a vital part of changing acceptance and consumer behaviors. In the UK, Transport for London launched an open-loop model in 2012 and we started to see the halo effect for consumers for the first time. Today, in London, we see 2 million journeys a day and our evidence shows that consumers who use their cards for transit make twice as many tap to pay payments as non-TfL users, demonstrating a halo effect.

With 73% of Europe's population living in urban areas, many cities across Europe are looking for ways to offer commuters and tourists a seamless transit experience. To date, we've already enabled tap to pay transit with 35 transit systems across Europe. Speed and simplicity is vital. So, we've onboarded more than a 100 technology partners to our Visa Ready for Transit platform to support cities and transit systems. We have a strong pipeline. As of today, that comprises more than 40 transit systems.

We have gripped the opportunities presented by PSD2 from open banking and strong customer authentication, SCA, which now has a start date in December. To address SCA, we've introduced new authentication products to help our clients meet the regulation and create a seamless experience for consumers and merchants, and we're seeing good take-up.

These include an enhancement to the 3DS protocol that captures more authentication factors and operate in more channels. These are delegated authentication, allowing issuers to delegate authentication to a third party, Visa Transaction Advisor and Visa Trusted Listing that help issuers meet authentication requirements without slowing down the customer purchase experience.

Open banking will enable consumers to digitally aggregate their financial lives and make decisions about how and when they want to pay. Our capabilities combined with [indiscernible] (02:34:15) expertise and experience will deliver new solutions to our partners, both established players and fintechs. First use cases will likely target bill payments, P2P payments and securing a loan.

European markets are rich with opportunity, however, they're not all the same. In the UK, we continue to deepen our relationship with our major clients and are actively pursuing fintechs and new payment sectors. I'm delighted to announce that we've extended our longstanding partnership with Barclays which will enable us to jointly focus on innovation and support Barclays' growth into new markets.

In Continental Europe, our current priority markets are Germany, France, Italy, Poland, Spain and Turkey. All these economies are witnessing growth in digital and e-commerce, and represent an opportunity to displace cash and check of $2 trillion. The specific strategies in these markets vary with the scale and the nature of the opportunity.

For example, in Italy and Poland, the scale of the gray economy means a cash targeted strategy aligned with government priorities. Cashless Poland isn't a combined effort with the banks and government to terminalize small businesses and to-date we delivered 250,000 terminals to these merchants.

In Spain, we're focused on displacing cash and delivering new tokenized solutions. We're working with transit systems, banking clients and tourist destinations to implement tap to pay on transit and we're supporting the behavioral shift to mobile payments.

Turkey is different again with a population of 82 million, 40% of people under 25 and 20 million unbanked. We're looking to deepen our relationship with existing banks and startups. I've only mentioned seven of our markets here. But we have another 31 in Europe where we're also delivering tailored strategies. And stepping back, I'm pleased with the progress that we've made. The number of partnerships we agreed in 2019 in Europe was over 50% more than the prior year, and that pace is continuing.

Given the importance of the German market, I'd like to make a few more points on this key market, the world's fourth largest economy and a priority for us from the start. It has some unique characteristics. It's a highly fragmented banking market, over 800 banks, has had a cultural preference for cash, little to no credit card activity and a domestic debit scheme that doesn't do e-commerce. You just can't type 19 digits into your Amazon account.

Our strategy has been to go holistic, work on all of these simultaneously to create a flywheel of growth. We've invested in our talent by tripling our team, we've increased brand awareness through a mass market campaign, including a TV campaign for the first time. We've achieved an uplift in brand health and we're increasingly being seen as a convenient payment brand to use, the smaller everyday purchases, which is key to addressing this cash opportunity.

We're introducing Visa Debit for the first time. This supports new innovative payment form factors like mobile and wearables, and allows Germans to make cashless purchases in-store, online, withdraw cash, and importantly it is accepted all over the world. As Ryan mentioned earlier, Visa's debit processing platform is one of the key value-added services and is an important part of our approach to Germany. We believe this will help us to overcome the hurdles of existing slow-moving infrastructure that our clients rely on.

We've partnered with some of the fastest growing clients in Germany. We renewed our agreement with DKB, our biggest issuing bank in Germany, and also signed Visa Debit deals, including with Comdirect and Penta which is a neobank. Visa Debit now represents a significant share of new cards to be issued in Germany, almost 70%.

Finally acceptance, over 80% of physical points of acceptance are now equipped with tap to pay terminals. And we're enabling new eCommerce solutions and pushing into new segments; transit, insurance and automotive. Going holistic is paying off for us in Germany and we're already taking the lessons to other priority markets.

As I close, I'd like to reiterate some of the ways our strategy is accelerating growth. Visa is partnering with fintechs and other providers to expand the reach of our credentials as well as our physical and virtual acceptance footprint. Tap to pay, new payment technologies are paving the way for new acceptance verticals like transit. While also driving PV growth and helping to displace cash in Europe, especially in some of the largest economies like Germany and Italy. European regulation is setting the pace, providing Visa with the opportunity to support our clients with value-added services new authentication solution, putting consumers into control of their account information. Together with our partners and clients in Europe, Visa is seizing the opportunity to meet consumer demand easier, more convenient and secure ways to manage their money.

And with that, I would like to introduce my friend and colleague Andrew Torre.

Andrew Torre

Regional President-CEMEA, Visa, Inc.

Thank you, Charlotte. Good morning, everyone. I'm fortunate to have lived in the CEMEA region for the past seven years, first running our Russia business and then Sub-Saharan Africa before taking my current role. CEMEA is incredibly exciting and diverse. It includes 87 countries from Russia in the north down to South Africa. More than one in four people across the globe live in CEMEA. It is young, digitally savvy and presents an enormous opportunity for growth. Visa is the leading provider of payment solutions across CEMEA, yet we recognize we're still at an early stage of capturing the region's true growth potential. Let me explain.

On credentials we have 360 million cards in the region. More than 680 million people today are unbanked and when we add those without credentials and CEMEA's youth population that are new to financial services that represents over a 1 billion person opportunity. On acceptance, today 5 million merchant locations accept Visa. Yeah, more than 60 million merchants still remain untapped. On engagement, the cash conversion opportunity stands at $2.5 trillion. That is more than five times our current PV. Looking across the region we see an enormous opportunity for cash displacement everywhere. In fact, Kuwait and Qatar are the only two markets in CEMEA where less than 25% of PCE still spent using cash and check. By contrast, in Sub-Saharan Africa cash and check penetration remains around 92%, when you exclude South Africa.

I could spend the rest of this presentation talking about how we have the leading position with some of the largest players in our biggest markets, such as Sberbank in Russia, ENBD in the UAE, Al Rajhi in Saudi Arabia and FNB in South Africa. However, I'm going to focus on how we're partnering with multiple stakeholders across the ecosystem to deepen Visa's franchise in CEMEA.

Let me walk you through our growth levers. You'll see here some truly powerful numbers, which I'll revisit in more detail later. On credentials, I will explain how we are the leading partner with fintechs, neobanks and digital wallets. On acceptance I will show you how we have significantly accelerated growth in our merchant footprint by enabling new types of merchants and new distributors. We have several major areas of focus to drive engagement across the region. We are creating better payment experiences for our consumers and our sellers through tap to pay. We are actively partnering with governments to drive their cashless agendas and we're creating customized value propositions to help our partners meet the specific needs and preferences of their cardholders. Finally, I'm going to show you how we have partnered across Sub-Saharan Africa to bring new sellers and consumers into the ecosystem and drive winning commerce experiences.

CEMEA has a relatively new and booming fintech ecosystem. We launched a fintech fast-track program and Visa has quickly become the partner of choice. Through our focused programmatic approach we are successfully winning three out of four fintech deals. In 2019 alone we closed 31 partnerships, made 4 venture investments and are ready or live with 12 partners.

Credentials are a key area of focus in our partnership with fintechs, neobanks and digital wallets. Later I'm going to talk more about Sub-Saharan Africa, so I'll give you a few examples from elsewhere in the region. We have partnered with monobank in Ukraine. They are considered one of the fastest-growing neobanks globally and are winning by providing their customers with great digital user experiences.

Let me give you a sense of the pace at which they're growing, in Q4 of last year alone manobank's issuance of Visa cards represented a 11.5% of all new cards across all payment brands issued in Ukraine. In the Middle East and North Africa, we're partnering with STC, Saudi Arabia's largest wireless operator with 25 million subscribers. Together we will embed Visa credentials into STC Pay wallet to enable both face to face and online commerce as well as cross-border remittances. We're also working with next generation processors and accelerators to enable our fintech partners with the latest technologies that will allow them to scale quickly.

We have completely transformed the way we bring new sellers into the ecosystem. Traditionally, acceptance in CEMEA centered on [ph] T&E (02:45:50) and major retailers but reaching this 60 million untapped merchants requires a different approach. We are partnering with new distributors enabling new use cases and developing new value propositions. This strategy is working. In the last year alone, we grew our merchant base by 27%. So here's what we're doing. We're working with new distributors and traditional acquirers to grow acceptance with smaller sellers. A great example is our partnership with Yoco in South Africa. Yoco is a merchant aggregator which serves 60,000 small retailers. We're helping them expand their customer base as they deliver digital onboarding, low cost devices and financing. It's an exciting space with a long runway for growth.

We're enabling new and innovative use cases to help expand eCommerce acceptance. We're working with Clickatell itself a pioneer in chat-based commerce, they have embedded CyberSource capabilities so consumers can purchase data and minutes from telcos across Africa and beyond. This solution has the potential to scale across more than 1,000 mobile telecom networks in Clickatell's ecosystem. Finally, we're building new value propositions for acquirers and merchants. We've partnered with mobile app-based lender Branch to offer preferential loan terms, micro loan terms to merchants that accept Visa on mobile across Kenya, Tanzania and Nigeria.

Beyond aggressively growing credentials and acceptance, we're driving increased engagement with cardholders in a variety of ways. Consumers and merchants love tap to pay. You've heard it from my colleagues. Our data shows it results in increased usage in spend. Visa has been very proactive in pushing tap top pay issuance and acceptance throughout CEMEA. And as you can see here, it's really bearing fruit. Tap to pay transactions grew more than 50% in the last year alone. CEMEA now has the highest tap to pay penetration of any Visa region. Two of our CEMEA countries, Russia and Georgia are in the top 10 tap to pay countries in the world. Georgia is in fact number one with an incredible 96% tap to pay penetration.

One of the things fueling tap to pay growth in CEMEA is tokenized credentials on alternate form factors. Another driver of tap to pay is new acceptance in major everyday spend categories, a great example is transit where we have 69 urban mobility implementations either planned or launched across CEMEA.

Working with governments is a major focus for us. They're a critical driver of financial inclusion and the development of payment ecosystems and are a conduit to launching new products and services, Visa on mobile, new payment flows, tokenization and value-added services. I'll give you a couple of examples of this in action.

In Saudi Arabia, we're working with The Saudi Investment Bank to deliver multi-currency commercial prepaid cards for all government employees that travel. Making it easier, more convenient and with greater control. We're also partnering with Saudi Payments, which is a wholly-owned subsidiary of the Saudi Arabian Monetary Authority to provide eCommerce to 23 million [indiscernible] (02:49:25) debit cards in Saudi Arabia using our CyberSource platform. In Morocco, we're working with a local switch provider HPS to drive a lot of innovation into that market such as value-added services, tokenization and Visa Direct. We're also going to use some of these features to launch mobile applications in a market where mobile banking penetration is still extremely low compared to the number of smartphone owners.

The third example on engagement is how we're developing new, targeted benefits to attract and retain the region's affluent customers. Affluent is a critical segment, these cardholders drive around 30% of CEMEA volumes and spend 15 times more on cross-border than non-affluent cardholders. And this is a segment where Visa [indiscernible] (02:50:20) share.

We are winning by providing great consumer benefits. Let me tell you about a benefits package that we recently introduced to address the needs of Russian travelers at different stages of their journey. It's called the travel companion, which includes more than 15 premium benefits such as business class airport transfer discounts and free data roaming while abroad. These benefits have been a major hit with affluent cardholders in the first year post-launch consumer preference for Visa premium products increased substantially and resulted in a shift of affluent PV market share to Visa by 8 percentage points. We applied a rigorous approach to customize and tailor benefits to specific sub-segments, using data to ensure that propositions are truly compelling and relevant. We have a thorough test and learn methodology to analyze the uptake and benefits. And we prioritize and invest in those that are meaningful to cardholders and that we see driving increased spend and engagement.

Now I'd like to take a step back and show you how our strategies on credentials, acceptance and engagement come together in one of the most important, high-growth geographies, Sub-Saharan Africa. Sub-Saharan Africa has massive growth potentials. The macro trends are incredible. It has the fastest growing population among major regions, double the global average and half of Sub-Saharan Africa is under 18 years of age. It has 46 countries and 6 of which are in the top 10 fastest-growing economies in the world. The market is still greenfield. Cards have only penetrated 3% of PCE and two-thirds of the population does not have a bank account. Yet, Africa is home to nearly half of all mobile money users. Sub-Saharan Africa is mobile-first. People use their mobile phones daily to make and receive payments. This opens immense, immediate and long-term opportunities for Visa.

So what are we doing? We're partnering with non-conventional players to realize this potential. Let me give you a few examples of key ecosystem partners who are growing credentials and acceptance and driving engagement.

PalmPay is an application preloaded on smartphone sold in Africa. Through our partnership, Visa credentials will be directly embedded out of the box on up to 20 million devices in Nigeria, Ghana and Tanzania in this year alone. This is a first of its kind. We have also partnered with MFS an intra-Africa cross-border and cross-mobile money transfer network accessed via a single API. The partnership will enable over 180 million mobile money users for eCommerce and Visa Direct across MFS' 30 markets and will promote interoperability with over 2 million mobile money agents where consumers can deposit and withdraw cash.

Finally, we agreed to invest in Interswitch, the largest processor in Nigeria. In Nigeria they handle 70% of domestic card transactions. In addition, Interswitch owns Verve, the largest domestic scheme in Africa. We're going to do several things with Interswitch. We will integrate Visa technology into their issuing and acquiring platforms to enable new merchant and new consumer payment experiences. We will deliver an enhanced consumer value proposition to their Verve cardholders. Finally, we will scale their leading bill pay and mobile banking services beyond Nigeria.

Now I'll show you a brief video that brings to life how these partnerships will transform the everyday lives of millions of people in Sub-Saharan Africa. Let's take a look at.

[Video Presentation] (02:54:36-02:55:39)

Hopefully, the video provided a window on how we are enabling commerce across Africa. This presentation shows the tremendous growth ahead of us in CEMEA and the opportunity we see across the African continent. We have made significant progress, but our most exciting times are still ahead. I thought it would touch again on the critical growth levers, which are driving our approach.

On credentials, we're partnering with fintechs, neobanks, and digital wallets to reach the 1 billion consumer opportunity. On acceptance, we're partnering – we've significantly accelerated our growth to reach the 60 million untapped merchants. And on engagement, we are connecting with cardholders through tap to pay driving innovation through government partnerships and creating customized solutions for high-growth segments.

And of course, we're bringing this together to capture the great opportunities that exist not just in Sub-Saharan Africa but across all of CEMEA.

Thank you for your time. It's a great pleasure to introduce my friend and colleague Eduardo Coello, the Regional President for Latin America.

Eduardo Coello

Regional President-Latin America and Caribbean, Visa, Inc.

Thank you, Andrew. Good morning, everybody. I am Eduardo Coello and I lead Latin America and Caribbean. A region with 44 countries and territories and over 630 million inhabitants which is displacing cash, expanding acceptance and embracing digital platforms. Today our penetration of PCE is 28% and the unbanked population represents 45% of total adults, resulting on untapped segments in different markets. Business platforms are uniquely positioned to leverage these opportunities. Visa cards have made a good progress in the region with over 478 million credentials. Our strategy is to build more acceptance points as we educate consumers, and improve the usage experience. All, while engaging with the ecosystem to support new technologies with innovative cashless solutions.

Our growth strategy in the region is continue to build credentials since there is still significant opportunity to grow. LAC has one of the fastest growing mobile phone markets with 60% smartphone penetration. In addition eCommerce only represents 4% of the total region's retail industry sales. And this is expected to scale with a giant population and marketplaces proliferation. We're also working to build acceptance. Cash is still dominant in the region. But about 25% of that cash is already in a Visa credential, totaling over $500 billion. Consumers are still going to the ATM instead of paying with their cards. Even in everyday segments, such as gas or supermarkets, card penetration is only at 30% in comparison to the 60% in the US [ph] leaving us (02:59:03) with an enormous runway for growth. Engaging consumers in their most regular day to day activities is essential to our cash conversion strategy. It is a fact that an improved experience increased engagement.

Lastly, Brazil, our largest market. It is a great example of how we are bringing all of these to life, and I will talk a little bit more by the end of my presentation.

Across the region, there is a rapid digital adoption that is helping to build credentials. This is held by the government involvement. A number of those government agencies are fostering the usage of electronic payments through tax incentives, fintech-supportive regulations and being users themselves of electronic payments. We have engaged with the most relevant fintechs in the region. Over the past couple of years, we have seen a proliferation of ride-hailing, door-to-door delivery, small business marketplaces, alternate lenders, payment facilitators and government programs. All have accelerated the use of Visa's credentials.

In LAC, we have invested in four of them during the last two years. Together with them we have enabled traditional and new players to accelerate their adoption of our platforms. Fostering enablers like Conductor in Brazil facilitates the entrance of new digital players to the ecosystem. In only two months, a new player can start issuing visa credentials in Brazil. All of these partnerships are unique. Sometimes, we play a more direct role to develop solutions in partnership with different clients such as developing white label wallets to accelerate credentials in Uruguay and Paraguay.

In other cases, we partnered with regional players like Rappi to facilitate and enable their payments ecosystem. Rappi started in Colombia in 2015 as a food delivery app and they are quickly becoming a leading SuperApp. In the nine countries in LAC where they operate, they have 22 million users, 1.5 million transactions per day and they are growing about 25% month-to-month, in the number of users. With this partnership and our market presence and knowledge we are able to tailor solutions to solve particular pain points depending on the country needs and opportunities.

Let's hear a little bit from them in this video.

[Video Presentation] (03:01:50-03:03:49)

Now, let's talk about processing. As Ryan mentioned, historically in LAC, there have always been a few issuer owns relevant local networks. With the fast pace of innovation and technology in payments, most of them are discovering the need to partner with Visa to remain competitive and to offer higher value to their clients. A great example is our partnership with BancoEstado in Chile. We are in the process of converting 12 million cards to Visa Debit, which represents 60% of the total debit cards in the country. The additional transactions from the migrated portfolio are surpassing our own expectations.

In the Caribbean, in Barbados, Jamaica and Trinidad, we are also partnering with local networks in transforming closed loop portfolios to Visa and helping issuers turn their portfolios from a cost to a revenue center. This opportunity for Visa represents tripling debit cards and accelerating cross-border volume in these markets.

Cash and checks still represent $2 trillion in Latin America and above $500 billion of that cash is already on Visa cards. Brining our own debit cash to POS is our single most significant growth opportunity. Each percentage point migrated from total cash to POS results in 4 percentage points of payment volume growth. We're approaching this strategy in three ways.

Number one acceptance. LAC's average POS acceptance points per 1,000 people is 19. We consider 16 as inflection point to gain adoption in different segments. Countries such as Mexico, Colombia and Peru are well under that. While working with new acquirers and payment facilitators, we have doubled acceptance points in just three years. Growing acceptance also helps cross-border. In Mexico, our largest inbound tourism spend in LAC where almost 40% of totally spend is on a Visa card, 30% is still in cash. So we have an opportunity to expand these as well. Also in Mexico for example with our partnership with Clip, we have reached more than 300,000 young merchants in less than two years.

Number two, consumer experience. An improved user experience is key to accelerate the adoption of electronic payments. Contactless deployment and click to play implementation are two platforms that will allow consumers to have faster checkouts transactions with a higher conversion rate for the merchants.

Number three, education. Additionally, educating consumers will continue to boost our growth. For example, in Peru, our comprehensive marketing campaigns targeting consumers and merchants' behaviors [ph] draw their intent of (03:06:55) usage up to 14% and Visa transactions grew 4.4%. VisaNet is the core of our business to connect their domestic needs to their global innovation. We have been working hard to increase output in domestic transaction processing in countries throughout the region. Processing domestic transactions completely changes the conversation we are having with clients. Our interaction shift to the different value-added services we can provide been able to make date-oriented decisions and taking advantage of new payment loans. In the last five years we have had significant wins in domestic processing, the latest being in Argentina. Less than two years ago, we did not process any domestic transaction in Argentina, now we process 80% and growing. In Colombia, a country in which Visa has not had a meaningful domestic processing penetration in the past, we are now processing 100% of Rappi's transactions.

Visa has made a commitment to understand the end consumer and focus on initiatives to deepen engagement in three ways. First, affluent product and marketing. The affluent segment in LAC represents 10% of the population but 28% of the total consumption. Visa launched a new communication campaign, enhanced the digitized benefits, revitalize portfolios and collaborated with issuers. In fiscal year 2019, affluent cards grew by 14% and our payment volume by 20%.

Number two, tap to pay. 77% of active terminals in the region are contactless enabled. We have doubled tap to pay penetration in one year. Countries like Costa Rica and Chile are leading the way with close to 50% of contactless penetration.

Number three, loyalty solutions. We launched My Rewards, a Visa loyalty solution that is a white label, all digital loyalty platform or issuers to offer their clients. Almost 50 issuers are already using it. About a third of those transactions or those sales within the platform were made with combined payments between points and credit card transactions illustrating these high engagement solutions.

So let me pull this all together with the example of our largest market, Brazil. A country where technology and innovation are adopted very fast. Traditional players are leveraging Visa's digital platforms like cloud tokens for P2P solutions. And fintechs are developing innovative solutions for branchless neobanks, acquirers and payment facilitators. We are growing credentials with current and new clients. We have renewed agreements with our biggest clients Banco da Brasil and Bradesco. We also gained increased commitments from clients such as Itaú and Santander. These clients are the top banks in Brazil. Additionally, we have also enabled more than 40 new banks and fintechs in the last 18 months.

On acceptance, while the POS per capita in Brazil is relatively high, it is mainly concentrated in the large cities. This is working in the ecosystem to expand acceptance and usage of electronic payments in more than – in 200 unpenetrated cities in the country, which represents a $40 billion opportunity. Most of the inhabitants have cards, but they don't have places to use them. In the last 12 months, Visa has worked closely with acquirers and payment facilitators to enable 60,000 new merchants in these cities to accept cards.

We are deepening consumer engagement and electronics payments usage with various projects around mass transportation. MetrôRio in Rio de Janeiro has been a great example for showing consumers that paying with a contactless card is easier than and more convenient than cash. Since the implementation in MetrôRio, there has been over 96% of retention of new consumers, who have used their visa credentials more than once at a metro.

Brazil's economy is expected to grow in the next couple of years. Visa has built the foundation to capture this growth and to evolve in the market. We have a terrific sustainable growth opportunity in Latin America and the Caribbean. There is still a huge amount of cash, many players and fintechs ready to partner with us to grow credentials and expand acceptance. And a large number of traditional players that are ready to take their payments to the next level by innovating with Visa as a partner. We have a great team in the region to deploy, tailored solutions, market by market, deepening usage and engagement and making sure we succeed.

With 13 offices and more than 800 professionals in the LAC we are embedded across the payments ecosystem to solve the buyers and sellers needs in all of our countries.

And with this let me ask Ryan to come back to the stage. Thank you.

Ryan McInerney

President, Visa, Inc.

Okay. Thanks, Eduardo, Oliver, Chris, Charlotte and Andrew. I hope you got a good sense for how our strategy is to capture consumer payments are explicitly local, country by country strategies, initiatives, and importantly impact. And as you saw we have great traction on many, many fronts. These activities will help fuel our growth for many years to come.

Now, we will turn our attention to new flows. Just like we took a deep dive into the consumer payments, we'll spend some time explaining our products, our platforms, capabilities and our initiatives to capture these new payment flows. This is a slide that I showed earlier explaining the high level segmentation of the $185 trillion opportunity. From B2B on the left to G2C on the right. But we think about these flows and the opportunity to capture the flows in terms of customer needs, understanding the potential use cases and solutions needed to capture the flows.

As you see on this slide, there are broadly two types of opportunities. On the left, you see the segments that generally represent flows that are higher velocity, lower value transactions. These total about $65 trillion and include B2C, B2b, P2P, and G2C. And then on the right you see segments that generally represent flows that are lower velocity but higher value transactions. These total about $120 trillion and include flows that can be addressed with card-based solutions as well as high value cross-border and domestic accounts receivable and accounts payable flow.

I'll now talk briefly about these two broad sets of opportunities. First we have the flows that are higher velocity, lower value transactions. In this space our partners are looking for solutions that are fast, easy to use, safe, reliable and importantly have broad nearly ubiquitous reach. These are the flows that were systematically attacking with our Visa Direct platform of money movement capabilities especially in [indiscernible] (03:16:05).

The second set of flows, flows that are lower velocity higher value transactions require a different set of solutions and a different set of capabilities. Our partners in this phase also require solutions that are fast, easy, safe, reliable and have broad reach. But in addition they require a broader set of capabilities including reconciliation, expense tracking, more complex data payloads and more sophisticated settlement and FX capabilities to name a few.

To capture these flows, we're using our full platform of card-based solutions, including T&E cards, P-Cards, small business cards, virtual cards and our fleet solutions. And additionally, we've built Visa B2B Connect to enable cheaper, faster, better, more transparent, high-value, cross-border transactions, and we're also building a network of preferred partnerships with companies such as Bottomline, Billtrust and PayMate to address the pain points in domestic AR and AP.

For the remainder of the new flows section, first, Bill Sheley will discuss our specific strategies for the flows that are higher velocity, lower value transactions. And then, Kevin Phalen will come up and cover our approach to the flows that are lower velocity, higher value transactions. All of these segments represent an enormous opportunity for Visa and we're excited to show you our capabilities and our progress.

Before Bill comes to stage, let's see a quick video on how Visa Direct comes to life. Thank you. Roll the video, please.

[Video Presentation] (03:18:16-03:19:15)

Bill Sheley

Head-Push Payments, Visa, Inc.

Feel kind of like a rock star after something like that. I think I can still say good morning for a few more minutes. My name is Bill Sheley and I'm Visa's Global Head of Visa Direct. Visa Direct is Visa's global real-time money movement platform supporting to consumer and to small business money flows for a variety of new payment use cases. Examples include insurance claims, gig worker payouts and faster merchant settlement for small businesses. Every day, millions of consumers and small businesses are asked, how do you want to get paid. We are building Visa Direct to ensure their answer is Visa, leveraging the brand values of convenience, security and frictionless customer experiences.

A few takeaways for today's discussion. First, the market opportunity is immense. As Ryan mentioned P2P, B2C and B2-small business payment flows represent $65 trillion of net new volume. And while Visa Direct has quickly scaled, we are very early in commercialization and we see tremendous upside. We are operating Visa Direct as a business unit with a dedicated team of payment professionals operating at scale doing billions of transactions globally. We are designing and building for real-time payments. We currently have 130 countries delivering real-time domestic payments and 75 countries delivering real-time cross-border payments. We are focused on the supply chain for money movement, acting as a force multiplier to accelerate growth. And finally, we will continue to invest in the infrastructure for solution reach, transaction security and operating scale.

Over the last 60 years, we have built a tremendous payments network, 3.4 billion cards in force, 61 million merchants, and over 15,000 financial institutions supporting over $8 trillion of payment volume. Visa Direct took that same network and reversed it, allowing consumers and small businesses to receive money through cards as a network endpoint, enabling a wide variety of person to person, business to consumer and business to small business payment flows. This is the foundation for Visa Direct, Visa's solution for low value, high velocity payment flows. We are building upon this foundation and extending its capabilities to address the $65 trillion of opportunities. And by leveraging the last 60 years of investments in scale, security and acceptance of VisaNet, it allows Visa Direct to rapidly scale real-time payment solutions for our clients.

Visa took a systematic investment approach to connecting the move money supply chain. We've invested in network capabilities allowing senders and receivers to enable and transform a variety of domestic and cross-border use cases. We see the supply chain as a force multiplier, creating an ability through infrastructure and partnerships to rapidly scale new payment flows. First, we enabled a network of network strategy. Through our Earthport investment, we've gone beyond cards to support an open money movement network that connects to and leverages existing global payment infrastructures, while solving for evolving real-time payments capabilities.

Second, we have connected global endpoints by creating unparalleled reach through connecting to a number of scaled and meaningful endpoints, covering 99% of bank consumers and small businesses in our key markets including cards, bank accounts and wallets. Third, we have partnered with payout enablers. Through our single connection solution, enablers can leverage Visa's global reach, value-added services and operating cost advantages. And lastly, by embedding these direct capabilities into major commerce platforms like Apple, Facebook and Oracle, Visa can create plug-and-play payment flows for their massive subscription basis.

Visa Direct is built upon VisaNet's foundation and world-class robust operating infrastructure. As new RTP and other payment systems wrestle with getting basic functionality to market, platforms are choosing to work with Visa leveraging our global reach of 200 countries and territories using cards, accounts and wallets through our network of networks capabilities; Visa's proven risk management and compliance controls, including vetting the network membership, providing tokenization, transaction limits and controls, and activity monitoring; and Visa's scaled ready-now processing capabilities that have underpinned VisaNet for the last 60 years, allowing our partners to leverage processing and back-office functions like Visa settlement, reconciliation reporting, and disputes and exceptions handling, much of this being consistent with how our clients already operate with Visa today, reducing the startup costs and the back-office costs significantly.

We are operating Visa Direct with a business unit mentality through our commercialization approach. While Visa Direct is powering dozens of faster payments use cases, we have a deep focus on 10 to 15 that drive a significant portion of the addressable market. Visa Direct uses a number of set plays to structure and focus and provide our partners faster time to market. For example, we assess the market vertical to understand the value chain from sender to receiver. As a result, we can work with our receive side partners to prepare them for new use cases, items like ticket sizes, transaction velocity and risk management. This prelaunch work is crucial for ensuring strong approval rates and frictionless customer experiences. We also developed segment-specific infrastructure like APIs for P2P to allow wallets to integrate and enable faster.

We also work with our partners providing support through the lifecycle of their payment initiatives from upfront solution engineers to help to find their disbursements products to ongoing program performance reporting and monitoring for risk and compliance, to supercharging our partner's commercialization efforts through consulting, sales force training and product marketing, enabling our clients, sales teams to optimize and grow their disbursements businesses.

The direct result of this commercialization approach has allowed Visa Direct to scale extremely fast. In FY 2019, we have launched over 250 programs globally. We have over 130 million active users that generated over 2 billion annual transactions. As a result, in a few years, quarterly payment volume grew to $68 billion in Q4 2019, which is greater than an 80% CAGR. This is two times faster than Visa Debit at the same point in the lifecycle and we expect this network effect to continue due to our commitment to investing in world-class readiness infrastructure enabling the next $1 trillion of commerce on our network.

Now, I'm going to run through a handful of use cases that have driven the early success of Visa Direct. Person-to-person payments is a huge market for Visa Direct, this is a springboard use case for consumers creating the first exposure to what is possible with real-time payment experiences. Visa partners with all top-seven global P2P brands such as PayPal, Venmo, Square Cash, Google and Apple, and in total, powers over 100 P2P programs globally driving 100-plus year-on-year growth in this segment. P2P partnerships take a number of different forms. For mobile and messenger platforms like Apple and Facebook, we have embedded Visa Direct payment APIs within their customer directories, enabling the billions of consumers they serve to send real-time payments seamlessly within their ecosystem.

We also support bank-led P2P programs. We see this extensively in Russia, in the US with clients such as Zelle. In Peru, we have enabled both types of programs. Yape, a third-party mobile financial app owned by BCP, partnered with VisaNet Peru and Visa Direct that launched in 2018. And in January 2020, Plin, a bank-led consortium model where Scotiabank, BBVA and Interbank introduced an open, national alias directory by partnering with YellowPepper, Visa Direct and VisaNet Peru to offer a similar service, but based on each of the issuers' mobile banking app. This is now changing the digital landscape of the country, as Visa Direct is now the only real-time payment platform capable of providing this infrastructure in Peru 24x7x365.

In cross-border P2P, it sometimes takes days to get money to its destination. There are a variety of intermediaries that pass the money from bank to bank in order to reach the intended receiver. We can connect to over 200 countries and territories and 75 of them in real-time. Currently, we are working with five out of the top-seven global remittance providers. This includes digital innovators, large global incumbents and retail banks. And we just launched our first set of push to card cross-border countries with MoneyGram, with many more to follow. MoneyGram service moves money from the US to Spain and the US to Philippines with a real-time customer experience, and early results are promising as 50% of the volume is driven from customers who are new to MoneyGram.

With insurance, we see multiple use case segments within the category. Today, we are featuring Commerzbank and Progressive's auto claims flow. The industry sees the claims experience as a critical customer moment of truth. And with a subpar experience, it can quickly lead to customer attrition. Real-time issuance claims payouts benefits all parties. With no checks to process, in fewer call center calls, insurance companies can reduce operating costs. And consumers and small businesses are provided real-time access to funds getting them back in business after events like auto accidents or natural disasters. Visa Direct has partnered with Commerzbank and Progressive enabling progressive customers to receive insurance claim payments right to their debit cards in real-time. This is significantly faster than current industry payment methods that can take up to 10 days to receive a claims payout.

The new gig economy is fueling many new real-time payment flows. According to the latest research by Upwork, 35% of US workers now have a gig job. That's 57 million Americans working in the gig economy. Visa is helping many gig companies around the world enable modern real-time payments experiences. For hourly gig workers, real-time access to earnings is a differentiator that helps with job satisfaction and employee retention. Visa has partnered with Postmates to transform payroll for their delivery staff. Postmates launched instant deposits as a payroll option leveraging Visa Direct in mid-2019. Within three months, 70% of the delivery force enrolled to use Visa Direct as their payroll preference. Not only is this good for the courier, but it's also good for Postmates. Postmates has seen a 22% increase in driver retention as a result of instant deposits.

We've just talked about the benefits of real-time disbursements in the gig economy, but let's look more broadly at the hourly workforce. Hourly workers make up 60% of the population in the US. And similar to gig, the demand for earned wage access is important for employees looking – or employers to looking to boost worker loyalty and reduce attrition. ZayZoon, Holiday Inn Express and Visa have partnered to transform how Holiday Inn Express attracts and retains their workforce. The hospitality industry has a lot of turnover, but having benefits like on-demand payroll changes the dynamics of workforce planning.

Marketplace payouts is another large segment, 39 of the top 100 online marketplaces launched after 2010, and today, there is over $2 trillion of commerce taking place through these digital marketplaces. One of the key pain points is the payout of the proceeds to the small sellers, where today it takes on average three to five days. And with the rise of global ecommerce, marketplaces are facing the increasing complexity and delays of moving seller proceeds cross-border. Here we showcase Mercari whose mission is to make selling easier than buying. They are focused on improving the seller experience and they see their Instant Pay feature powered by Visa Direct as an important part of making the seller experience on their platform differentiated. Nearly 30% of Mercari sellers have already enrolled in Instant Pay with Visa Direct.

Small business cash flow and access to working capital are some of the most significant challenges facing small businesses. Faster merchant settlement and real-time access to lines of credit with Visa Direct address this core pain point by reducing the time it takes for money to process from several days to 30 minutes or less and it's always on when small businesses need cash flow working 24x7x365. Visa has partnered with industry leaders such as Intuit QuickBooks serving 4.5 million small businesses and self-employed communities globally, and also with OnDeck, a leading online lender to small businesses with over $12 billion in total loan originations. Both solutions speed up working capital flows leveraging Visa Direct. Instead of waiting the typical three to five working days, these solutions enable small businesses to have real-time access to working capital to buy inventory, make payroll and other cash flow needs to keep their businesses running.

Lastly, as we've spoken about connecting the infrastructure involved in disbursements being a key pillar of our strategy, ERP and workforce management platforms are where payment decisions get made for everything from disbursements to payroll to benefits payments. They deliver the downstream payment instructions to the supply chain partners that move funds to consumers and small businesses. In fact 85% of firms are planning to incorporate real-time payment solutions in their payment flows. That's why we are working with ERP and workforce management platforms to enable scale, safe and reliable faster disbursement capabilities. Oracle supports multiple payments use cases and serves over 430,000 clients globally. In the US, we are partnering with Oracle to launch push to card for Visa's US employees to receive on-demand real-time expense reimbursements.

Now, that was just a quick sample of what's driving the growth in Visa Direct, which brings us back to our five main takeaways from today's presentation. First, the market opportunity is immense and we are very early in its commercialization. Second, Visa Direct is a dedicated business unit, operating at scale, processing billions of transactions globally. Third, we're designing and building for real-time payments. Fourth, we are growing – we are focusing on the supply chain for money movement to act as a force multiplier to accelerate growth. And lastly, we will continue to invest in the infrastructure for solution reach, transaction security and operating scale. Visa Direct has seen early success and we expect this high growth to continue as we deepen our use case penetration, aggressively expand into new use cases and broaden out through additional geographies.

Now, I'd like to introduce Kevin Phalen, who'll walk you through Visa's B2B strategy.

Kevin Phalen

Senior Vice President & Global Head-Visa Business Solutions, Visa, Inc.

Thank you, Bill, and good morning. I have the enviable position of being between many of you and your lunch break, so please bear with me over the next few minutes. So, my name is Kevin Phalen, I lead Business Solutions. I joined Visa a little less than three years ago after a history or career within global transaction banking. And today, I'm going to walk you through how we see global B2B payments emerging within Visa. Within Visa Business Solutions, we develop solutions for our clients and our partners specifically to deliver for small businesses, global multinational corporations and governments around the world. Over the next 20 minutes, I will walk you through how Visa is uniquely positioned to address the massive opportunity that exists in commercial payments and the related services that we provide to clients.

At Visa, we believe the global commercial payment flow opportunity represents $120 trillion in payment volume. Ryan highlighted this earlier, but let me unpack the opportunity a bit further for you. We broadly break this into three major categories: first, card-based payments we believe is a $20 trillion opportunity; cross-border payments at $10 trillion; and domestic AR/AP solutions at $90 trillion. Across each of these opportunities, many of the needs are relatively consistent, businesses want to pay and be paid securely and efficiently with rich data that eases reconciliation and provides actionable insights. But each category also has unique needs and challenges that we are addressing through our products and solutions. Controls are a large part of the card-based solutions we deliver. Reach and transparency are huge challenges in cross-border. While integrating payments into large systems and processes is critical in domestic AR and AP.

Let me go deep on each of these areas of opportunity and discuss our market position, our investments, as well as the insights that shaped our specific strategies. As we get started, it is important to recognize not only the payment volume opportunity, but where the greatest revenue opportunities exist across these flows, because the addressable revenue opportunity has determined our prioritization. Here we highlight that though card-based and cross-border solutions represent roughly 25% of the actual commercial payment flows, they represent an outsized opportunity related to revenue. Through our established commercial payments business, rich data, global connectivity and a focus on security, Visa is uniquely positioned to capture these revenue opportunities.

Importantly, the most critical business needs for card-based and cross-border solutions can be addressed with our core capabilities alone, which makes it easier to get traction and drive the business in the short- and medium-term. Though the flows are very large in domestic AR and AP, we believe the future revenue opportunity here does not come from the payment themselves as they have low yields, but rather by addressing the friction and pain points around the payment, which involves a larger ecosystem of platforms and software providers, and I'll get to that in a bit more. Therefore, to realize this enormous opportunity, our focus in the near-term will be to drive card and cross-border growth where there's greatest addressable revenue, while also positioning Visa for longer-term opportunities in domestic AR and AP.

Okay. Let's get to the specifics. Let's start with the card-based solutions where the opportunity is on par with the consumer cash digitization opportunity Ryan discussed earlier. To capture the $20 trillion, we will continue to address the needs of small businesses, corporates and governments around the globe by bringing them controls, security and the movement of transactional data. The products include everything from small business cards, fleet, T&E and purchasing as well as the rapid acceleration of virtual cards. Visa is the leader in commercial card payments and we are investing to enable our clients to capture the greater volume in the card space.

We achieved this leadership position by having deep relationships with our clients around the world, the strongest brand which drives issuance and acceptance which Lynne talked about earlier, and we bring it all together with world-class products and solutions. Today, B2B payment volume represents 12% of total volume within Visa, and in fiscal 2019, we hit a key milestone of driving over $1 trillion in B2B payment volume. This milestone highlights the momentum we have yet the upside is still exponentially lot larger. This is a massive opportunity. We continue to expand our growth through investing in our core products and let me give you just a couple of examples of where we're doing this.

Within our small business group, we're launching Infinite now in many, many markets around the globe that provide additional capabilities and enhanced benefits to small businesses. We are addressing new vertical-specific use cases for virtual cards such as with marketplaces. We are driving new fintech partnerships that address everything from virtual card capture to digital onboarding. And finally, we are investing to capture emerging opportunities in fleet. We also capture these flows by building and acquiring enabling platforms like our acquisition of Fraedom two years ago. This is a leading transaction management platform in the commercial card space. I encourage you to come out to the Visa Showcase and let us talk to you a little bit more about this platform.

So, how are we capturing this $20 trillion? Our approach focuses on four key areas. First, digital enablement, we've seen a significant consumer influence on commercial payments. Therefore, we're enabling our clients to speed onboarding and have a mobile-first approach with our platforms as we continue to develop and deploy global APIs for the rapid sharing of data, which is essential in the commercial payments infrastructure. For example, issuing employees a temporary digital credential for specific trips is a rising trend among corporate clients that we are enabling with key partners.

Second, global expansion, we are driving the global evolution of cash-based societies to card-based solutions, and as such, we continue to deploy resources and capabilities into local markets. Whether they be market forces driven by central governments or from small businesses and their needs, we have the solutions and are actively engaging with partners to drive that adoption. We have gained significant traction in Russia, India, Saudi Arabia to name just a few. In Russia, as an example, we have seen significant growth in our small business volumes that was really driven by digital issuance.

Third, and as many of us discussed already out in the Visa Showcase, we have a great focus on supplier acceptance. Just as important as developing industry leading solutions for issuers and their buyers, it is also critically important that we continue to address the needs of suppliers around the world. We're focused on eliminating friction, driving flexibility into all aspects of the supplier experience and accelerating Straight Through Processing. Straight Through Processing is where a virtual card, as an example, can be used without any manual intervention.

Suppliers often bear the costs for processing transactions and reconciling data and it is important that we bring them real value. One example is bringing flexible pricing into the Visa network that enables buyers and suppliers to negotiate the terms that balance between cost of acceptance while leveraging the network for settlement reconciliation and the like. Another example would be the development of solutions with several fintech partners that streamline the acquisition of virtual cards by harmonizing the data provided by virtual card issuers. These types of changes are critical as we look to achieve rapid growth in card-based solutions.

And finally and fourth, we have to expand into new verticals. Folks, the reality is commercial payments are complex, and industries and verticals need solutions that are tailored to meet their business needs. As such, we continue to enable vertical-specific solutions to capture new flows. One example is governments are looking to drive visibility and controls in their domestic purchases. They are turning to Visa for digital solutions. Earlier, Andrew discussed some of the things that we're doing in the Kingdom of Saudi Arabia as an example.

As a significant provider of commercial card-based payments for governments, we are uniquely qualified within this vertical to deliver a set of turnkey solutions to drive that digital evolution. Our recent announcement about how OCBC and Visa are deploying solutions for the Singapore Government is just one more example. The government wanted to make sure that their cards could be used regardless of acceptance wherever they are making purchases. By using our network of networks that we've discussed today, the government's transactions can originate on a card, but can be paid through Visa Direct as an example. These are very exciting opportunities across commercial card payments. So much of what you heard this morning in consumer payments, we are driving the right solutions that produce attractive yields.

Okay. So, let's discuss now another massive opportunity that is largely untapped and quite honestly ripe for disruption. Bill did a great job talking you through how Visa Direct supports disbursements and payouts globally. Now, I'm going to talk – I'm going to discuss a very, very different set of cross-border payment flows that specifically address high value payments, think of Airbus paying GE for airplane engines. This is a $10 trillion opportunity where the historical solution for cross-border payments has remained relatively unchanged. Several years ago, after understanding our client pain points around the globe, we decided to develop a new way to address this payment flow. We took many of our core capabilities like security, globality, settlement and set to reimagining a better way to do cross-border high-value payments.

Today, the way in which global high-value payments occur is on a bilateral basis, where financial institutions need to develop relationships with corresponding banking partners and maintain a large global infrastructure. In this environment, payments move from financial institution to financial institution often with a lack of speed, visibility, increased costs as well as inconsistent data supporting the transaction. For example, a single payment traveling from the United States to Africa could have four or more stops around the globe, which causes the lack of visibility into those payment details. What does that really mean? Financial institutions and working with their corporate customers struggle to identify where their payments are, what the final costs will be, and lastly, when will they be delivered.

Can you imagine if your boss asked you what seems like basic questions about a supplier payment that you're making, where is the payment, has our supplier been paid, how much did it cost, and for each of these questions, your answer was I don't know. With B2B Connect, we developed a multilateral network, that's on the right-hand side of the slide, where payments and data can move directly from one financial organization to another around the globe. This approach allows for greater transparency, visibility, rich data and increase speed, all at a lower cost. So, how does this solution address that earlier corporate's issue, the answer on B2B Connect would be the payment is at our supplier's bank, it was delivered at 11:15 AM and the cost was X dollars.

So, where are we in building this network? Today, we can operate in 71 markets, and actually as of today, it's 73 markets, around the globe and we expect that we will expand the number of markets by an incremental 30 over the next 18 to 24 months. Today, we can cover the vast majority of the global trade flows in payment corridors and we strive for the ubiquity that we have within these scenario. The platform is live and available, so now we're building out the endpoints on this new network. This takes time, but we're making great progress through the following strategies.

First, we are working with network integrators where B2B Connect can be an add-on to your banking platforms. This gives us a great opportunity to connect to a large number of financial institutions that use these third-party software providers or processors to manage their commercial payments. Often companies like Bottomline Technologies, FIS, ACI and Infosys provide the core payments infrastructure for financial institutions and now Visa B2B Connect is part of that infrastructure. By taking this approach, financial institutions can utilize B2B Connect by simply instructing Visa and their integrated partner to turn it on versus doing a deep integration.

Secondly, we have engaged financial institutions that process their own payments to join the network. We now have clients in every region around the globe currently implementing the B2B Connect solution. We will also deliver payments to beneficiary banks reaching over 95% of global accounts that we operate in. So, we have the reach necessary to deliver the payments globally. We will continue to work with banks around the globe to connect either directly to our network or through their technology integrators. We will expect to begin transacting this quarter and we expect to reach 1 million transactions by 2021 and we will reach network scale by 2022. After traveling the globe to discuss this solution with financial institutions, with great consistency, there is excitement for this solution, given it is solving some of their pain points.

Let's take a quick look at how industry executives see this opportunity with this new solution. So, if we could, please, let's roll the video.

[Video Presentation] (03:55:59-03:57:58)

This solution is an exciting opportunity and we'll keep you briefed as we expand the network in the coming quarters.

Okay. So, we've discussed two areas where there are clear opportunities for Visa to grow exponentially: one, where we're the industry leader; and the second, where we have a solution to disrupt a large attractive line of business. Let's now discuss our approach to capturing the opportunities in domestic AR and AP. We estimate there is $90 trillion of payment volume in this space. Unlike in the card and cross-border space, where we are central to the payment, we believe the opportunity here exists for us by extending solutions beyond payment execution, together with our partners, as the payment execution component itself is not enough to be successful. We must address the larger pain points. We've spent extensive time with buyers, suppliers, clients and along with their partners in systematically identifying and understanding where their pain points are in order to find the value creation opportunities. We then work with key partners to develop solutions that address these pain points.

One of the pain points that exist across the industry, they cut across both buyers and suppliers of all sizes, both before and after the commercial payment itself. The actual payment execution using existing networks is a small component. On the left-hand side of the slide, you can see buyers' primary concerns include supplier onboarding, financing, payment timing and ERP integration. For suppliers, as highlighted on the right-hand side, the largest pain points include buyer onboarding, invoice issuance, payment application and reconciliation. Historically, this can be a messy business between being paper-intensive, high operating costs for invoicing and with many, many manual reconciliations. Therefore, there is a large opportunity to digitize around the payment execution. We believe the market will develop based upon the age and stage of each company or industry and where they are on their digital journey. As many of us know here in the US, which was built on paper invoices, checks and manual reconciliation, the solutions that capture this opportunity have to drive efficiency.

We are partnering with a variety of financial institutions and fintechs across all parts of the value chain to create innovative solutions to address the broader AR/AP opportunity and as usually is the case in payments, the solution varies by market. So, let me give you a few examples. In Latin America, governments are mandating e-invoicing as part of all corporate procurement. The e-invoicing then leads to payments across multiple channels. We have partnered with Gosocket to deliver our solution in 12 markets in Latin America. In the emerging markets of Asia and SEMEA, payment acceptance across all payment types is a challenge. As such, we developed a deep partnership with PayMate to accelerate and facilitate all payment types, thus easing supplier payment acceptance challenges. In the United States, there has been a rapid evolution for financial institutions to provide integrated payable solutions that gives corporates the ability to create a single payment file and process all types of payments including card, ACH and cross-border payments. We have partnered with the likes of Bottomline Technologies and CSI to identify the best payment solution, all the way from initiation to execution.

On the supplier side, just as importantly, a great example is how we partnered with Billtrust, a leading AR provider. With Billtrust, we offer the business payment network, or BPN, to specifically address acceptance and reconciliation issues. This started card-based and soon will be expanding to ACH. Suppliers want an easy way to address acceptance and how they manage incoming payments. Visa and Billtrust came together to build a new solution that couples the strength of Billtrust's supplier-focused network, that addresses broad acceptance challenges, especially in virtual cards, along with the reach of Visa. This was expanded, so that other financial institutions and fintechs can enter into the supplier network. This leverages, again, Visa's scale as a distribution model for the BPN.

By addressing acceptance challenges and reconciliation, we see the suppliers entering into the network to realize immediate benefits to their operating expense. This is achieved through FTE redistribution, lower reconciliation errors and less manual processes. Since the launch of the BPN, JPMorgan, Commerzbank and CSI have all joined the network, and each of them brings suppliers into the network which further strengthens it. Thus far, the volumes in transactions have exceeded our expectations, but it is still early days. Additional financial institutions will be announced soon. So, these are just a few of examples of where we're targeting the opportunities for value creation in domestic AR and AP.

So, in conclusion, we are the leader in commercial card payments and we are uniquely positioned to expand further in the $20 trillion carded market segment. We are investing in leveraging our global scale to build out Visa B2B Connect around the world which is truly an untapped and historically underserved market segment. And we will continue to make pragmatic investments in partnerships to crack the code in domestic AR and AP, and ensure that we are well positioned to capture the greatest value creation opportunities, both in the short-term and in the long-term.

Thank you. I look forward to seeing you in the Visa Showcase. I now invite you to lunch through the back doors, box lunches will be provided, and we will start back here at 12:30 sharp. Thank you.

[Break] (04:04:50-04:27:58)

Jack Forestell

Chief Product Officer & Executive Vice President, Visa, Inc.

Okay. For those of you in the room, please come on in and grab a seat, bring your lunch. We're going to get started. Okay. Well, good afternoon. My name is Jack Forestell, and I'm Visa's Chief Product Officer. Before I start, I want to come back to something that Al mentioned earlier this morning and tell you just how excited I'm to be welcoming the Plaid team to our product group here at Visa. I hope you liked the video clip that Al played this morning. I've been spending a lot of time with Zach and his team recently, and I could not be more excited about the potential in the Plaid business and the acceleration that Visa can bring to it through our value-added services and so much more. As Al mentioned, that's a conversation for another day, so I'm going to jump back into our agenda here.

All right. So far today, we've covered our core products, our products designed to power new payment flows, and now we're going to dig into our value-added services. My colleagues have described through the course of the day, the accelerating convergence of digital and physical commerce, the emergence of new money movement flows in our network of networks strategy. These forces are setting up strong demand for new value-added services across a variety of clients and use cases. When we develop, we think about value-added services.

We start with the client and we work back from the problems they are trying to solve with their users. These services include solutions for the issuer and consumer side of our networks, the acquirer and seller sides of our networks, as well as end-to-end solutions in security and identity and in data, and all of this is supported by our team of world-class consultants and advisors. As Ryan described earlier this morning, we expect to deliver over $3.5 billion in revenue from these services in 2020. It's a business that's growing at over 20% annually.

Our value-added services drive real, measurable and meaningful outcomes for our partners. We seek to help our clients deliver the best end user experiences, while driving top line growth and driving out costs. For example, clients who use our Token Service see a 3.2% average increase in authorization rates and a 67% average reduction in fraud. Our issuer authorization solutions, Visa Advanced Authorization and Visa Risk Manager, which Melissa will talk about shortly, prevent $25 billion in fraud annually by screening over 125 billion transactions across 8,000 issuers in more than 125 markets around the world.

Today, we have a strong portfolio of value-added services and we're investing in these existing services while adding new ones. For example, we're building a new platform, the Visa Artificial Intelligence Platform to power our next-generation of machine learning and AI-based predictive models. And we're building brand new services like Visa installment payment options at the point-of-sale that Mary Kay will touch on in a few minutes. We've got many products within each of the subcategories on this screen. This afternoon, we'll just give you a flavor for our value-added services business by touching on examples from across this portfolio.

A quick word about value-added services in the context of our network of network strategy. As we progressed from a vertically integrated network into a full scale network of networks, an area of particular focus has been developing, and in some cases, acquiring value-added services that we can deploy not only across VisaNet, but across our entire network of networks, capabilities like CyberSource Decision Manager, CardinalCommerce authentication, Plaid tokenization and Verifi disputes management, among others, are rounding out our portfolio of services that we can deploy to drive Visa grade quality and security across a broader set of transactions in our network of networks. Plaid will also play an important role here.

Now, let's dive into some of our value-added services, and I'll start and my colleagues will join me, and I'll start by talking a little bit about our issuer and consumer solutions platform. To bring this – to bring together digital convergence and our focus on solving real world problems for our clients and end users, I'd like to walk through a short user flow that highlights how some of our issuer side value-added services can come together. So, let's start at the beginning, a brand new account relationship. In this scenario, I've just applied for and setup a new account using a great mobile application experience with my bank, my cobrand partner, my fintech, you name it. I'm excited about it and I'm ready to go. But here's what usually happens next. I wait, I wait a little more, I wait until one of these arrives.

Many customers never actually activate as a result of this waiting process. Today this happens the vast majority of the time, but it doesn't have to. I can get a digital card immediately. So here, I'm going to click Create Visa Card, load my details from my address book, confirm and wait for a few seconds, and there you have it, a secured Visa Token provision to my phone and ready to use. This is enabled by our Visa Token Service API which drove about 6 billion transactions in 2019 growing at over 100%. The API is very simple. You can see a code snippet over there on the left-hand side of the screen. By the way, in just the first quarter of 2020, we processed 2.4 billion tokenized transactions, roughly the same number as we did during the entire year in 2018, just to give a sense for the grasp.

Okay. So, now I have an account and a credential, but I have problem, I have an 18-year-old daughter who needs gas, lunch money and who knows what else. Why shouldn't I be able to get her a token of her own to access my account? Well, of course, I can. So, I'll click Share Access here, load her information from my contacts, confirm which control settings I want to use, in this case, I'll let her try this out for a month with a max spending limit maybe some category restrictions. And within minutes, she has a ready-to-use token provision to the app on her phone using our token service and transaction control APIs.

Now, my daughter also loves Netflix, Xbox Live, Hulu, Disney+ and our household seems to be accumulating these services at an astonishing rate. I don't know about you, but I would love to be able to see what is connected to our account. And using our Card-On-File Data API and our Visa Account Updater APIs, I can do exactly that. I can even turn various services on and off from this control panel by using these capabilities. Enabling these sorts of great recurring payments experiences is a component of our efforts to take a greater share of the $13 trillion addressable market in global bill payments volume by the way.

So, like as a little sense for the kind of value that we can deliver on the issuer side of the equation. These kinds of services and experiences are increasingly table stakes for our issuer and fintech partners. To help build and integrate these kinds of services, these partners are increasingly turning to their issuer processor partners to deliver. You may not know it, but we operate one of the largest scale issuer processing platforms in the world. In fact, we've been operating our issuer processing business called Visa DPS for 22 years.

Last year, our 700-plus person Visa DPS team members enabled us to process 39 billion transactions for over 200 clients. But what really sets our DPS business apart is our end-to-end and comprehensive approach, from core processing services like authorization and settlement to value-added solutions, including fraud services, campaign management and much, much more, issuers can easily access a full range of capabilities from our platform.

Now, issuers need to move fast to win in an increasingly digital world and that's why we're investing to develop and deliver more and easier to integrate digital capabilities like the ones I just showed you via a new DPS Digital Issuer Processing platform. Our new platform called DPS Forward is built on a light weight, micro services architecture and will enable us to deploy quickly and scale the platform globally. We'll be talking about Forward at our upcoming user conference titled Agility at Scale in a few weeks.

Now, before we move to the next section, let me summarize our issuer processing platform with three key messages. First, digitization is creating accelerated demand for new digital issuing services. Second, financial institutions, fintechs and other partners are looking to issuer processing partners to deliver these solutions. And third, we, at Visa, operate a scale processing platform and are investing to deliver an increasing array of lightweight digital services at global scale.

All right. While our issuer processing team is working hard to deliver performance at scale for our issuers, our consumer and seller solutions team is obsessing about building and delivering the best end user experiences before, during and after the payment. I'd now like to turn it over to Mary Kay Bowman, our Head of Consumer and Seller Solutions to give you a glimpse at what we're doing to deliver delightful experiences across the payment's lifecycle. Mary Kay?

Mary Kay Bowman

Head-Consumer & Seller Solutions, Visa, Inc.

Thanks, Jack. For more than 60 years, we've focused on perfecting payments at the point of purchase. Even with this long-term focus, friction still crops up. This could happen at any phase of the customer experience: before the purchase, during the purchase or after the purchase. As we invest even more in value-added services beyond the payment, we look for ways to remove that friction to create better customer experiences.

While we have many examples of value-added services that enhance the customer experience, today, I'm going to share three, one value-added service across each phase of the customer journey: before, during and after the transaction; by enabling even more value beyond the transaction for our clients and their customers, they win, and when they win, we win; also through higher payments volume, top of wallet usage, driving repeat and preferred usage, and of course, growth in value-added services revenue.

Let's start with an example from before the purchase. Today, consumers enjoy and take advantage of a wide range of benefits and offers from many loyalty programs through our issuer partners. Knowing this is valued by their customers, issues – issuers invest deeply in these programs. Despite this commitment, consumers can become fatigued by standard offers, rewards and benefits, and may feel like they don't truly fit their needs. Some evidence of this, 35% of consumers do not fully comprehend their program benefits and only 22% are satisfied with their offer relevance.

It seems clear that consumers are increasingly expecting more tailored and experiential experiences. For example, our luxury hotel collection is a benefit loved by many of our consumers who travel frequently. However, it's not as relevant to those who have vacation homes or enjoy exploring local destinations. So, before the purchase, we see an opportunity to add more value by offering our clients ways to enhance benefits, offers and rewards to their customers that are more relevant, personalized and simple to understand and use.

To address this unmet need and increase the value, we created an Account Holder Engagement Platform. There are three components we provide with this platform: first, a unified experience for consumers to explore and book travel backed by an AI-driven engine; second, we created a self-service platform for consumers to explore; lastly, we built on top of a repository of broad and exclusive inventories provided by issuers and sellers. As an example, we're seeing early success in LAC. We're using these three components in our platform: an AI-driven engine, a self-service platform, and common benefits and offer repository to drive custom loyalty offerings. We're having great success in LAC and rescaling this solution worldwide.

Next up, let's talk about how installments add value during the purchase. So, what is installments, some of you know it as buy now, pay later. But specifically, we define installments as giving consumers the flexibility to pay for purchases in equal payments over a defined period of time. We started this journey during two years ago recognizing installments is on the rise. The installments market is a $1.2 trillion opportunity in addressable volume and it's growing. It's also good for both sides of the network. Consumers love it as they see it as a more responsible and transparent form of financing purchases since it gives them certainty when each item will be paid off. Sellers love it since they see how it will provide them with a sales lift from incremental sales.

We're pursuing two different models: a card-based installments and fintech partnerships. The first model, card-based installments is where we're enabling installments for consumers on their existing Visa branded cards. The second model is partnering with fintechs. We're partnering with third-parties to leverage our assets to support a wider variety of installment options, which I'll go through later. At Visa, we want to offer consumers and sellers broad access to installment payments on the domestic and the cross-border purchases. We think enabling multiple options is a good thing. We're not looking to pick winners and losers. It's ultimately up to the consumers to decide which installment experience is right for them and their purchase.

Let's take a look at each of these models. With card-based network installments, Visa account holders do not have the hassle of creating a new account to enable installments. This means consumers do not need a new credit line, allowing us to capitalize on the $3.1 trillion of unused credit in the US alone. The beauty with leveraging existing cards also means that our consumers will eventually be able to use installments across our entire acceptance network, including cross-border purchases. And for sellers, looking to implement installments solutions, they can look to integrate only once. While we think this is going to be a great approach for some customers, we also partner with fintech or third-party financing providers in a variety of ways. First, we provide venture investments as a strategy to support partners who are redefining the purchase experience for millions of customers globally. Second, we're teaming up with fintechs by providing them with virtual cards that allow their customers to pay anywhere Visa is accepted. Lastly, through our CyberSource solution allowing fintech partners to distribute their installment solutions to CyberSource's sellers. Ultimately, we want customers to decide what's best for them.

Finally, let's discuss after the purchase. As much as we hope that transactions will always be smooth, problems can surface and disputes is the largest issue. So, what are disputes? They can happen for a few reasons. Sometimes, consumers don't recognize their charges. Sometimes, they don't receive the product as described or sometimes, they experience legitimate fraud. If not handled well, disputes can be a terrible experience for the consumer. Without the ability to prevent, manage and resolve disputes, payments networks run the risk of detracting value from their network.

We've been investing in disputes management from the beginning. Interestingly, some payments networks don't have a mechanism to manage or resolve disputes at all. While these types of problems surface infrequently in our network, less than 1% of the time, our dispute management solution is there waiting in the background ensuring that when a problem does crop up, consumers and sellers trust that it will be resolved quickly, simply and as fairly as possible. In 2019, our customers and clients relied on Visa to resolve the problem after the purchase 70 million times in a consistent and scalable way.

While this is a valuable feature, we do recognize disputes can become a source of pain. 35% of sellers cite disputes as a top concern in their payment operations. We know there are still opportunities to improve the dispute process. One way we've invested is in lowering the dispute resolution time. We implemented Visa Claims Resolution in 2018 improving the average resolution time by 56% going from 55 days to 24 days. To further improve the resolution cycle time, in 2019, we acquired Verifi, a leading player in disputes mitigation and with Verifi, we will further lower the dispute resolution time to less than a day.

Verifi's solution can do this by providing a connection between sellers and issuers making the detailed order and payment data available at the time that it's needed when the customer is inquiring. This is compared to the standard dispute process which requires sending alerts back and forth between issuers and sellers via files which can take many days to complete the roundtrip. Furthermore, Verifi's solution is network agnostic, allowing sellers to manage disputes across all their payment methods with a single connection.

The improved customer experience from helping issuers connect detailed order data from sellers when the customer has a complaint is one of three key reasons we acquired Verifi. Another reason is with Verifi's 25,000 seller accounts, we build a stronger network. More issuers will be connected to more sellers resulting in a better dispute resolution, expanding and enhancing our issuer and seller collaboration network.

And lastly, Visa dispute resolution solution has traditionally been tied exclusively to Visa. With Verifi, however, sellers are enabled to manage disputes with other brands. The goal is to create a solution that is designed to work on all networks including ACH and RTP networks and all brands to build a network agnostic solution.

So, in summary, we have now walked through three examples of how we are investing in driving value above and beyond the transaction before, during and after the purchase. There are many other examples in our value-added services offerings and we are constantly looking for ways to add value by building on our incredible core payments and transaction solutions. As Jack had mentioned, we start from the customer and work backwards, thinking about how we can best improve the customer experience of our consumers, sellers, clients on our network.

With unparalleled ubiquity, interoperability, access to data and scale, we can add even more value before the purchase, during the purchase and after the purchase well beyond the three examples that I shared with you today and we can do this because we are standing on the shoulders of the success of the largest, most trusted global payment and transaction network.

And now next, Carleigh is going to share details on how CyberSource takes advantage of its unique assets to add incremental value to our customers.

But now, a short video on CyberSource.

[Video Presentation] (04:51:00-04:51:50)

Carleigh Jaques

Senior Vice President & General Manager-CyberSource, Visa, Inc.

Hello? I'm Carleigh Jaques and I lead CyberSource. I've been in this position for the last four years and I hope that video gave you a really tangible sense of the types of consumer and merchant experiences that we power.

So, first, let's talk about what a gateway does and where it sits in the payments ecosystem. The simplest way to think about a gateway is it's like a virtual or cloud-based terminal enabling a merchant to be able to accept payments. So, if you think about it in the physical world, the merchant has a card reader on their countertop. The gateway is effectively that digital equivalent and typically sits between the merchant and the acquirer.

With $526 billion in payment volume, CyberSource is easily one of the largest players in e-com and payments. As you can see, we are multiples larger than companies like Adyen, Shopify and Square. We have a fantastic client roster, clients like LVMH, Comcast, Rappi, Transport for London, Aeroméxico, ZARA and Alibaba. Our acquirer clients include Cielo, Barclays, Bank of America Merchant Services, Wells Fargo and Elavon to name a few. I'm really excited to tell you about our plans to take this scale business to the next level.

So, some of you may have known CyberSource prior to the acquisition by Visa. CyberSource pioneered the gateway space and was a fantastic company. But over the last couple of years, we've really transformed it from a core gateway to a payment management platform. That transformation is profound. It's something that we see quite often in the enterprise software space in the SaaS industry. So, think about someone like a Salesforce or an Oracle where they started as a niche CRM player and ultimately have become an end-to-end solution provider. This is the same transformational experience in payments, driving more value to our merchants and acquirers and more revenue to Visa.

So, we've expanded from a core gateway to include a full stack of services that include things like tokenization, fraud services and card-present capabilities. Our API-based architecture means that we can partner with other software providers to deliver the highly-verticalized industry-specific solutions that merchants demand. We've really created the go-to hub connecting software providers and acquirers in the industry. We're also exporting the insights from the US abroad and then conversely taking those insights from our global clients and bringing them to the US market. So, let me bring this solution to life and give a bit of context on why this solution is so valuable and so strategic.

Merchants are facing a huge problem. Payments have become overwhelming. The rate of change, the nuances of localization are really overwhelming merchants of all sizes. And at the end of the day, a retailer just wants to be a retailer, a telco just wants to be a telco. By using CyberSource, merchants and acquirers don't have to participate in the payments arms race because we are taking on the technical burden for them through a single integration to our platform. This way, our merchant clients can focus on their core business.

So, starting on the upper left, merchants want a platform that provides access to all payment types versus a separate integration for Visa, another integration for a second payment type and so on. We allow merchants to accept card payments, bank transfers and alternative payment methods such as Klarna and Alipay. Moving to the right, we also allow merchants to accept all of the mobile pays and e-wallets, so Google Pay, Apple Pay and Paytm amongst others.

Jack talked about the importance of tokenization and removing credentials from the ecosystem. Of course, CyberSource enables Visa Token Services, but we also provide incremental functionality in that we tokenize all payment types, eliminating the need for a merchant to do multiple network integrations. Tokenization is also critically important in enabling key omni-channel experiences such as buy online, pick up in store. Our fraud management capabilities called Decision Manager help merchants increase authorization rates and reduce exposure to fraud. For a merchant, that is critical optimizing both revenue and profits at the end of the day.

Finally, merchants' integration to CyberSource also give them access to Visa's full range of products and services. So, think Visa Direct, [ph] Visa Token Service (04:57:36), click to pay. And we enable all of these capabilities across multiple channels, mobile, e-com and face-to-face. This is all riding on Visa-grade infrastructure that we've talked about earlier.

Today, the lines between online and face-to-face channels are blurring. Our acquisition last summer of Payworks has enabled us to offer a single omni-channel solution with a cloud-based architecture. The cloud-based architecture was critical to us. It aligns with our heritage in e-com, it's modern and it enables us to deliver more innovation at the point of sale than has been achievable in the past. Payworks is also completely aligned with us in that it is distributed principally through acquirers. Our omni-channel solution has been adopted by multiple luxury retailers in the US and in Europe. And on the right, you can see one of our clients who is live in 135 locations using our Payworks solution in conjunction with our tech partner, Tulip. This endless-aisle experience which includes a portable point-of-sale device, as well as an iPad mini is just a phenomenal consumer experience.

So, CyberSource has built this great scale business with a focus that's largely been North America. We are really excited about our expansion outside of North America at this stage. Electronification of payments in many of these markets is nascent and through our acquirer partners, we have access to a 190-plus countries. We are in the early, early days of the growth curve. So, let me give you some examples of the types of use cases that we're powering.

We have a global relationship with LACOSTE. We power e-com in North America for them, omni-channel in Europe and provide fraud solutions in Brazil. Flipkart is one of the largest [ph] e-tailers (04:59:58) in India. CyberSource is powering e-com for Flipkart and has also helped remove payment friction with the launch of the Visa Safe Click capability which eliminates the need for one-time passwords on small ticket transactions. The unmatched power and robustness of our architecture and infrastructure enabled Flipkart to run their Big Billion Days Sale in FY 2019 with 70 billion site views and was the largest single day of commerce in India's history.

CyberSource doesn't only sell direct to merchant. We also have a robust and fast-growing indirect channel through acquirers which makes sense. And as a Visa business, our principle to go to market has been through our B2B relationships with financial institutions and acquirers. Demand for our white label offering is high. It is vital that acquirers have best-in-class digital capabilities to be able to attract merchants and drive their end growth.

Acquirers white label the CyberSource capability in order to be able to retain their relationship with their merchants. And this is an exponential opportunity for us where acquirers and their thousands of salespeople are distributing our product set. Our client Sumitomo Mitsui Card on the right is a fantastic example of this. Sumitomo Mitsui has been a Visa client for the past 50 years and is the largest acquirer in Japan. Last summer, we announced a partnership with them for our omni-channel solution. And this 10-year deal involves not just CyberSource capabilities, but VisaNet processing, which is unusual in Japan or not the norm in Japan. This is a great example along the lines that Chris Clark outlined where we're able to bring more and more incremental services to our clients.

So, as you can see, CyberSource is a significant opportunity for Visa. We're riding the tailwinds of mobile and e-com. Our recent entry into omni-channel lets us grow within our existing client base, as well as attract new clients. White labeling our capabilities to acquirers gives us access to a broadened distribution channel and expansion outside of North America unlocks new high-growth markets. When you put these all together, it's a significant opportunity.

Above and beyond that, CyberSource delivers significant strategic value. We help Visa monetize non-Visa transactions. We provide scaled distribution of Visa products and services. We stimulate a healthy merchant and acquirer ecosystem and we drive grassroots innovation through access to our APIs and developer community. Above and beyond that, we promote new acceptance across the globe which helps us in our core mission of displacing cash.

With that, I'd like to introduce my colleague, Melissa McSherry.

Melissa McSherry

Senior Vice President & Global Head-Credit and Data Products, Visa, Inc.

Thank you so much, Carleigh, and thank you for joining us today. My name is Melissa McSherry and I am so excited to talk to you about how we are using data to increase security, improve authorizations and support our clients' businesses well beyond payments.

Visa has an extraordinary asset in the data that we see and we have been using that data for many years to improve security of the payments ecosystem. As far back as 1993, we were using neural networks to prevent fraud. We have invested heavily over the years and we have a long established track record of preventing transaction fraud and increasing approval rates. This history is embedded in our flagship security product Visa Advanced Authorization, also called VAA.

As digital has grown, the fraud prevention needs have evolved. That led us to develop the 3DS standard in 2001 to enable the sharing of information between issuers and digital sellers, again, to prevent fraud and increase authorizations. We've also sold benchmarking products for many years. Visa Analytics Platform is the current version of our benchmarking and reporting platform that we sell to clients globally. More recently, we started delivering marketing products to help clients focus their message for consumers to whom it's most relevant, for instance, with the Audiences product that we started selling in 2016 and the Travel Predict product that Ryan talked about earlier. Very recently, we've begun using data to help lenders with underwriting, particularly in countries where market segments where credit bureau data is thin or non-existent.

It's worth noting the significant investments we've made in data for our security products, we have over 1,000 patents filed in the last five years. We now have enhanced merchant data with critical mass coverage in five of our top 10 markets, partial or better coverage in 72 markets and plans to get the full coverage in all of our markets. We can train a machine learning model 100 times faster than a year ago and we have over 100 petabytes of data on demand for our data scientists.

We are making the investments in our infrastructure to score advanced AI models at the speed necessary for real-time transaction processing. These investments give us a massive head start when we work to deliver value through data in other areas because we've already done so much of the heavy lifting to make the data clean and accessible, bring in additional data, scaling the scoring of advanced AI models and building the environment necessary to support all of the above. Today, we're going to walk through a few examples of products in this space that we are very excited about.

As Ryan mentioned, digital growth and the shift to mobile is a huge consumer trend and it has big implications for fraud. Consumers see rapidly changing fraud strategies and in many cases, their historical authorization systems are very difficult to change. So, we respond by, one, building advanced AI models that operate on a scale beyond what any one of our clients could build or deploy; and two, providing products that implement fraud rules in the network, so they don't have to make changes.

Our flagship product driving transaction security is VAA, a model that uses the breadth of Visa global data, advanced AI techniques and real-time scoring of every single transaction that goes through our network to provide better separation of fraud from good transactions. To fully leverage the power of VAA, we also provide Visa Risk Manager, a web-based tool that enables clients to write rules using VAA that we then implement in the network. This means the clients can use VAA without having to do any implementation in their systems. We operate at remarkable scale and speed scoring 127 billion transactions last year and for each of those, evaluating about 500 attributes in about 1 millisecond.

These products have a real impact on our clients. In 2018, we started working with a client in Latin America to optimize VAA-based rules through VRM, result in less than a year was remarkable. Approval rates went up 700 basis points, fraud rates came down from 65 basis points to less than 30 basis points, and total transaction dollars went up by 31%. This is a win for everyone, consumers, sellers, the issuer and Visa.

For sellers, the fraud challenge created by the growth in digital is even larger because in most cases, they take on the fraud risk in these channels. They have significant margin at stake in the sale. So, they really want to capture every good transaction possible with the least amount of customer friction. Decision Manager delivered through CyberSource supports transaction security for sellers and leverages the power of network-wide fraud insights and then combines that with hundreds of standard API elements including IP address, device fingerprint, order details and analytics to produce over 260 detectors in addition to the score for every transaction to help sellers separate good transactions from bad ones.

Given the scale of CyberSource that Carleigh just told you about, we are able to bring significant breadth of data [ph] to bear (05:08:55) in sorting which transactions are likely to be fraud. And we need sellers where they are in terms of implementation. If they want to take our advanced AI score and put it into their workflow engine, that's great. And if they want a full set of managed services where we provide and implement rules and manage cases that need additional investigation, we can provide that too.

The flexibility of the tools enables sellers to tailor the fraud strategies to their unique internal economics because no two sellers are exactly the same. Decision Manager has real impact in terms of increased approval rates and decreased frauds across continents and across industries enabling incremental sales. We provide Decision Manager everywhere the CyberSource is which rapidly is becoming everywhere that you want to be.

Turning now to authentication, I want to talk about CardinalCommerce, a company we acquired in 2017. A key enabler of bringing down fraud and increasing approval rates in digital is sharing data between sellers and issuers. For example, if a consumer is using a mobile device to buy something and that mobile device is the same mobile device that they have used to log into their bank for the last two years, both the seller and the issuer can be much more confident that the person buying the thing is the owner of the actual account. Digital channels actually have very rich data, but that data doesn't get into a standard authorization message. 3DS provides a way for sellers and issuers to share this data and then attach the result of that sharing, for instance, that the mobile device is the same mobile device to the authorization message.

In addition to 3DS network services that Visa provides, CardinalCommerce provides network agnostic products for sellers in Centinel and for issuers in the Consumer Authentication Service to leverage the 3DS standard. Cardinal has an enviable footprint with eight of the top 10 digital sellers. We process over 2 billion transactions globally from 231 countries around the world last year. And with the acquisition of Cardinal in 2017, Visa significantly accelerated the global expansion of the issuer-side product, Consumer Authentication Service.

The scope and power of these products is impressive across industries as diverse as computers, entertainment and sporting goods. We see that using Centinel and 3DS increases seller approval rates and decreases the fraud through authentication.

As all of you know, the introduction of chip in the face-to-face environment has devalued stolen credentials and significantly decreased face-to-face fraud. Tokens are doing the same thing in the digital environment with the goal of making payments fraud just not cost effective for the fraudsters. And we have significant traction in this space having issued over 0.75 billion tokens. Most importantly, we're seeing traction in the ultimate goal here which is increasing approval rates and decreasing fraud. As with our flagship product, VAA, when we can do both of these two things at the same time, consumers win, sellers win, issuers win and Visa wins.

Ryan and Kevin talked about earlier the enormous opportunity in B2B for Visa in terms of new payment flows. A key to getting these payments on the cards is using data to provide payers with the same capabilities for control, monitoring and analysis that they have today outside of cards. Fraedom enables banks to provide their corporate clients with this visibility and control, so the corporate clients can spend onto the corporate cards. These best-in-class capabilities plus Fraedom's experience in scale lead to highly positive impacts for clients.

In this example, our bank partner was able to significantly grow their client base and their corporate card base. Importantly, they were able to do it while maintaining a high level of client retention, core to driving this business over time. Fraedom is a great example of how a good reporting product by which I mean providing relevant data at the right time in the right context contributes some positive business outcomes for our clients.

And, of course, we don't just provide reporting and benchmarking in the B2B space. Visa Analytics Platform is our flagship product in this area and in Latin America, we have over 40% penetration of our issuer base. We make our broad and unbiased dataset available through a web interface, so again no integration is required. This means clients can get to value quickly and independently. We've had clients tell us that they can get results in 10 seconds that they had to wait a week or more from other benchmark data providers because of how we made the data available. Easy access to data can lead to big dollars.

For example, we had an issuer training call center staff to take questions on a policy change for cryptocurrency. They figured out that they could pull a list of customers who had ever done a crypto transaction since those are the only ones who were likely to actually ask about the change and then route all their calls to one queue. This meant training significantly fewer call center reps and significantly bringing down their operating costs.

In marketing, we are exceptionally well positioned because we see the behavior that marketers are trying to understand buying a product or service. In this example, we saw double the response of previous campaigns by using transaction data to focus the communication where it was relevant. We primarily work with issuers on marketing to the existing customers. But we also do highly effective work with sellers with aggregated or permission data.

In underwriting, when credit bureau data is thin or not available, spend data can be very helpful in understanding a consumer or a small business' cash flow and ability to pay, which is a cornerstone of responsible consumer-friendly lending. In this case, that enabled the bank to expand the number of consumers, it could extend additional credit too by 5%, which given the leverage in lending is actually – it's like a really big deal. This kind of responsible inclusion lowers the cost of lending and it's good for consumers, it's good for lenders and it's good for the economies that benefit from people being able to make investments in their small businesses, in their children's education and in their homes and in their communities.

So, key takeaways, first, Visa is committed to security and we are making our products work across networks, so we can bring that strength to many more transactions. Second, Visa uses transaction data to drive better outcomes across the entire ecosystem, always asking how does the consumer ultimately benefit because we recognize that when issuers and sellers win with their consumers, everyone wins. Finally, for most of our clients, there are significantly greater financial leverage in using data beyond payments to improve their core business and we are innovating to make sure that we support that. You can see examples of these products that are showcased outside and I encourage you to take a look.

And now, Jack will close. Jack?

Jack Forestell

Chief Product Officer & Executive Vice President, Visa, Inc.

Thank you, Melissa.

Last but certainly not least, our Visa Consulting and Analytics team is a critical component of our value-added services portfolio. Our team of over 500 payment specialists and data scientists are working hand in glove every day with hundreds of clients on both sides of our network on the ground in 50 markets around the world. Our approach here is very focused. We're not seeking to compete in the broad market for consulting services, but are very focused on delivering advice and insight to our clients centered on payments, money movement in commerce and on leveraging and delivering our portfolio of value-added services. Using the services you've heard about today and many more that we've not had the time to cover here today, our Consulting and Analytics team is delivering measurable outcomes for clients covering a waterfront of improvements in response rates, approval rates, activation rates, usage rates, retention rates, marketing efficiencies, just to name a few.

That wraps up our review of value-added services. I want to thank my partners Mary Kay, Carleigh and Melissa for giving you a great sense for the innovative products and growth potential across these businesses.

I want to leave you with four key takeaways. First, value-added services help our clients and partners grow profits and deliver delightful payments and commerce experiences. We win when our partners win. The convergence of digital and physical commerce along with the growth of new payment flows is driving an increased demand for value-added services. Third, Visa currently offers a broad suite of value-added services and we're investing to enhance and extend this portfolio. And lastly, our value-added services business is large and a high-growth opportunity for Visa.

So, with that, now let me introduce our Vice Chairman and Chief Financial Officer, Vasant Prabhu, who will bring us home. Vasant?

Vasant M. Prabhu

Vice Chairman & Chief Financial Officer, Visa, Inc.

Thank you, Jack. Good afternoon, everyone.

Great to see you all back here, the same room as we had our last Investor Day almost three years ago.

This one actually happens to coincide with my own five year anniversary at Visa. And as you all have come to expect from Visa's Investor Days, we throw a lot at you, a lot of information in a short period of time. So, what I'm going to try and do in the next 35 or 40 minutes is to try and bring it all together and put it in the context that you all care most about which is Visa as an investment proposition.

So, at our last Investor Day, we told you we saw another 10x growth opportunity ahead of us. We believe that in the middle of the last decade, we hit the fourth inflection point in the 60-year history of Visa. Starting with the opening up of BankAmericard in 1960, through the mid-1970s when VisaNet was launched, the first SaaS platform before the term SaaS was even invented, to the birth of e-commerce in the mid-1990s, each inflection point saw a 10x expansion in our scale and scope over the next 20 years. This fourth inflection point is driven by an era of connected devices, networks beyond VisaNet, payments and money flows beyond consumer payments, and as Al told you when we kicked off the day, Visa is no longer about enabling merchant payments, Visa is moving money.

Our goal today was to make tangible for you this next 10x growth opportunity that we see ahead of us, our strategy and tactics to capture this opportunity and to demonstrate the traction we already have on multiple fronts. I'll walk through the building blocks that we've been putting in place over the past five years, summarize the strategies and tactics we shared with you today, more importantly, translate them into the growth levers that we're actually pulling to drive revenue and earnings growth supported by disciplined capital allocation. We are delighted that since our last Investor Day, we have compounded revenue at 15%, EPS at 24% and shareholder returns at 29% and we remain committed to sustaining our track record of superior shareholder value creation.

Let's start with the building blocks. Over the past five years, we have been systematically assembling the building blocks required to capture the next 10x growth opportunity. First, we've substantially enhanced the capability of our network. Second, we have vastly expanded its reach. And third, we've enabled our partners to significantly increase the value they can derive from our network. And all these enhancements are built atop what is already a very strong foundation, a high-performing durable payments platform.

Our network can do vastly more today than it could do just five years ago. In terms of how money flows, money can flow both ways in our network, not just one way, from any endpoint to any node or any other endpoint, not just from a consumer to a merchant endpoint and from any credential to any credential, not just from one card credential to another card credential. This opens up a vast array of use cases we can now enable allowing us to go beyond C2B, which is all we did for the first 55 years of our history, to B2C, P2P, B2B and G2C from enabling consumer payments to moving money. But we've done far more than that.

A network with extraordinary capabilities is not as valuable if it is hard to access. Our network has never been faster, cheaper or easier to access. We can issue payment credentials instantly and set you up to accept payments in real-time as you heard from Jack. It has never been cheaper to access our network, any connected device can do it, no more expensive specialized hardware needed on landlines that may not even exist in many parts of the world. And you can get on anywhere with any form factor, we're ready today to enable the Internet of Things.

Ease of access is only one part of the equation. We want to make every transaction easy for our customers. Tap to pay and click to pay are drastically reducing friction in every transaction. With tokenization, authentication and chip cards, the security we offer has never been stronger even as we've made access and usage easy, two objectives that can often be at odds with each other. And what good is a network that is easy to access and use, if it does not work when you need it. Unmatched Five 9s availability built on redundant systems and data centers that follow the sun, as well as the continuing improvements in authorization rates, utilizing cutting edge AIML tools makes our network today more reliable than it has ever been.

As you can see, the Visa network of five years ago is a pale shadow of our network today in terms of capability, VisaNet is ready to move money. Even as VisaNet's capabilities have been enhanced, in the past year, we have put in place the building blocks to extend our reach well beyond VisaNet with our Network of Networks strategy. The acquisition of Earthport now allows us access to over 99% of bank accounts in 88 markets, 2x the reach of VisaNet by integrating in ACH and RTP networks as needed. As you heard from Bill today, we are poised to go live imminently.

We have made steady progress in persuading closed-loop networks, in particular wallets in emerging markets, that partnering with us is a win-win proposition. This has a potential to add almost 1 billion credentials and expands acceptance to another 65 million-plus merchants globally. And we are building an entirely new network, B2B Connect which is already operational and initially focused on tapping cross-border payment flows, but could extend to other use cases, should it make business sense in the future.

Our Network of Networks strategy allows us to mix and match rails as needed to get your money wherever you want it to go with the speed, the reliability and security only Visa can offer. The reach Visa can now offer is unmatched.

A network with the capabilities and the reach Visa offers can create value for our partners in ways no other network can. We have done a lot in the last few years to help our customers utilize our network even more intensively to grow their revenues and profits by offering them a range of value-added services that can be tailored to their unique needs. Our value-added services can help our partners scale faster, acquire customers cheaper, reduce operating expenses and delight their customers with innovative solutions. And as you heard from Melissa, when you are already connected to us, it's fast and easy and more cost effective to access these services through Visa than alternatives.

These revolutionary enhancements are built atop a high-performing durable platform in payments. When you partner with Visa, you have access to the Visa brand which is the most valuable, most trusted, best-known among consumers globally and, as Lynne showed you, can deliver superior results for our partners than any other alternative. You have access to the Visa technology platforms that offer the cost effectiveness that comes with massive scale and unmatched resiliency.

In the past few years, we've added substantial flexibility and intelligence as Al described. It brings you Visa security which is cutting edge, proactive, multi-layered and continuous, and to the deepest and most experienced talent pool when it comes to money movement expertise. It is a diverse group of 19,500 associates spread around the globe.

So, with the building blocks in place, what is our strategy to capture the next 10x growth opportunity? Our road to capture the next 10x growth opportunity has three broad lanes. Consumer payments, our traditional business of C2B payments. New flows that take us beyond payments to moving money from person to person, business to business, business to consumer and governments to consumer. And value-added services that help our partners maximize the value of our network to grow their businesses.

The pending acquisition of Plaid will accelerate progress along the current three lanes and will add a new suite of data-enabled services to our offerings. Plaid allows us to deepen our relationships with fintechs. Plaid brings with it developer-friendly DNA, a for developers by developers ethos, that will make us an even better partner to fintechs in our core business of consumer payments. By integrating payments with Plaid's current suite of connected services, by making account authentication fast and easy, Plaid will accelerate our new flows initiatives. By bundling in our security, identity and dispute resolution capabilities, we can enhance Plaid's service offerings while expanding the market for these services. Plaid can offer a best-in-class solution for open-banking markets. Plaid expands Visa's suite of products to a broad and growing range of data-enabled services for global financial institutions both established and new. Plaid will expand Visa's total addressable market and accelerate Visa's revenue growth trajectory in the long run. We look forward to closing on the transaction in the near future.

I'll quickly summarize our three-pronged strategy we spent most of the day walking you through, growing consumer payments, driving new flows and monetizing value-added services. As you heard from Ryan this morning, our core business of growing consumer payments remains an enormous growth opportunity. There is more cash and check we can digitize today than when we last met despite a significant increase in PCE penetration since then. E-commerce remains a massive cash digitization engine. A new wave of next-gen issuers are accelerating growth of payment credentials, bringing in the unbanked and weaning consumers away from the cash habit. It has never been cheaper or faster to build acceptance with a new generation of acquirers utilizing smart POS devices and wireless technologies. And finally, governments have made digitizing payments a priority as never before lending their heft to driving cash down.

As you heard from the Regional Presidents, the formula for growing consumer payments has remained unchanged in 60 years, while the tools and tactics have become significantly more sophisticated. And that formula is more consumers with payments credentials, more points of acceptance for those credentials and engaging consumers, so that they make most, if not all, their payments digitally. In each of the regional presentations this morning, you heard how we were doing all this, tailored by market and the significant traction we have on multiple fronts. The cash and check digitization engine remains very robust driving PCE penetration in every market around the world.

Even as our consumer payments engine continues to power ahead, we fired up another growth engine in the past five years. Driving new money flows will be a vital engine of our growth as we look ahead to the next decade. In terms of payment volume potential that is available for digitization, new flows could be 10x cash PCE. We like to think of new flows in two segments. These segments differ in terms of customers served, the business need, capabilities required to create value, the competitive alternatives available and so on. We have a tailored go-to-market strategy for each segment and significant traction on multiple fronts.

Visa Direct powers the $65 trillion money movement ecosystem. Visa Direct is commercializing the significant new capabilities our network can now offer that I described earlier. Moving money both ways from any endpoint to any endpoint, from any credential to any credential. Visa Direct is also operationalizing our Network of Networks strategy, mixing and matching Visa rails with ACH, RTT rails and connecting to closed-loop networks as needed to move money seamlessly wherever it needs to go. Visa Direct bundles in Visa security, fraud and dispute resolution services in a network agnostic way to deliver value to partners in ways no other network can. It's important to emphasize that Visa Direct is not a product like credit or debit. It is a platform that powers a very large set of use cases across P2P, B2C, B2b and G2C.

Partnerships are a force multiplier in our business and you can see this in action as we scale our Visa Direct capability through a significant number of new partnerships. Our partners are building platforms to serve a broad range of use cases. Visa Direct is a key enabler of these platforms and scales as they penetrate these markets. At our last Investor Day, Visa Direct was just getting off the mark with $11 billion in quarterly payments volumes. Today, we are at almost 7x that run rate in payments volumes with 2 billion transactions, a 130 million active users and 250 partners in 2019 alone. But this is only the beginning. Visa Direct has opened up a vast addressable market for Visa. Visa Direct will be powering our growth for many years to come.

There has been a lot of hype about B2B lately and not a lot of hard facts or tangible evidence or results to back it up. B2B represents a very large addressable market. We have a pragmatic strategy to attack it that is best described in three words, follow the money. There is a $120 trillion addressable PV of which three quarters is in large enterprise, domestic accounts receivables and accounts payables. However, for the foreseeable future, we think three quarters of the addressable revenue opportunity for us is in the first two categories, card-based solutions and cross-border payments for large enterprises. These two categories represent a much larger revenue opportunity because we have capabilities that can address specific needs, resolve pain points and create more value for our partners and customers than alternatives can. As such, we are competitively advantaged in providing these services and can earn good yields.

We see significant long-term opportunities in larger enterprise, domestic AR and AP, but the solution-set requires extending deeper into the AR/AP value chain, and at this point, the value propositions are still in an early stage of development.

Kevin walked you through our strategies in each category. We are the global leader in providing card-based solutions. This is a business with good yields and the untapped opportunity is almost on par with the untapped opportunity in consumer payments. As such, this is our first priority in B2B. We're expanding globally, accelerating acceptance, which is a key enabler of growth, and extending to new verticals.

Large enterprise cross-border payments is an under-served market where businesses are keenly interested in solutions that can offer them better security, reliability, speed, greater reach and richer data. B2B Connect can offer them all this, which is why we are very excited by the potential here. Once again, we are able to provide a superior solution and earn good yields. In the large enterprise domestic AR/AP segment, we have to extend beyond moving money to create value across the whole value chain. We're working with partners like Bottomline and Billtrust who will bring complementary capabilities to commercialize these solutions. This will take time, but we are certain we can develop exciting products for this segment.

Value-added services are the third prong of our growth strategy. Our goal with these services is to help our partners grow their revenues and profits by utilizing the unique capabilities of our network more intensively. In addition to driving more value to clients, these services deepen our relationships, differentiating Visa in ways that are difficult for competitors to replicate. And we have some unique advantages in providing these services, given our scale, our scope, the volume of transactions we process, the data we have as a result, as well as the convenience we offer by allowing clients to access all these capabilities with one connection.

You heard from Carleigh, Jack, Mary Kay and Melissa about the growth potential of some of these services. The runway for growth with our existing suite of services is long and we will continue to add to these services both through in-house development and acquisitions like Verifi, Fraedom and Bell ID.

So, how this growth strategy translates into revenue, earnings growth and shareholder value creation. What are our growth levers? As you all know, driving volume and revenue growth are at the core of value creation in our business. And this slide describes how we think about driving revenue growth. In our traditional business of consumer payments, we have three levers we can pull. The health of global economies drives consumer spending or PCE as we often refer to it. PCE generally grows in line with nominal GDP growth. This is driven by macroeconomic factors beyond our control or influence. Our ability to digitize cash or PCE penetration adds significant [ph] ballast (05:37:41) to this growth. PCE penetration gains are the reason why 4% to 5% nominal GDP growth has translated into 9% to 10% payments volume growth year-after-year. And as you heard through most of the day, the cash digitization engine remains as robust as ever. In fact, we believe it has never been easier to digitize cash than it is today for all the reasons we discussed. Driving PCE penetration has always been our first and most powerful lever.

Share gains are the second lever. We have always preferred to gain share by delivering superior results for our clients. Despite all the noise, share tends to be fairly stable in our business with small ebbs and flows from year-to-year.

The third lever is net pricing. This is a competitive business and there is a market clearing price for every deal. We focus on pricing for the value we deliver while ensuring we stay competitive. Yields are driven not just by pricing we might take, but also by changes in our business mix and, of course, the level of competition.

These are the traditional three levers we have used to grow our business. Over the past five years, two additional levers have become very important drivers of our growth. New flows which take us well beyond payments into moving money across a very large number of use cases we have discussed today and value-added services which allow our clients to derive more value from our network. As you will see, these are powerful new levers that will help sustain double-digit revenue growth for a long time to come.

So, what has been the contribution of each of these levers to our growth. As we have ramped Visa Direct, stepped up B2B growth and expanded our suite of value-added services, new flows and value-added services have grown significantly faster than consumer payments. New flows and value-added services contributed to a third of our revenue growth since 2017. In our consumer payments business, cash digitization drove two-thirds of the growth. When you put this all together, we got a little under half our growth from our consumer payments cash digitization engine and a third from the two new engines. New flows digitization and value-added services, given their relative growth rates, we're not far from a time when the new engines will contribute to our growth as much as our traditional engine.

On this slide, we demonstrate how the growth engines will help us sustain and even accelerate long-term revenue growth. First, the new flows and value-added services grew 1.7 times faster than consumer payments over the last couple of years. And this growth rate is accelerating as Visa Direct and newer value-added services become a larger part of the mix. In fact, in fiscal year 2020, we expect new flows and value-added services to grow twice as fast as consumer payments. Second, as each year goes by, the new engines become a larger part of our revenue base which makes their higher growth even more impactful. In other words, the faster-growing businesses have a larger impact over time and therefore can lift the overall growth of the company even more than they do today.

As you can see on the chart in the middle, if consumer payments growth is sustained at 10% and growth of new engines accelerates a bit to 18%, overall Visa growth rates climb to the upper end of the low double-digit range, and by 2023, the new engines are over 30% of our revenue base. Hopefully, this helps you understand how the growth strategy translates into revenue growth and the levers that will drive it, and why we feel confident that the revenue growth rates you've come to expect can be sustained and perhaps even accelerated over time.

Moving now to the next lever, operating leverage. As you all know, this is a business where scale matters a lot. As volumes grow, costs do not grow at anywhere near the same rate. We do not have any significant cost of goods sold like many other businesses. The incremental transaction comes with little incremental cost. Our fixed cost base does grow with inflation in wages and the goods and services we buy. Every year, we focus hard on offsetting as much of this inflation as we can through productivity initiatives and better procurement. As such, our business offers significant operating leverage. Each year, we reinvest some of that operating leverage back into the business to build capability across the enterprise. These are incremental investments in people, development of new services, development of new VisaNet capabilities, in go-to-market resources and marketing et cetera. These are expense per the accounting rules even though most of these investments in the future are investments in the future with no immediate payback.

This slide gives you a sense of how we are deploying our resources. As you may expect, the vast majority of our cost base is deployed in three broad areas; technology, go-to-market capabilities and brand. In the past couple of years, our incremental P&L investments have been spread roughly evenly between reinvesting in our core business of payments, investment in expanding, enhancing our value-added services, investments in driving new flows through the Visa Direct and B2B initiatives we shared with you today, and finally on continuing to enhance our foundation; our technology platform, our brand, our security and our talent.

In the chart on the right, you can see how this all comes together. Scale offers significant operating leverage. Productivity largely offsets inflation in our fixed costs and we are reinvesting at a healthy level to drive long-term growth. There is a 10x growth opportunity ahead of us and we're stepping up investments to capture this opportunity. This has driven higher expense growth for the past few years and will for the foreseeable future. We think these investments offer extraordinary long term returns for our investors and are vital to ensure our growth is sustained for a long time to come.

EPS growth is driven by both operating levers and financial levers. Over the past decade, operating levels have contributed over three quarters of Visa's EPS growth and these charts demonstrates what I've said earlier and you all know. Revenue growth is the single largest driver of value in our business.

Over this period, EPS would have grown 16% just from pulling the operating levers. Financial levers namely lower tax rates and stock buybacks added 5 additional points to EPS growth. This gives you a sense of the relative contribution of the levers that will drive EPS growth into the future. As we look ahead, given where our tax rates are today and the impact of US tax reform, tax rates may not contribute as much to EPS growth as they may have in the past.

However, we have extraordinary revenue growth opportunities. This business continues to offer significant operating leverage. And our cash generation remains robust. As such, we are confident we can continue to deliver the EPS growth you've come to expect from us. Driving revenue and earnings growth is one component of the shareholder value creation equation, prudent capital allocation is the other critical component. What are our capital allocation priorities?

Our capital allocation priorities are largely unchanged since our last Investor Day. Our first priority is to invest in our core business. We have an extraordinary business with extraordinary growth opportunities that offer extraordinary returns, investing at the appropriate level on the right set of priorities is clearly job one. Our business has great cash flow. Each year we return between 20% to 25% of our EPS to you, our shareholders, through our dividend. Our dividend has grown at a healthy clip in line with our EPs growth. We have returned excess cash through buybacks which are largely programmatic with small adjustments based on market conditions. Our stock price appreciation over the years has offered a great return on our buyback program. And finally, we do all this while adhering to the parameters we've established for our capital structure.

Many of you asked what is our approach to acquisitions and investments. Here is a quick summary. Core capabilities are capabilities we believe we need to own. There are two avenues to get there, to build or to buy. We use three criteria to determine whether we should build or buy. If it is cheaper or faster to buy, then an acquisition makes sense if it can be done on the right terms. Sometimes acquisition of key talent could be a critical factor along with speed or cost. Our clear preference is to build and by and large that is how we develop core capabilities. With more time, we could walk through each of the acquisitions we have done and explain how we assess them on these criteria. We do not have a budget allocated for acquisitions nor have we adopted a new strategy to do more acquisitions. What we buy and how much we spend on acquisitions in the future will depend on applying these criteria. And as we've told you before it is our intent to fund acquisitions through issuance of additional debt.

Moving to minority investments. Our business is built on partnerships. Partnerships are a force multiplier for us. Partners bring us complementary capabilities we do not have. In a few unique situations if an investment allows a partner to scale faster or helps us build a deeper partnership to jointly develop products or go to market together or facilitate a better commercial agreement or offers the company we think could be valuable to our ecosystem a visible signal of our support, we will consider minority investments. We only invest in a small fraction of the companies we partner with. Fortunately, we've picked well so far, as you have seen many of our investments have had great returns. Over the past three years, we've invested $2.2 billion in capital cumulatively on internal development of new capabilities. Around $2 billion on acquisitions and investments and another $1.5 billion in incremental P&L investments over and above what is already embedded in our expense base. You're familiar with our recent acquisitions. We hope to add Plaid to the list soon.

In terms of equity investments, we've invested around $200 million across 33 companies in the past three years. We have also made larger investments in BillDesk in India, Gojek in Indonesia and soon Interswitch in Nigeria.

Over the past three years, we have paid out $6 billion in dividends and returned $23 billion back to shareholders through stock buybacks. We've done all this while adhering to the capital structure parameters we laid out when we did our maiden debt issuance post the Europe acquisition. As our EBITDA has grown we are now below the lower end of our target gross debt to EBITDA range. We will be issuing additional debt to fund the Plaid acquisition in the near future.

We have a comfortable debt maturity schedule and we maintain sufficient cash on hand at all times to backstop our clearing and settlement operations globally. The cash backstop required grows as you would expect with the scale of our business.

We know we have an enviable track record of shareholder value creation since the IPO. We hope after what you have heard today you have the same conviction as we have that we can sustain this track record.

So to finish up, the building blocks are in place to capture the next 10x growth opportunity. There were three-prong growth strategy build atop a powerful foundation supported by disciplined capital allocation. We're well positioned to sustain superior revenue EPS growth and shareholder value creation.

Thank you.

I'm now going to invite Al, Ryan and Mike to join me for the Q&A session.

QUESTION AND ANSWER SECTION

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

So we're going to take questions for about 30 minutes. And after the questions Al will just finish up with a couple of closing remarks. So if you'd like to ask a question please raise your hand. And when I call on you someone will bring you a microphone, introduce yourself and go ahead and ask your question.

Donald Fandetti
Analyst, Wells Fargo Securities LLC

Q

Hi. It's Don Fandetti with Wells Fargo here. Thanks for all the detailed Investor Day today, it was very helpful. I had a question, just a housekeeping item. Al, I know Mastercard announced some update with China. I didn't know if you had any news on that. And then I had a follow-up question on – B2B Connect looks like an area where you could get some of the most rapid penetration, but I was just curious someone's got to lose out on that. I would imagine and so how did the big money center banks think about that. Are there some offsets for them?

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Let me tackle the China question, I'll let Ryan handle the B2B. So, I think the development this morning is terrific. I think that it shows that the Chinese are going to live up to their commitments, the US-China trade deal, very uniquely named Visa and Mastercard in it. It committed to opening the market for EPS systems. And so the fact that Mastercard get the ability to kind of proceed is a positive development. We continue to work very closely with the Chinese government on our application, and I expect fairly soon that similar news will come from us. So, we feel good about it.

Ryan McInerney
President, Visa, Inc.

A

And we are excited about B2B Connect and the big money center banks we expect to be some of our most important partners. As Kevin said he and myself and Al and others have been traveling around the world meeting with the leaders of many of the banks that might be in your mind, and they're excited about the platform, they want to participate with the platform largely because it's an opportunity for them to do what they do, but do it more efficiently, do it more effectively and deliver better solutions to their customers.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

Next question. Maybe David [indiscernible] (05:53:57).

David Mark Togut
Analyst, Evercore ISI

Q

Thank you. David Togut with Evercore ISI. Can you dimension for us what the impact of the growth of these new payment flows might be over the next few years in terms of helping us think about revenue yields or margins? And then my follow-up question is on the role of the merchant acquirers in this new B2B world. Obviously, they're central to your growth in the C2B business. I think Kevin Phalen touched on or mentioned FIS in terms of its role with B2B Connect, but what role will the merchant acquirers play as you build out your B2B business, in particular B2B Connect?

Kevin Phalen
Senior Vice President & Global Head-Visa Business Solutions, Visa, Inc.

A

Let me tackle first question first and again maybe you want to take the second one. We gave you a lot of seeds during the presentation relative to the impact of new flows in value-added services. We talked about 17% growth. We talked about 20% growth this year. We talked about it being 23% of our revenue today. We had a slide with a target that showed the target going to 30% by 2024. So clearly, it's going to be an area where it's going to grow, and we specifically said it will go faster than our core consumer payments.

As for – and revenue will come along. As for the revenue and margin dynamics of it, we've got a mix – when you think about new flows in value-added services, a mix of products there. We've got very, very longstanding established products like DPS or debit processing or we've got our fraud and authentication models that have been around for quite a while. But we also have things that are new, like Visa Direct, where we're going to continue to explore in many cases introductory-level pricing. But as again you saw in what Bill went through, a number of use cases that are going to be increasingly cross-border which tend to be higher yield.

If you look at the B2B area, there's a combination in what Kevin went through. So we've been in the B2B business on the card side for a long time. You saw today that we're by far the market leader. We've got a [indiscernible] (05:56:14) in B2B on the carded outside and that gets very good attractive returns. We're get to play with the economics of B2B Connect. Our hope is and our philosophy on these things is to kind of it's very important to build the scale first and prove out the value and then we'll price to value as we move along.

Ryan McInerney
President, Visa, Inc.

A

As it relates to acquirers and B2B, I think one of the themes that hopefully you saw run through everything we talked about today is the importance of partners to our business model. And in B2B, that's absolutely the case as well. If we go through the three segments that Kevin walked through, in the carded space, that $20 trillion of opportunity building off the $1 trillion that we have today, merchant acquirers will be a huge and very important partner of a lot of the things that Kevin talked about, expanding acceptance, digitizing the business, so on and so forth.

In the B2B Connect space, the banks will be a very, very important partner, as well as a lot of the other enablers that Kevin described. Bottomline I think was one of the examples that he gave. And then finally in the AR and AP space, they are too a very partner-based strategy. We talked about CSI and Bottomline and many of the other partners as well. So it's a very important part of each element of our business and we're really, really thrilled to partner with all the great partners we have.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

The one last point I'd make is CyberSource which Carleigh talked about is a tool that we make available to a number of acquirers and in fact a lot of acquirers find it very, very useful addition to their tool set that they don't have and we believe that we have the best-in-class option to make available to them.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

Dan?

Dan Dolev
Analyst, Macquarie Capital (USA), Inc.

Q

Thanks. Dan Dolev, Macquarie. So, obviously, cross-border is a huge opportunity and a huge revenue for you right now. How do you address the increased connectivity between digital wallets globally? Is that a threat or an opportunity and what do you do to remedy that? Thank you.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Well, I'll start and Ryan can jump in here as well. Look, I think that as we're trying now to simply be known as the best way to move money globally for everyone everywhere, in some ways, we're trying to shrink the world a bit by making it easier for people in different markets to move money in a whole host of use cases. We talked about probably through the course of today upwards of 10 different use cases and I think we're only beginning to scratch the surface in terms of what we'll be able to do. So I see cross-border being very central to a lot of the activities that we're going to do in new flows similar to what it has been for us in the core consumer business.

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.

A

I might add a couple of things. You've heard us say, some of you heard us say for a couple of years that the wallets are our partners, even though they may not know it yet, and the big development that has happened in the last year is that they have in fact decided that partnering with us is what as what, as Ryan described, a win-win-win proposition. So what is happening is you're going to find our credentials in a lot of wallets around the world. So that's step one and that allows you access through our own credentials to those wallets.

The second step is the creation of the network of networks through Earthport in particular that allows us now to go beyond just credentials in the wallet that are ours to any credential in the wallet or even the bank account. And then the third step is what Visa Direct is doing, which is fundamentally moving money any way you want and is already equipped right now to send money in real-time. Just as people are trying to build real-time networks, we already have one. So, we've got all the building blocks in place and that will be a very important long term opportunity. Remember that remittances are a larger money flow than FDI and we are not in it right now at all other than in the last few months and in the last year as Visa Direct has gone into it.

Ashwin Vassant Shirvaikar
Analyst, Citigroup Global Markets, Inc.

Q

Ashwin Shirvaikar from Citi. Price optimization, it's not a new thing for you guys in the core consumer payment business. Can you maybe provide some views on how pricing models might evolve in the newer flows? That's the question.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Thoughtfully. I think as I said earlier, we are going to make sure that we build scale as quickly as we can. And our view, which might be overly simplistic or fundamental, is that we price to the value that we bring. Our hope too is that as we get into more of these flows, it allows us to go to the third element of accelerating revenue, which it allows us to then participate in selling value-added services into all of those flows that we get. So, in many ways, we'll look at the holistic economics of what we can create from this three-pronged growth in revenue strategy that we laid out today.

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.

A

I can add a couple of other things to that. In our traditional business, of course, you have the concept of interchange. In some of the new flows, you don't have the concept of interchange. So pricing is often driven by interchange in the payments business. In the payments business, you often have the acquirer. In some of the new flows, you have different intermediaries.

There are new pricing models that will emerge because when you talk about higher value flows, you may not be pricing in basis points. You may be pricing in dollars per transaction. So fundamentally, the rules don't change. Your price based on the value you create and you price based on the alternatives available, and to some degree, your price based on your cost. And the pricing is going to be very diverse and it won't be very sort of same kind of structure as we have in let's say debit or credit. It's going to be quite different.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

Lisa?

Lisa D. Ellis
Analyst, MoffettNathanson LLC

Q

Lisa Ellis from MoffettNathanson. Al, when you review the strategy that your team outlined over the last few hours, what do you see as the biggest risks and what steps are you taking to address those risks?

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Well, I think the biggest risk, though, is come down to making sure that we have assigned the right level of people and the right people to all of these various tasks and that we get the balance right between those three different dimensions, because we don't want to be successful on one and not on two or successful on two and not on the third. So making sure that we're allocating the people in the right way and we're allocating the rest of the investment dollars that you see built into our P&L.

I feel good about the fact that I think from an execution standpoint that we know what we need to do. We've been doing an awful lot of internal education with our own people on all of these various new flows and value-added services. We want to make sure that we don't want to create new accountings, we want the same people who service bank A or fintech A today to be able to serve them and talk about value-added services, talk about new flows and talk about Plaid. We want those folks to be the same single face or the same single team facing off with those various clients and talking about all of these various elements that I think that's going to help us make sure that we minimize the execution risk associated with this by not splintering our interactions with our clients.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

[ph] Yeah (06:04:06) go ahead.

James E. Friedman
Analyst, Susquehanna Financial Group LLLP

Q

Thanks, Mike. It's Jamie at Susquehanna. Bill Sheley had a slide on Visa Direct that showed it growing 2x that of Visa Debit and the language he used was at the same time and Visa Debit's life cycle. Could you dimensionalize that for us like what – I mean obviously Visa Debit worked out. So how should we proportionalize where that may be headed in terms of Visa Direct.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.
A

Well. I'll start and Ryan please add or delete or change. We are thrilled with where both are I mean we're nine years past Durbin where lots of people nine years ago would have questioned where the Debit business would be in the US and the Debit business continues to be thriving and doing quite well. I think the Visa Direct growth is a testament to not only Bill and his team and how much they've puzzled and our technology team, and how much they build such great capabilities, but it also shows this pent up demand for the various use cases that we've opened up through this PUSH Payments platform that people have adapted to.

So the fact that there are disbursements that we're doing as well as remittances as well as P2P all of these various use cases are creating kind of this multiplier effect for Visa Direct that I think has propelled its tremendous growth versus where we started from where the growth curve that we saw in Debit.

Ryan McInerney
President, Visa, Inc.
A

I guess the only point I would add is what Bill was trying to emphasize there to your point Visa Direct has been a great success story. If you go back and you look at the adoption curve and the growth curve on a like-to-like basis so far Visa Direct is growing even faster. And so, we're off to a very good start with that platform as well and hopefully with a lot of great hard work from all of our teams we'll be able to continue to grow and scale it even faster paces.

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.
A

And I think it's worth repeating one thing we keep repeating all the time is that the Visa Direct is not a product, as Al said it's a platform. And so, Debit was a phenomenal solution for a very, very, very large use case. But as Visa Direct is serving many very large use cases so the opportunity set is, as Al said, much broader and that's why you see the trajectory.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.
A

Okay. Darrin?

Darrin Peller
Analyst, Wolfe Research LLC
Q

All right. Thanks guys. It's Darrin from Wolfe. I just – look I mean, I want to hone in on some of these new data points, it's great to hear there's revenue acceleration expected now from these new initiatives. When we think about the 1 billion new users potentially from these partnerships, the network of network approach on a top of 3 billion you have that's an enormous number. So I'll be curious to hear what you really think is the traction you can have with some of these users from Paytm and others? And what kind of cross-border volume that can contribute?

And then just one quick follow-up for Vasant, when we think about the acceleration you also have – you've done a lot of incentives and a lot of renewals. So you have acceleration coming from all this mix shift to better stuff right now. You should also I think have a better year-over-year type of growth in your incentives and rebates in the next couple of years. So, is that acceleration factoring that in we have a little more in the next couple of years and even just the...?

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

I'll let Ryan take the first one and then...

Darrin Peller
Analyst, Wolfe Research LLC

Q

Thanks guys.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

...Vasant will deal with second one.

Ryan McInerney
President, Visa, Inc.

A

Yeah. Sure, I'll start by reiterating what I said earlier which is I think it's one of the most important things that's happened in payments in the last several years, which is the opening up of these previously closed digital ecosystems all around the world. And to answer your question directly we think there is tremendous potential. A little bit of the theme that you've seen consistently from these digital ecosystems around the world whether it's Paytm or Gojek or Lion or Rapi, or others is that they get to a point in their evolution, when it's the smartest thing for them in their business and the smartest thing for them and their users is to partner with Visa, because they want to continue to add value to their users.

And how do they do that? Well, at first they do it in their own delivery ecosystem or in their own small merchant ecosystem, but their users want to use their wallets to buy things even where Paytm or Lion might not have acceptance. They want to engage in eCommerce globally. They effectively want to be able to buy anywhere Visa is accepted. And so it's been a great opportunity for them to think about how do we partner together, issue credentials into a potential 1 billion users around the world and we hope to continue to grow. There's a number of additional digital ecosystems around the world that we hope to trade partnerships with as well. And then what they also realize is it's a great opportunity for their sellers to be able to bring 3.4 billion buyers around the world into their seller ecosystem grow the value proposition to their sellers and effectively drive the flywheel that's driven commerce in many markets around the world. So we're very excited by it.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Before you answer the question [ph] I understand it (06:09:33), Oliver – this is another point about open global systems, Oliver talked about the MCA, despite where contactless cards are in the US, it's very early, early days, one of the most amazing statistics was in the first month of the NPA opening up for tap to pay they had transactions from 80 different countries, because people from around the world were able to come into New York City, ride the subway and they were used to tapping. And they saw that and the NPA would also tell you that it's going to be better for their customers and [ph] they save (06:10:10) a heck of a lot of money moving from what today is a closed-loop system to working with an interoperable open global set of networks. Do want to tackle the incentive question..

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.

A

Sure. I mean, your question was more about revenue growth acceleration, the first part of it is math as we went through, which is we – as we look at the growth trajectory of Visa Direct and the newer value-added services and some of what is going on in B2B, we fully expect them to grow much faster than the consumer payments business and as their weight grows that will help. The second part on incentives is some math and some competition, right the math part of it is, yes, we've had a lot of renewals. And we have more this year than we may have thought even October. And as we get to the second half of next year you would expect the impact of renewal activity would slow down and there's no reason why that's not the case. As to what the future trajectory of incentives is, we don't entirely control, it is marketplace conditions and we want to be competitive, there is a market clearing price for deal. We've always wanted incentives to slow down or even reverse. But we also have to stay competitive.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

Next question [ph] back, right (06:11:16).

Robert Napoli
Analyst, William Blair & Co. LLC

Q

Bob Napoli from William Blair. Thank you. Great presentation today really, really good information. Appreciate it. Just on the B2B business, looking at the mix of volume versus the revenue generation, how sustainable the profitability is very high on cross-border and on virtual card I would guess and just your thoughts on the sustainability, we see high revenue growth out of some of the other B2B payments on the international side.

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.

A

On the B2B side, there's clearly – as – the cross-border side is still early days and there's clear opportunity for disruption. It's just partly why we're doing B2B Connect. So I wouldn't say on the – clearly the virtual card OTA side has been further along and better developed that is probably going to be more competition there, no question about that. But as you look at the other use cases that you saw Kevin walked through those are largely un-served by people like us. And they require unique solutions which is why we built a whole new network to serve them that they're very disruptive. And they're really coming in with something that we think is a better mousetrap that should be a very attractive business. And frankly there's no alternatives right now in that business.

Robert Napoli
Analyst, William Blair & Co. LLC

Q

Okay. Thank you.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

[indiscernible] (06:12:39) go ahead Tien-Tsin. [indiscernible] (06:12:42).

Tien-Tsin Huang
Analyst, JPMorgan Securities LLC

Q

Yeah. Thanks for the presentations. It's helpful. A couple of questions if you don't mind, just thinking about the network of networks strategy makes sense, it increases the pie, everything else, but how do you weigh the risk of it having some influence or impact on your traditional yields and your traditional volume to the extent that there's some benchmarking and more alternatives that are created by the success of network of networks. And then my second question is also somewhat related just with nationalism and connected to some of these national schemes. I'm curious if the pendulum swung in any way to maybe make a little bit more favorable than it was the last time we were here. I heard Chinese just commented on that. Then we hear some news about Australia maybe going in different direction. Can you give us an update on that?

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Well, I think on the network of networks, I said this morning to Tien-Tsin that we still believe of all of our networks VisaNet is kind of the premier. And the capabilities based on the investments that we've made in VisaNet over the years, I think, will continue to make it a very attractive option in our traditional business, and we will continue to invest in it and make it the best that it possibly can be.

On the question on nationalism, yeah, it does seem like there's a little bit more of it today, but it's really not new. There's leaders that feel as if they should do what's right for their citizens and to them that means kind of try to create things that happen simply within their borders. I think what we have been doing and will continue to do is, number one, work very closely talking to regulators, central bankers and governments about the power of global interoperable networks, what we bring to the table, why it's good for them in terms of the innovation and capabilities that we can bring to their countries and then we're going to have to adopt where we have to adopt. I mean if somebody takes a particular point of view and puts a particular law or regulation in place, that's not something we control, we're going to have to work with it and figure out how to make the best of our business in that market.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

A

Bryan?

Bryan C. Keane
Analyst, Deutsche Bank Securities, Inc.

Q

Hi. It's Bryan Keane, Deutsche Bank. Ryan, when you talk about the role of RTP, and we agree that there isn't much revenue opportunity in the infrastructure, but a lot of players would argue that you need the infrastructure in order to get the services. And you said that's not entirely true. Maybe you can just expand on why that isn't true.

And then the second question, just on B2B Connect, when you compare it to some of the competitors, what differentiates it, is it Earthport that makes the big differentiator there?

Ryan McInerney
President, Visa, Inc.

A

Let me take the second one first, and then do the first one. No, what differentiates B2B Connect is that it's been built from the ground up with an entirely different way of enabling these payments. That chart that Kevin showed I think moving from bilateral connections to a fully integrated capability that can reach anybody on the planet, it allows these high-value cross-border payments to be done much more quickly, much more transparent, with much better data payloads so that people really understand, like Kevin was explaining, where the painting is, when it's gotten there and importantly how much to pay for it, which we believe will be a lot less expensive.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

In fact, the Earthport network won't be used in B2B Connect.

Ryan McInerney
President, Visa, Inc.

A

On the first piece, hopefully, you got the sense today. We are very involved in real-time payments, built to get through all the different use cases that Visa Direct is enabling at scale all around the world. I mean that is that is real-time payments happening today with multiple different use cases with high value-added transactions that we don't think anybody on the planet has things that can compete with.

As it relates to the domestic RTP capabilities that have been built and are being built around the world, as I said, our experience engaging with a lot of these players around the world is that we're having very good conversations about our ability to add value in the applications layer, and Plaid will be a great example here. I mean look at what the Plaid team has built, right? They're not an RTP player and they have the biggest app skillset of connections in the applications layer of anybody that's out there.

And if you look at through the services that we've been able to both build and buy through acquisitions, whether it's tokenization capabilities via Bell ID, the capabilities that we've gotten from Cardinal and Verifi to provide authentication and dispute services, our experience has been and our belief is that we're going to be able to play a very meaningful role in those two layers going forward.

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.

A

Yeah. I want to add a couple of things. The idea of that building the infrastructure allows you some kind of ability or advantage to provide the other services is a hypothesis. That in every situation that live situation we've been involved in has proven to be wrong. So think about the Black Swan, until we see the Black Swan, it doesn't exist, but we'll keep looking. The second component and I think, if you poll this room, we'll get the wrong answer. Ryan said it. I think it's important to emphasize it, building – being the software developer in a build and transfer situations for these RTP networks never has made anybody an owner.

We don't know of any situation where the builder, a third-party builder, the government may have built it for themselves or the bank may have – bank consortium, but a third-party builder of these infrastructures has never been the owner. It's a build and transfer, maybe in some cases a build and operate, but you'll never own it and that is a serious misunderstanding that exists in this room too.

Ryan McInerney
President, Visa, Inc.

A

And when you operate, you don't set the price.

Vasant M. Prabhu
Vice Chairman & Chief Financial Officer, Visa, Inc.

A

Right. And it's open to everyone at a regulated price. It is not like a Visa network. Visa network, Visa is a proprietary network. We own it. You only can let – you can only use Visa if you are a member of our network. B2B Connect is a proprietary network that is not a single RTP network that we're aware of where the entity that built it or even operates it owns it.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.
A

Go ahead.

Ramsey El-Assal
Analyst, Barclays Capital, Inc.
Q

Hi. Ramsey El-Assal from Barclays. I wanted to ask about interchange. You made some changes recently to your interchange rates. I guess, first, what was the logic and rationale behind those changes? And then, second, in light of what we've been hearing about you know new flows and fintechs, what is – there is a big question of where does the future of interchange in terms of how it may evolve over time? And then just a quick bolt-on is, any latest thoughts on the coronavirus?

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.
A

All right.

Ramsey El-Assal
Analyst, Barclays Capital, Inc.
Q

I snuck that one in.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.
A

Okay. The coronavirus, too early to tell, but if planes are not flying in and out of China, if hotels are not being filled which they're not at the moment, and if the supply chains are being impacted which I suspect they are, there's going to be some impact. It's just going to depend on how long this goes on. And because of the timing of Chinese New Year being earlier this year on January 25 than it was last year on February 5 or 6, I forget, it's hard to even tell in our numbers, because Chinese New Year by itself creates some noise.

Interchange is this wonderful chore that we have to set in this two-sided market. Our objective any time we look at interchange is very simple. We want to be able to grow the number of credentials and grow the number of acceptance points to make the networks stronger. We have no incentive to price interchange too high or price interchange too low. Our only incentive is to optimize this balance so that the network gets stronger. We look at it from time to time, we just made a number of changes in this timeframe. We looked at how commerce is changing. The huge number of small ticket micro transactions, what's the difference between paying for a cab inside a Yellow Cab versus paying for it in and out for Lyft or Uber, those kinds of things – or for that matter, what's the difference between QSR or DoorDash.

And so, we kept mind those kinds of factors that are going on – those dynamics that are going on in commerce, when we changed the pricing. And net-net, some prices came down, some prices went up and some freight, quite frankly, worked out in different industries to be somewhat neutral. And as you probably know, it's extraordinarily complicated, because on top of this, there's different pricing for different industries and there're different pricing for card present versus card not present, there's different pricing for the different types of products we offer the size of the entity, et cetera. So, it's not the most fun task that we have, but it's an important task because we do want to make sure we make the network better.

Now, your middle question was...

Ramsey El-Assal
Analyst, Barclays Capital, Inc.

Q

I think you covered it.

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

A

Okay.

Mike Milotich
Senior Vice President-Investor Relations, Visa, Inc.

Do you want to wrap up, Al?

Alfred F. Kelly, Jr
Chairman & Chief Executive Officer, Visa, Inc.

Yes. So, I am going to now show you slide 263, and happily the last one for all of you, but if you can see here, if I was to summarize what we've said to you in five points, these would be the points. That our heritage, our core consumer payments has much, much to go in terms of growth. And I think that the five regional presidents did a very, very good job of laying that out.

Number two, we really believe that the addressable market we have driven by new flows and extending in these new flows, is going to give us significant upside. Remember that these new flows, we size them at 10 times the consumer payment opportunity. And I just finished saying how significant we believe that is. Third point is that, we really believe that uniquely this network of networks that we have and continue to build out is going to be critical and it's going to be a differentiator in our ability to move money for everyone, everywhere.

Fourthly, we have spent a lot of years building value-added services. We said today that we're earning $3.5 billion from value-added services. And we believe we're only scratching the surface. We are committed through acquisitions as well as building to continue to be able to sell value-add services. Yes, because it helps drive revenue, but very importantly, because it helps embed us deeper with our clients and that's going to help us in all aspects of our relationship with our clients.

And lastly, this company and its heritage is based on these four extraordinarily important foundational elements. Our technology, our brand, our incredible unrelenting commitment to security and talent and making sure that we get the best people we can. We deploy them in the right places. We train them as much as we possibly can. We make sure that we're developing and growing them and giving them every opportunity to succeed and want to stay with us over time, because the longer they stay the more knowledgeable they become, the more familiar they become to our clients, the more our clients depend on them. So our talent is extraordinarily important to us.

So, those five things summarize what we hope over the last six and a half hours we had shared with you. We hope that we have provided you with a lot of really good material. I want to thank our IR team, Mike Milotich and Andrea and Jennifer Como, who really did a wonderful job pulling this all together, and thank you for your time.