

Cognizant[®]



**The Future of
Banking &
Financial Services**

The future of banking & financial services offers a world of opportunities, but this transformation will require substantial steps and boldness. The industry needs to be open to new insights instead of being mentally closed by the existing ones.

Each industry has its own challenges, and digital disruption is everywhere. Organizations must be agile and build new momentum that respects the new reality of their industry. Remaining relevant requires adaptation to changes not only today, but also tomorrow. Change is the only constant. Constant change demands scenario-based thinking, exploring several paths and crafting a digital strategy based on preparing for the future. For businesses to stay relevant, they need to explore the future and look at next generations.

No one can predict the future; organizations must actively explore various possible futures to anticipate what disruptions are coming. We believe that future winners in the digital economy will be those that can deliver on one key insight: put technology in the background, and focus on people first. Putting customers first does not diminish technology's importance; rather, a deep customer understanding should help guide the choice of which technologies to incorporate in your business.

Cognizant can bring together digital strategy, deep industry knowledge, human sciences, experience design and technology expertise to help companies design, build and scale digital business solutions. Cognizant has both the expertise and experience with digital transformation. Together with clients we can explore tomorrow's opportunities.

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Center for
The Future of Work

A view by Cognizant's Center for the Future of Work

Meet the customer of the future

Euan Davis leads Cognizant's Center for the Future of Work in EMEA. A respected speaker and thinker, Euan has guided many Fortune 500 companies into the future of work with his thought provoking research and advisory skills.

Within Cognizant's Center for the Future of Work, he helps ensure that the unit's original research and analysis jibes with emerging business-technology trends and dynamics in Europe, and collaborates with a wide range of leading thinkers to understand how the future of work will look. Previously, Euan held senior analyst, advisory and leadership positions at Forrester Research, IDC and CEB. Euan can be reached at: Euan.Davis@cognizant.com

John grabs his phone and heads out of the house. The door of the shared car on the corner opens automatically and drives him to the local high school where he's speaking to his nephew's history class. He laughs at their wide-eyed stares as he tells them about banking tellers, wallets and paper currency. Later that day, he test-drives one of the latest self-driving cars.

As he leaves, his phone sends a push notification offering him financing options tailor made to his financial position. On the way home, he stops in at the local super-market to pick up food for dinner. He fills his basket and walks out of the store. His receipt appears in his email or as a text as he exits. When he accepts an incoming reservation for a black-tie charity event, he immediately gets advice about the right amount to donate, based on his current income.

Quick take

Post COVID-19 impact

Banks came into the coronavirus pandemic much stronger than they went into the global financial crisis, however the impact from the coming economic decline could still severely stress the majority of the banking industry.

However, there is a silver lining, this crisis could well prove to be the push needed for banks to pull the plug on wide scale digital rollouts. From chatbots to pre-emptive highly personalised financing, banks will now need to utilise an increasing number of digital technologies to cope with demand, boost revenues and deal with a remote workforce. The banking customer of 2025 will expect a fully personalised digital experience and the COVID crisis could well be the catalyst to make that happen.



A scene from a futuristic movie? Not at all. Fintechs and leading banks are currently rethinking how they bring value to their consumers. This example could well be an indication of what banking and financial services will look like by 2025 – at least, for providers that want to stay relevant.

Avoiding oblivion

It's no secret that banks and financial services institutions have taken a few major hits in recent years, from the 2008 financial crisis to the hacking of numerous banks, customer data over the last two years. Banks are working to regain customer trust and remain relevant for the future. But "relevant" will look quite different five or 10 years from now.

Today, banks are using a multi-channel approach to reach customers. From web banking to mobile phone payments, and from self-service kiosks to videoconferencing, financial institutions are striving to keep up with the increasing pace of change. But more changes are coming, and with the number of brick-and-mortar bank buildings already dwindling, it's becoming clear that the most relevant banks of the future won't be banks at all.

A cashless, bank-less future

Today's consumers are looking to simplify and streamline their financial interactions, and banks that serve these desires will gain their trust and respect. The influence of digital natives is enlightening people to the possibilities of mobile transactions,

and services like WeChat and AmazonGo are capturing the attention of millennials on the go. They love the high-tech, no-hassle convenience of having everything in one place, with seamless connection to their finances. They love having as much of their lives stored in their phones as possible. And they're not so crazy about that bulky wallet messing up the silhouette of their skinny jeans.

It only makes sense for financial institutions to focus on technology, partnerships and services that make finance as simple, convenient and streamlined as it can be. Already this is playing out, with incumbent banks partnering with fintechs to drive improved customer service. An example is Santander partnering with Ripple to develop a blockchain-enabled payment system. How far will it go? Think of cashless societies, think boundary-less payments, and preemptive finance when we most need it.

Ultimately, our finance institutions could well become a seamless part of people's lives, which are seldom noticed but always there. This could well become the norm in the next five years.

Make customers feel more secure in their financial choices.

Fewer bricks, more weight

As everyday activities become more on-demand, customers will seek solutions that fully integrate everything into a single, multi-purpose platform. They will expect a one-stop app that manages money, credit, insurance, income and expenditures in a simple, streamlined way. Already multi-purpose apps such as WeChat are the norm in China, and incumbent banks in Europe are taking note. These banks are looking to integrate multiple facets of the customer lifecycle, from rewards programs with retailers to power of attorney change, all available from one application. Given the tremendous amount that banks currently know about their customers and their spending habits, they can become the central cog in an increasingly complex network of services and applications designed specifically to meet customers' needs.

As customers move through life, they can be continuously contacted with advice, options and realistic choices for the best way to spend and make money, such as which data exchange to list their personal data on that day or which supermarket has the best price on commonly consumed items. The application can work as both an enabler and a monitor.

The future of finance is human

And trust is what it's all about. So before financial institutions design the seamless financial services of tomorrow, they are best served to spend their time and talent working on ironclad security. Just as the giant vault in the brick-and-mortar bank gave a customer peace of mind in the 1920s, the data vault that financial services can develop will give peace of mind to the customer of the 2020s. And then, true service and integrated connection can begin. With a blend of artificial intelligence (AI) to handle fraud mitigation, greater security through PKI encryption and immutable records and audit trails via blockchain, the data vault can be locked up tighter than a drum.

Customers will share their data as long as it benefits them directly in the form of personalized service and customized advice. And as banks integrate with other service providers like insurance companies, retirement funds, healthcare providers, retail chains and more, they will take on an increasingly important role in customers' lives. Ultimately, banks could very well own the single platform that links numerous industries. Soon, AI-enabled services will be able to predict customer behavior and anticipate their financial needs. For example, maybe John would automatically get finance options on the car he test-drove, and as soon as he bought it, the best insurance deal would be preemptively pinged to his phone.



On-demand and tech-driven

The modern, on-demand society will give financial institutions a rare opportunity – beyond repositioning themselves in customers’ lives, they’ll be able to truly integrate into every aspect of them. No longer channel owners, banks will become service and product owners with their finger on the pulse, every minute of every day.

The result? Seamless financial services that require little more than a tap or a swipe, customers who feel secure in their financial futures, and financial institutions at the center of it all. So when John gets offered that job as a professor of Past and Present Financial Development, his phone will map out the financial implications, the changes to his mortgage payments, and his updated expense projections. So all he has to do is choose, with all the facts in the palm of his hand.

“the **future** of
finance
is **human**”



Tony Bosma (1973) is a futurist and trendwatcher. He is the founder of futuring and consultancy organization Extend Limits (www.extendlimits.nl). Extend Limits does not predict the future but helps organizations anticipate it. Do not ask yourself why things are happening. Ask yourself why hasn't it happened yet? This is the mindset companies need to adopt in this era of change.

Tony Bosma is an authority in future thinking and trendwatching and was nominated in The Netherlands several times for trendwatcher of the year. He is an internationally renowned keynote speaker. He is known for his confronting, inspiring, visually attractive and surprising sessions about a wide variety of topics. He also works for a variety of companies and governments, helping them anticipate the future and, more important, challenge and question today's world and mindset.

In collaboration with Cognizant, Tony Bosma did extensive research into near future trends across industries. Together with Cognizant, he made abstracts of the most dominant developments – not far fetched futuristic worldviews – but realistic developments which are seen right now. These are not only plausible future developments but also the challenges of technological developments.

An external perspective by futurist & trendwatcher Tony Bosma

Banking & Financial Services **reinvented**

Of any industry, financial services has been the one most heavily impacted by the digital developments of the last decade. For these businesses, their role, image, organizational structures, customer relationships and competitive environments have been shattered. New regulatory frameworks have been introduced and put into place. But still, the new normal has yet to completely settle in. Are financial institutions able to cope with all the transformational forces surrounding them? Or will these once seemingly indomitable institutions – these former societal beacons of trust and stability – be replaced by something else as they find it impossible to change their established financial procedures, structures and, most of all, mindsets? No matter what happens, one thing is clear: The future of financial services will be transformed. A world of opportunity stands at the ready, requiring substantial change, a bold mentality and a willingness to be open to new insights.



In 1994, Bill Gates famously equated banks with dinosaurs. But apparently, the dinosaurs are stronger than most of us thought because decades later, financial institutions are still the biggest organizations on earth. At the start of the 21st century, the emergence of start-ups suggested the era of disruption for financial institutions was in full force, but nearly 20 years later, this appears only partially true. Of the top 10 organizations listed in the 2018 Forbes Global 2000, banks remain dominant. In an era of promised technological disruption, banking seems to remain the steadiest industry on the planet.

At the same time, ongoing technological progress and its perpetual adoption by consumers is forcing a reformation of the essential elements of financial services. In this new world, it's not so much about long-term vision but about the ability to anticipate

relevant change. What trends and developments will shape the future of financial services?

Disaggregation of the financial value chain

Banks are looking to transform themselves into platforms of services to remain relevant in the lives of their customers. For this, their mindset and organizational structure needs to shift toward a diverse ecosystem with fast-changing and hyper-personalized contact, products and services. These new value networks will appear to compete with financial services organizations' own channels. As the financial services landscape becomes a highly sophisticated marketplace, steered by smart and adaptive technologies, financial institutions like banks themselves will reshape to become more like high-tech companies.

“Disruption will not be a one-time event, rather a continuous pressure to innovate that will shape customer behaviors, business models, and the long-term structure of the financial services industry.”

World Economic Forum

A future beyond financial servicing

With changing financial services ecosystems, the services these organizations offer will change accordingly. As agile new entrants insert themselves between financial services institutions and customers, and raise service expectations by providing services that enhance the financial and even non-financial customer experience, there's some fear that traditional institutions will lose ownership of the customer relationship. The future winners in finance are likely to be those that control the customer interaction, while those that don't risk becoming utility players at the end of the ecosystem.

But traditional organizations can become key players at the center of a customer's life because of their access to enormous amounts of valuable customer data, from buying histories to lending information to travel data and even medical information. Even with new regulations about data ownership, financial institutions are well positioned to become highly personalized data brokers in customers' lives, even beyond financial services, and play a much bigger role in tomorrow's society. In this context, rebuilding trust is key to a bright future of finance.

Regaining trust through digital

As financial services integrate more and more seamlessly with consumers' lifestyles and devices, organizations will be able to calculate personalized value analyses.

Elements such as data accessibility, lifestyles and loyalty will be factored into real-time decision-making processes on the price customers pay for goods and services. For this to succeed, there needs to be a high level of trust in the systems and technologies involved.

With technologies like blockchain, institutions are no longer the mediators of control, transactions and trust, as these mechanisms are embedded within the technology itself. The role of intermediaries will be reinvented and even become obsolete as trusted transactions can take place among anyone, including parties with no prior relationship.

“**The future winners in finance are likely to be those that control the customer interaction.**”



It's vital, however, to remember that the future of finance and trust hinges less on technology and more on the reality of the regulatory environment and the mechanisms used in future business models of finance. The more transparent and meaningful these business models become, the more societal trust will increase. The financial services industry will need to embrace the goals of the customer rather than focus on being a powerhouse of profit and growth.

Smart and prescriptive financing

Artificial intelligence will become mainstream in the financial services industry. Even beyond the use of AI to enhance the customer experience, the technology will be applied to analyzing customer behavior to minimize risk, detect fraud and recommend relevant products and services. Continuously fed with data, AI-powered bots will be available 24x7 and increase in intelligence to gain consumer trust.

With AI, banks will be able to more accurately forecast the future, automate processes and minimize unnecessary human interaction. Technology will help banks intensify the human relationship with its customers. Ultimately, technology could help remove human bias from decisions and transactions and possibly enable financing to become completely democratized.

“Robots will eliminate 200,000 jobs in the banking industry within the next 10 years.”
Wells Fargo



“ **Wide-ranging reforms are needed to reset the global financial system and make it work amid turbulent times.** ”

The Group of 20 (G-20) Eminent Persons Group on Global Financial Governance

Imagine, one day...

Let go of your mental barriers and think freely about a possible future. By 2050, it's easy to imagine banks becoming invisible entities, disappearing from our physical world as they merge with the virtual world. Finance itself will become virtual – wallets will become a souvenir from the past as digital currencies replace physical ones, and money and payments will be exchanged without having to think about it. Every aspect of our personal lives will become monetized – we'll be compensated for sharing our personal health data, given a micropayment for doing a social good and assigned a debit for doing something unlawful.

Our preferences and financial choices will be represented online by our digital personalities, which will algorithmically determine our personal transactions and interact with the digital backbone of financial services networks. Algorithms will pre-program what our money is used for, making the use of money extremely transparent and secure. Rather than us having to be aware of the consequences of our spending and saving, that responsibility will be relegated to our smart digital representations, whose predictive models will predict the exact outcomes and optimal actions to take.

As a result, everyone will have a balanced look at their financial future. The need for insurance will become predictive and adjusted in real-time based on lifestyle and continuous risk calculations by an individual's intelligent surroundings. While trust will remain the most important currency, it will come mainly from intelligent machines, not humans: It will be digitized. Human intervention will be required if asked for.

These scenarios raise some crucial questions: What does the future of finance mean for basic human aspects like freedom, privacy, inequality, solidarity and the human relationship with value systems like money? What about the role of human ethics in our relationship with the financial services industry? Can technology help regain trust in our financial systems? Can it help us use money for social good and connect people instead of widening the gap between different social groups? Amid technological progress and the changing financial services landscape, the biggest questions about the future of finance lie in supporting progress for all in society.

Banking & Financial Services reinvented

New challenges and questions

While a digital-driven utopian financial future is the promise, what is the reality? Amid all the digital opportunities, are we addressing the real problems faced by the financial services industry? Are our financial services institutions focusing on real human needs? Are they dedicated to supporting economic, social and environmental impact and adopting a mindset of not just doing less bad but doing only good?

Let us not forget that financing and money can be one of the most powerful forms of democracy and force for good. Will our financial services institutions in the future be even more disconnected from customers and society than ever – unreachable digital monopolies programming the world's financial future? It's the big question of this era: Ethics or innovative financial technology, which comes first?

People today are more aware about how they spend their money and how it is invested – with every euro/dollar they spend, people vote for the world they want to see. Financial services institutions need to embrace this mindset and earn a reputation for working to build a better world for future generations and support social cohesion. Worldwide, the industry needs to reset its vision on economic growth and rethink its definitions of progress and value.

“ We’re moving further into a **financial** world where **technology** controls technology. ”

Even amid today’s higher trade barriers and growing financial protectionism, the future of financial services will be based on global interconnectedness and a tight-knit digital network between countries, businesses and individuals. A decentralized but still interconnected approach could increase susceptibility to risk, making regulation and crisis management tools ever more important as new technologies become the basis of our lives.

Digital-driven financial services in an interconnected smart world will raise the question about financial surveillance. We are handing over more rich data to our financial institutions than ever before. Most of us are completely unaware of what this data is used for. In addition to privacy concerns, other issues loom: What about financial organizations influencing our decision making process? What about real-time riskscores? Is technology reducing the autonomy of financial services customers? What is the leading purpose of the data being collected by financial services organizations?

With increased robotic process automation, other concerns arise around the use of algorithms. There’s the ethical question of who’s responsible for the decisions and actions of these algorithms. Do financial services institutions and customers understand how the choices and decisions of robotic advice are derived? The interconnectedness of financial services toward frictionless experiences could effectively minimize the ethics in the buying process.

Ethical questions also arise in the regulatory realm. As control over regulations and procedures becomes increasingly

technology-driven, we’re moving further into a financial world where technology controls technology. With this approach, it’s vital for humans to understand the autonomous processes and steps taken by technology. The biggest ethical dilemma of the near financial future is who will be in control: technology or humans. This is especially important in an increasingly complex world in which humans are challenged to understand the decisions made by technology, especially technology that’s becoming more capable of self-learning and increasingly situationally aware and responsive.

The future of technology in finance will be about answering ethical questions, enabling transparency and explainability, reducing complexity and adding humanity. The industry needs to ensure the decisions made by technology are unbiased and that the inner-workings of the supporting algorithms are transparent.

The industry will need to emphasize the human and emotional side of finance and the ever-important human connection in financial decision-making. The goal is to create customer experiences facilitated by machines and intensified by humans.



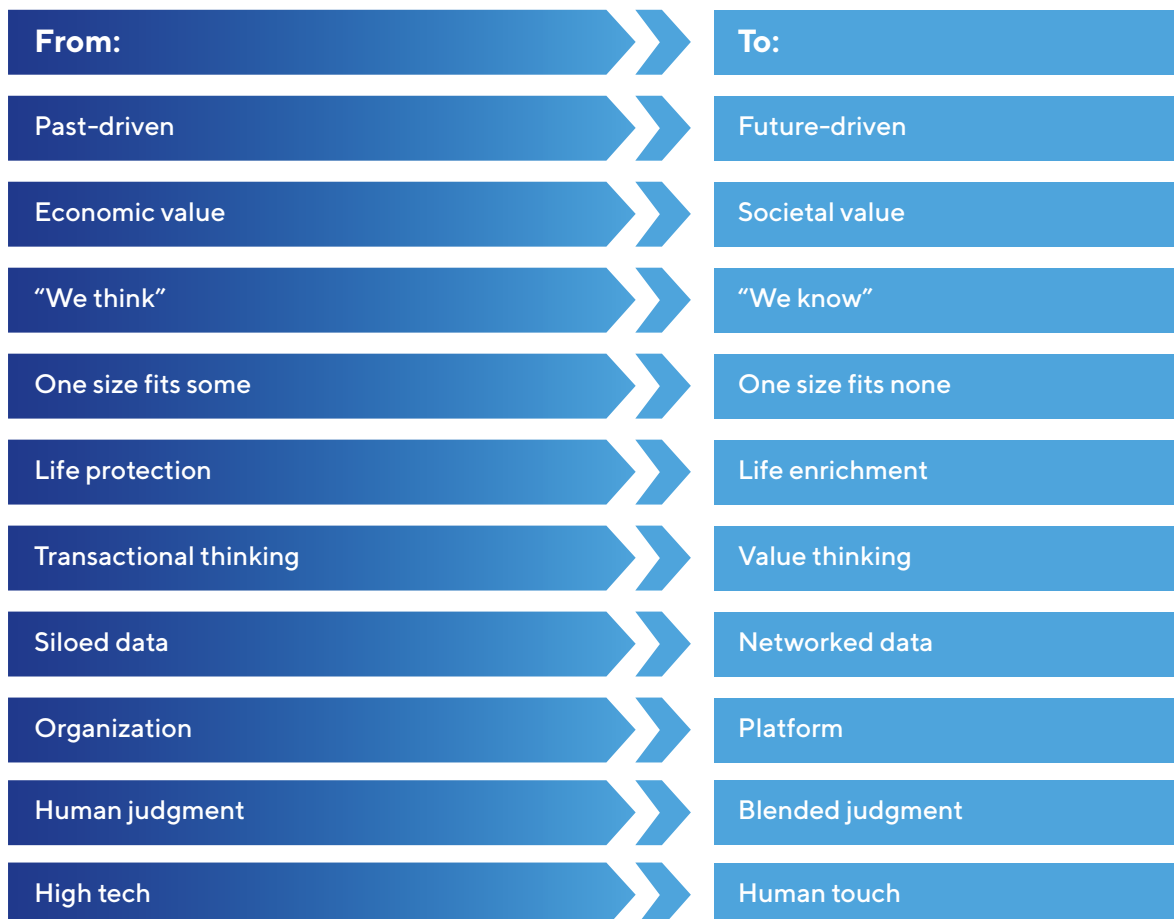
“ The biggest ethical dilemma of the near financial future is who will be in control: technology or humans. ”



The future is already here

The banking and financial services industry will shift from a system based on historical data to being driven by predictions about the future. These insights will be highly accurate – no more best guesses or “we think we know.” The industry will increasingly be focused on adding real value to society, with financial and non-financial businesses forming an interconnected network centered around discerning and meeting individual customer needs.

No longer will customers serve financial structures – networks will serve customers. Algorithms and automated processes will drive efficient and data-driven financial products and services, free of human bias and transparent and evenly accessible to everyone, with a human touch if desired.



Real-life cases

The following cases are inspirational and show how finance is changing. Startups and new innovative ideas can grow but also fail fast – that is innovation at the frontier of an industry. No business relationship exists between the cases below and Cognizant.

Fluidly

Fluidly works to create real-time financial insight with cashflow forecasting. It uses historical data, financial modeling and machine learning to produce up-to-date forecasts, as well as insights into how to improve the business's cash position. The system helps businesses take the right actions to optimize their financial future.

www.fluidly.com

Oval

Oval's app automatically tracks customers' spending and spending behavior by linking their bank accounts and credit cards. By using data and lessons from other people in the Oval community, customers can improve their spending decisions. Oval is aimed at young consumers who often lack financial knowledge. Its goal is to help customers track their spending and save automatically.

www.ovalmoney.com

Rapyd

Rapyd claims to be the world's largest local payments network. The system enables any local or cross-border payment to be integrated directly into any digital application, including cash, bank transfers, e-wallets, local cards and more than 300 additional alternative payment methods.

www.rapyd.net

CitizenMe

CitizenMe is an identity control service that helps individuals take back ownership of their "digital selves" and get value from their online data. The company's "ethical insights platform" is also focused on enabling organizations to build deep relationships with consumers, through ethical and GDPR-compliant user data and research tools.

www.citizenme.com/public/wp

Cleo

Cleo is an intelligent chatbot that connects users' bank accounts and credit cards to help them gain better control over their spending decisions and meet their savings goals. The bot communicates with users via Facebook Messenger, answering questions, developing customized budgets and providing tips and alerts.

www.meetcleo.com



“Technology changes all the time; human nature, hardly ever”

Evgeny Morozov

Curve

Curve combines all of a user's accounts and cards into one smart platform – the Curve Mastercard. By doing so, they can see what they're spending at a glance, save on excess fees, send money securely and get real-time spending alerts.

www.curve.app

Digital fingerprints

Digital Fingerprints provides continuous authentication based on behavioral biometrics. After monitoring and capturing the user's behavior, it stores the collected behavioral patterns in a machine learning model that can almost instantaneously judge whether present behavior is consistent with the user's identity, all in compliance with GDPR and PS2 regulations.

www.fingerprints.digital

Chase

Chase uses voice ID to protect customer data, making banking easier, faster and more secure. To create a unique voiceprint enabling account access, customers can simply call the bank.

www.chase.com/personal/voice-biometrics

Clark

Clark is an insurance robo-advisory platform that provides transparent, cheap and comprehensive insurance coverage. Clark allows users to assess their insurance status through an app or website. Based on algorithms, the robo-advisor provides analysis on the customers' insurance situation and automatically proposes optimization opportunities by searching for tariffs from more than 160 insurance companies. On request, experts are available to assist customers with specific questions.

www.clark.com/personal-finance-credit/robo-advisor-fees-cheapest/

The future is human

Humans excel at being creative, in seeing, identifying and investing in opportunities, and solving problems. Our emotions – anger, sadness, love – will drive the future of banking and financial services. Even as technology grows in intelligence, it will never match our human creativity. The biggest benefit technology has to offer us and our organizations and institutions is to help us emphasize our most basic and strongest human skills – skills that will never be digitized. Let's be curious about the future, not fearful. Let us, as a society, create and discover new rules and norms. The future is not about making the present more efficient but about reshaping it – something only humans can, and will, do.

Key take-aways

1. Put customers in control of their own data and enable them to utilize it their way.
2. Make human contact with your consumer smarter by embracing digital augmentation of staff.
3. Be accessible and relevant in the physical world through branches and outreach centers instead of going purely digital.
4. Help customers cope with the digital change in finance and society. Embrace your social responsibility and help customers become digital and financially literate.
5. Discover the possibilities and boundaries of new technologies. Ask the question: Is what is possible also what customers want or need?
6. Utilize predictive technologies to encourage responsible consumer spending and saving.
7. Embrace open banking to provide a superior customer experience.

Cognizant®

ABOUT COGNIZANT

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world.

Driven by a passion to help our clients build stronger, more agile and more innovative businesses, we enable global enterprises to address a dual mandate: to make their current operations as efficient and cost-effective as possible and to invest in innovation to unleash new potential across their organizations. What makes Cognizant unique is our ability to help clients meet both challenges. We help them enhance productivity by ensuring that vital business functions work faster, cheaper and better. And, our ability to conceptualize, architect and implement new and expanded capabilities allows clients to transform legacy models to take their business to the next level.

Learn how Cognizant helps clients lead with digital at
www.cognizant.com

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