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Foreword

Payments Direction is a strategic programme of work we've commissioned to help us better understand what the future of payments might look like and to determine the work Payments NZ needs to do to effectively contribute to maintaining a progressive payments ecosystem. With rising expectations and the shift to continual innovation, our future payments ecosystem needs to be responsive and flexible.

This report, *Payments 2025 – A view of the payments ecosystem in 10 years time*, is our assessment of what New Zealand's payments ecosystem could look like a decade from now. To reach this view, we drew on our *2015 Environmental scan report* which consolidates results from research into global trends and issues relevant to payments, along with insights and perspectives surveys of New Zealand consumers, businesses and payments industry organisations.

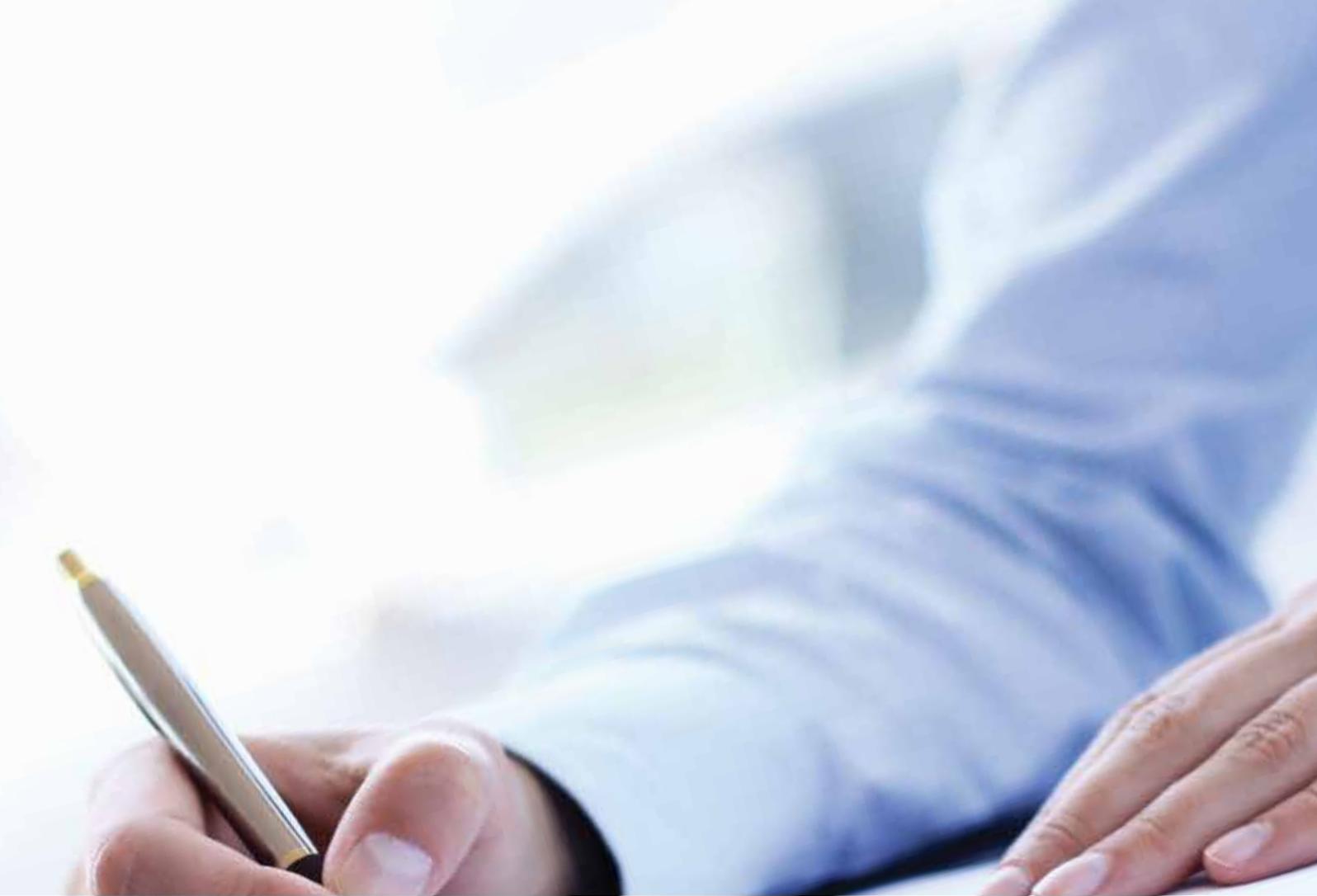
The future view expressed in this report is our best assessment of what New Zealand's payments ecosystem will look like in 2025. We don't set out to prescribe in detail the ecosystem of the future, rather we present a picture of our 2025 ecosystem in a way that should help support decisions about the opportunities and challenges that lie ahead. While we talk about our view of the future in absolute terms in this report, it's important to keep in mind that this is a point in time assessment of what the future could look like and our view will evolve over time in response to environmental drivers. We've made a commitment to continue to monitor developments in order to shape our strategic outlook and direction.

Our future view is broadly consistent with the projections made by many of our international counterparts, but it is also a future view unique to New Zealand and the issues of importance in our local payments environment.

I hope you find our assessment of the future helpful as you consider what the changing world of payments might mean for your organisation, and the people and organisations you serve.



Steve Wiggins
Chief Executive, Payments NZ



Executive summary

This report outlines the factors likely to shape New Zealand's payments ecosystem over the next decade and presents a view of how it could look in 10 years time.

The world of payments is moving at an unprecedented rate. We are seeing new ways of making and receiving payments, new players are involved in the payments value chain, and users of the payments system have rapidly rising expectations about what they want from payments. Internationally regulators are focusing on how to improve the end-to-end speed, safety and efficiency of payment systems while encouraging competition, innovation and reassessing how those systems are regulated and governed. A wide-ranging discussion on the changes underway in payments can be found in our report *2015 Environmental scan report – Our changing payments landscape*.

Over the coming years, payment instruments, systems and the way our ecosystem is constructed will be impacted by forces of change that are evident right around the world. In particular, we consider the New Zealand payments ecosystem of 2025 is going to be shaped by the:

1. Call to make faster payments more widely available, more of the time.
2. Need to deliver more informative transactions to people and organisations.
3. Broadening of involvement in payments innovation.
4. Effect of non-traditional players with scale and power.
5. Increasing involvement of regulators and policy makers.
6. Need to simplify payment systems and improve interoperability across the payments ecosystem.
7. Move towards simplifying and making cross-border payments intuitive.
8. Possibility of a game changing new way of making payments.

Given the rate of transformation currently underway, and the inevitable uncertainties about how these factors might come into play, it is difficult to be precise on points of detail regarding the payments ecosystem and core payments system infrastructure a decade from now. As an example, while we are confident New Zealand will have fast payment services by 2025, it is too early to say how that will be achieved and whether that outcome will rest on competitive market forces, collaborative industry action, or a mix of both.

Our best assessment is that New Zealand's payments ecosystem of 2025 will be characterised by:

- **1. Simple payment systems**
Simplification of payment systems will result in more flexible and modular payments rails¹, delivering streamlined and efficient payments processing, enabling innovation and supporting great customer experiences for Kiwis.
- **2. Fast payments**
Kiwis will be able to access fast account-to-account domestic payment services. Interoperable payments rails will underpin faster payments and be available to, and leveraged by, industry players to create fit-for-purpose payment solutions and services.
- **3. Informative transactions**
Kiwis will benefit from being able to send and receive more timely, relevant and rich information with their payments. The payments rails will support richer payments messaging leading to informative transactions which support data driven innovation and new value propositions.

¹ Payments rails refer to the processes, systems and enabling technologies used to transfer value between financial institutions.



4. **Dynamic network**

Payments innovation will be enabled by simple, fast and more informative payments rails within a self-regulatory environment. Innovation to market will take place at an increased pace enabled by the efforts and partnerships of existing and new industry and fintech players.



5. **Just right regulation**

Payments regulation will remain 'right sized' for the New Zealand marketplace as the dynamic network continues to innovate and ensures the integrity of the payments system by keeping payments safe, sound and efficient. As a result, confidence in payment instruments remains high with users and regulators.



6. **International payments**

Payments will continue to evolve in response to international trade, a more varied set of economic relationships and an increase in global remittances. As a result, the cross-border payments experience will be simple, intuitive and straightforward. Digital currencies, other virtual mediums of exchange, and their enabling technologies, will form part of the mix of international payment services available to Kiwis.

This future view speaks to innovation and leveraging our reputation as having a tech-savvy population that embraces change and is ready to adopt digital innovation. It also speaks to an open payments network, delivering a wider set of benefits to consumers, industry, regulators and New Zealand as a whole so we continue to be regarded as an international leader in payments innovation and payments self-regulation.

Our future view is broadly consistent with the projections made by many of our international counterparts. However, it is also a future view unique to New Zealand and the issues of importance in our payments ecosystem. Payments is a network industry and a combination of market-led competitive activity, the use of collaborative pan-industry responses in the right circumstances, and appropriate regulatory settings, will need to come together to realise the future view we have described.

A hand holding a pen pointing at a digital interface with various charts and graphs. The background is a blue-toned digital dashboard with multiple data visualizations. On the left, there's a line graph with a time series from Nov to Dec. In the center, a hand holds a pen pointing at a circular node in a network diagram. To the right, there's a bar chart with values ranging from -4000 to 10000. The overall aesthetic is futuristic and data-driven.

Payment systems

Payment systems are an essential and complex network that support and enable economic activity. Because of this network effect, our future ecosystem will be formed by a mix of individual and coordinated industry activity.

Supporting and enabling economic activity

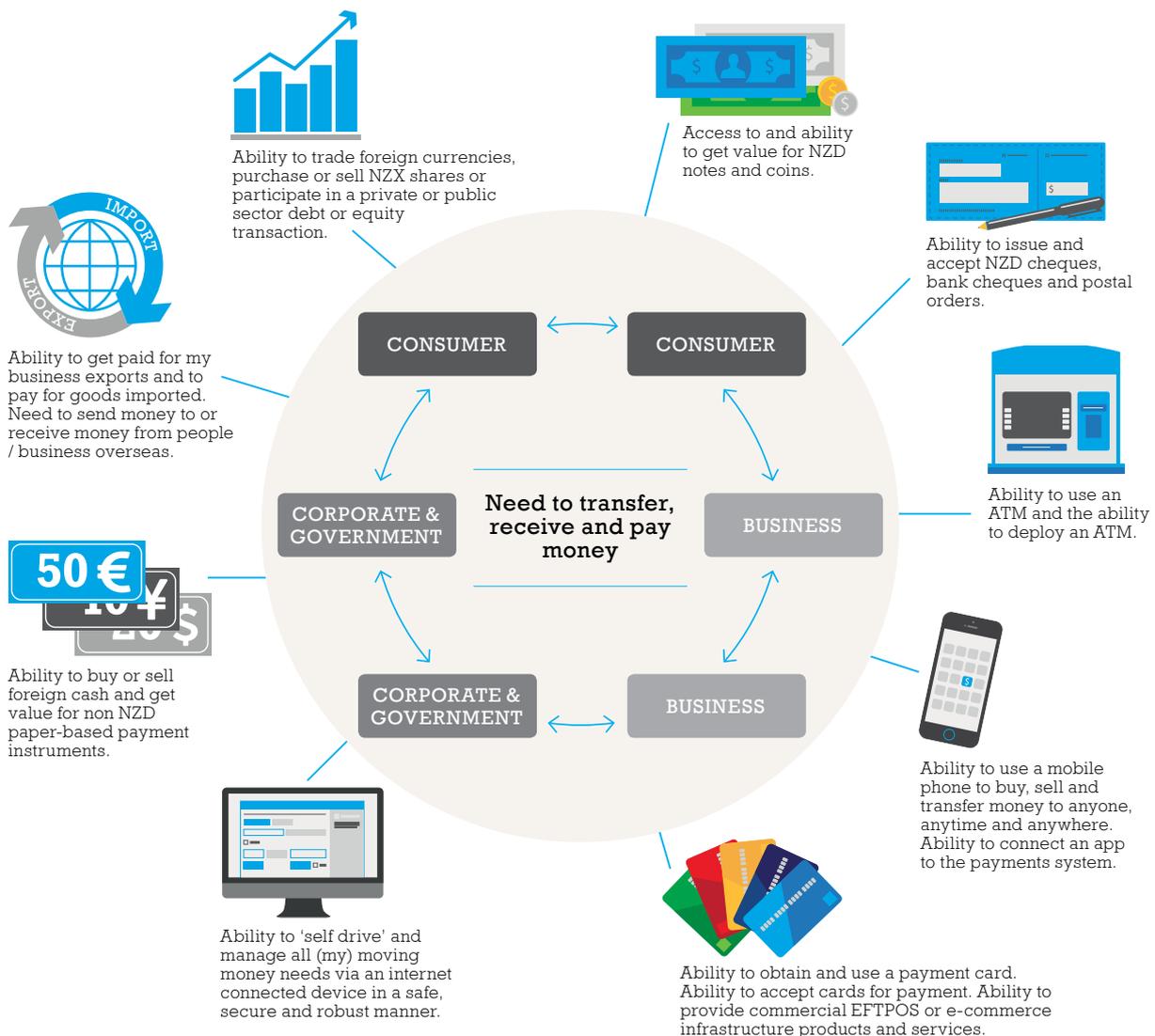
Payment systems are critical to the functioning of economies as they enable economic activity. They operate as a network, using commercial agreements, standards and guidelines to coordinate the efforts of different organisations so payments can be completed safely and securely. Payment systems also enable competitive market activity for a broad range of organisations along the value chain.

Making changes to a complex network, like the payments system, generally rests on collaborative action because the system has a wide range of touch points and coordinated planning, decision making and funding is required to accommodate network change. The evidence we have seen as we have worked our way through Payments Direction suggests increasing pressure on payment systems to support a wider and more varied range of economic activity across a longer and more complex value chain. We invite the reader to keep this in mind as we describe how the payments ecosystem of 2025 is likely to evolve.

New Zealand's current payments system allows us to pay and receive money easily, safely and securely. However, because payments systems largely operate in the background, many people do not often think about the variety of ways to make and receive payments, and how the transfer of funds from one financial institution to another takes place in the context of the payments value chain.

Figure 1 gives a sense of the wide range of payment needs a payments system must support.

FIGURE 1: PAYMENTS SUPPORT A WIDE RANGE OF NEEDS



Enabling payments

Making or receiving a payment in anything other than cash involves a series of steps:

1. **Initiation:** The process by which the initiating customer requests a payment be made.
2. **Authorisation:** The approval by the initiating customer's financial institution of the payment request.
3. **Clearing:** The process of reconciling the payment data, transmitting the payment data between financial institutions, and calculating potential settlement positions.
4. **Settlement:** The process of discharging financial obligations between two or more parties.
5. **Posting:** The process of making the funds available to the beneficiary customer.
6. **Notification:** The provision of information to the parties involved in the payment process (financial institutions, initiating and beneficiary customers, etc.) to confirm the status of the payment.

Core payment systems enable and ensure these six steps can be completed safely, securely and in a timely manner. Those core payment systems operate as a network and consist of mechanisms that make the exchange of monetary value possible. Those mechanisms, together with the people and organisations that make and receive payments, comprise the payments ecosystem.

Figure 2 provides an overview of the network, but from the perspective of the payments value chain, which comprises pre-payment, payment and post-payment phases of activity.

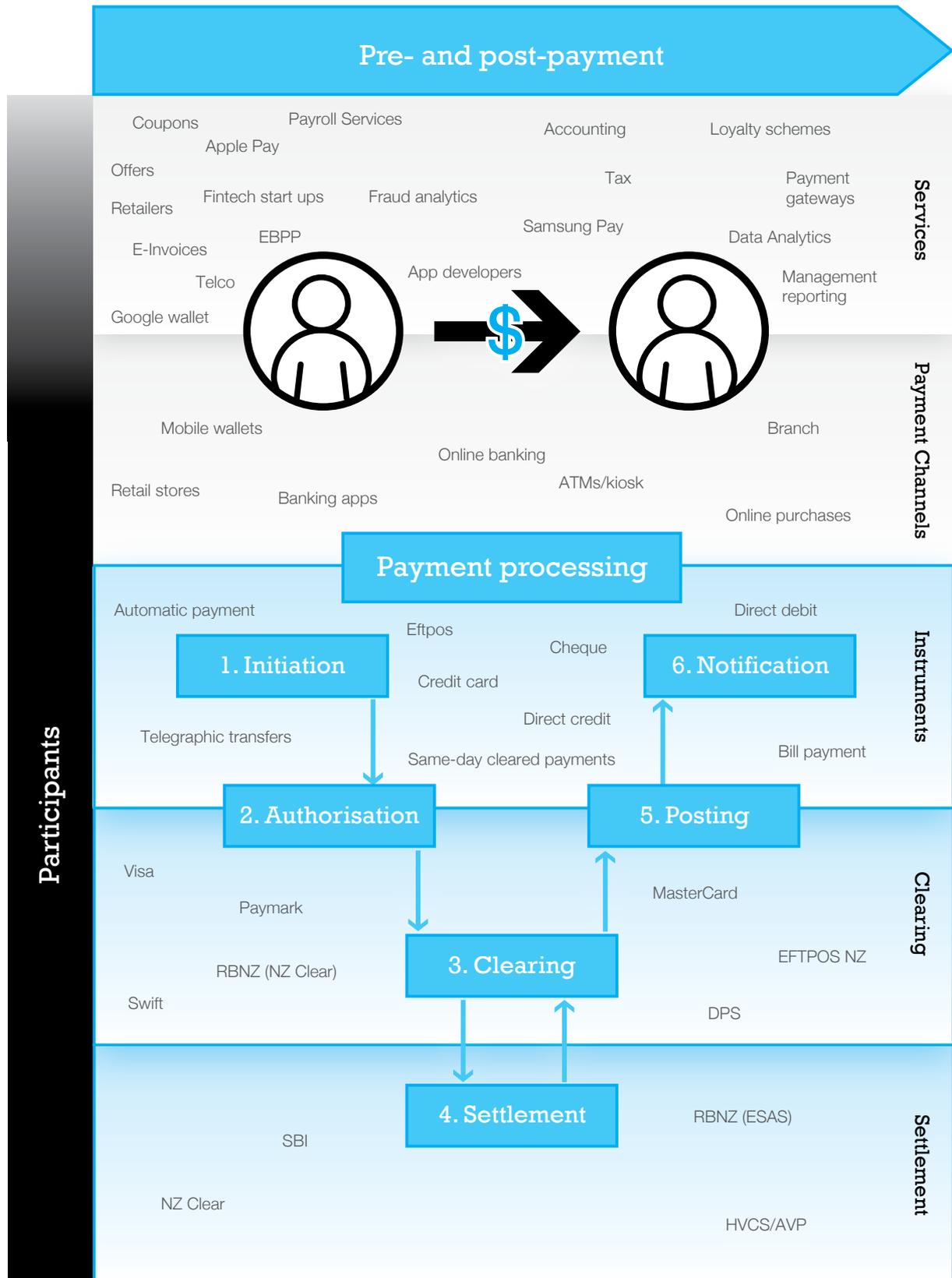
There are two key take-outs from figure 2. The first is that the simple act of making or receiving a payment involves a number of different organisations all working in concert to ensure the payment is processed safely and efficiently. The second is that the payment is part of a broader value chain, which encompasses pre-payment and post-payment activities. Over time this value chain has become both more complex and more integrated and will continue to do so as more players enter the system.

Establishing a common way of working

Any network that relies on the efforts of a number of disparate parties needs a set of common agreements and standards to function efficiently and effectively. Those agreements and standards establish a mutual way of working and generally deal with systemic issues that are not capable of being properly or efficiently resolved by any one member operating alone. Without those agreements and standards, the benefits of the network would be quickly eroded.

In the payments context, these common agreements and standards allow financial institutions to interact technically and operationally in a safe, dependable, and predictable manner. Importantly, common agreements and standards give core payment systems the desirable characteristics of ubiquity and interoperability. They help ensure commerce takes place with the least friction possible because the party proposing to transfer funds to another party does not need to consider whether the transfer is technically possible. These common agreements and standards also serve another important purpose, they encourage competition and efficiency. One of the ways they do this is by offering new institutions a cost effective way of joining the payments system without the need to negotiate individual agreements with others who are already part of the network.

FIGURE 2. A COMPLEX NETWORK OF RELATIONSHIPS ALONG THE PAYMENTS VALUE CHAIN



Networks enable competitive market activity

Many networks are more than a simple utility, they are also an enabler of competitive market activity allowing organisations to design profitable service offerings which harness the functionality of the network. Over time, networks reach a point where it is difficult to accommodate or enable further innovation without a significant modification to certain components of the network. These modifications often involve a network upgrade or enhancement. Once in place, the revitalised network can be used to launch further advances in competitive market activity.

For many types of networks the question of how to handle upgrades or enhancements poses challenging issues and payment systems are no exception. Upgrading or enhancing a network (or creating a new network) often generates benefits for others who do not bear the upfront costs. That introduces a new variable into the decision making process and, unless carefully worked through, has the potential to result in decisions that are less than optimal for the entirety of the value chain.

A further complexity is that a decision to upgrade or enhance some networks requires a large number of players to coordinate their planning, decision making and funding because networks have a wide range of touch points. Moreover, the rapid growth and uptake of digital technology means industries with strong network characteristics, such as payments, are likely to be faced with more frequent calls to reshape or transform their network to adapt to an increasingly digital future.

Innovation in networks is important

We tend to associate innovation with competitive market activity. However, in a network setting, innovation, particularly in respect of core infrastructure upgrades, frequently relies on some type of collaborative pan-industry response. That's because a common response is necessary to deal with systemic issues that impact all who look to use the network. The degree of collaboration depends on the specifics of the network and the issues in play. A pan-industry response does not replace competitive market innovation; rather it complements or enables it.

Some examples of where collaborative innovation is likely to be required in the payments context include:

- Reshaping or renewing common infrastructure.
- Integrating payment systems and instruments.
- Designing new interoperable methods of making and receiving payments.

The development of long-term national payments plans is one way of ensuring collaborative innovation takes place. In many respects, long-term national payments plans are a tool to ensure systemic issues in payment networks are appropriately prioritised, sequenced and progressed. Those plans help ensure the network is properly configured to support a wide range of use cases and to deliver the greatest number of benefits across the ecosystem without further major unexpected change.

The image features a composite background of Earth from space. The top half shows a view of the Earth's horizon with a bright sun or star in the upper right, creating lens flare effects. The bottom half shows a more detailed view of the Earth's surface, including green landmasses and blue oceans. A dark blue horizontal band runs across the middle of the image, serving as a background for the text. Overlaid on the entire image is a network of glowing white and blue lines that form a grid-like pattern, suggesting global connectivity or data flow.

Environmental scan

The environmental scan provides a sense of the trends and influences likely to be relevant to our ecosystem over the next decade. The key take-outs from that scan are summarised in this section.

Our first Payments Direction output was the *2015 Environmental scan report – Our changing payments landscape*. It is based on a wide-ranging and extensive review of international research material relevant to the New Zealand economy and its payment systems, as well as a macro review of New Zealand's regulatory and economic landscape. The environmental scan provides a sense of the trends and influences that are likely to be relevant to New Zealand's ecosystem over the next decade.

The scan revealed:

- The world of payments is evolving at an unprecedented rate, and is emerging from the shadow of banking as an industry in its own right.
- Payments are getting faster, more intelligent and more international in their orientation.
- Much of the change in payments is enabled by continual advancements in digital technology and the ongoing growth of the digital economy, spurred by the rise of big data, mobile devices and social networking.²
- New open business models are being deployed and non-traditional players are entering the market place, intensifying competition but also opening up new opportunities for incumbents.
- New market dynamics are driving customer expectations about how payments should be made and received.
- Regulators and policy makers are taking a renewed interest in payment systems, in part as a response to the financial crisis of the late 2000s, with a specific focus on the stability, safety and efficiency of payment systems.
- Regulators and policy makers are also turning their minds to whether payment systems operate for the benefit of end users, whether those systems adequately facilitate competition, and how those systems are governed and by whom.

To reinforce the results of our scan we also captured the views of New Zealand business users, industry, and consumers through a series of insights and perspectives surveys. We surveyed major users of the payments system, organisations in the business of payments and a statistically relevant sample of consumers drawn from a cross-section of the community.

As with any survey, there was some variation in the views expressed. However, in general terms, business users and consumers expressed a high degree of satisfaction with the current state of payments but recognised the benefits of more functionality, speed, lower costs, and greater convenience in payments, in part because they see the potential of new technology.

Those organisations in the business of payments believe the payments infrastructure of the future will need to support faster payments, 24/7 availability, provide the payer and payee maximum control over how and when payments are made across all payment types, be able to cope with large and increasing volumes of payments and protection against fraud.

The insights and perspectives survey results align with the general tenor of our research findings and are very much what we expected to find. We've included some of the findings from these surveys later in this report.

From the environmental scan, we identified five key themes from our research findings to describe the trends and influences relevant to our payments ecosystem:

1. Payments are increasingly continuous and international in orientation.
2. Payments are increasingly faster, more mobile, more informative and linked across the value chain.
3. Payment infrastructure refreshes and renewals are widespread and arise for a number of reasons.

2 OECD (July 2015) *OECD Digital Economy Outlook 2015*, page 144.

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4. Financial services and payments regulation is expanding and aiming to produce more inclusive and resilient systems.
 5. Payment associations face rising expectations.

These themes are reflected in how we developed our view of the payments ecosystem of 2025. A comprehensive review of these themes can be found in the companion report, *2015 Environmental scan report - Our changing payments landscape*.

A man in a dark suit and blue tie is shown from the chest up, pointing his right index finger towards a glowing digital interface. The interface consists of concentric circles and a central bright light. The background is a light blue gradient with faint binary code (0s and 1s) and some abstract geometric shapes. The overall theme is technology and digital innovation.

A future view of the payments ecosystem

Using the environmental scan and insights and perspectives work as a foundation, we've identified six elements which we think form the hallmarks of New Zealand's payments ecosystem in 2025.

While the *2015 Environmental scan report - Our changing payments landscape* describes the general nature and direction of the changes currently underway across the payments landscape, it is also important to identify and understand the specific factors likely to shape the future of New Zealand's ecosystem. These key factors, drawn from the results of our environmental scan and insights and perspectives work, helped in forming a view of the future ecosystem.

As a result of this research, we concluded the ecosystem of 2025 will be shaped by the:

1. Call to make faster payments more widely available, more of the time.
2. Need to deliver more informative transactions to people and organisations.
3. Broadening of involvement in payments innovation.
4. Effect of non-traditional players with scale and power.
5. Increasing involvement of regulators and policy makers.
6. Need to simplify payment systems and to improve interoperability across the payments ecosystem.
7. Move towards simplifying and making cross-border payments intuitive.
8. Possibility of a game changing new way of making payments.

These key factors have the potential to result in a transformed and enhanced payments experience by enabling people and organisations to make and receive payments with greater speed, convenience and security. They will have a far reaching impact on our payments ecosystem. We know this because we see similar key factors at work in other jurisdictions such as Australia, the United Kingdom, and Canada and the payment associations in those jurisdictions have reached a similar conclusion on this point.

The challenge is to make significant progress towards the ecosystem of the future without compromising the current attributes of reliability, safety, security, and low cost to those who make and receive payments. Additionally, it will be critical to clearly differentiate where competitive market responses are likely to produce the best outcome from those situations where collaborative pan-industry responses are the preferred approach. It is important pan-industry responses act as an enabler of innovation and do not crowd out competitive activity.

However, a central question remains; what will the ecosystem of 2025 look like? Given the rate of transformation currently underway, it is difficult to be precise as to points of detail regarding the ecosystem in 10 years' time.

Fast payments illustrates this point. While we are highly confident New Zealand will have fast payment services by 2025, at this time it is not possible to say how that outcome will be realised. A range of solutions and infrastructure options need to be worked through carefully. These need to be put alongside the demand for fast payments across different customer segments and, if interoperability and ubiquity are key considerations, then pan-industry investment and support will be required.

Despite this, our Payments Direction work has enabled us to identify six key elements that in our view will form the hallmarks of New Zealand's payments ecosystem of 2025. In this section we outline each element and what it could look like, and discuss potential game changers.



1. Simple payment systems

Simplification of payment systems will result in more flexible and modular payments rails, delivering streamlined and efficient payments processing, enabling innovation and supporting great customer experiences for Kiwis.

What will this look like?

Simplification activities will have realised a range of opportunities to streamline new and existing payments and payment systems (convergence, consolidation and integration), will have improved interoperability across payment instruments, transaction types, and channels, and will have reaffirmed the benefits of having a clear set of payment rails on which new payment solutions can be deployed. From a user perspective, simplification will result in a payments system that is more intuitive and does what users want, when they want, in the simplest of ways.

Simple payment systems will:

- See the introduction of initiatives like tokenisation and proxy identifiers.
- Ensure that architecture, while complex at the back end, is linked and provides a seamless experience for people and organisations.
- Allow the payment process to occur in the background to provide frictionless payments.
- Deliver more convenient and interoperable payment solutions to people and organisations.
- Take out unnecessary cost and overhead from processes, infrastructure and operation and, in doing so, improve the viability of existing payment solutions and free up resources to be deployed in new payment solutions.
- Achieve greater economies of scale in payments processing.

If this view element is realised, New Zealand will be regarded as a leading example of how to deliver a simple, intuitive and highly interoperable payments system.

Key factors driving change

- The need to simplify payment systems and to improve interoperability across the payments ecosystem.
- A call to make faster payments more widely available, more of the time.
- The broadening of involvement in payments innovation.

Insights and perspectives survey take-outs

- Consumers expect our future payments system will be simple, convenient, fast and secure.
- Some consumers indicated they viewed mobile payment methods as complex.
- Industry respondents told us a future payments system must have clear and simple rules.



2. Fast payments

Kiwis will be able to access fast account-to-account domestic payment services. Interoperable payments rails will underpin faster payments and be available to, and leveraged by, industry players to create fit-for-purpose payment solutions and services.

What will this look like?

The fast account-to-account payments service will:

- Be ubiquitous and interoperable.
- Be available on a 24/7 basis.
- Represent the outcome of pan-industry collaboration.
- Support industry in delivering a range of competitive offerings to meet the needs of different market segments.

The fast payments service will ensure people and organisations have the ability to use their funds when they need them. This will increase the velocity of working capital in commerce. It will also meet the demands of people and organisations who increasingly expect payment speed and functionality to mirror their other digital experiences.

The success of the fast payments service will mean the payment relationship remains centred on the transactional account.

If this view element is realised, New Zealand will be regarded as a best practice example of how to blend speed, availability, irrevocability, and enhanced data in payments to produce a superior customer experience and to enable outstanding commercial outcomes for stakeholders and the country.

Key factors driving change

- A call to make faster payments more widely available, more of the time.
- The need to deliver more informative transactions to people and organisations.
- The broadening involvement in payments innovation.

Insights and perspectives survey take-outs

- Consumers see the benefits of faster payments. Of the consumers we surveyed, 65% said they would like to be able to make a payment in under an hour. Of those respondents, 53% indicated a preferred time of less than 5 minutes and 12% indicated they would like to be able to schedule a payment to go through at any time they specified.
- Consumers expect payments will become faster and more mobile without impacting safety.
- Business user respondents identified real-time payments as one of their top three improvements sought for a future payments system.
- Industry respondents indicated an ideal future payments system would include 24/7, real-time payments.



3. Informative transactions

Kiwis will benefit from being able to send and receive more timely, relevant and rich information with their payments. The payments rails will support richer payments messaging leading to informative transactions to support data driven innovation and new value propositions.

What will this look like?

By supporting informative transactions, New Zealand will have further cemented its claim to having a modern, innovative and efficient digital payments environment. People and organisations will experience new service offerings which reflect how they make decisions, transact and interact. They will send and receive information about, or allied to, the transaction that adds value. The flow of that information will utilise new infrastructure (either in the form of modern messaging standards) or other infrastructure capable of carrying the information separately using common identifiers.

Payments ecosystem players will be able to:

- Leverage that information through analytics to deliver superior outcomes for people and organisations.
- Design new profitable service offerings.
- Better understand the payment services people and organisations want.
- Better connect people and their money.

All stakeholders will be able to make better and more informed decisions because they have access to a richer and more insightful information set.

If this view element is realised, New Zealand will be regarded as a leading example of how to deliver people and organisations richer and more meaningful information across the payments value chain.

Key factors driving change

- A call to make faster payments more widely available, more of the time
- The need to deliver more informative transactions to people and organisations
- The broadening of involvement in payments innovation.

Insights and perspectives survey take-outs

- Both the ability to increase the amount of detail that can be sent with a payment and the ability to integrate payments information with internal systems were reoccurring answers when we asked the business user group about improvements sought for a future payments system.
- Industry respondents said they wanted a future system to be flexible and have the ability to accommodate new services, products and technology.



4. Dynamic network

Payments innovation will be enabled by simple, fast and more informative payments rails within a self-regulatory environment. Innovation to market will take place at an increased pace enabled by the efforts and partnerships of existing and new industry and fintech players.

What will this look like?

New Zealand will have a dynamic and sustainable fintech sector and payments industry delivering innovative solutions to market. Those solutions will reflect the changing way Kiwis choose to transact and interact and will ensure payments continue to be safe and secure.

The outputs of that dynamic network will include:

- Quickly bringing to market modern payment solutions that meet the needs of people and organisations.
- Enabling people and organisations to make and receive payments with greater convenience.
- Reinforcing the safety and security of payments.
- Where possible, making the best use of our existing payments infrastructure.

Banks and other members of the payments industry will work alongside (and sometimes in competition with) non-traditional players to deliver new payment solutions.

The payments industry will be regarded as having managed the roll out of innovation in a way that is appropriately sequenced so people and organisations are empowered by the change and are properly informed about how to make the best choices among competing payment solutions to arrive at a solution that suits their needs.

If this view element is realised, New Zealand will be regarded as a centre of excellence in payments innovation, especially in respect of payment solutions which connect people and organisations with their money and which optimise the use of the existing payment rails.

Key factors driving change

- Need to simplify payment systems and improve interoperability across the payments ecosystem.
- Call to make faster payments more widely available, more of the time.
- Broadening of involvement in payments innovation.

Insights and perspectives take-outs

- Industry respondents identified three points which would help the ecosystem overcome future challenges. These were:
 - Community - a clear call for consensus across the industry, through increased community discussion and consultation.
 - Continuous improvement - a need to champion ongoing improvement that drives a culture of innovation and change within the industry.
 - All of industry involvement - a need for industry change driven by the industry as a whole.



5. Just right regulation

Payments regulation will remain 'right sized' to the New Zealand marketplace as the dynamic network continues to innovate and ensure the integrity of the system is kept safe, sound and efficient. As a result, confidence in payment instruments remains high with users and regulators.

What will this look like?

Regulation will set the broad parameters for the design and operation of the payments system and will, to the greatest extent possible, enable policy outcomes to be delivered by industry in a way that also creates business value for organisations subject to those regulations.

The combination of market outcomes and pan-industry collaboration will mean our payments system consistently meets the needs of consumers, industry and regulatory bodies without recourse to additional and prescriptive directives set out in legislation.

If this view element is realised, New Zealand will be regarded as an example of how to deliver high quality public policy outcomes in a 'light touch' regulatory environment.

Key factors driving change

- The increasing involvement of regulators and policy makers.
- Effect of non-traditional players with scale and power.
- Possibility of a game changing new way of making payments.

Insights and perspectives survey take-outs

- Industry respondents indicated the costs of compliance can have an effect on the speed of innovation.



6. International payments

Payments will evolve in response to international trade, a varied set of economic relationships and increase in global remittances. As a result, the cross-border payments experience will be simple, intuitive and straightforward. Digital currencies, other virtual mediums of exchange and their enabling technologies will form part of the mix of payments services available to Kiwis.

What will this look like?

Low friction cross-border payments will play an enabling role in meeting the New Zealand Government's Business Growth Agenda target of lifting New Zealand's export economy from 30% to 40% of GDP. People and organisations will have a cross-border payment experience that is simple, straightforward, and cost effective and which mirrors their domestic payment experience. Some of the initiatives that facilitate cross-border payments will result from collaboration between existing industry players and other solution providers.

Payments system infrastructures, such as those offered by players like SWIFT, will be based on common technology solutions deployed across multiple geographies which will enable harmonisation of market practices and standards.

People and organisations will enjoy a greater choice of payment solutions which leverage digital and cryptocurrency technology to speed up the payment and accompanying payment information irrespective of where the recipient is based.

If this view element is realised, New Zealand will be regarded as a leading example of how to achieve simple, intuitive and straightforward international payments and global interoperability of payment instruments and systems.

Key factors driving change

- A move towards simplifying and making cross-border payments intuitive.
- The need to simplify payment systems and to improve interoperability across the payments ecosystem.
- The need to deliver more informative transactions to people and organisations.
- The broadening of involvement in payments innovation.
- Possibility of a game changing new way of making payments.

Insights and perspectives survey take-outs

- Business user respondents perceived a range of benefits resulting from easier cross-border payments. Those benefits included:
 - Increased business opportunities.
 - Improved customer service.
 - Improved speed to market.
- Industry respondents indicated a future payments system should process payments to and from any entity, device, location and currency.

What about the game changer?

A game changing new way of making payments was one of our key factors shaping the ecosystem of the future, yet we have only cited this key factor as driving change in the 'just right regulation' and 'international payments' elements of our future view. Why? Simply put, at this stage, beyond 'just right regulation' and 'international payments' it is difficult to predict how this factor could impact our ecosystem.

Crypto-technology provides a good example of the complexities in making a reasoned assessment. Crypto-technologies have surfaced as a major IT innovation with the potential to improve the architecture of systems and processes in a number of digital transaction-based industries.³ In the payments context they have the prospect of giving more choice and flexibility over payment solutions, transforming the customer experience and touching many of the other elements in our future view. However, at this juncture, it is too early to assess whether crypto-technology would culminate in a revolutionary and game changing new way of making and receiving payments or simply enhance today's processes as they appear to be posed to do in 'international payments'. In the case of 'just right regulation', any game changing new way of making payments, whether based on crypto or other technologies, would require some regulatory response if it achieved any significant scale.

³ Euro Banking Association (May 2015) *Cryptotechnologies as major IT innovation and technical change agent*, page 4. Available at https://www.abe-eba.eu/downloads/knowledge-and-research/EBA_20150511_EBA_Cryptotechnologies_a_major_IT_innovation_v1_0.pdf



Achieving the future view

Achieving the future view will required a mix of market-led competitive activity and pan-industry responses from a range of ecosystem stakeholders.



The future view we have outlined is one of considerable opportunity for all ecosystem players. It is also a future marked by considerable challenge. Achieving the future view rests on market-led competitive activity, collaborative pan-industry responses, and appropriate regulatory settings coming together in the right way and at the right time.

The future view is a statement of what we believe our ecosystem will look like in 2025. Our expectation is that the operation of competitive markets will be instrumental in realising this view as organisations respond to signals from customers and competitors and deliver payments innovation to market. New open business models offer current ecosystem players the opportunity for new ways to work together to deliver solutions to market more quickly than ever. Aspects of the future will be best delivered through collaborative pan-industry action to ensure solutions are interoperable, ubiquitous and have scale to deliver the largest set of system-wide benefits. That is not to say the future view cannot be achieved without collaborative pan-industry action.

Coordinated and collaborative pan-industry responses are going to be especially important in respect of agreeing common approaches, industry standards and common infrastructure developments. As we move forward there are some important questions we need to consider in that collaborative space, including:

- How well positioned are our various infrastructures to support what we know about the future?
- How can we be smart about implementing improvements by using modular continual improvement approaches?
- How can payment systems best serve the interests of New Zealand?
- How can we structure collaborative approaches so they act as an enabler across the ecosystem and do not displace competitive activity?

As part of Payments Direction, we are working on a strategic roadmap for the company which will set the development pathways Payments NZ will follow over the next decade to help realise the future view we have outlined.



Conclusion

Our assessment is that in 2025, Kiwis will have access to payment services that are simple, fast and informative. They will be delivered by a dynamic payments network within a right-sized regulatory framework.



This report outlines a future view of New Zealand's payments ecosystem in 2025. While it is consistent with the projections of the future published by many of our international counterparts, it is also a view unique to New Zealand and our specific issues of importance.

This future view is based on information available today and is a point in time assessment that is certain to evolve further over the coming years. While there will be change, we are confident that in 10 years time New Zealand will continue to benefit from a world-class payments system that will be simpler, faster and more informative than today.

The six elements of our future view speak to considerable change in matters like new, faster and more intelligent payment propositions as part of a profound and ongoing global shift towards a digital economy. They also speak to continuity in matters like the ongoing safety, soundness and security of our payment systems and payment instruments.

The future view will be delivered by a mix of market-led activity and collaborative pan-industry responses in a right-sized regulatory environment. In presenting this view, we hope to contribute to the dialogue amongst private sector enterprises about how to best innovate in the marketplace of the future and signal where collaboration between ecosystem players will have the greatest benefit.

The next output from Payments Direction is our strategic roadmap which focusses on what we need to do to as a company to help ensure that future view is achieved by leveraging collaboration across our industry where necessary. The roadmap is based on five overarching strategic objectives that Payments NZ seeks to work toward as a company over the next 10 years.

The strategic objectives for Payments NZ are to:

1. Govern simple payment systems.
2. Enable fast (as) payment systems.
3. Enable an intelligent payments messaging ecosystem.
4. Lead a self-regulating payments industry.
5. Support the internationalisation of payments.

A summary of the strategic roadmap will be made available shortly. The summary covers the strategic objectives, the outcomes we seek in relation to those objectives and a high-level pathway of the activities Payments NZ will undertake in respect of each.

In early 2016, we will be socialising the outputs of Payments Direction and engaging with the industry around what the findings of this initiative mean to their respective organisations.

A photograph of a person's hand typing on a laptop keyboard. A glass of water sits on the desk next to the laptop. The background is a blurred cityscape seen through a window. The entire image has a blue color overlay.

Appendix - Glossary

AML/CFT (The Anti-Money Laundering and Countering Financing of Terrorism Act 2009) - is New Zealand legislation that places obligations on New Zealand's financial institutions to detect and deter money laundering and the financing of terrorism.

Cryptocurrencies - are peer-to-peer digital currencies that use cryptography to secure the transactions and control the creation of new units. Cryptocurrencies are a subset of alternative currencies, or specifically of digital currencies. Bitcoin is one and probably the best known example of a cryptocurrency.

Fintech - an abbreviation of financial technology. Fintech is a term which describes the intersection of financial services and technology and especially the use of technology to deliver innovation in financial services.

ISO 20022 - a financial services messaging standard developed within the International Organisation for Standardisation (ISO). ISO 20022 is a single common language for financial communications whatever the business domain, the communication network and the counterparty (other financial institutions, clients, suppliers and market infrastructures).

New Payments Platform - The New Payments Platform (NPP) is new infrastructure for Australia's low-value payments. It will provide Australian businesses and consumers with a fast, versatile, data-rich payments system for making their everyday payments.

Participant - a Participant exchanges payments directly with other Participants in one or more of the four clearing systems run by Payments NZ.

Payments NZ - includes the Company, Governance Committees and Management (officers and employees).

Payments associations - are those organisations which have a role in the leadership, management, governance or regulation and oversight of the payments system.

Payments ecosystem - includes payment systems, payments products and people and organisations that make and receive payments.

Payments industry or industry - refers to Participants, Members, the Reserve Bank of New Zealand and other relevant stakeholders in the business of payments which will vary from time to time.

Payment rails - payment rails are the processes, systems and enabling technologies used to value transfer between financial institutions

Payments system - a payments system consists of the mechanisms - including the institutions, people, rules and technologies - that make the exchange of monetary value possible.

Payments value chain - the full range of activities and processes organisations undertake to bring payments products and services and related service offerings from conception to delivery.

Proxy identifiers - structured customer identifying data points, such as a mobile phone number or email address that can be mapped back to a bank account to allow a payment to be routed correctly.

SWIFT - Society for the Worldwide Interbank Financial Telecommunication (SWIFT), founded in Brussels in 1973 SWIFT is a co-operative organisation dedicated to the promotion and development of standardised global interactivity for financial transactions. More than 10,800 banking organisations, securities institutions and corporate customers in over 200 countries exchange millions of standardised financial messages daily via SWIFT.

Tokenisation - when applied to data security, is the process of substituting a sensitive data element with a non-sensitive equivalent, referred to as a token that has no extrinsic or exploitable meaning or value. The token is a reference (i.e. identifier) that maps back to the sensitive data through a tokenisation system.

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