



December 13th, 2018

Ann Misback, Secretary
Secretary, Board of Governors of the Federal Reserve System,
20th Street and Constitution Avenue NW,
Washington, DC 20551

Attention: Federal Reserve Financial Services Policy Committee

Filed Electronically Via: regs.comments@federalreserve.gov

Re: Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments, Docket No. OP – 1625.

Ladies and Gentlemen:

Google applauds the Federal Reserve Board's effort to support faster payments in the U.S. with a settlement infrastructure supporting innovative faster payment services that serve the broad public interest and drive financial inclusion.

Google is in favor of real time gross settlement (RTGS) to speed payments in the U.S., and welcomes the Federal Reserve establishing the necessary infrastructure to support it. We also welcome the current proposal accommodating non-bank technology companies, allowing them to become agents of participant banks and submit payments into the system.

We strongly believe that a faster payments system will help achieve the stated goals of reducing barriers to innovation in the delivery of financial services, fostering beneficial competition, and increasing the accessibility of financial services to all Americans. The U.S. has historically been a leader in advancing new payment technologies that mitigate risks to the global payment system, while increasing efficiencies for domestic and cross-border consumers and businesses. However, the U.S. is falling behind other nations that have made definitive investments in domestic real-time payments infrastructure, such as India, the United Kingdom, and Australia. Without similar action, American consumers and businesses may be disadvantaged relative to their peers in other regions of the world, including their ability to conduct efficient cross-border commerce and inter-operate with other international payment systems.

To fully achieve the stated aims of the proposed system, we recommend that the Federal Reserve consider an explicit articulation of the following:

1. Support for real-time low-value and high-value payments
2. Use of standardized messaging protocols (e.g., ISO 20022) with extended metadata
3. Clear standards for an Application Program Interface (API) layer that enables

licensed non-financial institution third parties to access and submit requests into this payments system

Google Pay

Google Payment Corp., a subsidiary of Google LLC, provides a range of payment services, including card processing for online merchants, person-to-person and person-to-merchant payments, and mobile wallet payments for consumers and merchants. Google provides these payment services, depending on the service, through its authority as a licensed money transmitter and/or under payment processing agreements with a number of U.S. financial institutions.

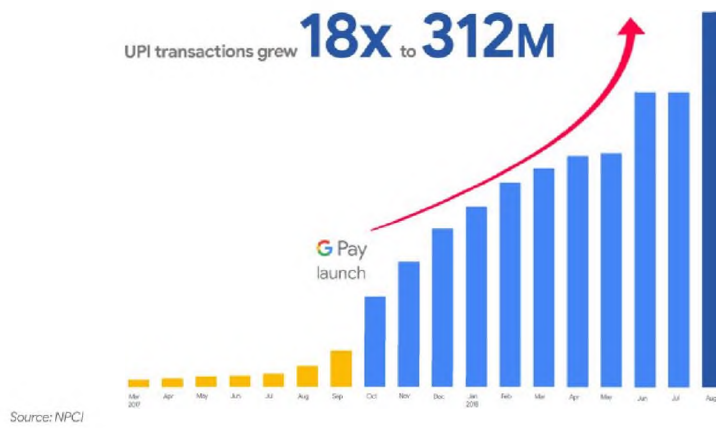
Our comments in this submission are based on Google's experience in developing new digital payment options for consumers, business users, and merchants. Google provides digital access to payment services for users and merchants in 180+ countries around the world. Our experience in India, where we worked with the Reserve Bank of India (RBI) to develop and popularize an innovative and modern real-time payments scheme, offers a particularly good example of what is possible.

Google Pay in India

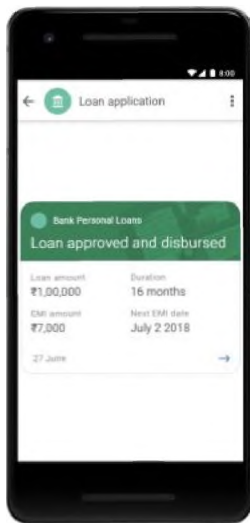
India launched its faster payment service, Immediate Payment Service (IMPS), in 2010, and in 2016 created an Unified Payments Interface (UPI), an overlay on IMPS that allows licenced third-party developers to access IMPS through a set of open application programming interfaces (APIs). In this manner, real time retail payments were available to any Indian consumer with an account at a participating bank.

Google Pay launched in India on Sept 2017. The product lets users transact directly between their bank accounts (through a connection with UPI), and supports real-time person-to-person (P2P) and person-to-merchant (P2M) payments. In less than a year, Google Pay has more than 30 million monthly active users in India, enabled more than 1 billion transactions, and an annual run rate of over \$40 billion dollars in transaction value.

Google Pay also made a significant impact in digital payments at the national level. Since the launch of Google Pay, India's monthly BHIM-UPI transactions have grown 18 times to 312 million this August. Moreover, many other major players, domestic and international, have plugged into the UPI network, further strengthening the ecosystem.



Google’s experience in India offers a case study in public-private partnership. We worked in close collaboration with the Reserve Bank of India and registered domestic banks to develop and launch the real-time UPI system. We also helped support popular adoption of this system through our Google Pay mobile application. Furthermore, we are supporting financial inclusion by partnering with licensed banks to offer pre-approved instant loans within Google Pay - facilitating greater access to capital for millions of consumers in India.



- Flexible loan amount
- No additional paperwork
- Funds deposited instantly

Responses to Questions in Docket

We have focused our responses on the development of a service for real-time interbank settlement of faster payments 24 hours a day, seven days a week, 365 days a year (24x7x365), since that endeavor is more aligned with areas that are relevant to Google.

(1) & (2) Is RTGS the appropriate strategic foundation for interbank settlement of faster payments? Why or why not? Should the Reserve Banks develop a 24x7x365 RTGS settlement service? Why or why not?

Google believes that the Federal Reserve has the right framework to develop a 24x7x365 RTGS settlement service. The Federal Reserve leading this system will better align the speed of payment to the speed of settlement and physical delivery of goods. Today, consumers can often place orders and receive shipments in the same day but payment takes longer to clear. Faster payment settlement can foster broader economic growth by accelerating the cash conversion cycle for businesses thus reducing working capital needs. Real time payments (push and pull) can also help mitigate fraud.

Furthermore, there is a desire amongst consumers and businesses for speed and convenience in paying for products and services, as evidenced by the rapid growth of mobile P2P payment apps domestically and, as demonstrated by the success of systems such as India's UPI, internationally.

We believe that the Federal Reserve is best positioned to define and implement a faster payments infrastructure because:

- By its nature, the Federal Reserve can ensure the lowest degree of settlement risk to RTGS participants and provide a “neutral” space for all participants in the industry.
- The Federal Reserve is also uniquely positioned to maximize scale of such a system, and therefore drive network efficiency.
- The Federal Reserve, beyond cost recovery, does not have a profit motive and can reduce the costs of intermediation and maximize the benefit to the broader economy.

We recommend the Board ensure support for real time high-value and low-value payments. This may require participants to have pre-funded accounts and/or necessary collateral, with the Federal Reserve providing settlement guarantees to manage the credit and liquidity risks arising from any time lag between payment completion for end users and interbank settlement. This will ensure that the faster payments service is available to end users on a 24x7x365 basis even if interbank settlement is delayed.

We also recommend the use of a standardized messaging protocol, for instance standards such as ISO 20022 allow a greater range of metadata to be shared along with the payment instruction, in order to simplify the end-to-end process.

Furthermore, we believe that it is important to create an infrastructure that enables innovative applications of payments. Establishing standards for an open banking API layer across the industry will facilitate innovation in payments, as well as achieve the objectives of financial inclusion. International examples (e.g. PSD2 in Europe) have featured a standardized implementation of APIs across the banking industry that enable trusted third parties (with full user consent and authentication) to support initiation of payment actions P2P and P2M directly from a user's account and/or request a user's account information. We believe this API layer is a critical component to reducing the barriers to innovation in the delivery of financial services, fostering beneficial competition in the marketplace, and increasing the accessibility of financial services to all Americans.

(3) (a) If the Reserve Banks develop a 24x7x365 RTGS settlement service,

Will there be sufficient demand for faster payments in the United States in the next ten years to support the development of a 24x7x365 RTGS settlement service? What will be the sources of demand? What types of transactions are most likely to generate demand for faster payments?

Google believes that demand for faster payments will increasingly be driven by the proliferation of mobile devices. For many Americans, smartphones are a primary way to engage online. This has already sparked innovation in the retail commerce experience, blurring the lines between “physical retail” and “online shopping”. Concrete examples of these services include ridesharing, order ahead, and food delivery services - where instant, online payments enable immediate fulfillment of real-world goods and services.

We also see the recent, rapid growth in the use of mobile services for basic payment use cases such as P2P or bill payments, as evidence of latent user demand for real time payments in the US. In markets such as India, utilization of real time payments has increased 18x in the past year, and is fostering increased levels of innovation in the delivery of broader financial services, one example being instant transaction credit at the time of purchase.

(3) (b) If the Reserve Banks develop a 24x7x365 RTGS settlement service, What adjustments would the financial services industry and its customers be required to make to operate in a 24x7x365 settlement environment? Are these adjustments incremental or substantial? What would be the time frame required to make these adjustments? Are the costs of adjustment and potential disruption outweighed by the benefits of creating a 24x7x365 RTGS settlement service? Why or why not?

There will be higher operational requirements for the financial ecosystem since a real time service will need (1) 100% uptime to operate 24 x 7 x 365, (2) immediate confirmation to parties in a transaction that the funds have been transferred irrevocably and (3) real time risk management.

While there will be higher upfront costs to meet the above requirements, we believe the benefits outweigh the costs. In addition to the benefits to innovation, beneficial competition, and facilitation of retail commerce as described above, a real time payments system can also reduce the use of cash and strengthen the formal economy, speed up the cash conversion cycle and reduce businesses’ need for working capital, and strengthen the global competitiveness of the US payment system.

(3) (c) If the Reserve Banks develop a 24x7x365 RTGS settlement service, What is the ideal timeline for implementing a 24x7x365 RTGS settlement service? Would any potential timeline be too late from an industry adoption perspective? Would Federal Reserve action in faster payment settlement hasten or inhibit financial services industry adoption of faster payment services? Please explain

We have seen that industry adoption is fastest in countries where regulators play a key role. Action taken by the Federal Reserve would hasten financial services industry adoption of faster payment services.

We believe that time is of the essence - the U.S. is already behind many other

countries that have implemented real time payments, such as India, the United Kingdom, Australia, and Singapore. The lack of real time payments results in many lost opportunities for American consumers and businesses as the “financial payments chain” lags “physical supply chain” in many cases.

(3) (f) If the Reserve Banks develop a 24x7x365 RTGS settlement service, Regarding auxiliary services or other service options, i. Is a proxy database or directory that allows faster payment services to route end-user payments using the recipient’s alias, such as email address or phone number, rather than their bank routing and account information, needed for a 24x7x365 RTGS settlement service? How should such a database be provided to best facilitate nationwide adoption? Who should provide this service? ii. Are fraud prevention services that provide tools to detect fraudulent transfers needed for a 24x7x365 RTGS settlement service? How should such tools be provided? Who should provide them? iii. How important are these auxiliary services for adoption of faster payment settlement services by the financial services industry? How important are other service options such as transaction limits for risk management and offsetting mechanisms to conserve liquidity? Are there other auxiliary services or service options that are needed for the settlement service to be adopted?

Google strongly supports a standards-based consumer-level digital identity, because current identifiers have many limitations:

- Current identifiers are at a payment instrument level (e.g bank account) and not an individual consumer level.
- Today, each financial provider builds identity from scratch and it’s not portable or usable across financial providers.
- Consumers desire convenience and the ability to use their email address or phone number as an alias to their bank/account information.
- Consumers are also more comfortable sharing their email address or phone number to others, rather than sharing their bank account numbers.

Therefore, we recommend establishing a directory service with the following features:

- Allows faster payment services to route end-user payments using a recipient’s alias such as e-mail address or phone number, rather than bank routing and account information.
- One centralized mapping and system of record, maintained by a provider that can manage high transaction volume with low latency, and commit to very high uptime.
- Multiple providers (including banks and non-bank technology companies) should be able to contribute to and access the mapping if securely permissioned by the payee/payor. For example: If an individual registers their bank account and Gmail with Provider A’s payment app, a Google payment app should be able to access this mapping when the user is logged into Gmail, without forcing the consumer to go through registration again.
- Real time payments require real time capabilities to detect fraudulent transfers needed for a 24x7x365 RTGS settlement service.

Google is happy to be one of the contributors of this directory service - with over 1.5B active Gmail users globally (many of whom have linked payment instruments to these accounts), we believe we can be a beneficial partner to the broader payment

ecosystem in this area.

(3) (g) If the Reserve Banks develop a 24x7x365 RTGS settlement service, How critical is interoperability between RTGS services for faster payments to achieving ubiquity?

Interoperability is extremely valuable in driving ubiquity, democratizing access for all participants, and promoting innovative use cases. We also recognize that there are many different types of entities and payment systems that may seek to connect to a prospective Fed RTGS payments system, and it may be very difficult to solve this problem *a priori*.

Google recommends that the Federal Reserve considers a broader approach that is inclusive of not just the RTGS rails, but also includes an API layer that allows accessibility to licensed third parties in the private sector, including financial and non-financial companies. This enables these parties to connect to and initiate payment requests to the system and support interoperability across other systems - in the present and in the future. In this manner, the Federal Reserve's RTGS system can serve as a robust platform for interoperability.

(3) (h) If the Reserve Banks develop a 24x7x365 RTGS settlement service, Could a 24x7x365 RTGS settlement service be used for purposes other than interbank settlement of retail faster payments? If so, for what other purposes could the service be used? Should its use be restricted and, if so, how?

A RTGS system can be used for purposes other than interbank settlement of retail faster payments. For example, supplementing this system with a rich data layer accessible to licensed non-financial institution third parties via API can enable innovative ecosystem participants such as consumer technology companies to develop new consumer-facing use cases. This could include:

- Presentation of payment initiation requests within native commercial contexts
- New distribution points for transaction-based financing
- Alternative options to view and manage personal financial history

These efforts can be supported through endorsement of messaging standards that support richer payment information, such as ISO 20022. Furthermore, we believe that the development of these use cases will be beneficial in ensuring widespread consumer and merchant adoption of the RTGS service.

(8) What other approaches, not explicitly considered in this notice, might help achieve the broader goals of ubiquitous, nationwide access to faster payments in the United States?

In developing the detailed implementation of this service, or the additional recommendations that we have made throughout this document, we would recommend that the Federal Reserve consider the following:

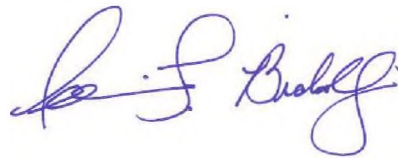
- Establishing centralized, consumer-centric standards for user authentication
- Support for low-friction and fast methods of KYC implementations
- Tiered-fee models that reduce the burden on individual consumers and small

merchants, particularly for micro-transactions.

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Google appreciates the opportunity to comment on the Federal Reserve Boards' thoughtful questions on faster payments raised in the request. As the Board moves forward with further discussion of this initiative and specific options with stakeholders in the payments industry, we would like to offer as a resource our considerable substantive knowledge and technical expertise in this area.

Sincerely,

A handwritten signature in blue ink, appearing to read "A. Biddings". The signature is fluid and cursive, with a large initial "A" and "B".

Adrienne Biddings
Public Policy & Government Relations Counsel