

Leading Through Complexity: Hybrid Cloud Strategy for Scalable Innovation



Aman Sardana

Expert Application Architect



Vijay Kumar Soni

Expert Application Engineer

Enterprise Technology Leadership Summit - 2025

The opinions expressed in this presentation are those of the presenter, in their individual capacity, and not necessarily those of Discover.

Discover Global Network: About Us

Who we are

DISCOVER
NETWORK



- **Unique Network** with Global Connectivity & Partnership
- **Comprised** of Acquirer (Merchant integrator) and Issuer (Card Issuing banks) connections via Discover Network
- **Discover Network** : millions of merchant and cash access locations
- **PULSE®** : one of the leading ATM/debit networks in the US
- **Diners Club International®** and
- **30+ Global Alliance Partners**

Our Numbers



\$622 billion in spend¹



190+ countries and territories accept our network¹



378M+ cards run on our global network¹



1.8M global ATMs offer cash access²

Critical Platforms



Payment Transaction Authorization

< 1 second
response time

99.999%
Availability



Transaction Settlements



Digital Payments Tokenization



Fraud Monitoring and Detection

Continuous Innovation: From One Coin to Another



1787



1862



1950



1994-2010

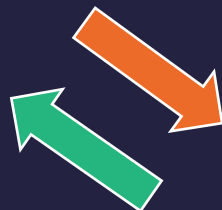
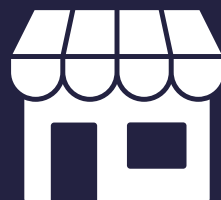


2009- Today

Result of Innovation in Payment?



Tap/Swipe/Chip
(card present)



Real-Time
Payments

No more
coins



Online Payment
(card not present)



Acquirer

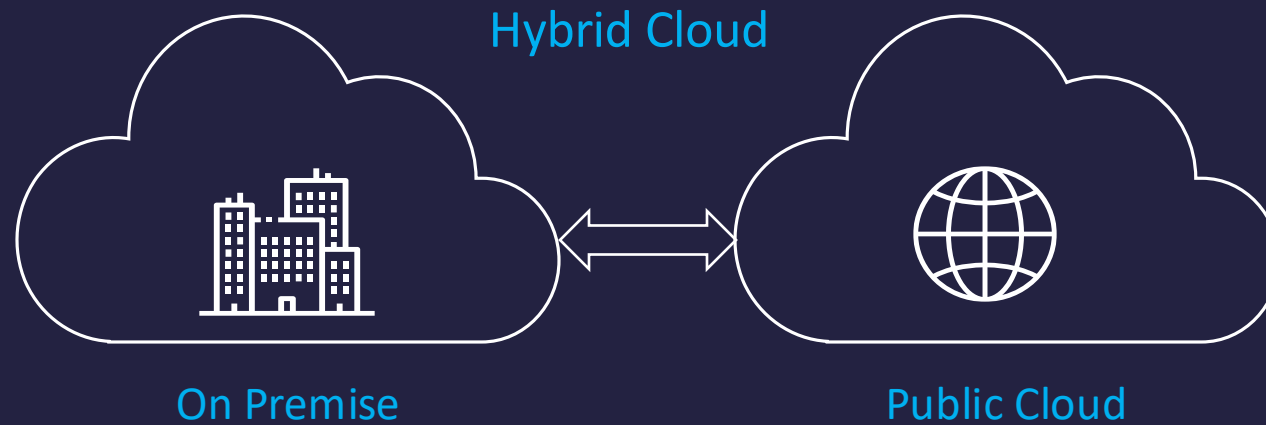
Payment Network

Card Issuing Bank

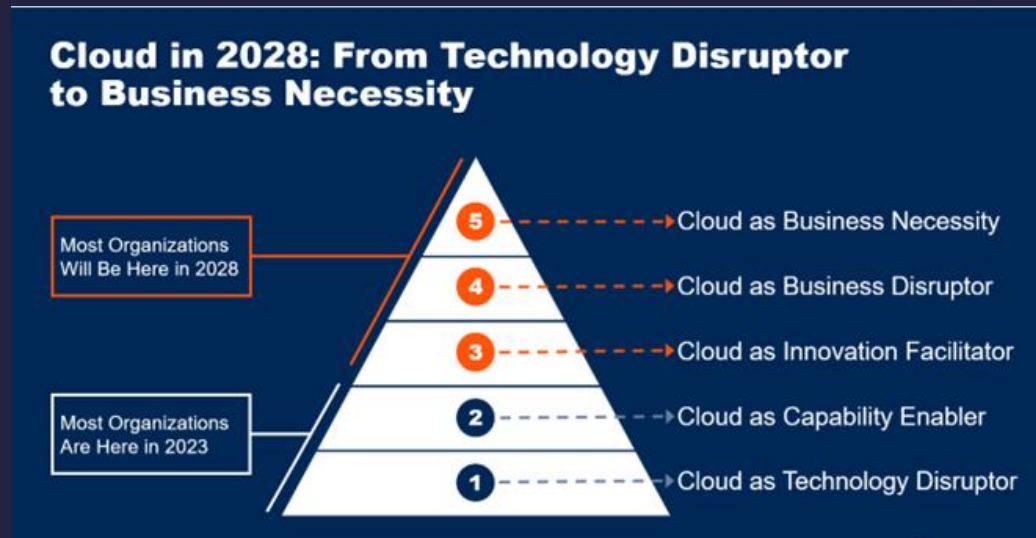
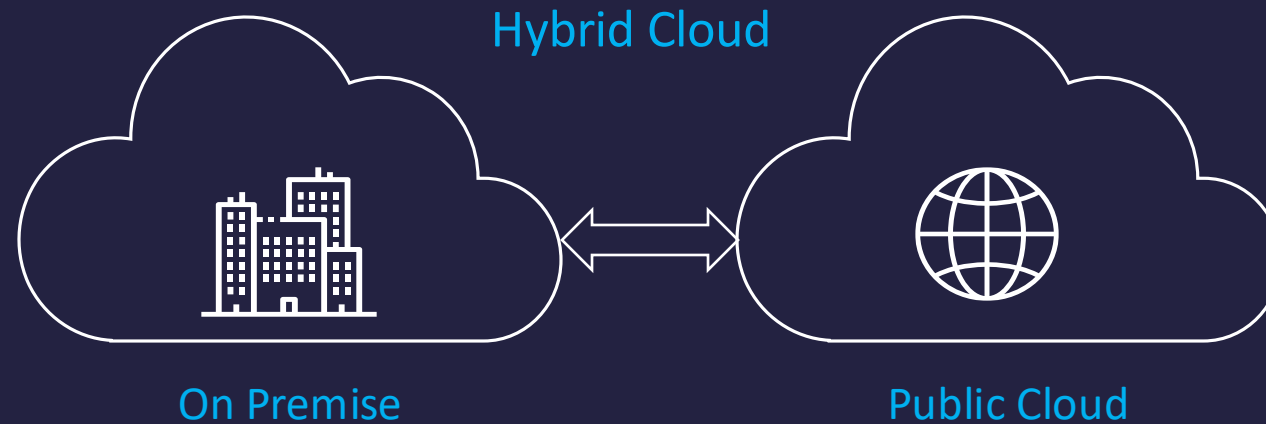
Card Member

Merchant

Hybrid Cloud and Innovation



Hybrid Cloud and Innovation



Hybrid Cloud Benefits



Balanced Risk Management



Cost Optimization



Global Reach



Increased Innovation



Scalability and Performance



Compliance and Data Sovereignty

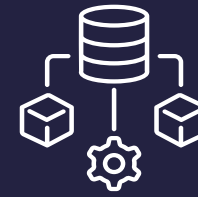
Hybrid Cloud Environment: Key Challenges



1. **Increased Network Complexity**



2. **Complex Service Discovery**



3. **Customized Cluster Management**



4. **Continuous Security Overhead**



5. **Added Compliance Requirements**



6. **Variable Network Latency**



7. **Application Integration Constraints**



8. **Increased DevOps Effort**



9. **Complex Disaster Recovery Process**



10. **High Availability Risks**

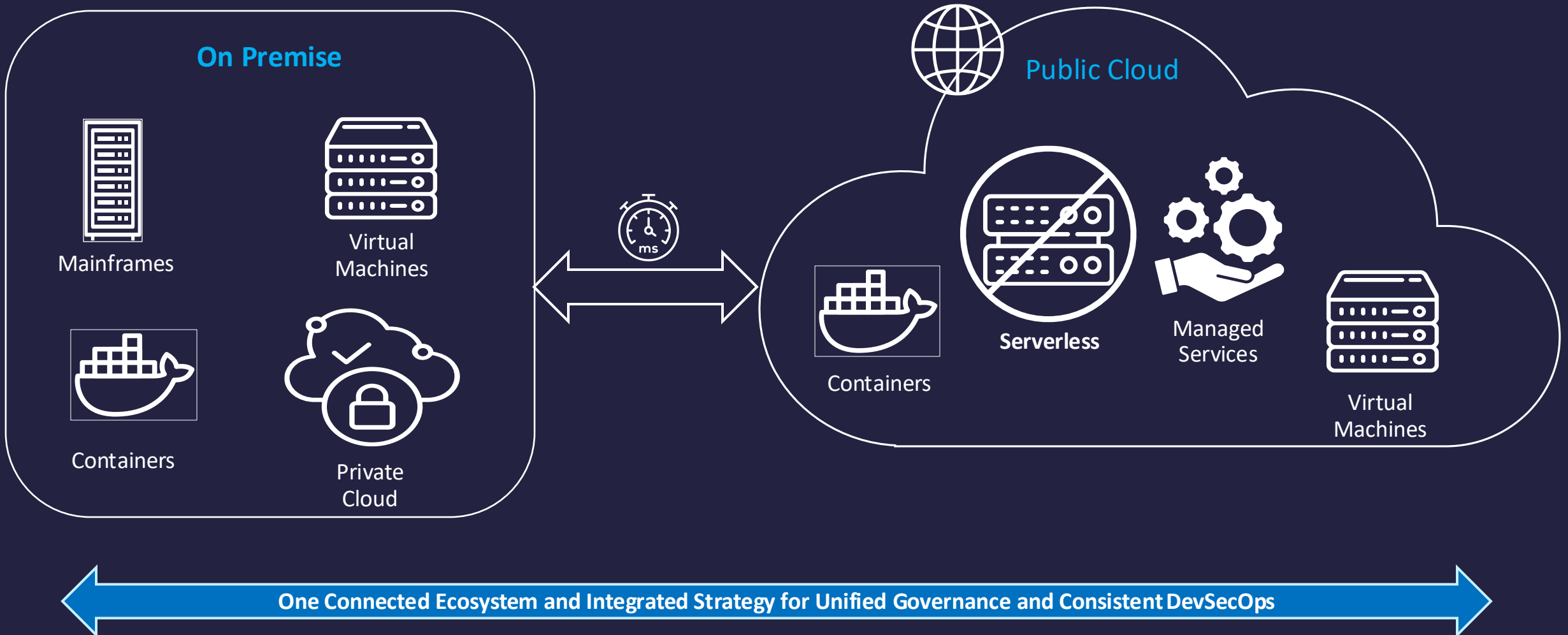


11. **Increased Monitoring & Tooling**

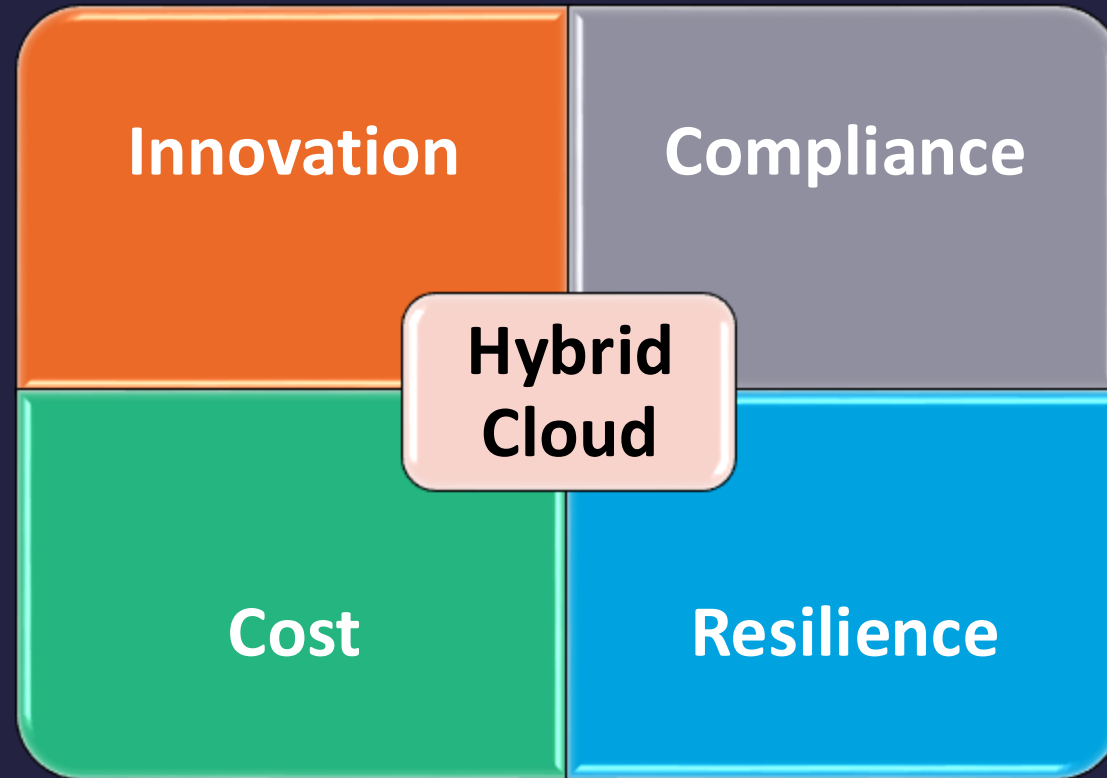


12. **Increased Business Cost**

The New Reality: Complexity Everywhere

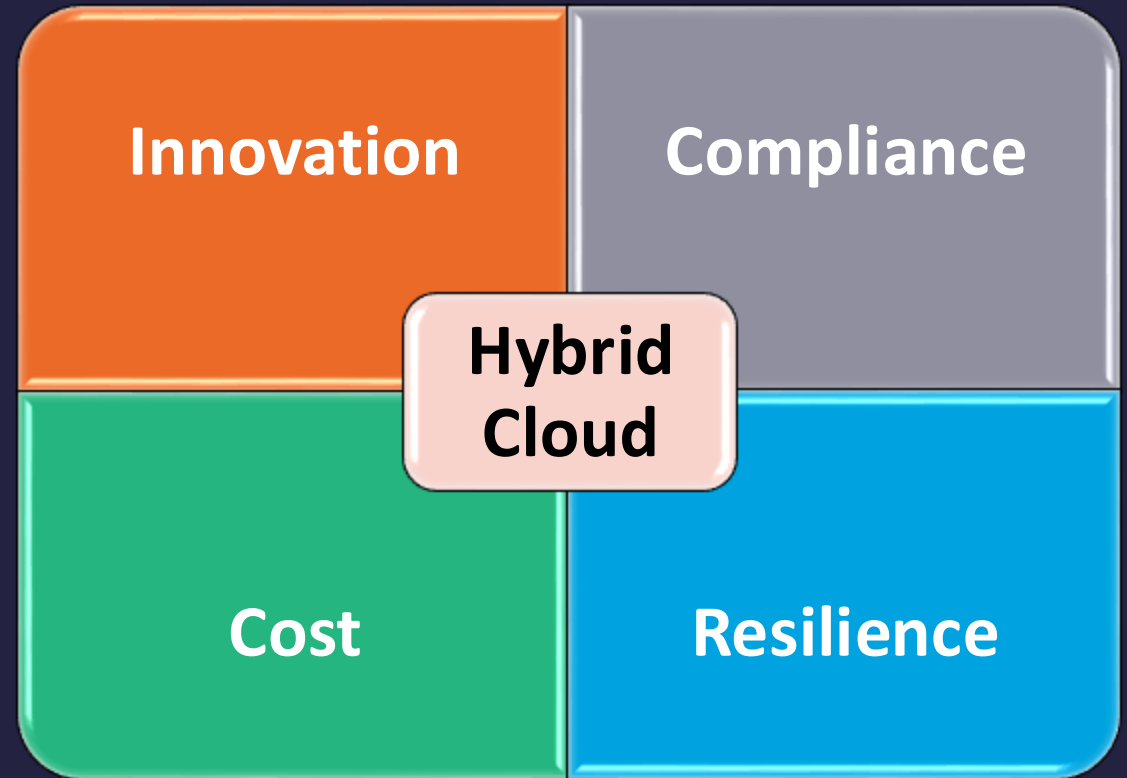


Leadership Challenge



Leadership Challenge

Hybrid cloud is not just a technology choice - it's a leadership decision



Hybrid Cloud Strategy: A Systematic Approach



What our Leaders Say about Hybrid Cloud

Discover Global Network Launches Cloud-Based Network Tokenization Platform

BY PYMNTS | OCTOBER 12, 2023

DISCOVER® Global Network



Discover Global Network, the payments brand of Discover, has launched its new cloud-based network tokenization platform.

This platform aims to offer companies a scalable and flexible token solution to enhance the security and efficiency of their payment processes, the company said in a Thursday (Oct. 12) [press release](#). By integrating stored payment tokens as part of the payment experience, merchants and customers can get a seamless and secure transaction process.

The network tokenization platform, an extension of Discover Stored Payment Tokens, is designed to cater to the evolving payment ecosystem, according to the release. Discover partners can now deploy this solution at scale with their merchants.

Judith McGuire, senior vice president of global products at Discover Global Network, said in the release that the company is committed to building network tokenization services with its enhanced, cloud-based platform. McGuire emphasized that this aligns with the company's long-term strategy of offering a robust and scalable solution in the market, which will serve as the foundation for their future capabilities.

IBM Newsroom

News Media resources Inside IBM Blog

IBM Works with Discover to Co-Create Technology Solutions and Migrate to a Hybrid Cloud Platform

Mar 30, 2022



ARMONK, N.Y., March 30, 2022 /PRNewswire/ -- IBM Consulting (NYSE: [IBM](#)) is working with Discover Financial Services (NYSE: [DFS](#)) to help the leading digital bank and payments company enhance its digital transformation of applications and existing systems to a hybrid cloud architecture using Red Hat OpenShift.

"Consumer's demand faster access to integrated digital banking and payments more than ever, with the assurance that their data will be protected," said John Granger, Senior Vice President, IBM Consulting. "Embracing an open enterprise hybrid cloud strategy with a secure platform purpose-built for the financial services industry allows Discover to deliver differentiated new experiences."

Discover plans to migrate and modernize its current systems and applications to an open and flexible hybrid cloud architecture. Red Hat OpenShift will help Discover leverage key capabilities such as security, automation and multi-cloud service integration to reduce operational costs, deliver better outcomes across business processes, enable faster application deployments, and bring agility with enhanced security and resilience.

"As we accelerate our digital transition journey as a leading direct bank and payments company, it is critical that we have technology solutions in place that help us improve the customer experience," said Amir Arooni, Executive Vice President and Chief Information Officer at Discover. "Working with IBM will allow us to automate, react and deliver solutions more quickly, ultimately driving down costs and helping our customers."

DISCOVER

Discover Financial Services Increases Transaction Processing Speed by 66% on AWS

2022

Through its payment services, [Discover Financial Services](#) (Discover) facilitates millions of daily transactions while working to drive value and adapt quickly to support new business partnerships. When Discover's payments team began migrating away from a legacy mainframe to better support innovation, speed, and flexibility in their Amazon Web Services (AWS) support a scalable solution. By working to migrate its card settlement environment to an architecture on AWS, Discover delivered security and enhanced the developer experience while increasing processing speed and reducing the time to adopt pricing changes.



“On AWS, we're able to adopt pricing changes within 3 weeks, whereas before it took at least 6 months.”

Steve Gallow
Senior Principal Application Architect, Discover
Financial Services

Key Takeaways

Hybrid Cloud is still relevant to many industries including payments and financial services. Lead through the complexity, not around it.

Hybrid cloud is not just a technical architecture; it's a strategy to innovate at scale.

Empower teams with governance, the key to unlocking innovation without losing control.

If you can lead through the complexity of Hybrid Cloud, you create an engine for innovation and growth.

Questions?





Discover®
Technology

Visit the Discover Technology Experience to learn more about our people, processes and technologies creating a brighter financial future for our customers.



Scan the QR code or visit
technology.discover.com

©2025 Discover

