

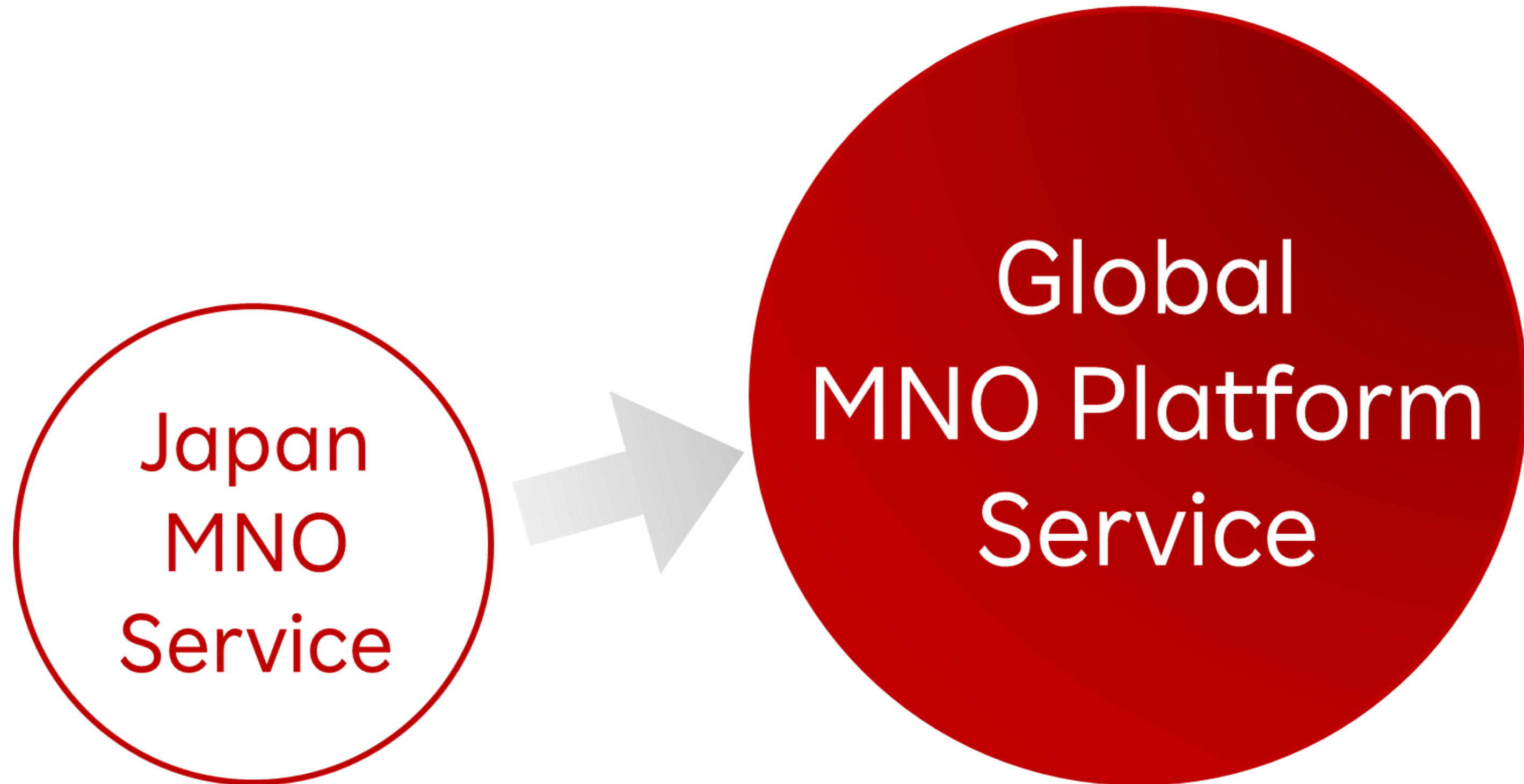
# Rakuten Mobile Strategy Session

**Feb. 13, 2020**

**Rakuten Mobile**



# Global Expansion as a MNO Platform



**March 3**

**Pricing Plan  
Announcement**

**Rakuten**

# **Rakuten** Mobile

CTO,  
Rakuten Mobile, Inc. | Tareq Amin



# Rakuten Mobile Success Factors

## Four Success Factors

**Virtualized,  
decoupled  
RAN  
architecture**

**Standardized,  
open  
hardware and  
software  
frameworks**

**Optimal mix of  
edge and  
centralized  
data center  
resources**

**Pervasive  
automation  
and zero  
operations  
control**

## Benefits

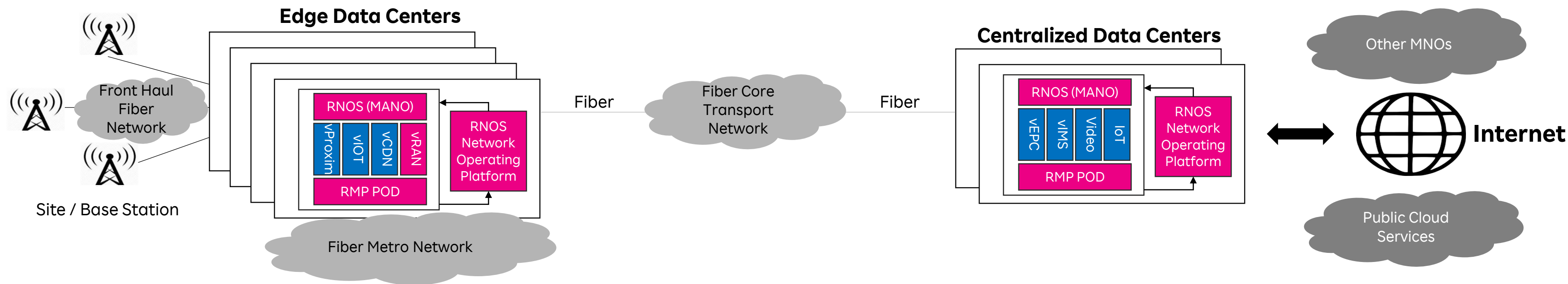
**Reduced site equipment through  
virtualization**

**Reduced site leases, maintenance / site  
visits, operations, and power use  
through fewer equipment at sites**

**Reduced capacity requirement through  
pooling and orchestration of resources  
delivering more with less**

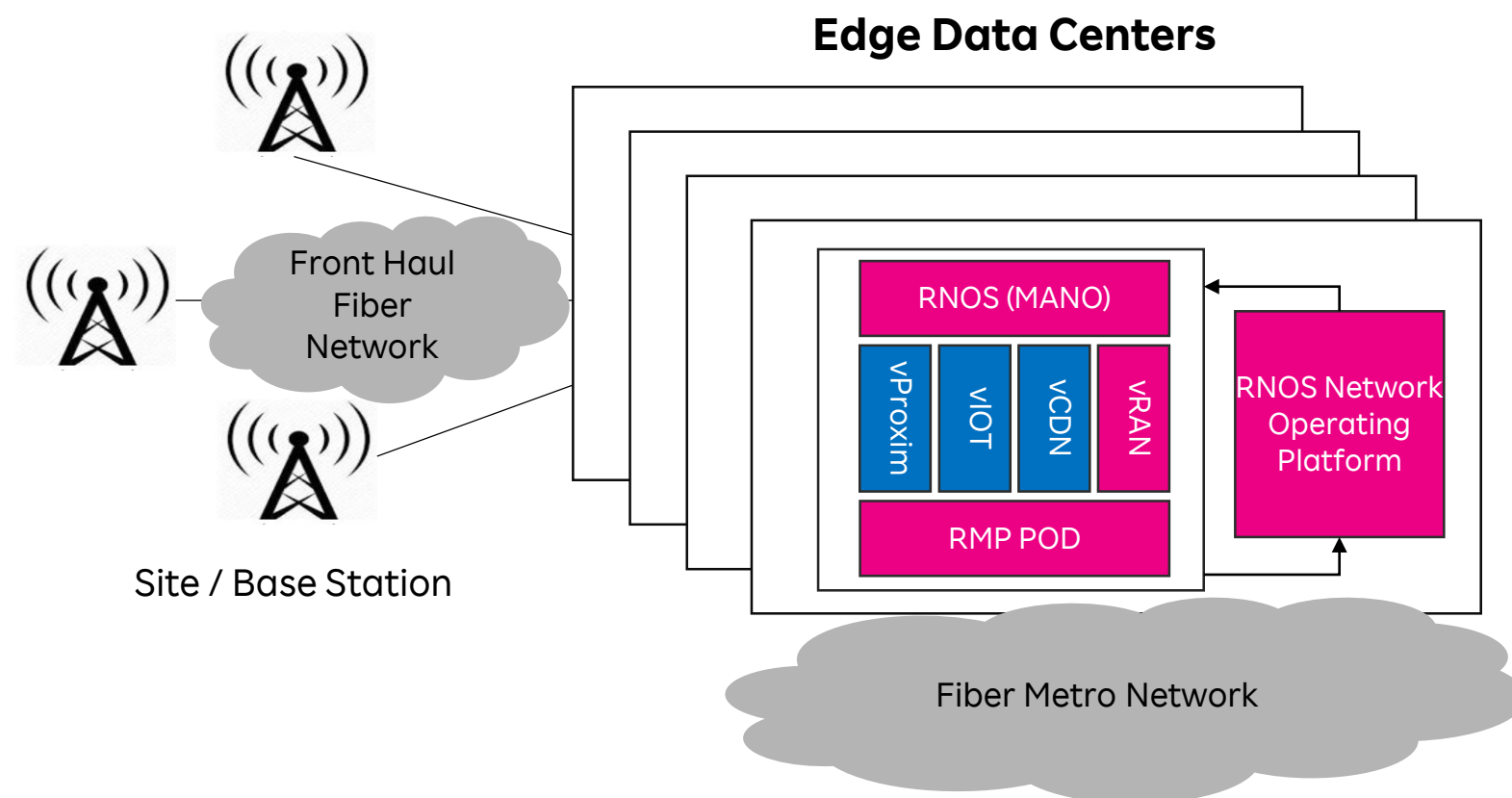
**Lower latency through optimization of  
network locations (edge vs. central)**

## Rakuten Mobile Network Architecture





# World's First OpenRAN Platform - AltioStar



## Radio Innovations

- Fully virtualized eNB - virtualizing the RAN on COTS hardware
- Containerized vRAN micro-services based on Kubernetes Platform
- 24-sectors of Baseband processing on single dual-socket server
- End-to-end orchestration and automation of eNB as a VNF

## Infrastructure Innovations

- Telemetry-based RCA and auto-diagnose for common issues
- Zero-touch infrastructure automation ready for deploying real-time & extremely latency sensitive applications like vDU
- Future-proof Hardware and Software solution – Upfront architecture & design that can support 5G
- Facilitating Open interfaces and making Disaggregation of Hardware and Software a reality



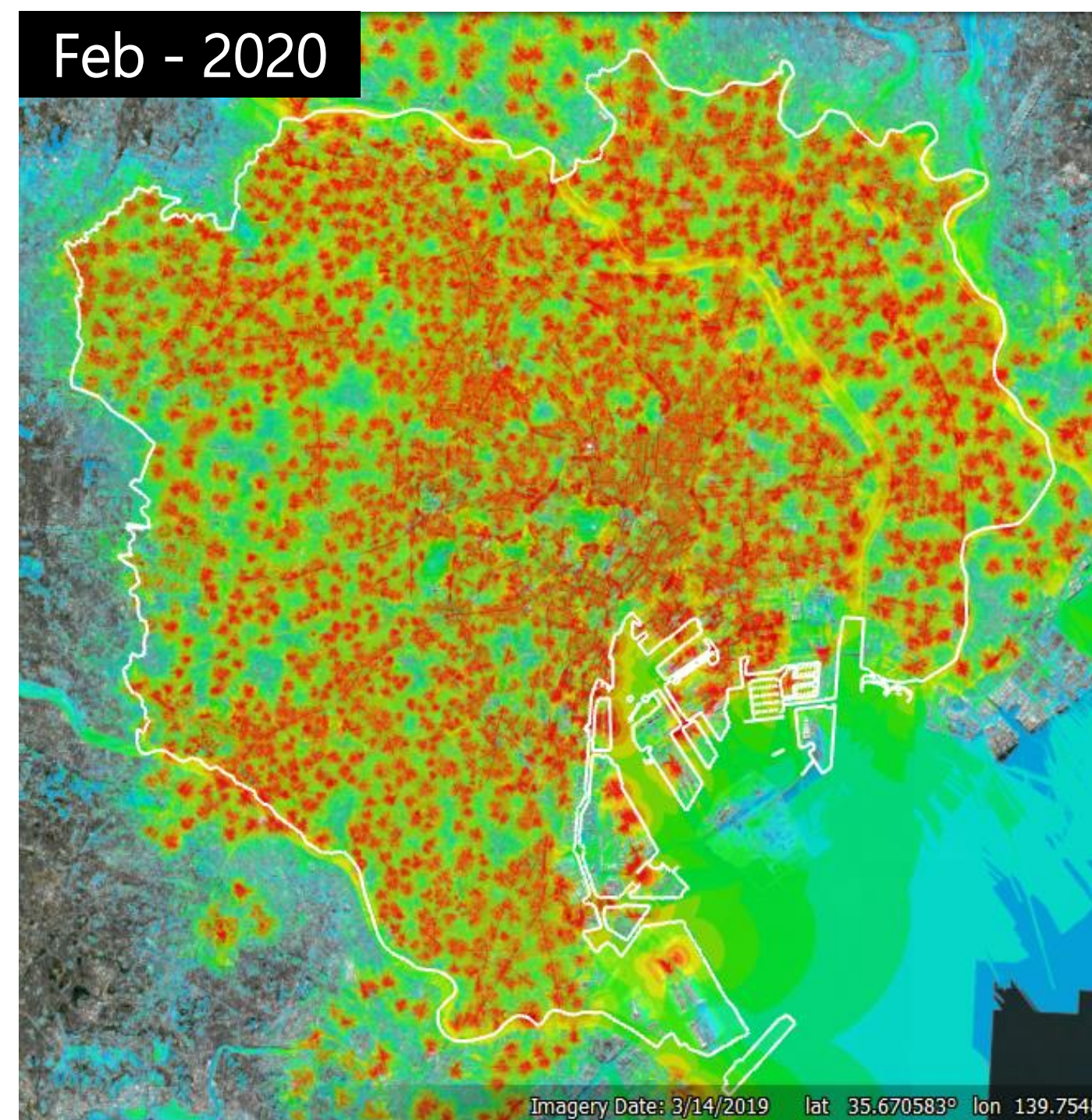
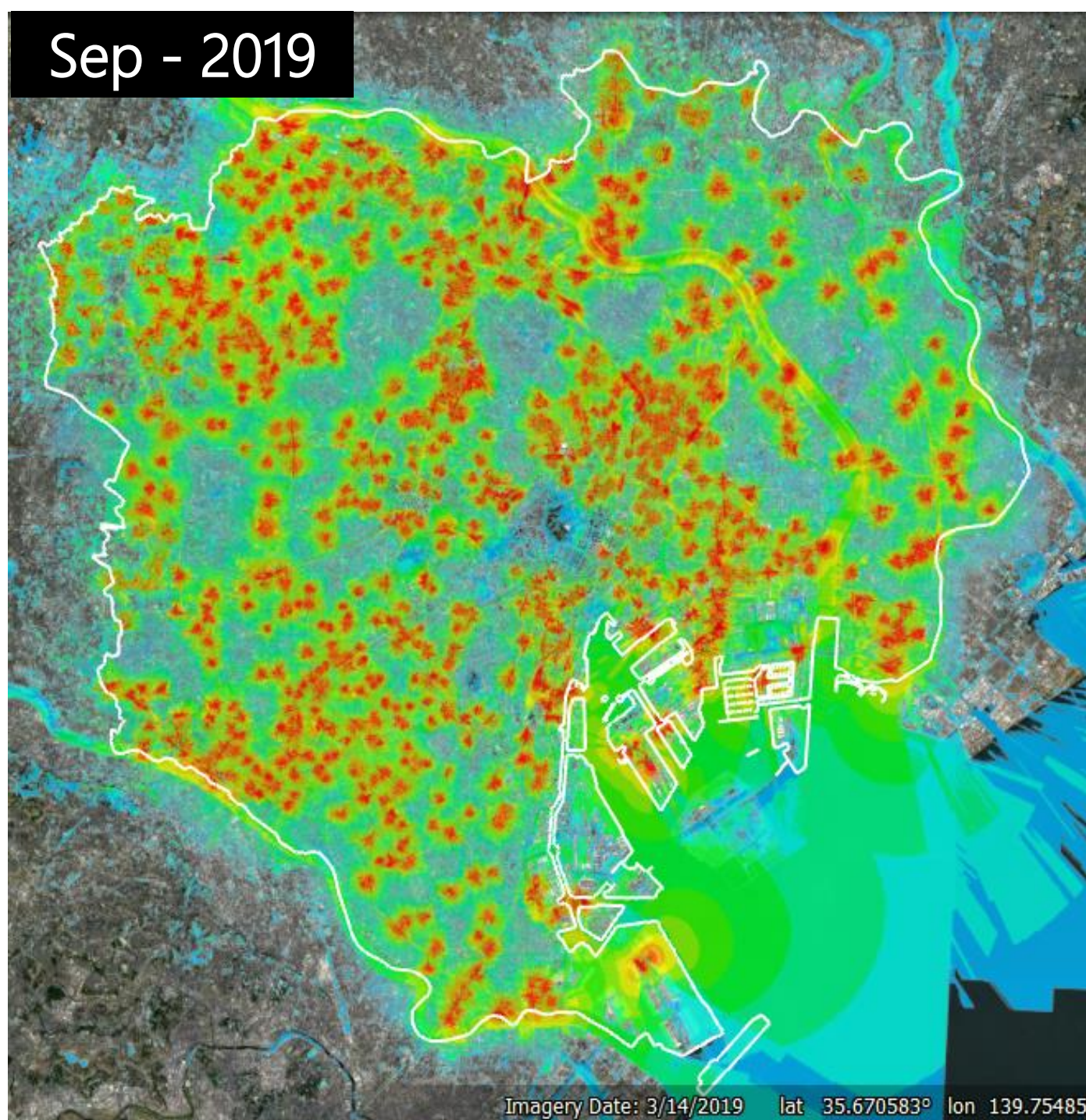
# NETWORKS







# We are on track at our Coverage Plans



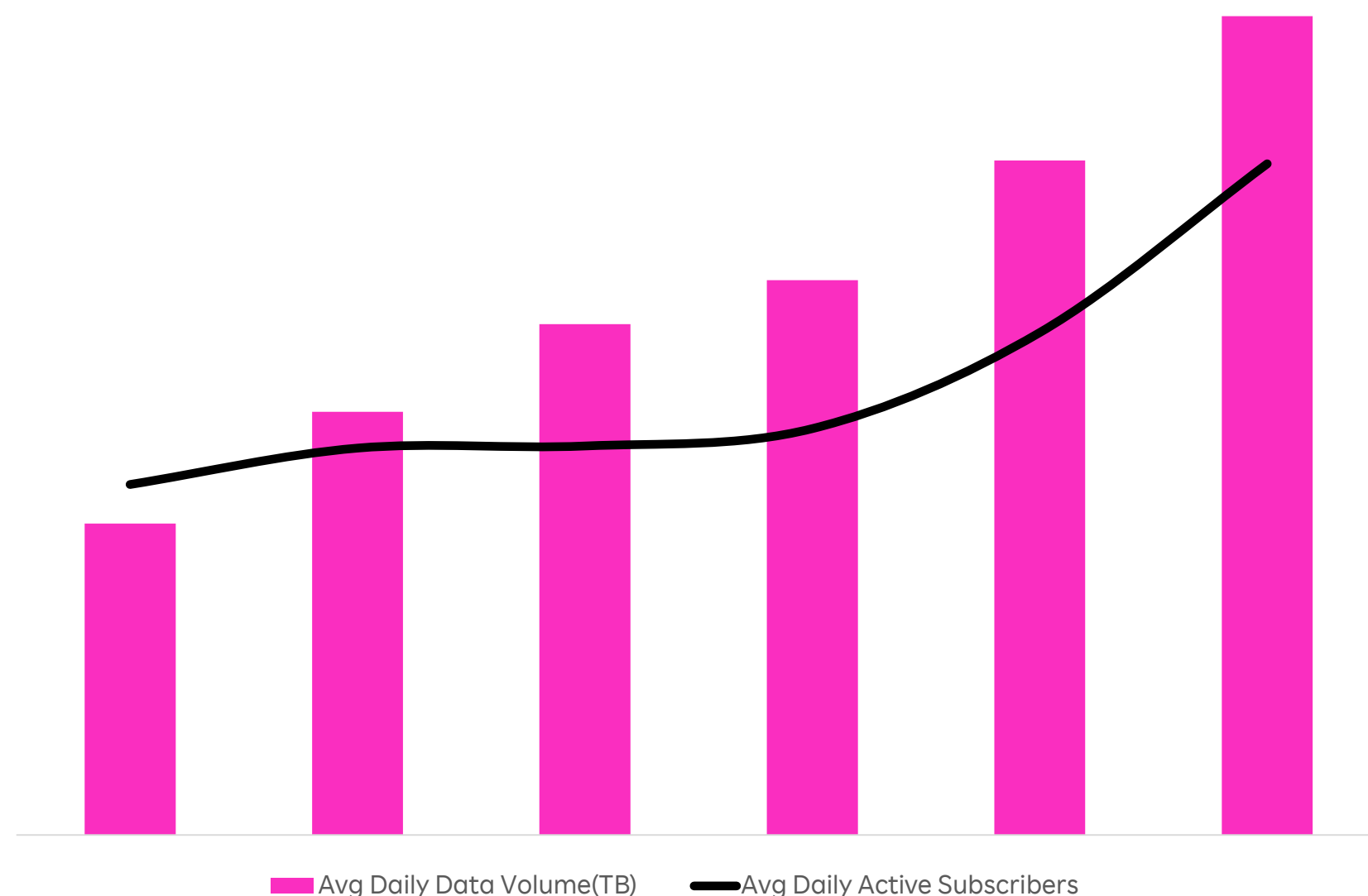
**There are already more than 3,300 sites on air as of Feb 13, 2020**





# Despite the total traffic is increasing, our NW KPIs are stable

## Average Daily Active Subs & Data Volume



99.3%

AVAILABILITY

99.4%

ACCESSIBILITY

99.8%

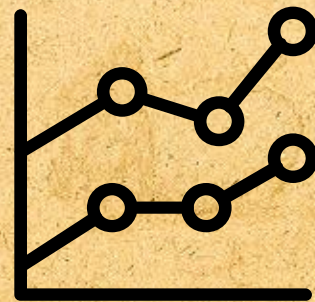
RETAINABILITY

NB. Average Daily Active Subs & Data Volume is calculated weekly starting from Jan 1, 2020.  
Selected NW KPIs are average during Feb 11, 2020.

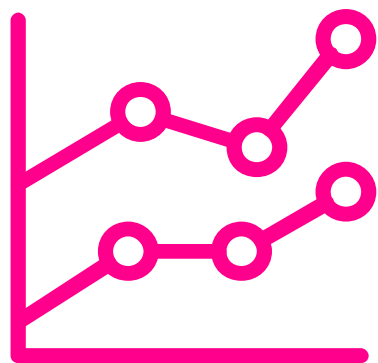




# LEARNINGS

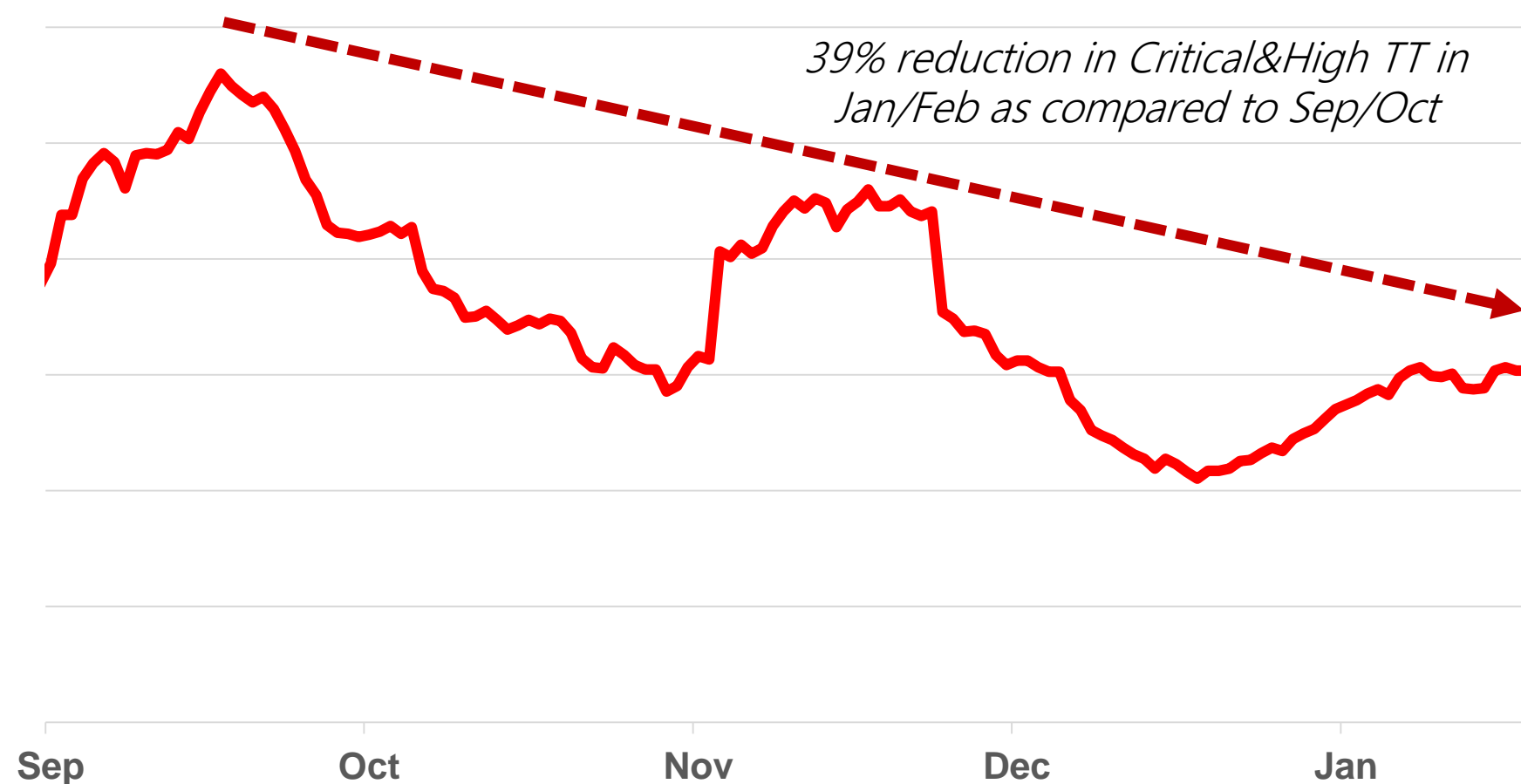






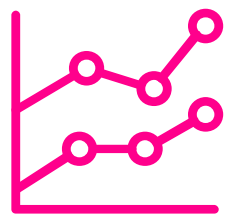
# We are already taking necessary steps to manage incidents better and we are learning faster

## Critical & High Trouble Tickets (excl. RAN)

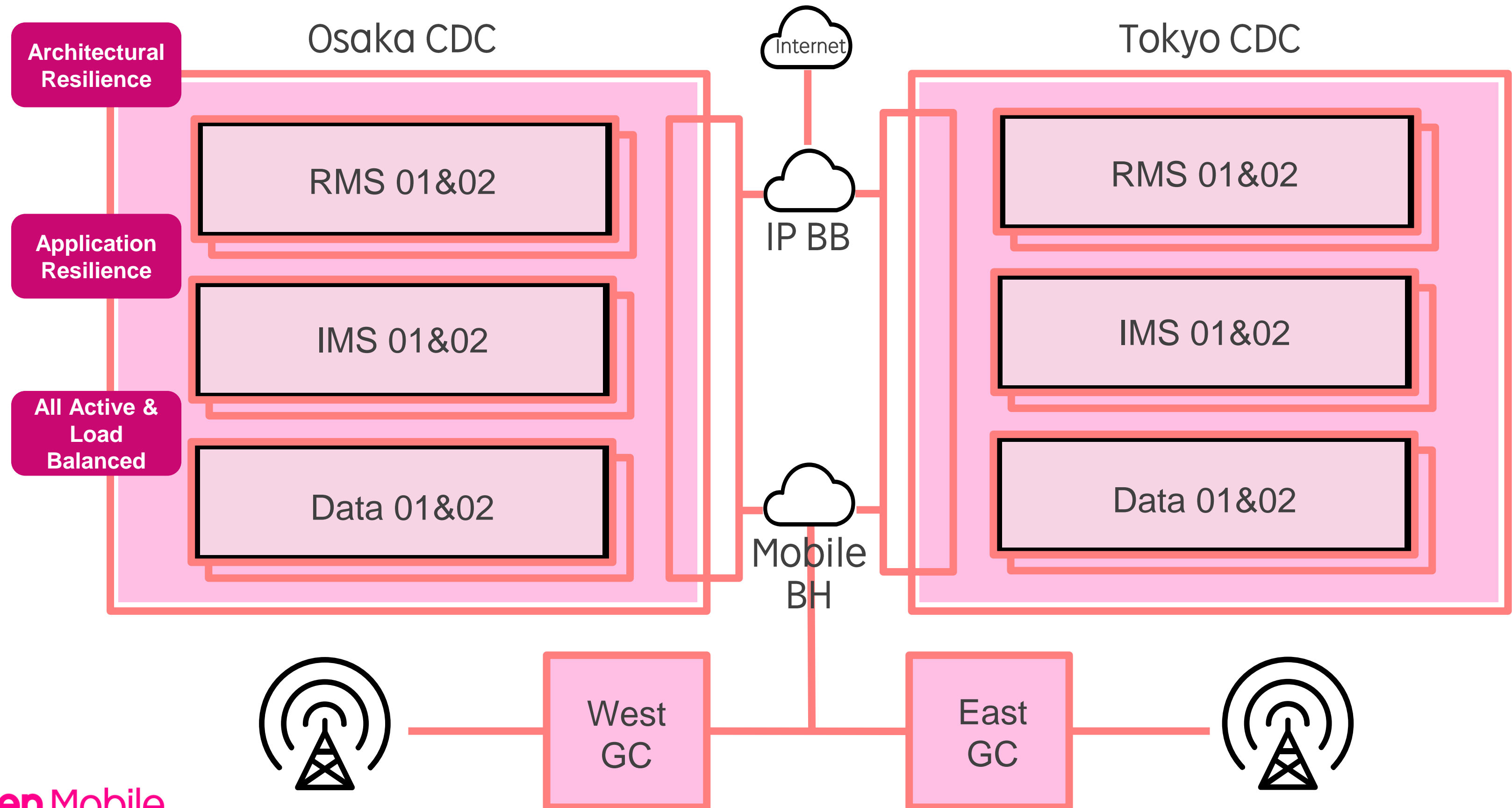


- We operationalized Service Experience Center (SXC)
- We created a Pod-based Incident Management approach
- We are running Canary Tests to assure our Launch Readiness
- We are introducing automation for Troubleshooting ticket creation and resolution

NB. Daily Critical&High TroubleTicket trends calculated based on 21 days Moving Average.



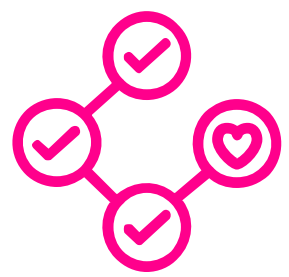
# RESILIENT DNA IN RAKUTEN MOBILE ARCHITECTURE



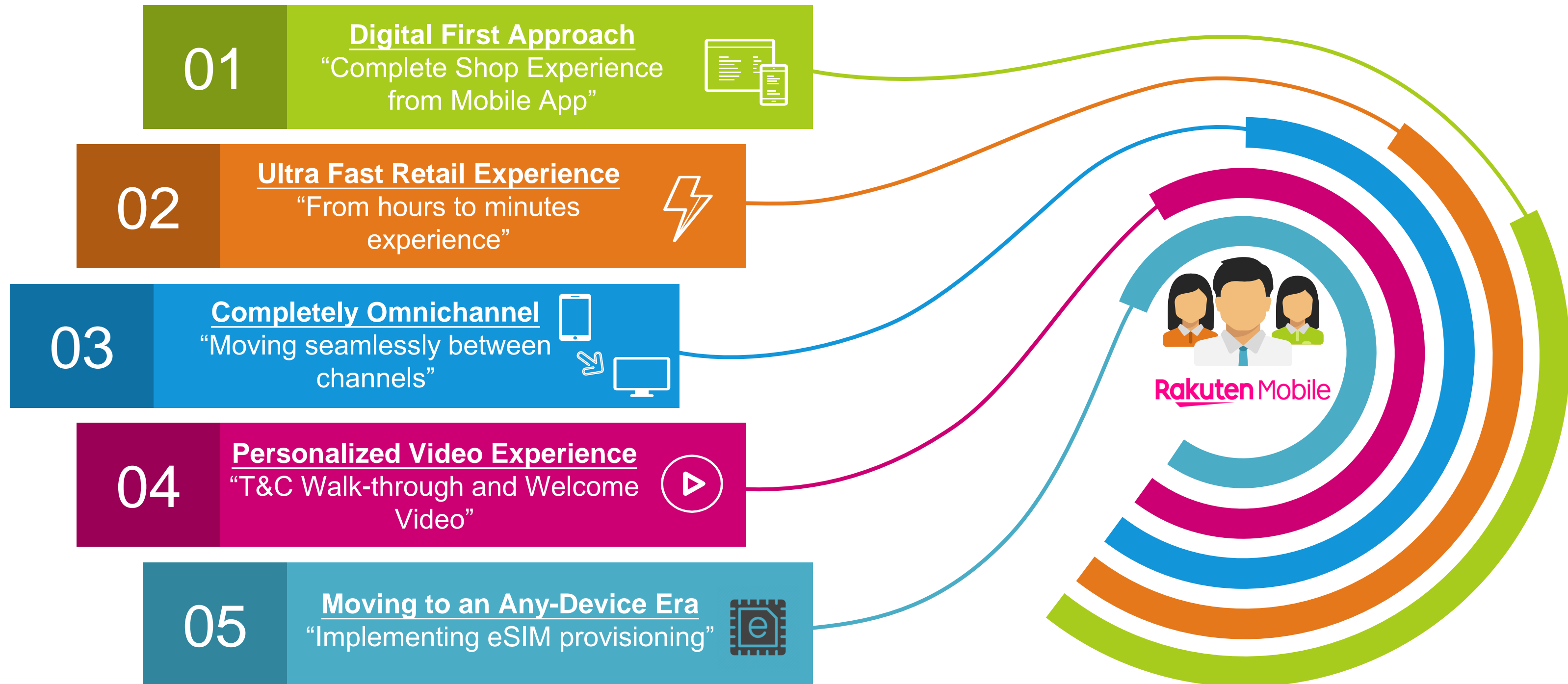
Rakuten Mobile

UNIQUE  
CUSTOMER  
EXPERIENCE

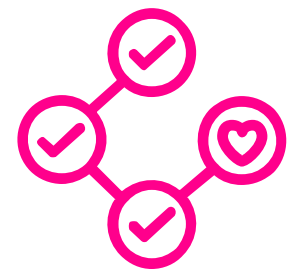




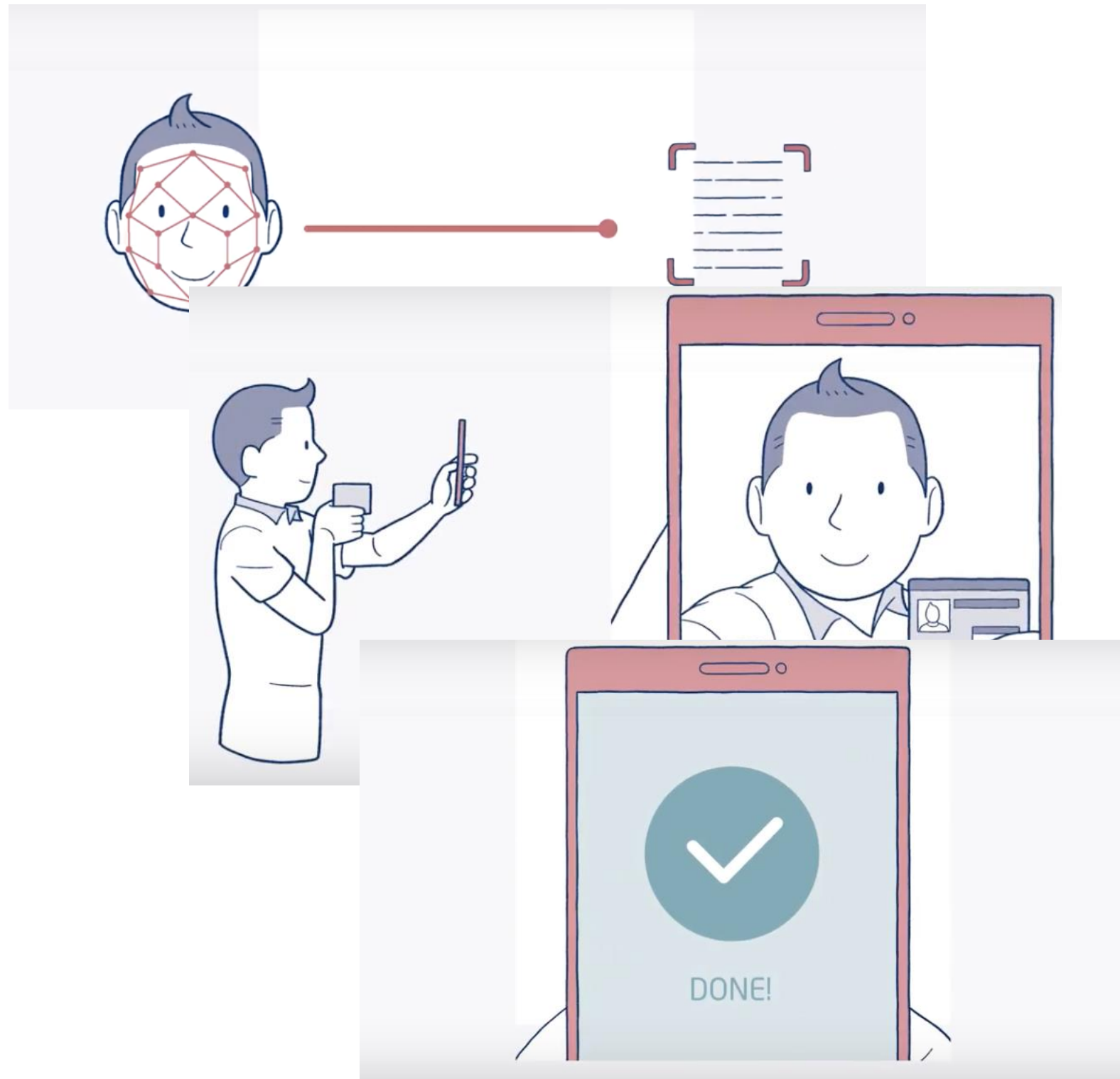
# We are doing several key improvements on Digital Experience



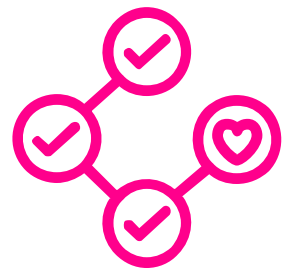




# There will be more ideas in the funnel



- Using Biometrics to introduce eKYC
- Face Recognition & ID Matching for remote authentication
- Allowing not only complete self-onboarding but activation without interactions with Rakuten agents
- No need to deliver anything to Legal Address!



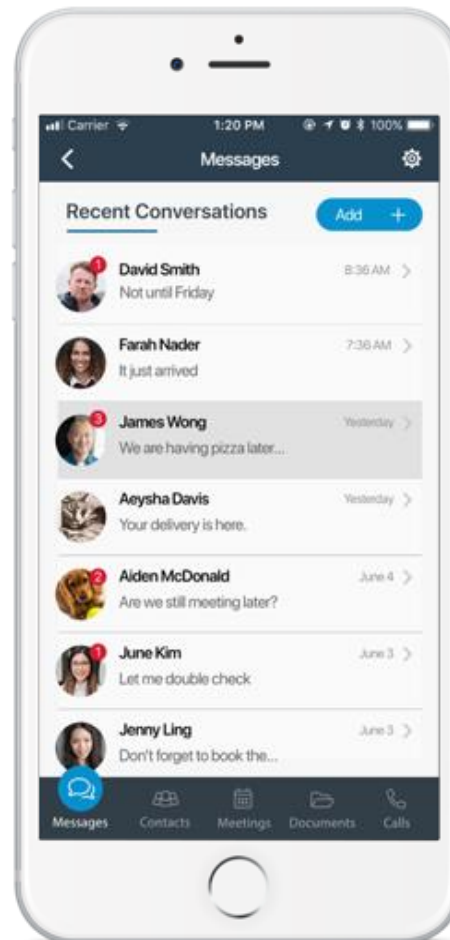
# Link - Rich Communication Services



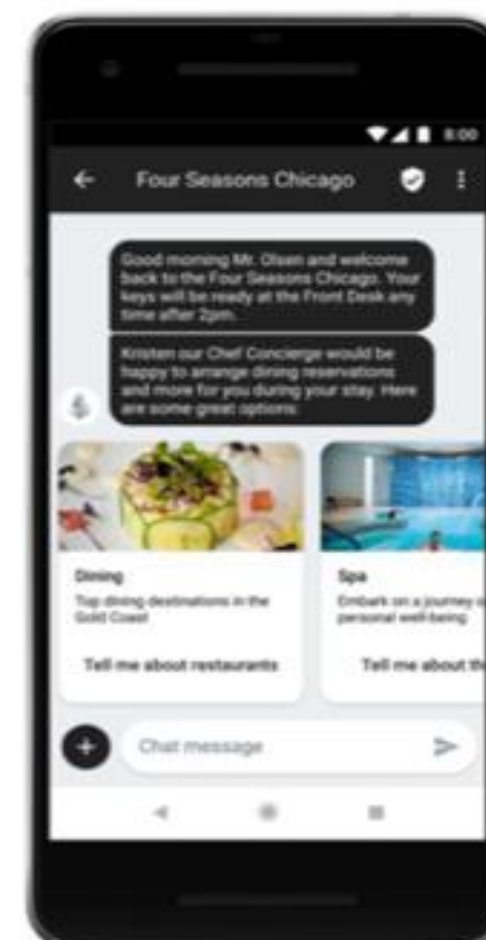
Voice and  
Video Calls



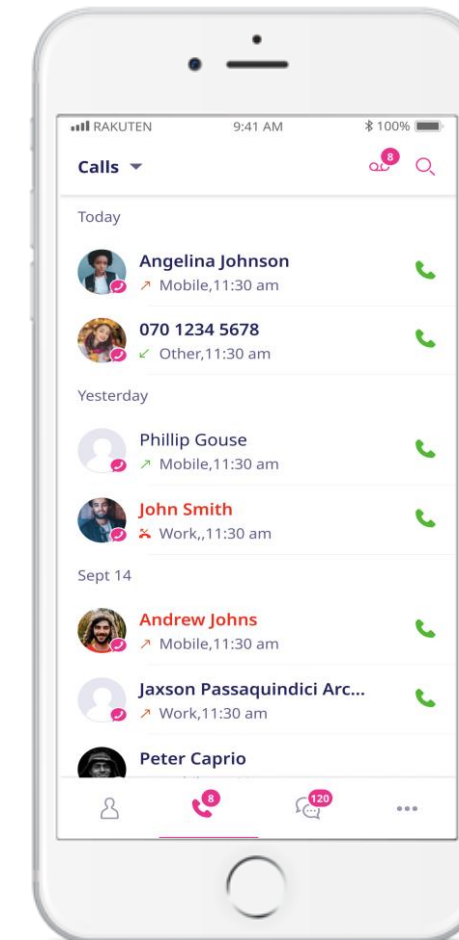
Audio and Video  
Conferencing



Messaging



Business  
Messaging



Integrated Voice,  
Video&messaging



Rakuten Mobile



COMING SOON