

# Mobile Optical Transactions

June 18, 2021

*Democratizing payments, we extend **Online BaaS** transactions directly to >1 billion **Offline phones** at the mPOS*





## Transaction Process

#1

Front-facing cameras read the displayed colorgram on the other device and form an optical modem

#2

Bidirectional data exchange, suitable for EMV/TLS sw protocols occurs between each phone's rapidly changing color beacons

#3

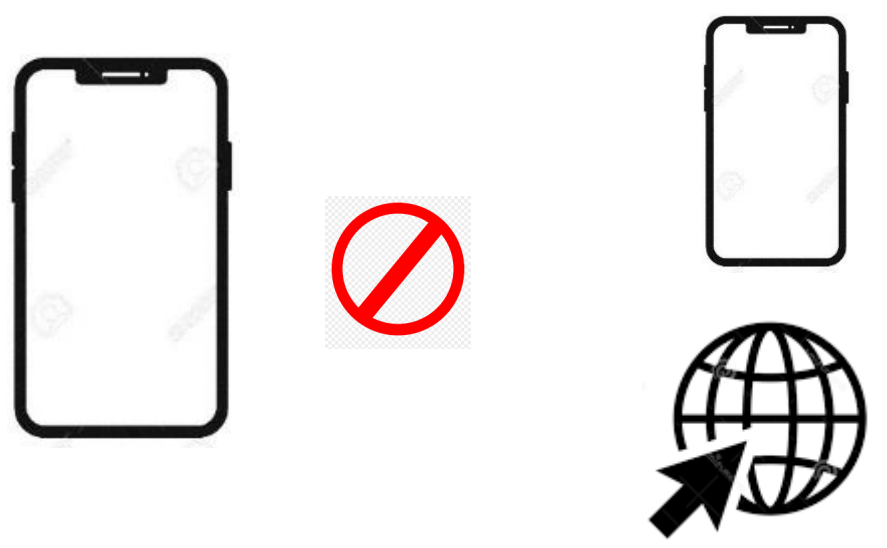
Secure data exchange is made for both Online and Offline mobile payments, between phones or at the BaaS cloud

#4

A contactless payment, ID verification or data exchange rapidly occurs between phones

GooglePay™ and MasterCard PayPass™ EMV L2 test payments demonstrated on Dec 20, 2020

# Mobile Proximity Payments @mPOS Growth Limiters

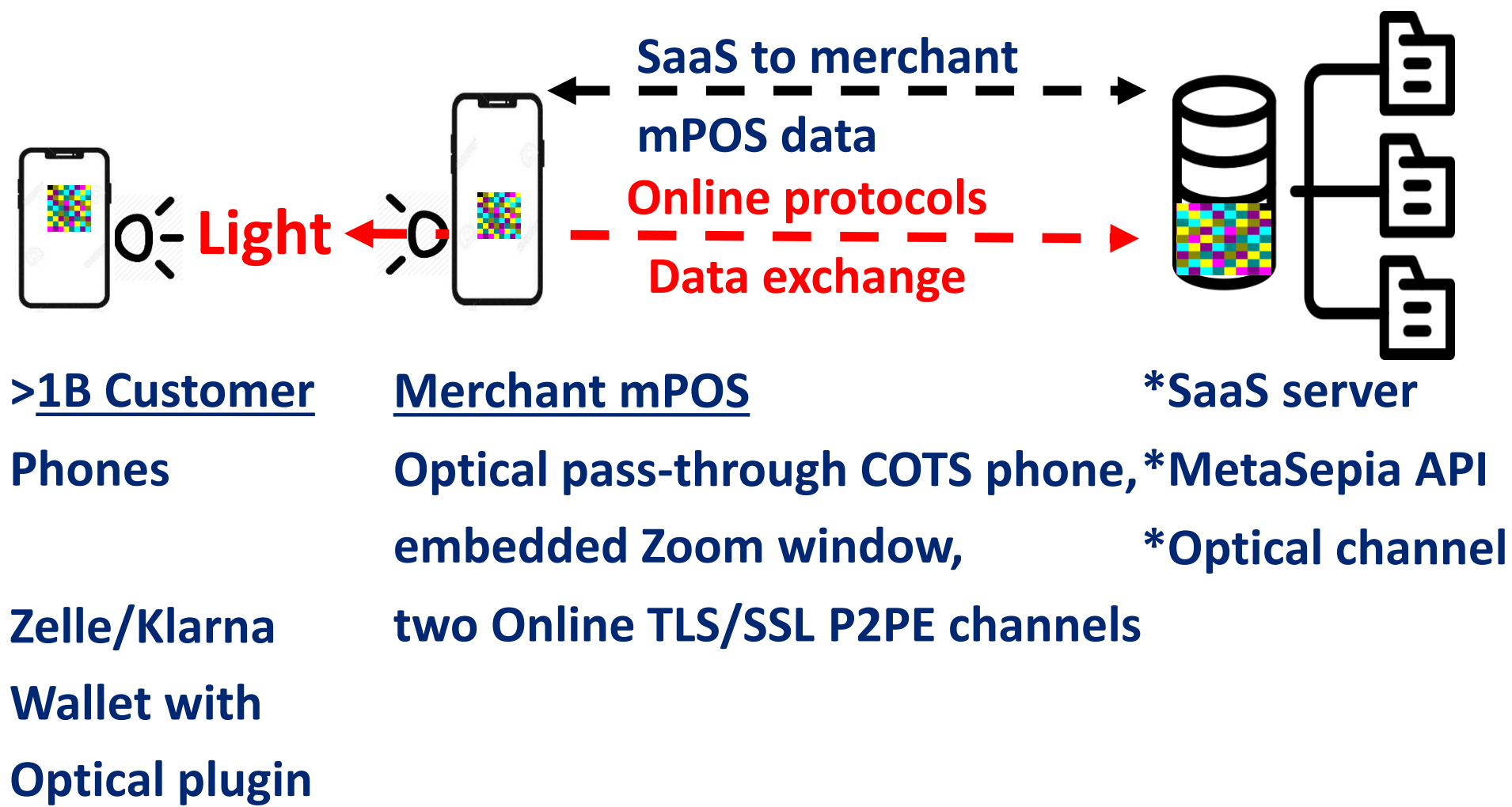
A diagram illustrating the limitations of mobile proximity payments. It shows two mobile phones, one on the left and one on the right, with a red prohibition sign (a circle with a diagonal slash) between them, indicating a lack of interoperability or a barrier to communication. Below the right phone is a globe with a cursor arrow pointing to it, representing global connectivity or data sharing.

- **Device Operating System (OS) and NFC interoperability issues**
- **NFC-EMV is a device-centric protocol, disintermediating Online E-comms**
- **High costs of updates for emerging payments integration with mPOS devices**
- **QR custodial payments lack bidirectional mobile2mobile data sharing capabilities**
- **RF/Wifi/BT/ has high logon frictions for Retail proximity payments**
- **Sound-based modems have slow data rate and easily corrupted by the environment**

1. SaaS Online Retail Merchant payments aren't extended to Offline customers via the RF channels of BT/Wifi/NFC due to high frictions of device interoperability, OS/model incompatibilities, and EMV disintermediation with manufacturer-specific platforms
2. Mobile NFC transactions are mobile2mobile centric, disintermediating the online SaaS cloud merchant services, and a high barrier to emerging payments or proximity apps that require device ubiquity, interoperability, and direct customer phone access
3. The BaaS/SaaS is unable to provide the same online payments features and UX to mobile offline customer payments
4. Mobile Payments are processed by Apple or Samsung phone manufacturers and not larger BaaS and SaaS merchant services

# Online Ecomm Payments extension to Offline phones

We extend *Online* transactions directly to >1 billion compatible *Offline* mobile phones at the merchant mPOS



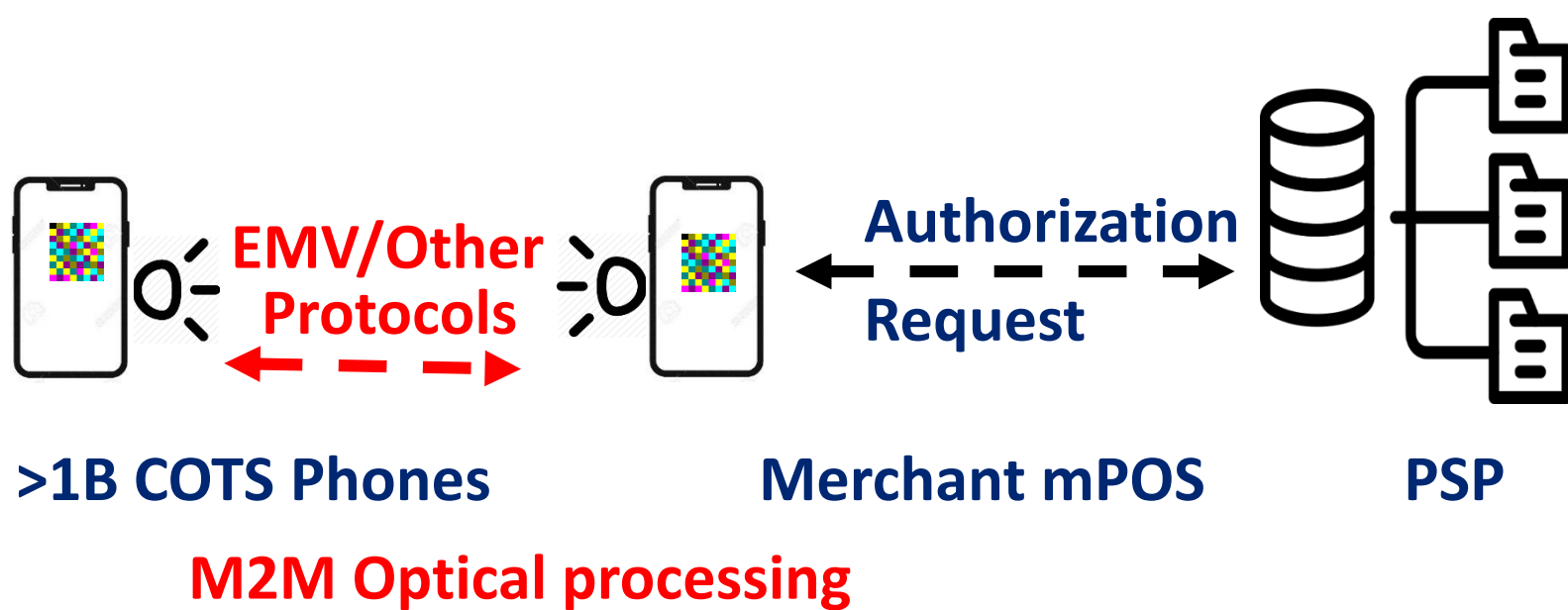
1. **Offline2Online** mobile Point of Sale (mPOS) transactions directly between the **Offline** mobile and the **Online** SaaS merchant services cloud, eliminating OS, model, device, NFC disintermediation, and RF/BT/Wifi limitations and frictions
2. **Online-transactions** User-experience with security protocols, payment options, rewards, couponing, receipting and payment branding at the mPOS
3. NFC transactions are device—centric: This MetaSepia Cloud System is SaaS/BaaS **cloud-centric**, reducing micro and small merchant frictions and enabling the rich online features of Klarna, microlenders, rewards, coupons
4. Video network **app marketplaces** are accessible to 850 Million daily platform/network hosts, providing a possible **network-effect** opportunity for in-Zoom Offline Anonymous Payments, and ID Verification
5. Mobile2Mobile ID Verification, Mutual Authentication, and data-sharing for emerging **online2offline** proximity-based apps opportunities

\*Zoom is an example of high-quality optical data channel technologies



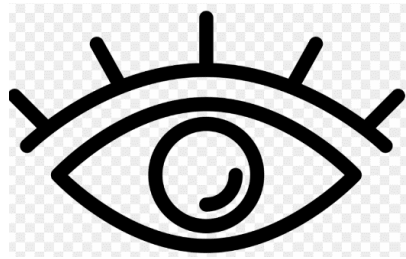
# Mobile-to-Mobile/mPOS Transactions

- **EMV/Other** software **protocols** can be identical to proprietary NFC payment processes, accelerating development, adoption
- **Existing** payment rails are demonstrated with similar authorization protocols as NFC payments, accelerating development, adoption



1. **Offline2Online** mPOS with EMV/other exchange between devices and Online request for authorization is similar too present mobile NFC payments protocols and processes, as seen in our website videos of GooglePay and PayPass demo payments
2. **Offline2Offline** mPOS with EMV/other protocol exchange between devices is identical to NFC use of Offline protocols and processes, without the NFC Chip
3. **NFC-EMV transactions** are **device—centric**, as is this m2m Optical system product, and both process mobile-to-mobile protocols similarly, although we return receipts and data at the mPOS moment and add TLS P2PE in addition to EMV risk preferences
4. **Mobile2Mobile ID Verification**, Mutual Authentication, and data-sharing for proximity-based offline-to-offline and offline-to-online **emerging proximity** apps

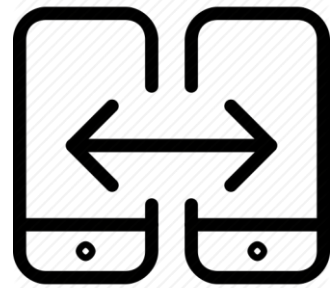
# Advantages



Optical-only solution

No NFC or other RF services

Personalization and branding



Any Zoomable device

Contactless payments

Offline Customer at mPOS

Offline2Offline contactless



All OS and device compatible

Software-only

Online payments extension  
to Offline transactions

M2M offline transactions



Utilizes existing payment Rails  
Bypasses OS and NFC frictions



Online Ecomm Payment Protocols

Device2Device EMV like protocols

Anonymous to merchant payments



EMV like protocols capable

Online TLS protocols capable

3 issued Patents



**Extends Online Cloud Payments to Offline Mobile Customers, removing EMV disintermediation, while supporting present online transaction processes, protocols, and features/benefits over NFC**

# Profiles



Development  
Partners

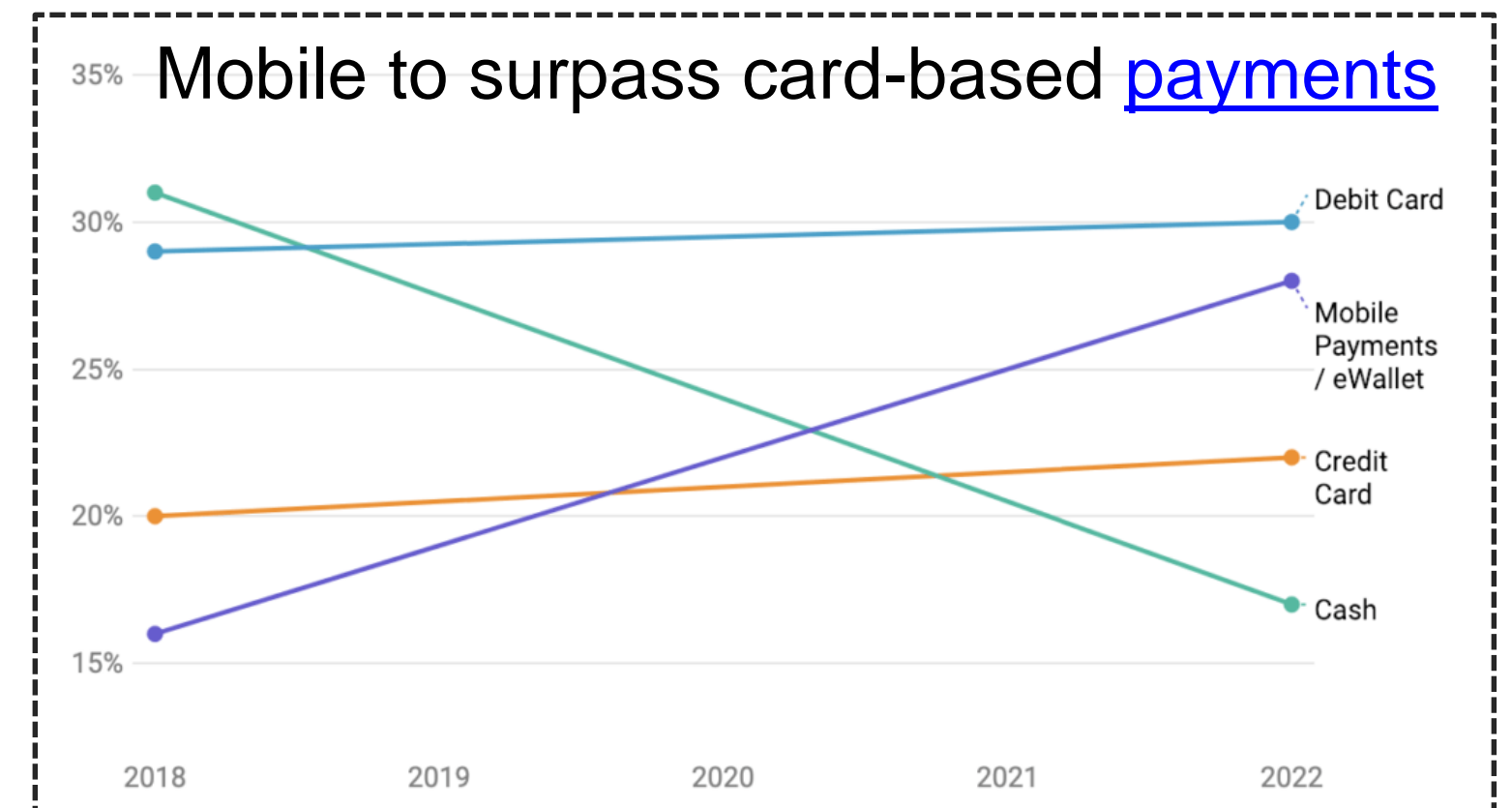


Founders  
Advisors

# Summary

- We bring the rich online payments experience to the offline customer at the mPOS!
- Contactless mobile payments are rocketing-- join our US\$2M seed round opportunity for prototype optimization or as a development partner with our first product in 12+ months!

Portland, Nov. 05, 2020 (GLOBE NEWSWIRE) -- According to the report published by Allied Market Research, the **global mobile payment** market was estimated at \$1.48 trillion in 2019 and is expected to hit \$12.06 trillion by 2027, registering a CAGR of 30.1% from 2020 to 2027. Nov 5, 2020



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- View our Website [here](#)
- View our 2.4 second Dec 2020 GooglePay Protocol test-network transaction [here](#)