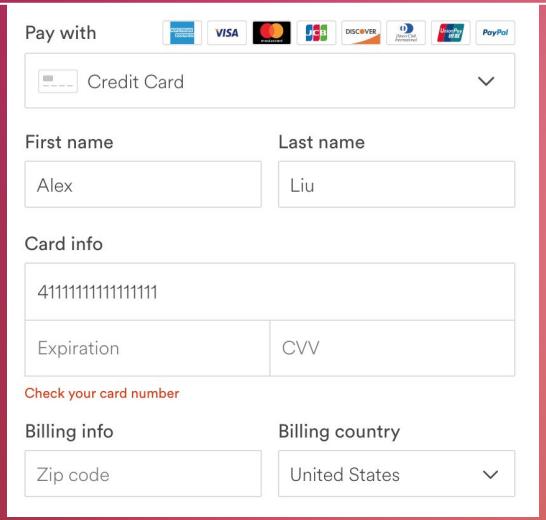
Alex Liu & Michel Weksler / November 2017

Streamlining Online Checkout Using Web Standards

Why are checkouts not easy nor fast?

Manual
Tedious
Slow
N-taps


Pay with
Credit Card
First name
Alex
Last name
Liu
Card info
4111111111111111
Expiration
CVV
Check your card number
Billing info
Zip code
Billing country
United States

Pay with

Credit Card

First name

Alex

Last name

Liu

Card info

4111111111111111

Expiration

CVV

Check your card number

Street address

Apt #

City

State

Zip code

Billing country

Taiwan

Pay with

Credit Card

First name

Alex

Last name

Liu

Card info

4111111111111111

Expiration

CVV

Check your card number

CPF

___.___.___-__

Mobile phone number

(__) ____-____

Birthdate

1

1

1980

CEP

_____-___

Street name

Building number

Complement

City

State

Billing country

Brazil

Installments

1

Why not easy nor fast?

Support different:

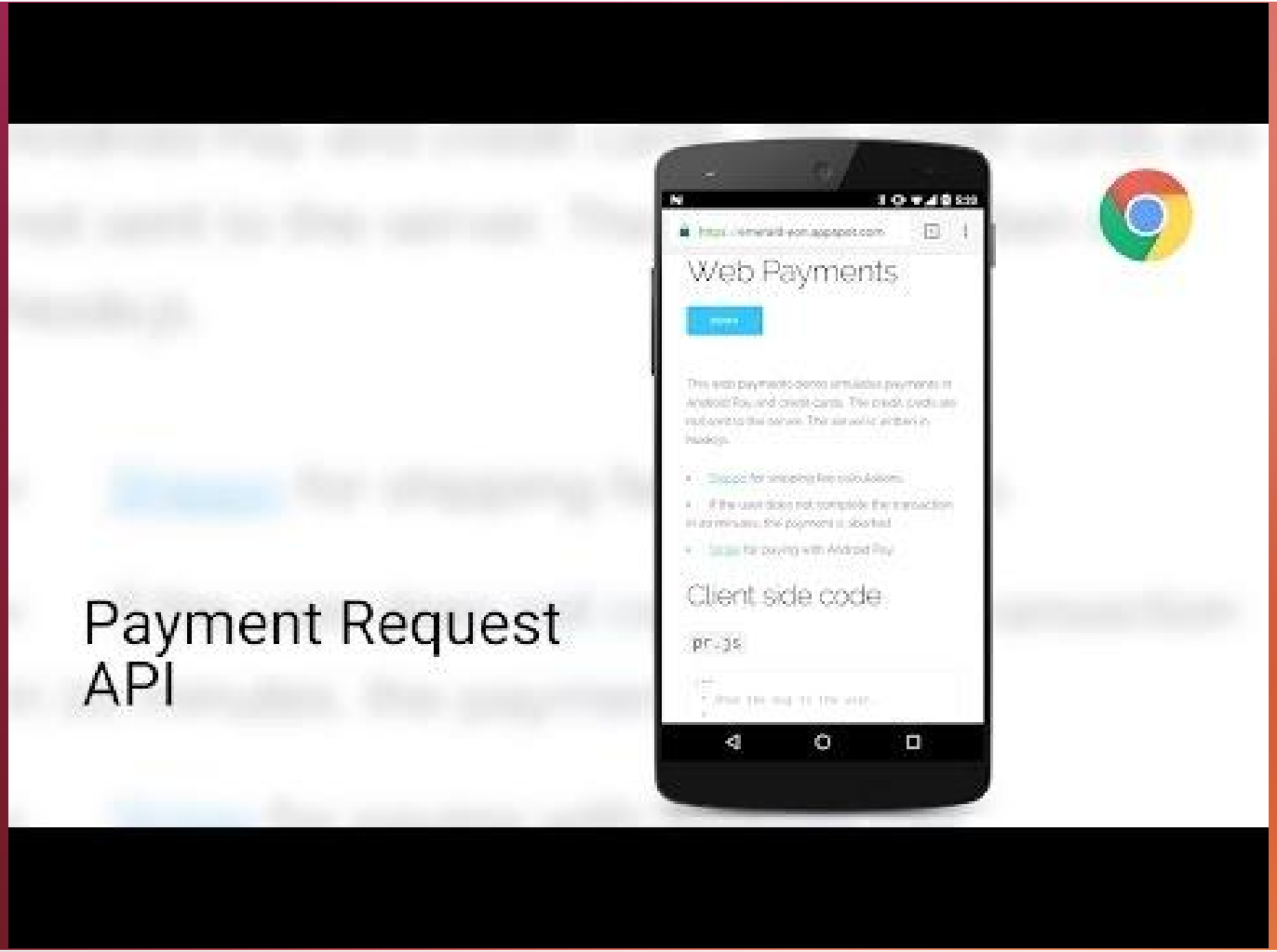
- networks
- payment methods
- billing address formats
- shipping address formats

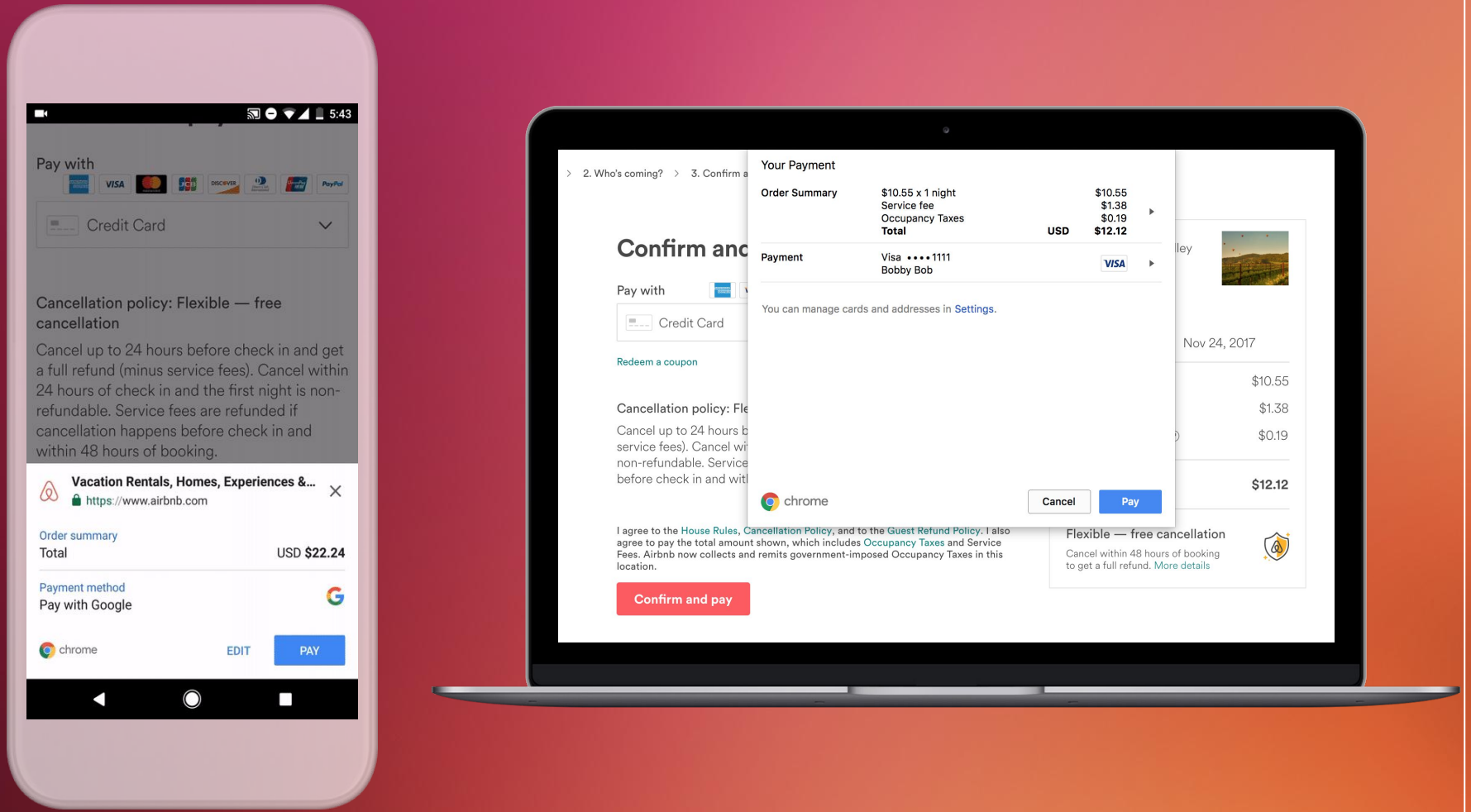
Agenda

1. What?
2. Why?
3. Demo
4. Technical Details

Payment Request API

A **standard** to allow merchants to utilize payment methods with **minimal** integration
W3C


Web Payments
Client side code
pr.js
Payment Request
API


5:43
Pay with
Credit Card
Cancellation policy: Flexible — free cancellation
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
Vacation Rentals, Homes, Experiences &...
https://www.airbnb.com
Order summary
Total
USD $22.24
Payment method
Pay with Google
chrome
EDIT
PAY
2. Who's coming?
3. Confirm a
Confirm anc
Pay with
Credit Card
Redeem a coupon
Cancellation policy: Fle
Cancel up to 24 hours b
service fees). Cancel wi
non-refundable. Service
before check in and wit
I agree to the House Rules, Cancellation Policy, and to the Guest Refund Policy. I also agree to pay the total amount shown, which includes Occupancy Taxes and Service Fees. Airbnb now collects and remits government-imposed Occupancy Taxes in this location.
Confirm and pay
Your Payment
Order Summary
$10.55 x 1 night
Service fee
Occupancy Taxes
Total
USD
$10.55
$1.38
$0.19
$12.12
Payment
Visa •••• 1111
Bobby Bob
You can manage cards and addresses in Settings.
chrome
Cancel
Pay
Nov 24, 2017
$10.55
$1.38
$0.19
$12.12
Flexible — free cancellation
Cancel within 48 hours of booking to get a full refund. More details

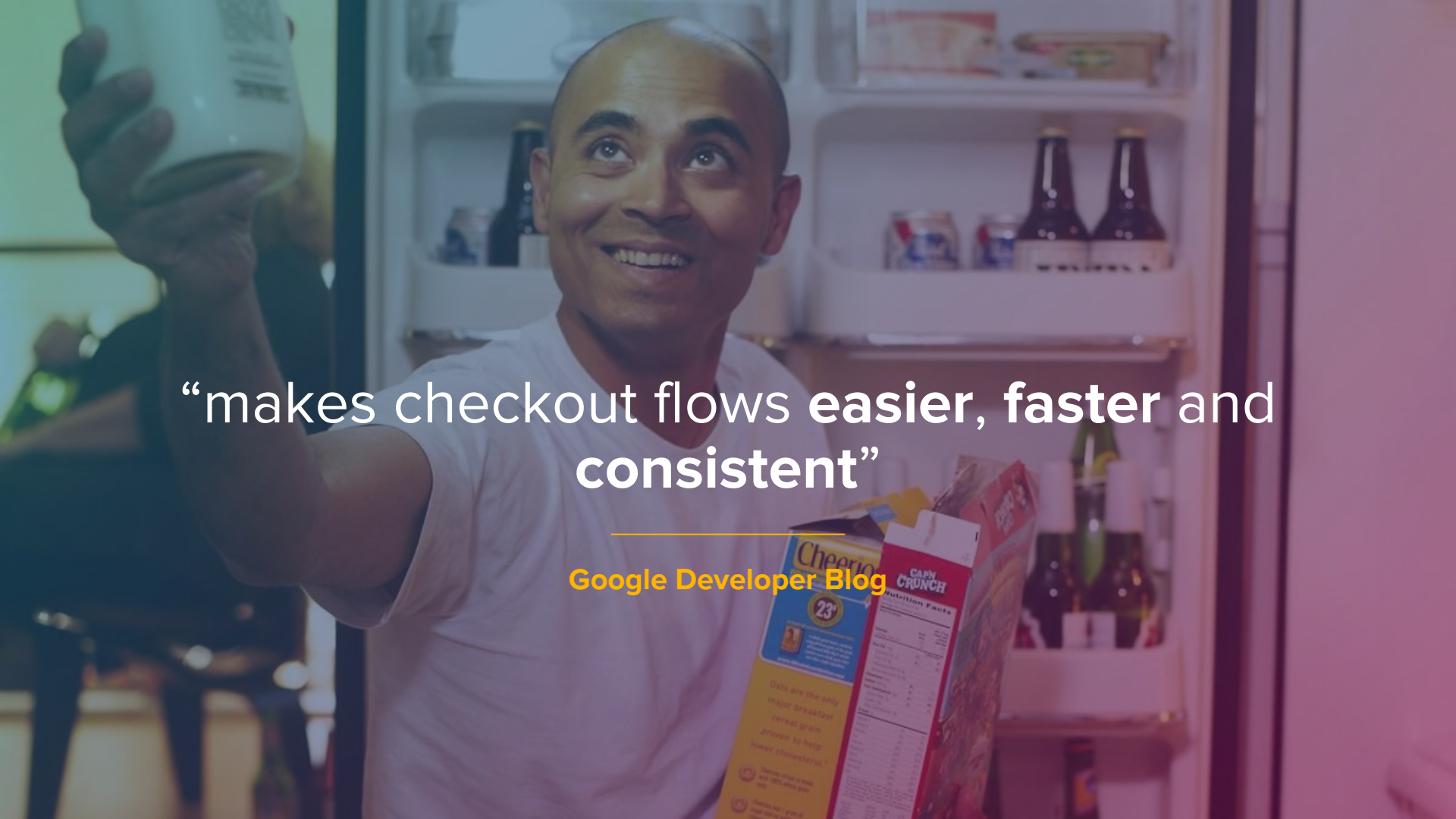
Why Payment Request API?

Airbnb Payments

- An escrow service
- Moving billions of dollars per year
- 25 integrations, 191 countries, 75 currencies
- Ecosystems of all maturity levels

Why Payment Request API?

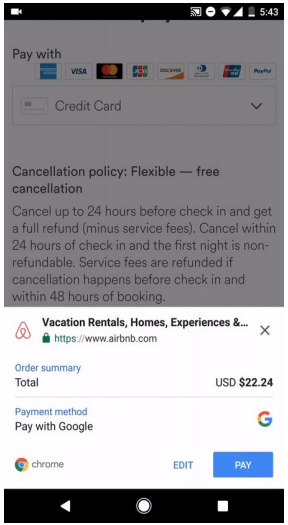
- Mobile is 21% of e-commerce payments
- 66% of mobile purchases made on web rather than native apps
- At airbnb, conversion rate on mobile much lower than desktop



“makes checkout flows **easier**, **faster** and **consistent**”

Google Developer Blog

1. Easier


5:43
Pay with
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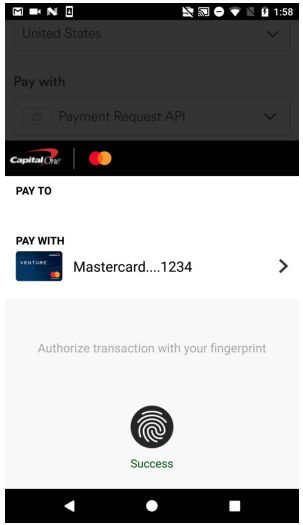
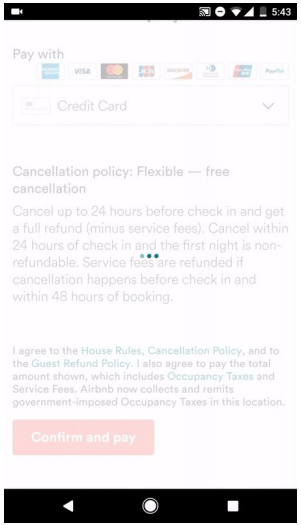
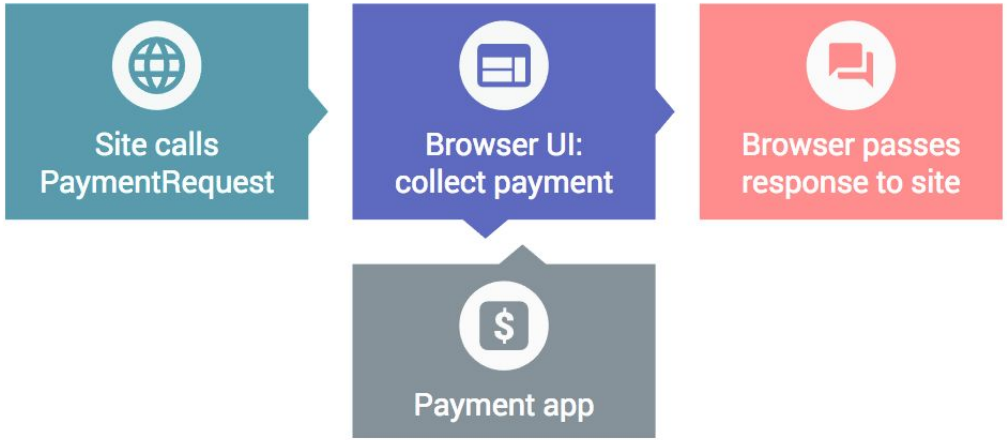
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
Vacation Rentals, Homes, Experiences &...
https://www.airbnb.com
Order summary
Total
USD $22.24
Payment method
Pay with Google
chrome
EDIT
PAY

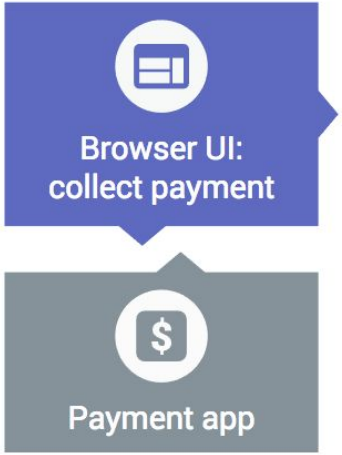

1:58
United States
Pay with
Payment Request API
PAY TO
PAY WITH
Mastercard....1234
Authorize transaction with your fingerprint
Success

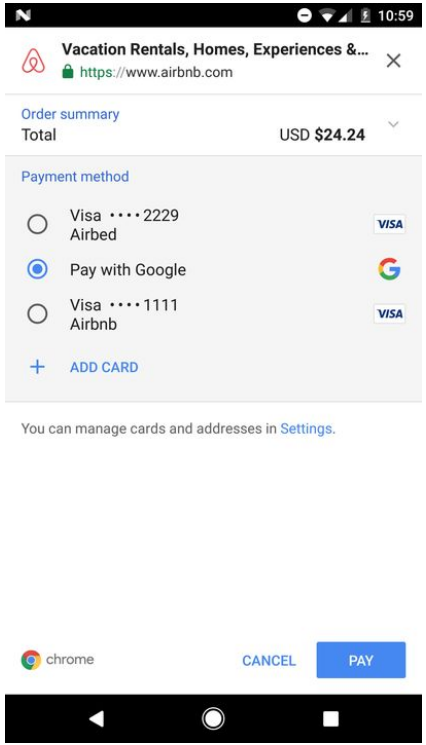

5:43
Pay with
Credit Card
Cancellation policy: Flexible — free cancellation
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
Confirm and pay

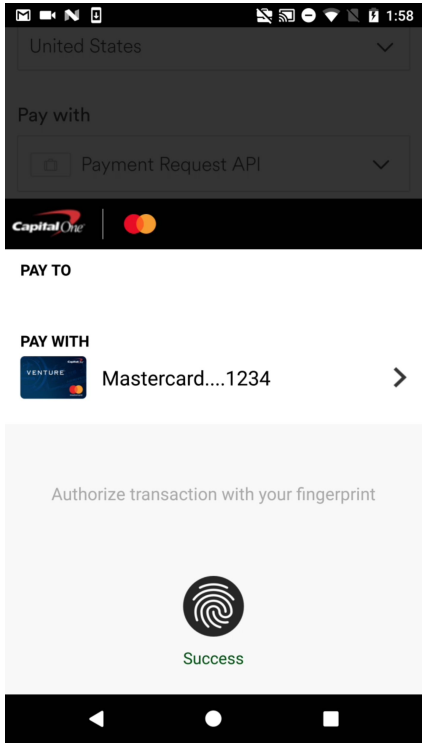

Site calls PaymentRequest
Browser UI: collect payment
Browser passes response to site
Payment app

1. Easier

2. Faster



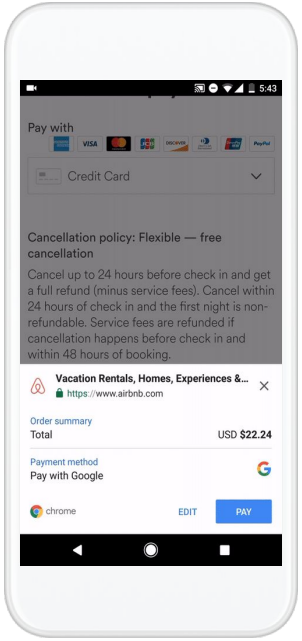


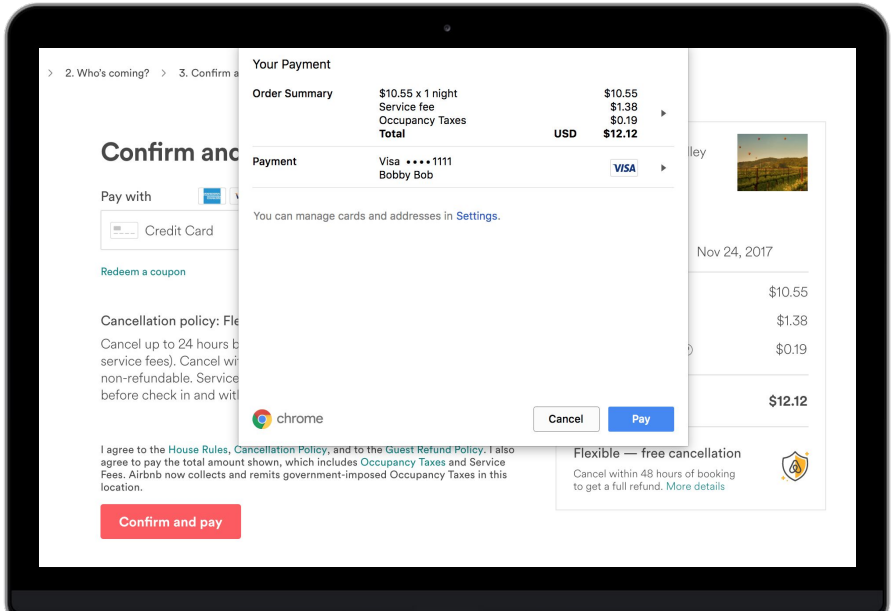


1. Easier

2. Faster

3. Consistent



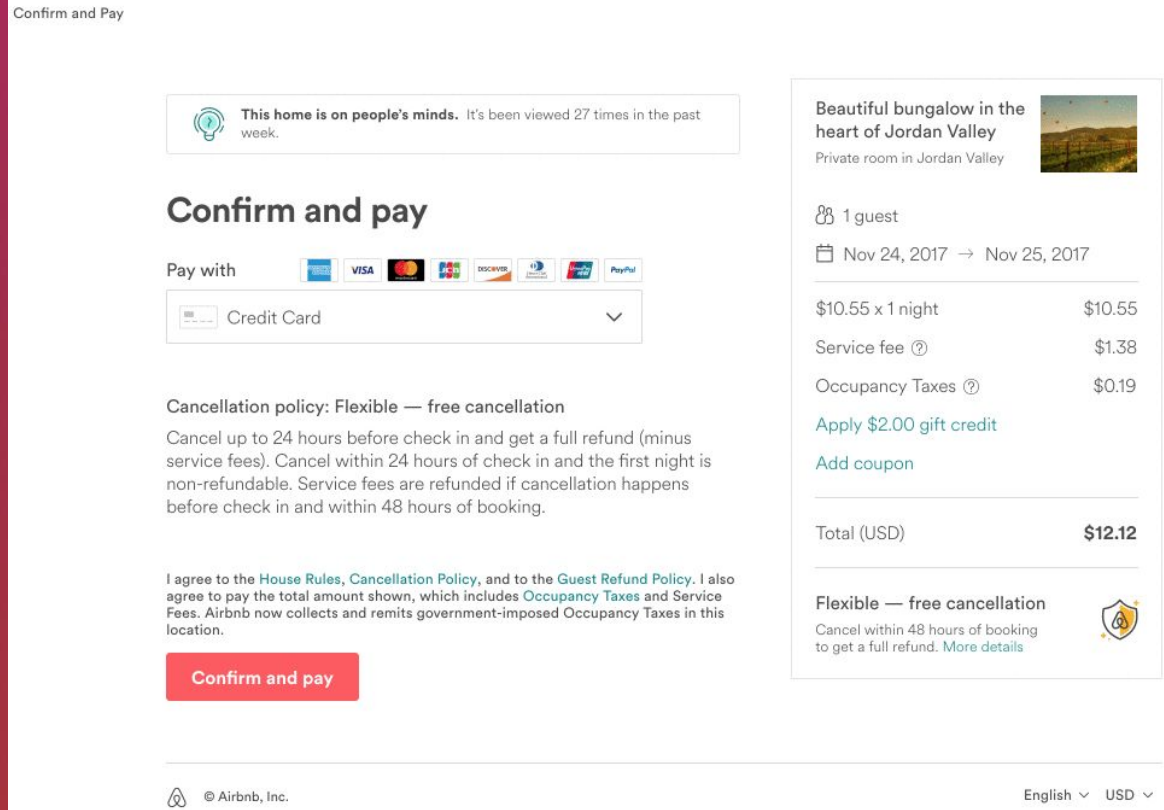


Payment Request at Airbnb

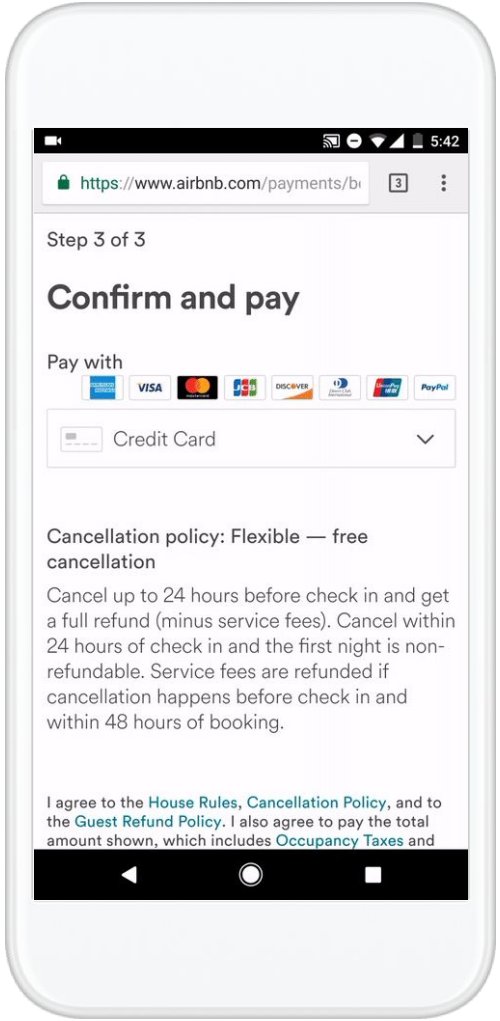
- Users can use their existing wallets
- Preferred payment methods
- Avoid custom billing form presentation
- Common infrastructure: CVV, billing address, shipping address

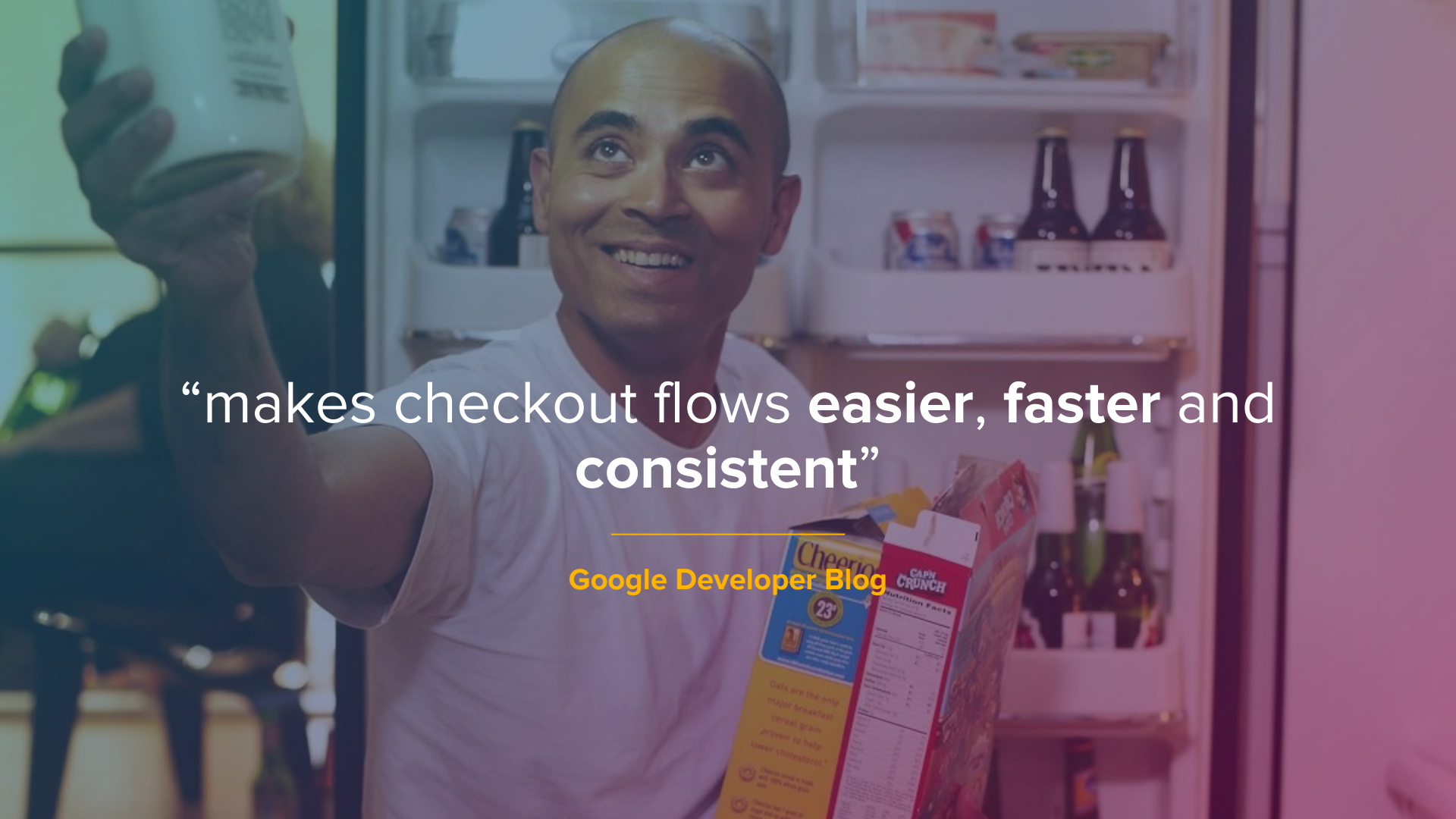
Demo

Demo


Confirm and Pay
This home is on people's minds. It's been viewed 27 times in the past week.
Confirm and pay
Pay with
Credit Card
Cancellation policy: Flexible — free cancellation
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
I agree to the House Rules, Cancellation Policy, and to the Guest Refund Policy. I also agree to pay the total amount shown, which includes Occupancy Taxes and Service Fees. Airbnb now collects and remits government-imposed Occupancy Taxes in this location.
Confirm and pay
Beautiful bungalow in the heart of Jordan Valley
Private room in Jordan Valley
1 guest
Nov 24, 2017 → Nov 25, 2017
$10.55 x 1 night $10.55
Service fee $1.38
Occupancy Taxes $0.19
Apply $2.00 gift credit
Add coupon
Total (USD) $12.12
Flexible — free cancellation
Cancel within 48 hours of booking to get a full refund. More details
© Airbnb, Inc.
English
USD

Demo


5:42
https://www.airbnb.com/payments/b
Step 3 of 3
Confirm and pay
Pay with
Credit Card
Cancellation policy: Flexible — free cancellation
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
I agree to the House Rules, Cancellation Policy, and to the Guest Refund Policy. I also agree to pay the total amount shown, which includes Occupancy Taxes and



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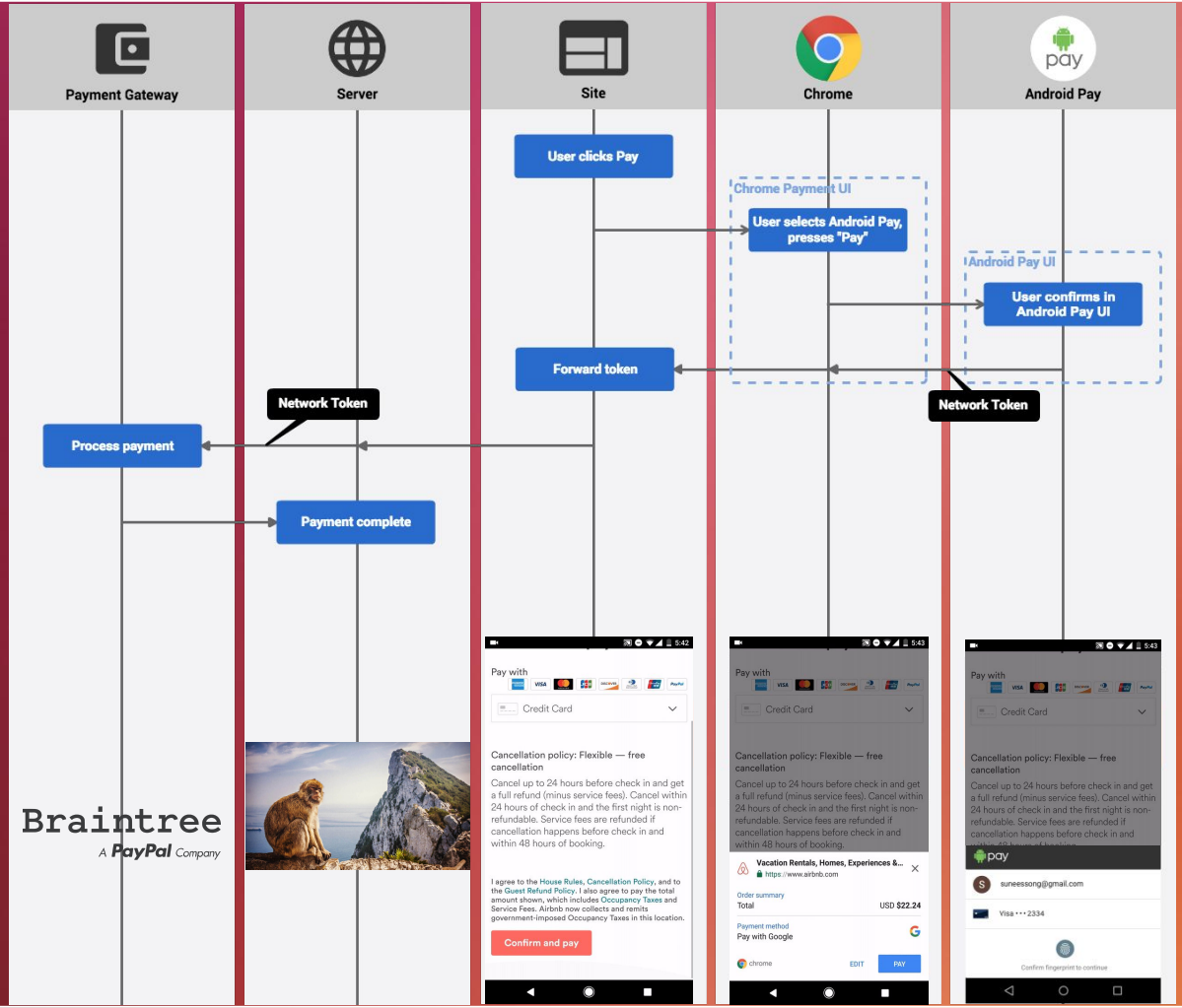

Payment Gateway
Server
Site
Chrome
Android Pay
User clicks Pay
Chrome Payment UI
User selects Android Pay, presses "Pay"
Android Pay UI
User confirms in Android Pay UI
Forward token
Network Token
Network Token
Process payment
Payment complete
Braintree
A PayPal Company
Pay with
Credit Card
Cancellation policy: Flexible — free cancellation
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
I agree to the House Rules, Cancellation Policy, and to the Guest Refund Policy. I also agree to pay the total amount shown, which includes Occupancy Taxes and Service Fees. Airbnb now collects and remits government-imposed Occupancy Taxes in this location.
Confirm and pay
Vacation Rentals, Homes, Experiences &...
https://www.airbnb.com
Order summary
Total
USD $22.24
Payment method
Pay with Google
chrome
EDIT
PAY
pay
suneessong@gmail.com
Visa ••• 2334
Confirm fingerprint to continue

PaymentRequest

```
new PaymentRequest(
  methodData,
  details,
  options
).show();
```

methodData

```
new PaymentRequest(
  methodData,
  details,
  options
).show();
```

methodData

.methods

```
const methods = [
  'basic-card',
  'https://android.com/pay',
  'https://apple.com/apple-pay',
];
```

methodData

.networks

```
const networks = [
  'mastercard',
  'visa',
  'discover',
  'amex'
];
```

methodData

.types

```
const types = [
  'credit',
  'debit',
];
```

methodData

```
const methodData = [
  {
    supportedMethods: methods,
    data: {
      supportedNetworks: networks,
      supportedTypes: types,
    },
  }
]
```

details

```
new PaymentRequest(
  methodData,
  details,
  options
).show();
```

details

```
const details = {
  id: "HM2AJDX29P1",
  displayItems: [{
    label: "1 x $55 per night",
    amount: { currency: "USD", value: "55.00"   },
  }, {
    label: "Occupancy Tax",
    amount: { currency: "USD", value: "5.00" },
  }],
  total: {
    label: "Total due",
    amount: { currency: "USD", value: "60.00" },
  },
};
```

options

```
new PaymentRequest(
  methodData,
  details,
  options
).show();
```

options

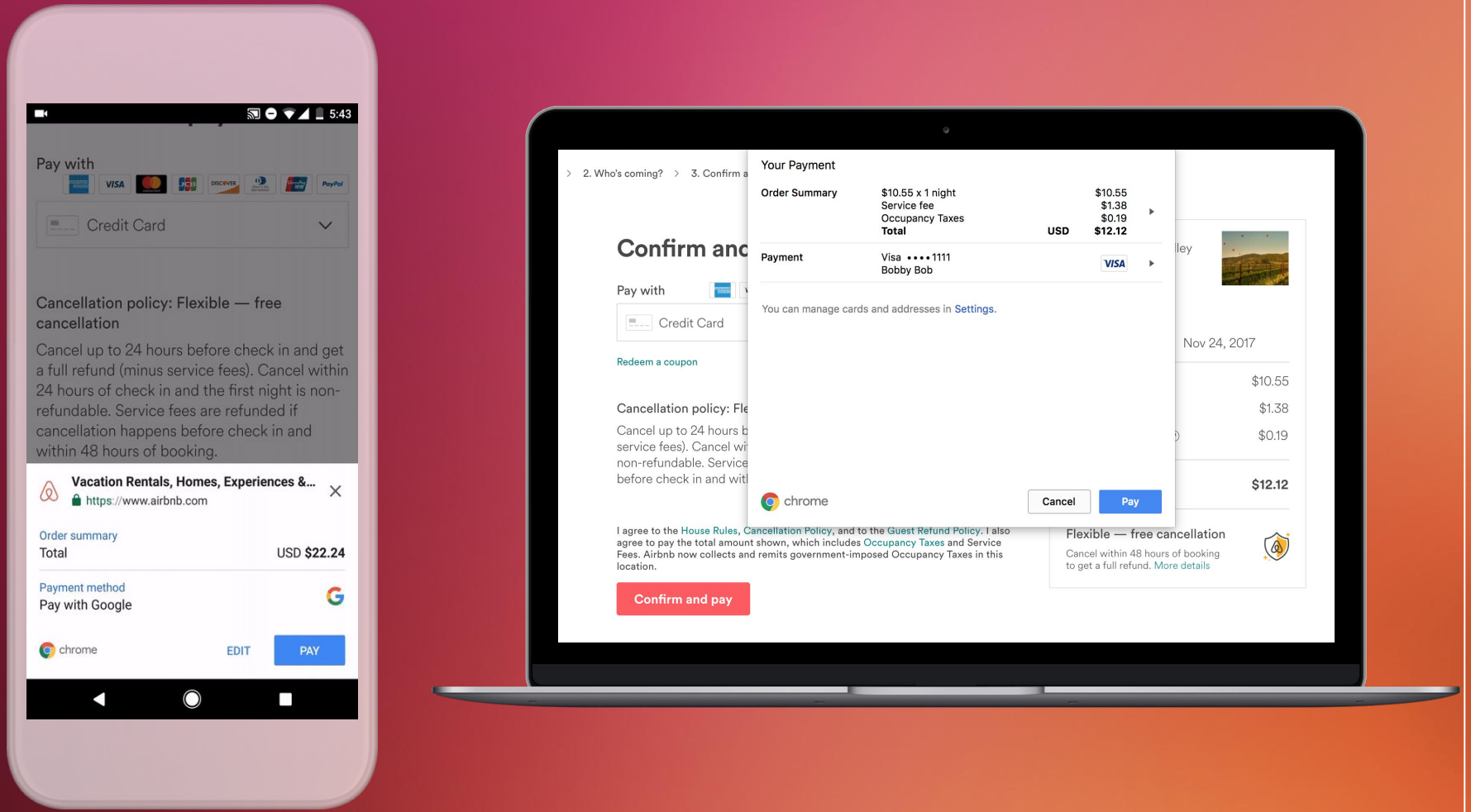
```
const options = {
  requestPayerEmail: false,
  requestPayerName: true,
  requestPayerPhone: false,
  requestShipping: true,
}
```

PaymentRequest

```
new PaymentRequest(
  methodData,
  details,
  options
);
```

PaymentRequest

```
new PaymentRequest(
  methodData,
  details,
  options
).show();
```


5:43
Pay with
Credit Card
Cancellation policy: Flexible — free cancellation
Cancel up to 24 hours before check in and get a full refund (minus service fees). Cancel within 24 hours of check in and the first night is non-refundable. Service fees are refunded if cancellation happens before check in and within 48 hours of booking.
Vacation Rentals, Homes, Experiences &...
https://www.airbnb.com
Order summary
Total
USD $22.24
Payment method
Pay with Google
chrome
EDIT
PAY
2. Who's coming?
3. Confirm a
Confirm anc
Pay with
Credit Card
Redeem a coupon
Cancellation policy: Fle
Cancel up to 24 hours b
service fees). Cancel wi
non-refundable. Service
before check in and wit
I agree to the House Rules, Cancellation Policy, and to the Guest Refund Policy. I also agree to pay the total amount shown, which includes Occupancy Taxes and Service Fees. Airbnb now collects and remits government-imposed Occupancy Taxes in this location.
Confirm and pay
Your Payment
Order Summary
$10.55 x 1 night
Service fee
Occupancy Taxes
Total
USD
$10.55
$1.38
$0.19
$12.12
Payment
Visa •••• 1111
Bobby Bob
You can manage cards and addresses in Settings.
chrome
Cancel
Pay
Nov 24, 2017
$10.55
$1.38
$0.19
$12.12
Flexible — free cancellation
Cancel within 48 hours of booking to get a full refund. More details

Questions?