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SMS 101 for email pros

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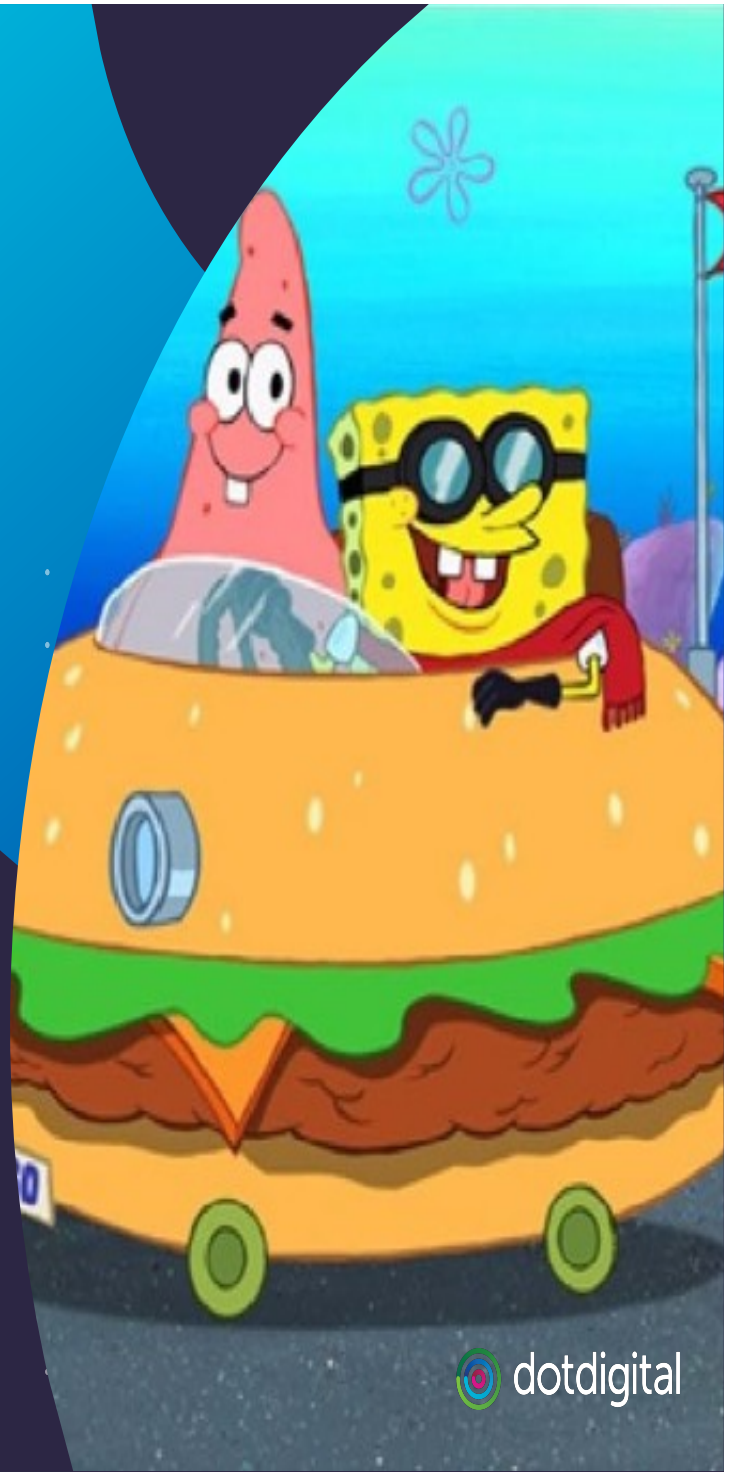
SMS JOURNEY

1. Message creation
2. Sending number
3. Network connection
4. Receiving number
5. Message -> network
6. Delivery to handset
7. Reporting



The pink boxes

SMS has as much confusing terminology as email…

Definitions are going to pop up here and there!

SMSC = SMS Center – anything that submits SMS messages from one place to another place

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1. Message creation

Sender

- 160(ish) character limit

Both

- Content pre-registration
- Content filtering
- Legislation (e.g. SHAFT)
- Links (shorteners)
- Unsubscribe
- Multipart messages

Content provider

- Segments
- Character set

Aggregator: provides a route to deliver SMS messages

Tier 1 aggregator: the route is a direct connection to the network carrier

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Content pre-registration

The Campaign Registry (TCR), Short Code Registry

- Shortcode and 10DLC requires content pre-registration in the US
- They're going to be looking at
  - Website & links
  - Opt-in
  - Opt-out
  - Support
  - Terms and conditions
  - Message type (MFA, marketing, ring
  - Message contents
    - SHAFT (incl. cannabis)
    - Abandoned cart

It must be super clear at the point of sign-up exactly what someone is signing up to receive, how frequently etc.

2. Sending number

Email equivalent: from address

Sender

- Best number type for their business model, volume, and where their recipients are

Bind = SMPP connection to an aggregator

TON = type of number

Both

- Type – USA/Canada
  - Shortcode
  - 10DLC
  - Toll free
- Other regions
  - Alphanumeric
  - International long number
- Registration

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- TON

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Type of number

Shortcode

- Most expensive
- Highest TPS
- Brand recognition
- 4-6 weeks setup
- CTIA/TCPA regulations

10DLC

- Monthly fee but lower cost per message than TFN
- No delivery receipts (DR, DLR, ER)
- Geographic US number
- Variable daily send limit
- CTIA/TCPA regulations

Toll free (TFN)

- Slowest TPS
- Faster setup
- Best practice guidance enforced by Zipwhip (Twilio)

TPS = Throughput Speed

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Know Your Customer (KYC)

Pre-vetting senders is critical

- Sending numbers or content may need to be registered with a regulatory body or network carriers
- Tier 1 aggregators often facilitate this process
- Especially in the US, anti-abuse filtering is often outsourced to tier 1 aggregators
- The ability of tier 1 aggregators to connect directly to the network carriers is dependent on having a trusted relationship
- You also need to build a trusted relationship with your tier 1 aggregators
  - Provide guidance to senders on how to be compliant
  - Vet senders for best practices

Content providers – this is all on you!

3. Network connection

- Aggregator
  - Tier 1 – direct connection to network carriers
  - Tier 2 – connects to tier 1 aggregators
  - Gray routing – don’t do this
- Submission
  - API
  - SMPP
- Throughput Speed (TPS)

P2P = peer to peer/person to person

A2P = application to person

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Method of submission

Sidebar…

API

- No need to worry about bind configuration or character encoding
- Better load balancing/redundancy
- Less visibility over queues

SMPP

- Bind configuration
  - TON
  - Async window
  - Character encoding
- IP vs hostname
- Better queue visibility

Async window = number of messages submitted before waiting on response from aggregator/SMSC

PDU = Protocol Data Unit

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Test your aggregator!

Don’t get caught out

- Volume test
  - Speed of accepting
  - Speed of returning DLRs
- Quality test
  - Character set/encoding
  - Delivery to networks
- Support SLAs
- Escalation point
- Price too good to be true? Could be grayrouting…

4. Receiving number

Sender

- Opt in
- HLR

Both

- International number format

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- Routing

MT = mobile terminated (outbound)
MO = mobile originated (inbound)
HLR = Home Location Register

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5. Message -> network

- Submission selection
  - Route
  - Aggregator
  - Type of sending number
- Multi-part message
  - All parts through exact same method

Multi-part messages are concatenated on the handset.

All segments must be delivered.

Delivery must happen in reasonable timeframe.

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Content providers – this is all on you!

6. Delivery to handset

- Spam filtering
- Timing
  - E.g. MFA
- Scale
  - E.g. automated conversation aka interactive messages
- Multi-segment messages
- Character set & encoding

Message totally garbled? = encoding issue

A few wrong characters? = character set issue

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Content providers – this is all on you!

7. Reporting

- Delivery reports vary by network
  - Accepted by network
  - Delivered to handset
  - Opened on handset (unicorn!)
- Bounces
  - Incorrect number
  - Handset switched off
  - No credit
  - Roaming
  - Spam filtering

DR/DLR = Delivery Report
ER = Error Report

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Challenges

SMS is… different

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I’m sorry that SMS is your problem now

- **Customers will care about one message**
- **YOU need to care about one message**
- **“But my competitor can do this!!!”**
- **The AFT of SHAFT**
- **The advice customers need borders on legal advice**
- **Rates, rates, minimums and rates**

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What exactly are the rules?

It's complicated

- Shortcodes and 10DLC = CTIA
  - But the networks have their own rules
    - E.g. alcohol – age gating prior to subscription
  - And then the aggregators have their rules to protect their relationships with networks
- Toll Free
  - Zipwhip (owned by Twilio Sendgrid)
  - The networks are Not Happy about this acquisition
  - "Best practices"

ANY QUESTIONS?

(I have many)

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