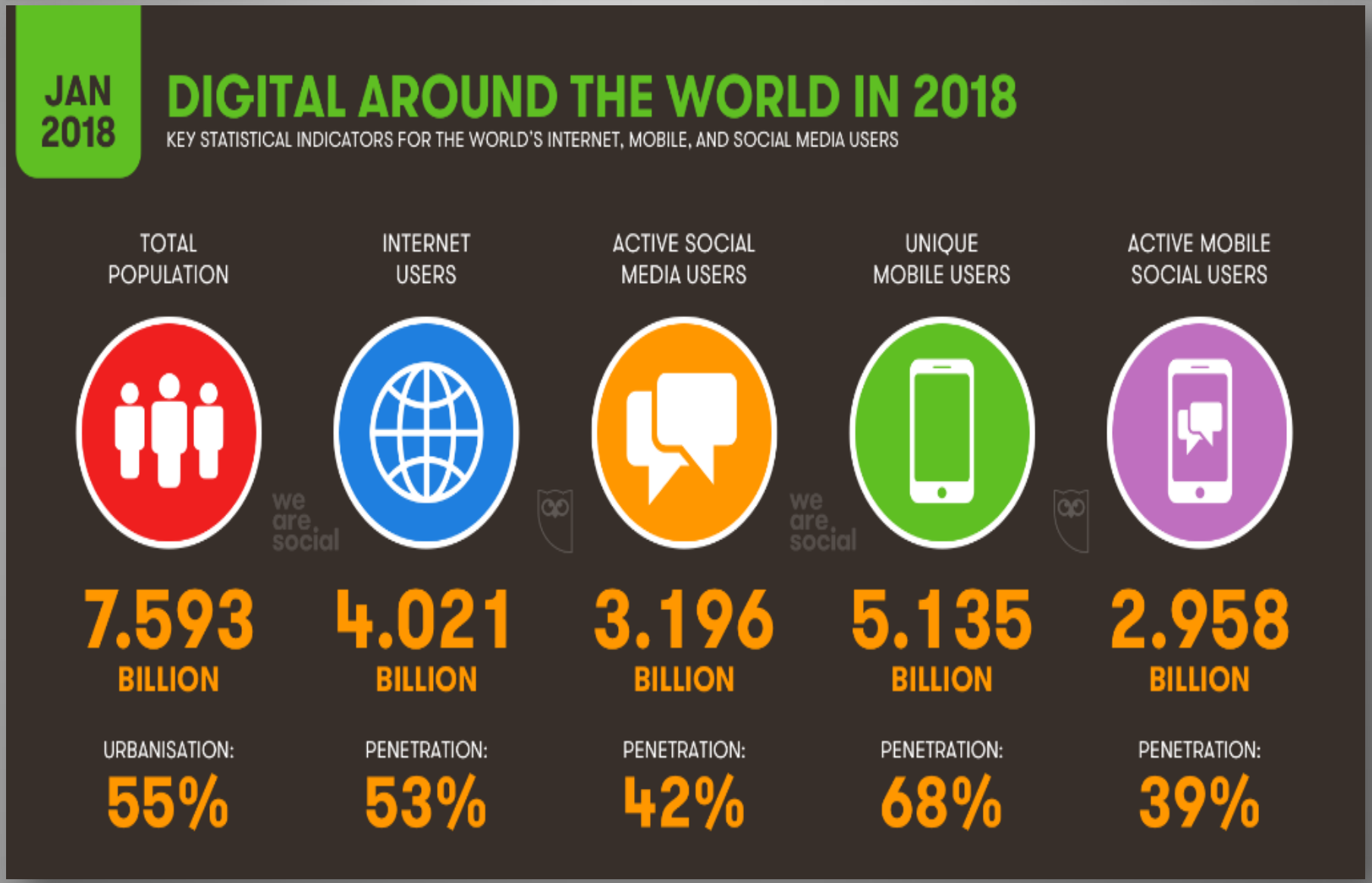
WELCOME
Mobile Applications Testing

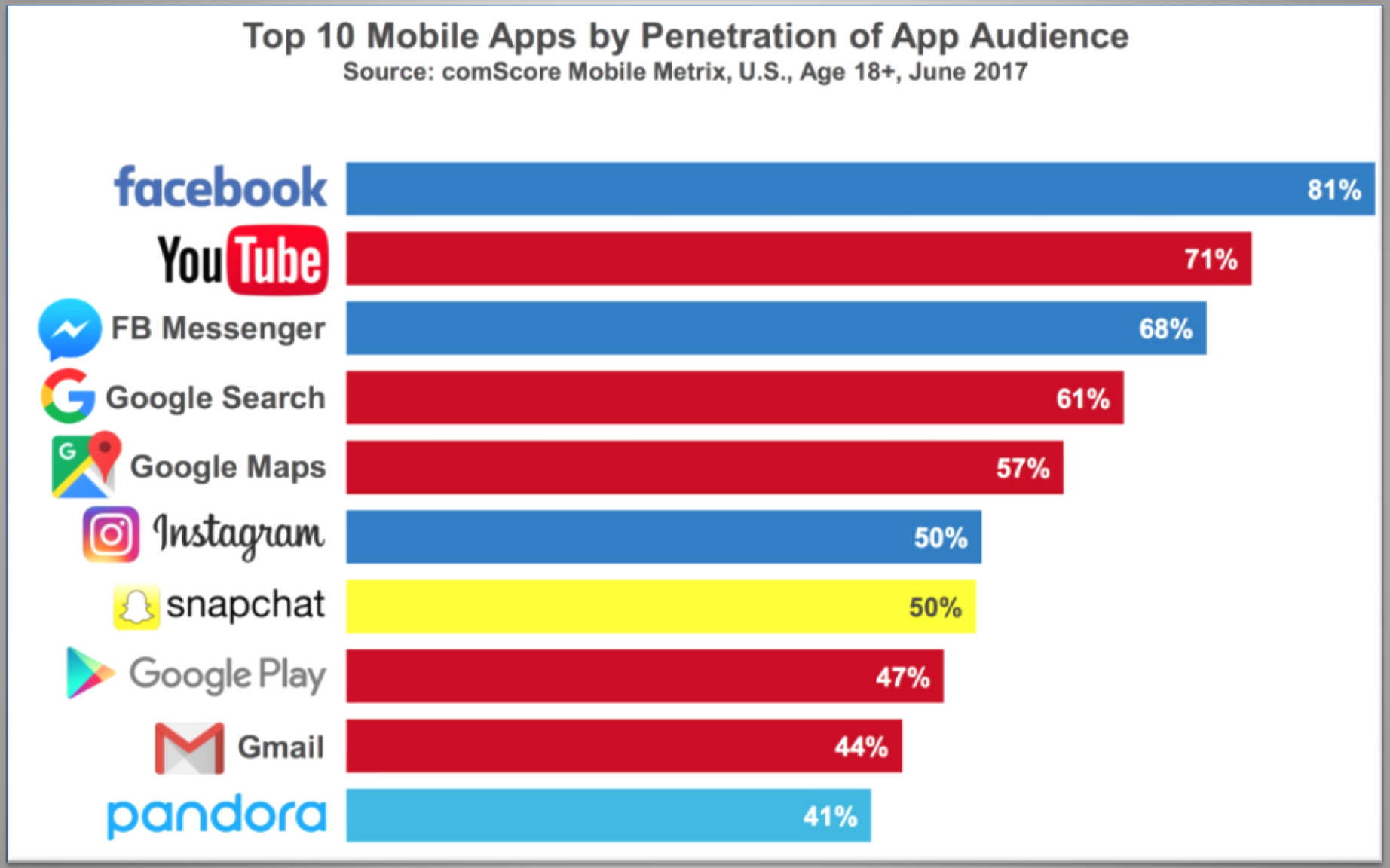
Mobile Ecosystem

- **Mobile World Statistics**
- Carriers
- Networks
- Manufactures
- Devices
- Platforms/OS
- Frameworks
- API-Apps
- Services

Mobile World Statistics

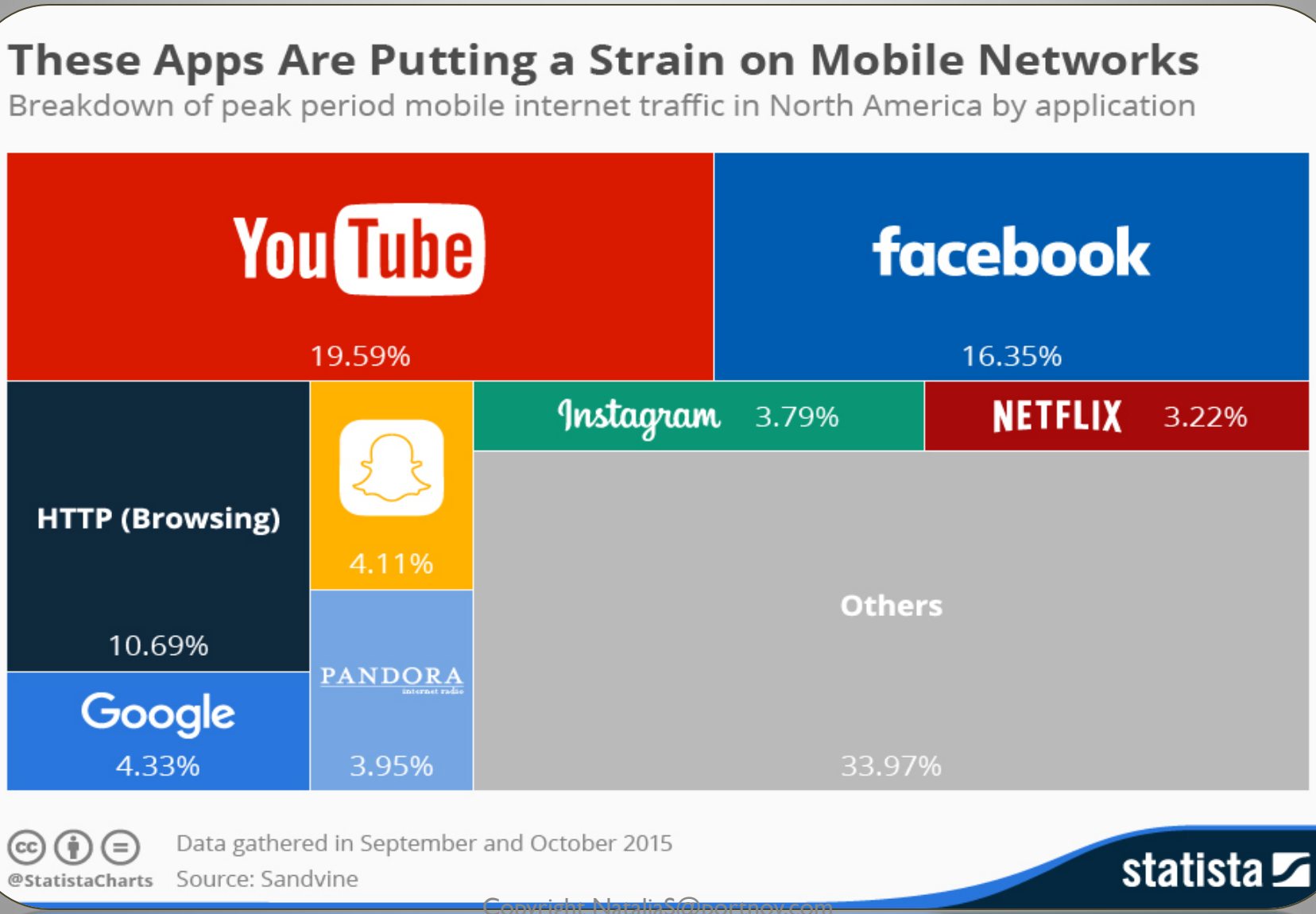


Mobile World Statistics



Mobile World Statistics

Mobile World Statistics



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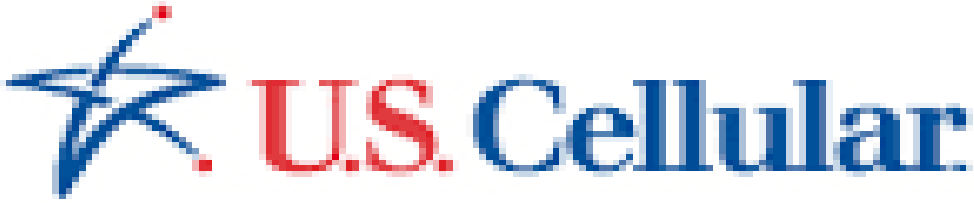
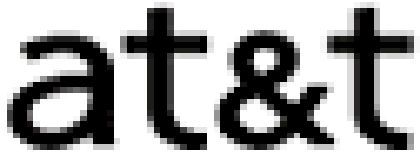
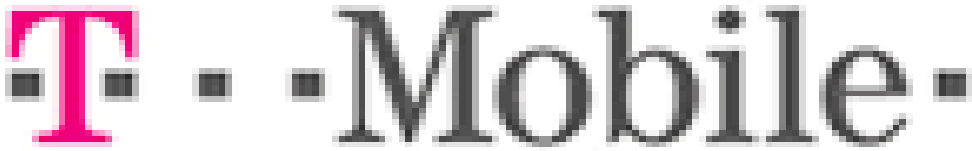
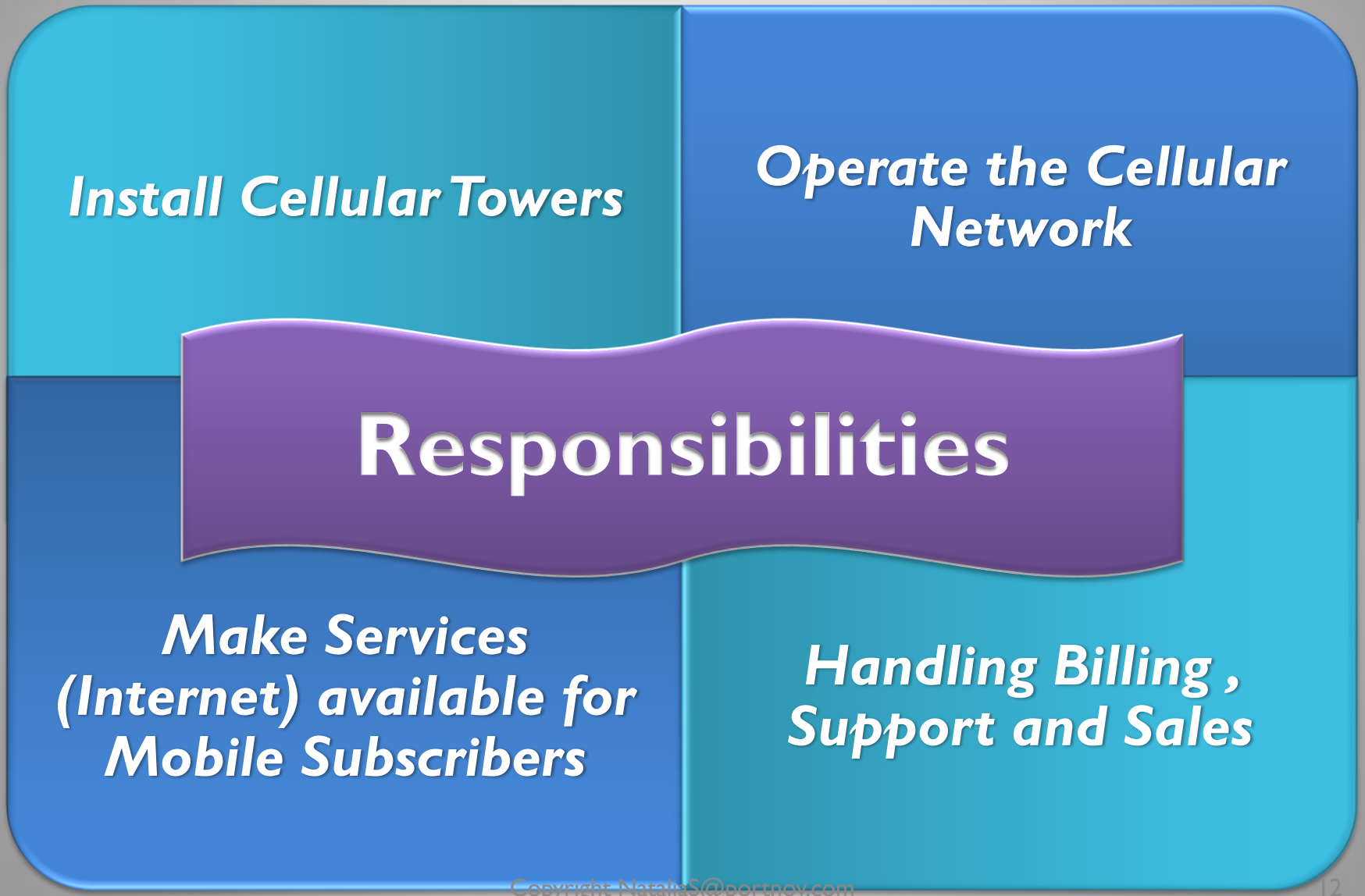
Carriers/Service Providers







Carriers/Service Providers



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Network

Network : GSM : AT&T and T-Mobile

GSM Standard - Global System for Mobile Communication

- **Service:** Voice calling, text, messaging, data service similar to CDMA

- **Feature:** One of the key features of GSM is the Subscriber Identity Module, commonly known as a **SIM card**.
- The SIM is a detachable smart card containing the user's subscription information and phone book. This allows the user to retain his or her information after switching handsets.
- SIM card that identify the user on the network and could be used as a storage.
- SIM cards allowed users switch phones by simply moving their SIM's between the phones.

Network : CDMA : Sprint, Verizon and US Cellular

CDMA Standard - Code Division Multiple Access

❖**Service:** Voice calling, text, messaging, data transmission

❖**Features:** Five times up of GSM capacity. More secure –used by military.
❖QUALCOMM designs the chips for the CDMA air interface.

❖**CDMA** phones cannot roam internationally as extensively as GSM phones nor can they transmit voice and data at the same time like GSM handsets.

❖**CDMA** phones are locked to a carrier. It's usually **cheaper to buy unlocked GSM phones** than on-contract CDMA phones.

Network : CDMA vs GSM :What's a difference ?

Click here to watch a Video

NETWORK: LTE

- An acronym for **Long Term Evolution**

- **LTE** is a 4G wireless communications standard developed by the 3rd Generation Partnership Project (3GPP) that's designed to provide up to 10x the speeds of 3G **networks** for mobile devices such as SmartPhones, Tablets, NetBooks, Notebooks and Wireless Hotspots.

NETWORK: 1G to 4G

EVOLUTION

1G
1981

2G
1992

3G
2004

4G and 4G LTE
2010 and 2011

5G
2020

NETWORK: 1G to 4G LTE Evolution

- ***1G*** *analog signal used by cellular towers*
- ***2G*** *technology upgraded the analog signal to digital and powered the inclusion of sending text messages across the network*
- ***3G*** *technology made use of electromagnetic wavelengths, known as spectrum, to broadcast a wireless broadband signal that allowed users to access the Internet and download applications using a 3G data card or a handheld mobile device*
- ***4G*** *called an "ultra-broadband" access for mobile devices. 4G networks are based on an all Internet protocol packet switching instead of circuit switching*
- ***4G + LTE*** *Long Term Evolution (LTE) is a 4G wireless broadband technology developed by the Third Generation Partnership Project (3GPP), an industry trade group. It's a type of 4G technology, and it delivers the best performance and speeds available today.*

NETWORK: is 5G around the corner ?

- Aug 28, 2013 – Huawei (Chinese company) intends to introduce commercial 5G networks by 2020, a service touted as "100 times faster" than current 4 G networks.
- May 15, 2013 - Samsung says it has successfully tested technology that will be at the core of 5G mobile connectivity.

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Devices

Devices

Handheld PC, Palm-size PC, Pocket PC, Pocket computer, Palmtop PC

PDA Electronic Organizer, Mobile Phone , Feature Phone, SmartPhone, Phablet

PMP, DAP

E-Reader

Handheld Game Console

Portable/Mobile Data Terminal

Devices : FeaturePhone vs SmartPhone

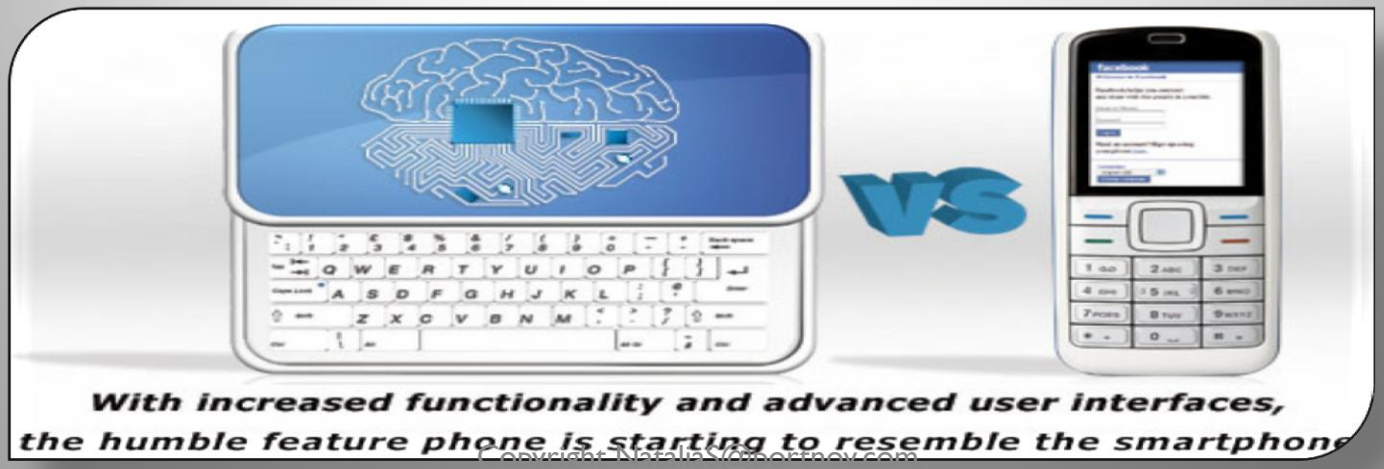
SmartPhones are those which have advanced computing capability than Feature phones

FeaturePhones are low-end device with lower-price

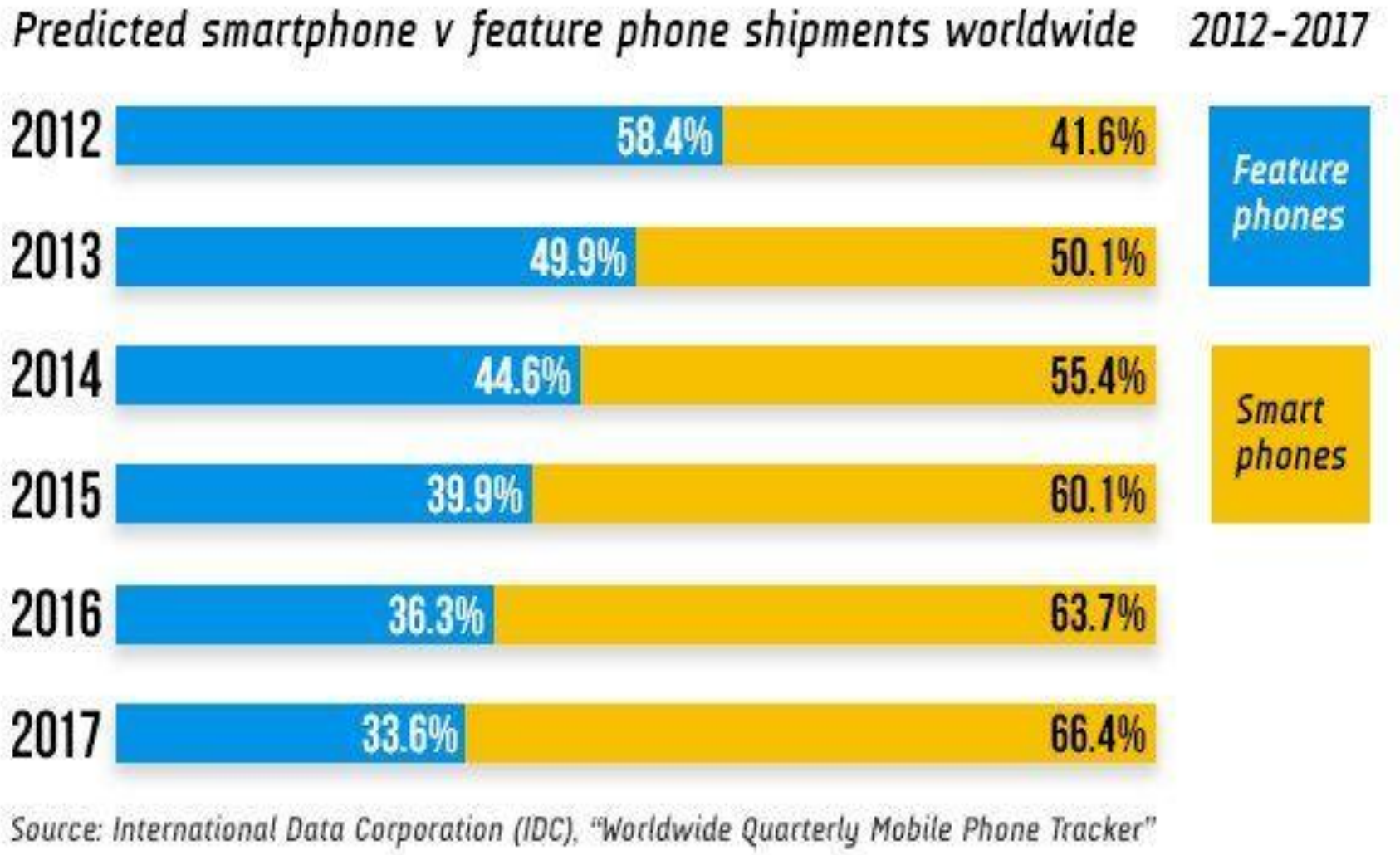
Devices : FeaturePhone vs SmartPhone

In short :

- *SmartPhones usually have a wider array of key features.*
- *These can include a full Web browser, 4G LTE network support, Flash player capability, GPS, higher-resolution camera, third-party application support , video conferencing and more*



Devices :
FeaturePhone vs SmartPhone Comparison Data



Devices :

JAILBREAKING : iOS

JAILBREAKING

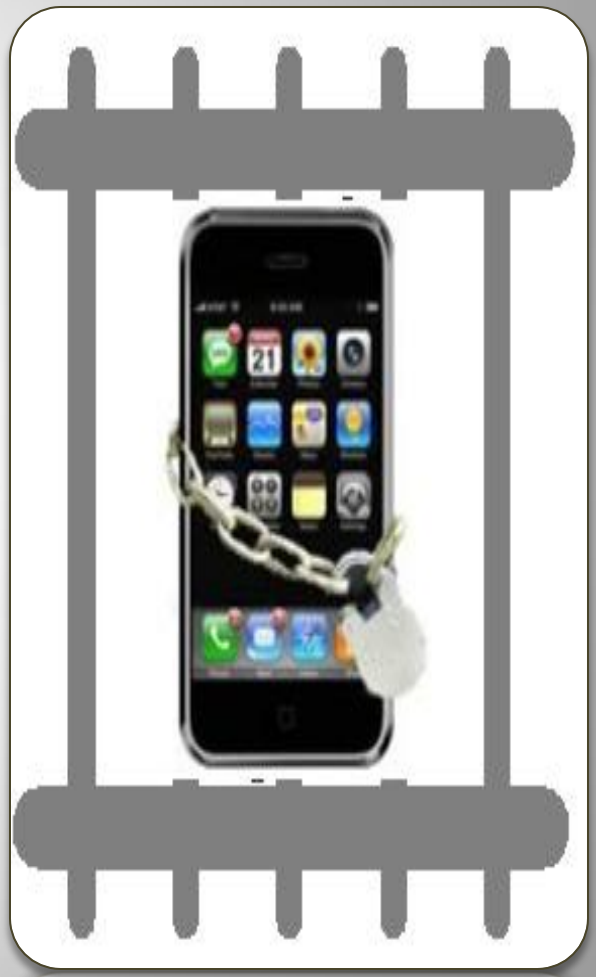
process of modifying iOS system kernels to allow file system read and write access.

JAILBREAKING TOOLS

(and exploits) remove the limitations and security features built by the manufacturer Apple (the "jail")

JAILBREAKING TOOLS

allow users to run code not approved and signed by Apple.



Devices :
UNLOCKING : IPHONE

An **UNLOCKED** iPHONE

can be used with any carrier, not just those that have been approved by Apple.

many **UNLOCKING** solutions only work with certain iOS models

Factory IMEI **UNLOCKS** is a popular solution that works with all iPhone models.

Devices :
ROOTING : ANDROID OS

Rooting is the Android equivalent of jailbreaking, a means of unlocking the operating system

you can install unapproved apps, deleted unwanted bloatware,

update the OS, replace the firmware or customize anything