# Staying Connected while Traveling Ron Brown, Program Coordinator Silvercom CTC







**Princess Cruises** 



### Why stay connected?

- Changing Attitudes
- Security Location/Help
- Information Highway
- Financial Investments
- Healthcare
- Social
- Facebook addiction



### **Challenges of Connecting**

- Security
- Cost
- Complexity- Different Countries
- Language Barriers
- Technology Problems



### **Phone - Type of Signals**

- Cell Signal
- WiFi ( Not Internet)
- Bluetooth (Turn Off)
- NFC

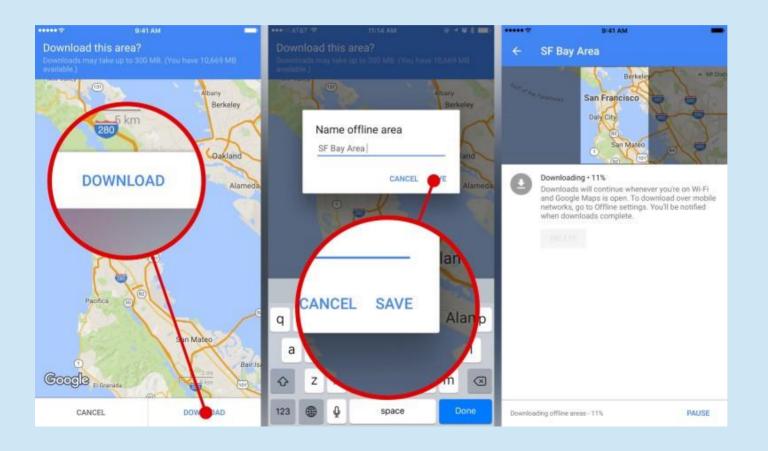






#### **Google Maps – Essential for Travel**

Use Off- Line



Google Maps – Essential for travel

Road Maps
Trip Planning
Hotel Reservation
Restaurant Selection

Traveling area can be saved Internet Connection not needed Downloads POI

### **Understanding Terminology**



- Hotspot
- WiFi and cellular
- Data Plans Data Capping/Tiered/Roaming
- VPN
- Sim Cards
- Roaming



### What is a Wifi Hotspot?

- Encrypted secure
- Easy access
- Costly



NEW VERIZON 8800 MiFi



Receive cellular data connection and rebroadcast as a WiFi Signal so other devices can be connected

Unlimited Data Plans often don't allow Hotspots

Ensure it is a feature on your phone

Category 18 Modem (Max 1200 mbps down / 150 mbps up)
4x4 internal MIMO
5 band carrier aggregation LTE-LAA
2 TS-9 'test ports'
24-hr battery life
15 connected devices supported
Simultaneous 2.4 & 5 GHz Wi-Fi
Auto VPN

#### Using your Cell Phone as a Hotspot



Tethering & portable hotspot

You can use your device as an internet access point using Mobile hotspot. This allows up to 10 other devices to connect to it via Wi-Fi. The connected

Portable Wi-Fi hotspot

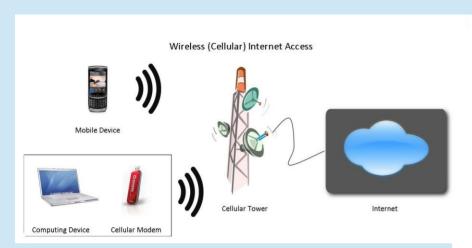
Dependent on your carrier service

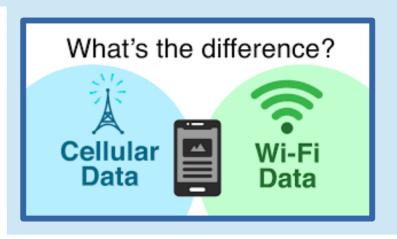
Not usually available with unlimited data

Must be turned on by carrier

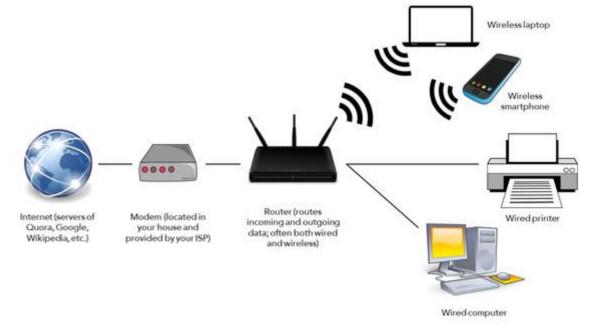
Not available on all cell phones

Very Secure- Encrypted Line





- WiFi
  - Usually Free
  - Security Concerns





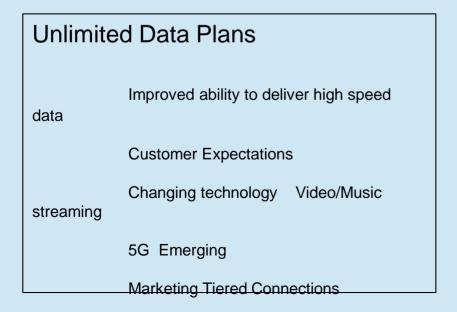




#### Wi-Fi and Cellular Settings

#### John Legere CEO T-Mobile

"Uncarrier approach "2012 No Contracts Changed Phone Plans to Unlimited Data Global Unlimited Data 210 countries Purchased 600 mghz frequency











#### **Roaming and Tiered Connections**

Home connection with Cox- Lots of Data

Netflix-IOT-Amazon Prime Monthly 20-

30 GB

Mobile connections- Unlimited Data ( Data Caping)

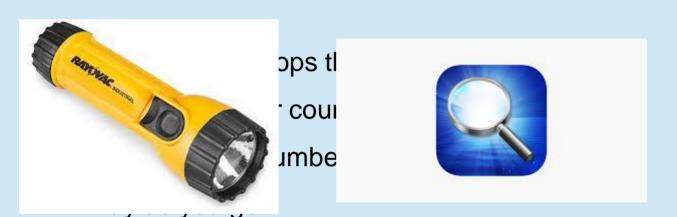
Tiered to 4G then drops to 2G

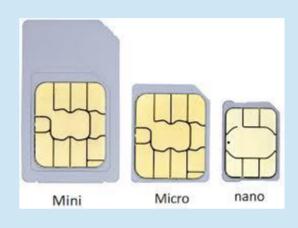
Holland America 200/300/500 MB Unlimited Data for 24 hrs

#### **Roaming Charges**

Roaming is when a cellular carrier has agreements with other networks to utilize their towers

### **Local Sims**







#### umber inactive

TWEEZERMAN TWEEZERMAN



### **Local Sims**



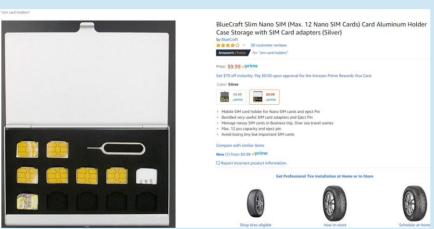
Using local Sims



Both - ESIM

International plans with your Cell Phone Provider

### **Local Sims**





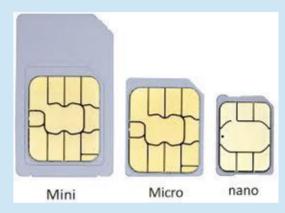
Book plumbing repair services before holiday guests arrive

Compare with similar items

New (4) from \$4.56 

Prime

Report incorrect product information









### Banking on your SmartPhone





#### **Banking with your Cellular Data**

Encrypted Data – Bank uses https No VPN – Security - Speed

#### **Banking with Public WiFi**

Bank uses Secure https
Insecure Network – Man in Middle attack
Key Logger – Identity krown
Passwords

VPN RECOMMENDED

#### **Banking on YOUR Home WiFi**

Bank uses Secure https Age of Router- Firmware Updates VPN ?????

### Banking on your SmartPhone



Project Fi

Automatic switching between Cellular and WiFi Google introducing VPN for service.



#### Wi-Fi Assistant

Wi-Fi Assistant auto-connects you to highquality public Wi-Fi hotspots and helps secure your connection.

To help protect you on public Wi-Fi, your data is transmitted through a secure Virtual Private Network (VPN) managed by Google.

• appears at the top of your screen when your device starts the VPN session.

**LEARN MORE** 

**GOT IT** 

### **Travel by Land**











GPS 3 – L1C Signal Interoperable

China - Compass Europe - Galileo India- IRNSS Japan- QZSS

#### 3 Ways your Smart Phone locates you

Where are you?

#### **GPS Feature**

On all Phones

Always on

Disable Apps

One way communication

Don't need to be connected

#### **Tower Triangulation**

**Cell Towers** 

Triangulation

Rural Vs Urban

Not GPS

#### WiFi Position System WPS

WiFi GPS
Promoted by Google
Database

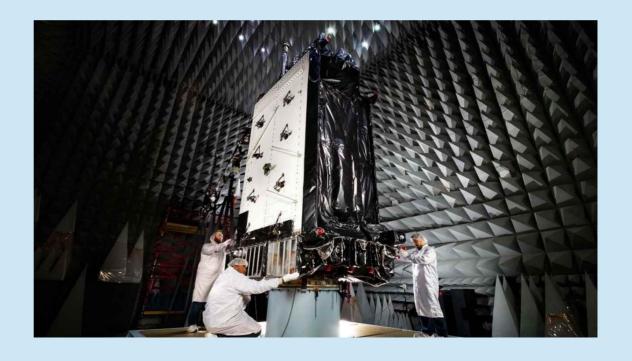
Location service

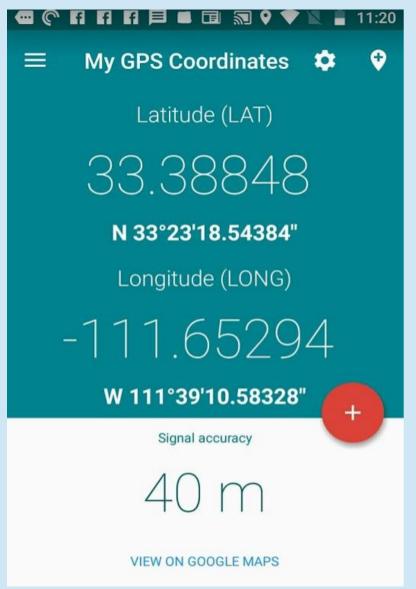


### SPACEX LAUNCHES US AIR FORCE'S BEST GPS SATELLITE YET, CLOSES LAST LAUNCH IN 2018

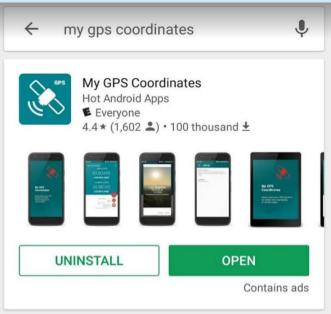
SpaceX has successfully launched the US Air Force's most powerful GPS satellite ever built, the GPS III 'Vespucci' satellite on 23 December.

It's the first in a series and nicknamed 'Vespucci' after the 15th-century Italian explorer who calculated Earth's circumference to within 50 miles (80 kilometers).









My GPS Coordinates

#### Where am I???

#### **Two Way Satellite Messaging**





Messaging – any cell phone or email in the world SOS- 24/7 Tracking- Link to Google Maps Checkin Post to Social Media Compass and Programmable way Points

Purchase \$249/ Monthly sub.



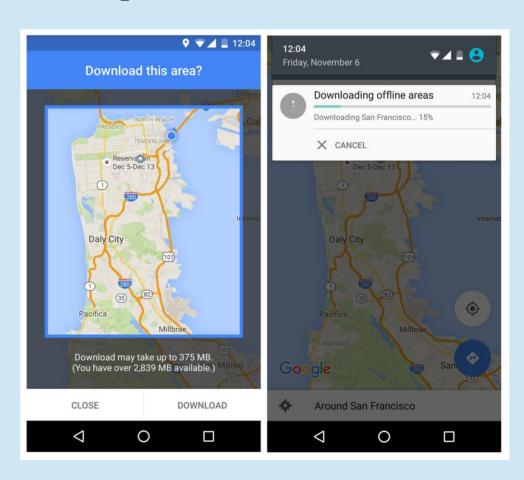
### Google Maps

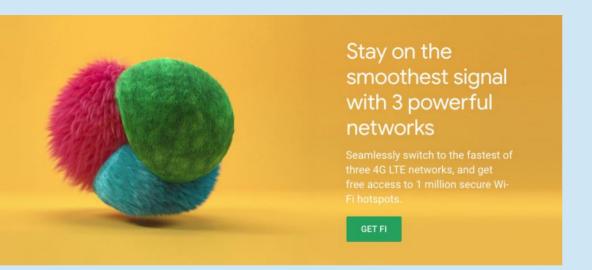
A Must for Traveling

May be used Offline

Choose location to download

Use in car for turn by turn directions







#### International Travel - Data Plan

MVNO (Mobile Virtual Network Operator) Sprint – US Cellular - T-Mobile

+ 170 Countries \$10 GB until Bill Protection Activates Maximum \$60/month unlimited data Free after \$60 No change in speed till 15 GB Pixel 3 – Black Friday- \$599 plus \$200 Fi Credit Motorola Moto G6 \$199 Hot Spot enabled under network settings Connect to 10 extra devices – No charge for tethering

Check coverage in your area





Mobile Keep all v

Texting & data abroad.

Included in 55+

Unlimited Data in +210 Countries

Hotspot Available

#### **International Data Passes Compared**

AT&T **Verizon Wireless** T-Mobile **COUNTRIES AND** 210+ 100+ 130+ **DESTINATIONS COVERED** COST \$\$ \$5/day \$10/day \$10/day Same as your HIGH-SPEED DATA 512MB/day/LTE 512MB/day LTE domestic plan **TEXT** Unlimited Unlimited same as your domestic plan TALK Unlimited Unlimited same as your domestic plan T-Mobile ONE: ROAMING DATA/TEXT Unlimited 2G Data/ Pay as you go rates Pay as you go rates **COST WITHOUT PASS?** Text Included

Best Data Plan for Frequent International Travelers

"Wirecutter "Sept /2018 T-mobile One

512MB Global Pass 4G \$5/24 hours

### Verizon

## International services while traveling outside the US.

Verizon keeps you connected with coverage in more than 220 countries around the world

Add an International Travel Plan



	Mexico & Canada	130+ Countries
Talk, Text & Data*	Domestic plan allowances	
Daily cost per device**	\$5	\$10
Additional benefits	No additional charge with Go, Beyond and Above Unlimited plans	5 TravelPasses included each month with Above Unlimited

\*Data speeds are reduced after the first 0.5GB of daily session. You can purchase additional High Speed for the remainder of your session.

\*\*4G LTE World device is required. Must be on a qualifying plan.

\*Data speeds are reduced after the first 0.5GB of daily session. You can purchase additional High Speed for the remainder of your session.

### **Air Travel**







#### **Identify Purpose**

**Entertainment** 

**Business** 

Social Media

**Checking Email** 

### **Airplane Communication**



Engine Maintenance MH370 Malaysian Airline

**Fuel Management** 

WiFI - Satellite

### In-flight Wi-Fi – Cost Saving



Check Cell Provider – Discounts on In flight WiFi T-Mobile offers one hour FREE

Pay For WiFi BEFORE Flight

Frequent Flyer Subscription Plans

**Credit Card Benefits** 

### **Travel by Sea**

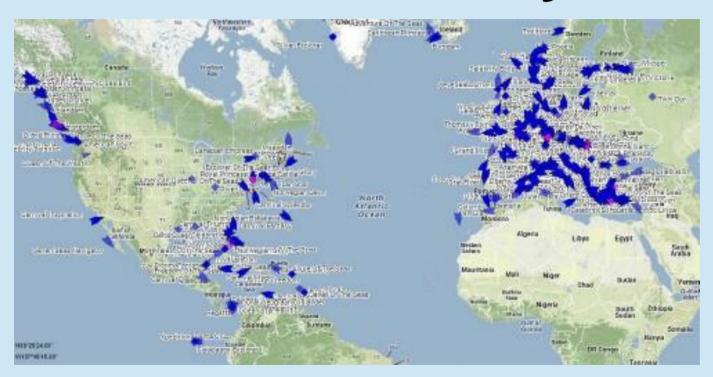




Staying Connected at Sea Big Ocean Internet by Satellite



### Travel by Sea



Passenger ships stay close to land

Most cruises 7-10 days

**Frequent Ports** 

Major Marketing Factor

Increasing Bandwidth 25%/year

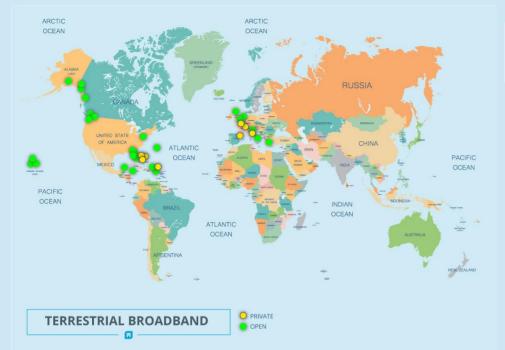
### **Competition and Marketing**

**Staying connected** 

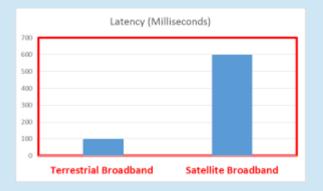














Combination of Terrestrial Broadband and 40 Satellites Increasing Bandwidth 25%/year Investing heavily in New Technology Driven by demand for social media 60% Internet Content is Video

### **Take your Smart Phone**

CHAT

NAVIGAT R

LOG OUT

SHIP TIME: 3:47 PM

**Internal Communication** 

Messaging – Communication

Ship Activities

Complementary Web Sites

**Shore Excursions** 

Cellular at Sea

At Sea Pacific Ocean

Current Temperature 83°F | 29°C OCT 12, 2018











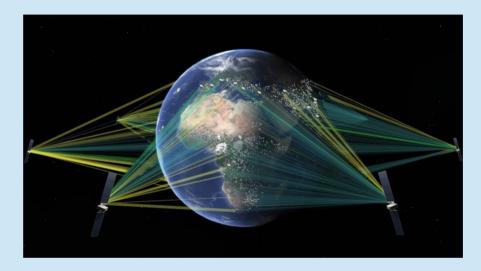




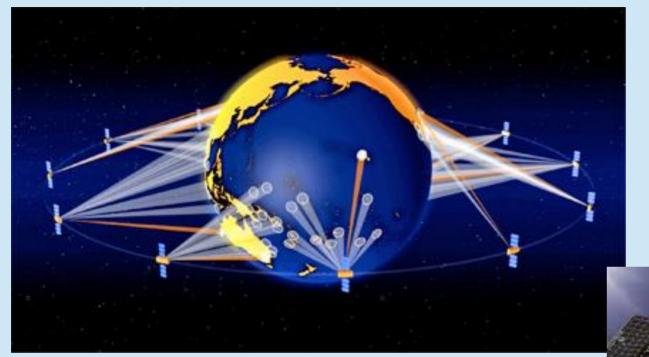


### **Ob3 Satellites - Spot Beam**





Fleet operator SES placed a seven-satellite order with Boeing Satellite Systems International to build a second generation of O3b satellites that will have more than triple the capacity of 10 Terabytes of data 30,000 spot beams





### Thanks for attending

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