

## Мобилни комуникации



### Поколения - (G)enerations

- 1G - аналогов, само глас.
- 2G – цифров и данни/CSD14.4kbs;
- 2.5G /GPRS - 54kbs;
- 2.75G/EDGE - 236kbs.
- 3G – интернет:
  - UMTS - 384kbs;
  - HS(U/D)PA - 14Mbps;
- 4G
  - HSPA+ - 42Mbps;
  - LTE - от 100 до 326 Mbs.
- 5G ?

### Стандарти

Generation	Standards
1G (analog telephony)	AMPS Family: AMPS (TIA/EIA-54-B, ANSI/TIA/EIA-54-B), IS-AMPS (TIA/EIA-54-B), TACS - ETSI
2G	IS-136 Family: IS-136 (TIA/EIA-136), IS-136B (TIA/EIA-136B), IS-136C (TIA/EIA-136C) GSM Family: GSM (ETSI), GSM-R (ETSI), GSM-IR (ETSI), GSM-PP (ETSI), GSM-SC (ETSI), GSM-T (ETSI), GSM-U (ETSI), GSM-V (ETSI), GSM-W (ETSI), GSM-X (ETSI), GSM-Y (ETSI), GSM-Z (ETSI) IS-54 Family: IS-54 (TIA/EIA-54), IS-54B (TIA/EIA-54B), IS-54C (TIA/EIA-54C), IS-54D (TIA/EIA-54D), IS-54E (TIA/EIA-54E), IS-54F (TIA/EIA-54F), IS-54G (TIA/EIA-54G), IS-54H (TIA/EIA-54H), IS-54I (TIA/EIA-54I), IS-54J (TIA/EIA-54J), IS-54K (TIA/EIA-54K), IS-54L (TIA/EIA-54L), IS-54M (TIA/EIA-54M), IS-54N (TIA/EIA-54N), IS-54O (TIA/EIA-54O), IS-54P (TIA/EIA-54P), IS-54Q (TIA/EIA-54Q), IS-54R (TIA/EIA-54R), IS-54S (TIA/EIA-54S), IS-54T (TIA/EIA-54T), IS-54U (TIA/EIA-54U), IS-54V (TIA/EIA-54V), IS-54W (TIA/EIA-54W), IS-54X (TIA/EIA-54X), IS-54Y (TIA/EIA-54Y), IS-54Z (TIA/EIA-54Z)
2.5G	GPRS Family: GPRS (ETSI), GPRS-R (ETSI), GPRS-IR (ETSI), GPRS-PP (ETSI), GPRS-SC (ETSI), GPRS-T (ETSI), GPRS-U (ETSI), GPRS-V (ETSI), GPRS-W (ETSI), GPRS-X (ETSI), GPRS-Y (ETSI), GPRS-Z (ETSI)
3G	UMTS Family: UMTS (ETSI), UMTS-R (ETSI), UMTS-IR (ETSI), UMTS-PP (ETSI), UMTS-SC (ETSI), UMTS-T (ETSI), UMTS-U (ETSI), UMTS-V (ETSI), UMTS-W (ETSI), UMTS-X (ETSI), UMTS-Y (ETSI), UMTS-Z (ETSI) HSPA Family: HSPA (ETSI), HSPA-R (ETSI), HSPA-IR (ETSI), HSPA-PP (ETSI), HSPA-SC (ETSI), HSPA-T (ETSI), HSPA-U (ETSI), HSPA-V (ETSI), HSPA-W (ETSI), HSPA-X (ETSI), HSPA-Y (ETSI), HSPA-Z (ETSI)
4G	LTE Family: LTE (ETSI), LTE-R (ETSI), LTE-IR (ETSI), LTE-PP (ETSI), LTE-SC (ETSI), LTE-T (ETSI), LTE-U (ETSI), LTE-V (ETSI), LTE-W (ETSI), LTE-X (ETSI), LTE-Y (ETSI), LTE-Z (ETSI)
5G	5G (ETSI)

## Интеграция GSM - PC



- Стандарти/скорости:
  - USB 3 – 5 Гб/с-3м;
  - USB 2 – 480Мб/с-5м;
  - Bluetooth 2/3 – 3/24Мб/с – 10/5м;
  - RS-232/irDA – 115Кб/с/2.4Мб/с – 1м.
- Особенности:
  - Смяна на фирмуер – само с **кабел** (за сега);
  - Bluetooth – **до 255** телефона с 1 приемник.
- Софтуер
  - Драйвери - ОС/диск;
  - Фирмени (**free**) – Samsung Kies/Nokia/LG;
  - Униерсални (**\$**): MOBILedit!, Mobile Master.
- MP3/Мелодии
  - Format Factory;
  - audiko.net.
- Приложения
  - Google Play;
  - Apple App.



## Литература

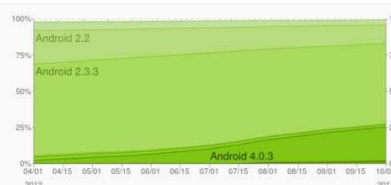


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- **MyPhoneExplorer**  
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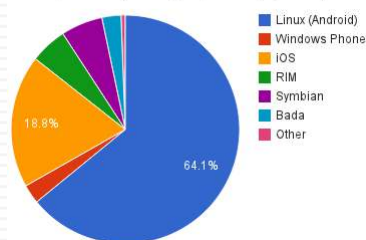
## Мобилни ОС



- **Google Android**
  - Четни (2,4, ...) за телефони и таблети,
  - Нечетни (3,5, ...) само за таблети.
- **Apple iOS**
  - iOS 6;
  - iOS 3/4/5.
- **Microsoft Windows**
  - Phone 7/8;
  - Mobile 5/6.



Smartphone Operating Systems (Q2 2012)



## Мобилни ОС - Андроид






### 4.0/4.1 Ice Cream S./Jelly Bean




### 2.2/2.3 Gingerbread



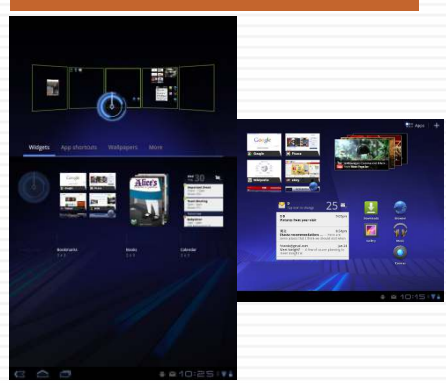
## Мобилни ОС - Андроид


### 5.0 Key Lime Pie




### 3.X Honeycomb




## Мобилни ОС – Програми




### ASTRO Manager/ES Explorer




### Mobile Security



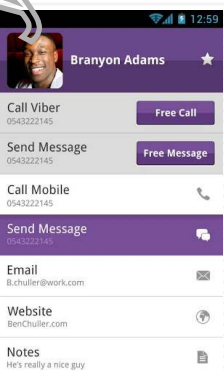
## Мобилни ОС – Програми



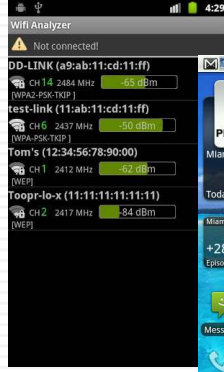
### Aldiko




### Viber



### WiFi мрежи



### Времето

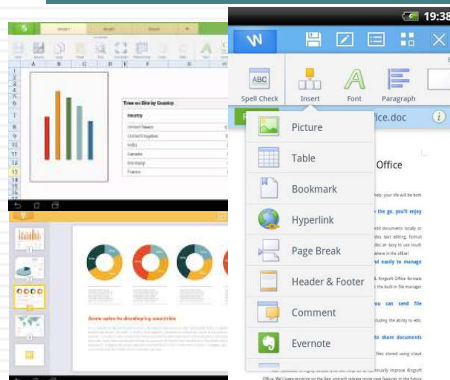




## Мобилни ОС – Програми



### Офис - Kingsoft Office (Free)



### Навигация – iGO MyWay 8.x



## Мобилни ОС – Apple



### iOS 5



### iOS 6



## Мобилни ОС - Microsoft



### Windows Phone 7/8



### Windows Mobile 5/6



## Литература



- [pcworld.bg](http://pcworld.bg)
- [developer.android.com](http://developer.android.com)
- [gsmarena.com](http://gsmarena.com)
- [mobile-review.com](http://mobile-review.com)
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