

Linking current and next-gen networks to deliver triple-play services



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*People you
can **count on***



*Solutions you
can **trust***



*Making
convergence
simple*

Objective/Agenda



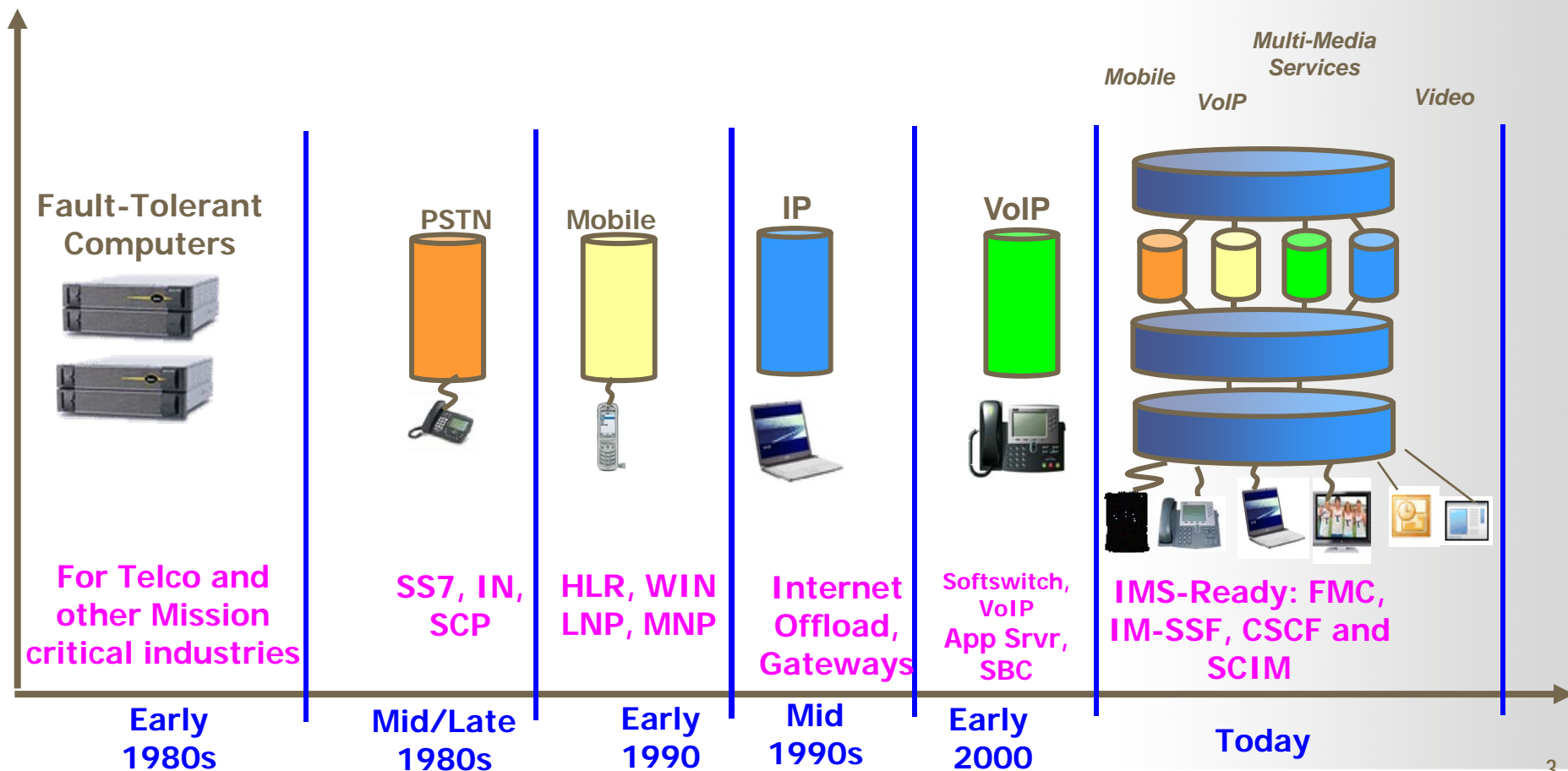
- Give an overview of Triple/Quad Play Service, which includes Fixed Mobile Convergence and IPTV
- Discuss some of the service features and the benefits they provide to consumers for personal use and as business users

Stratus Telecom Overview – Provider of complete VoIP and other Converged Services



➔ Stratus Overview:

- ➔ \$250M annual revenue, 700+ people, 50+ countries
- ➔ 27 years in Telecom, 14 of top 20 largest Service Providers are customers



Terminologies

- Multi-Play or Bundling = Dual Play, Triple Play or Quad Play
 - Combing Broadband, Telephone over Broadband, TV over broadband, and Wireless
 - IPTV
 - ◆ Delivery of digital TV using Internet Protocol over Broadband connection, that is typically managed

IPTV versus Internet TV versus Mobile TV

Emerging TV Service Platforms

▪ IPTV

- IP-based Telco TV service delivered to subscribing consumers
- Interactive
- Closed and managed network
- Anyone can become a content provider



▪ Internet TV

- Streaming (YouTube, Video.Google, Yahoo!Video) or selectable from an Internet application (Joost, MySpace, PPLive)
- Interactive
- Best effort video service
- Open, anyone can publish content globally



▪ Mobile TV

- Fixed-Mobile Convergence brings TV services to mobile phones
- Interactive
- Managed (IPTV) or unmanaged (Internet TV) service
- Video in a multitude of devices



TV content is available anywhere and anytime on any device

Terminologies

→ Fixed Mobile Convergence

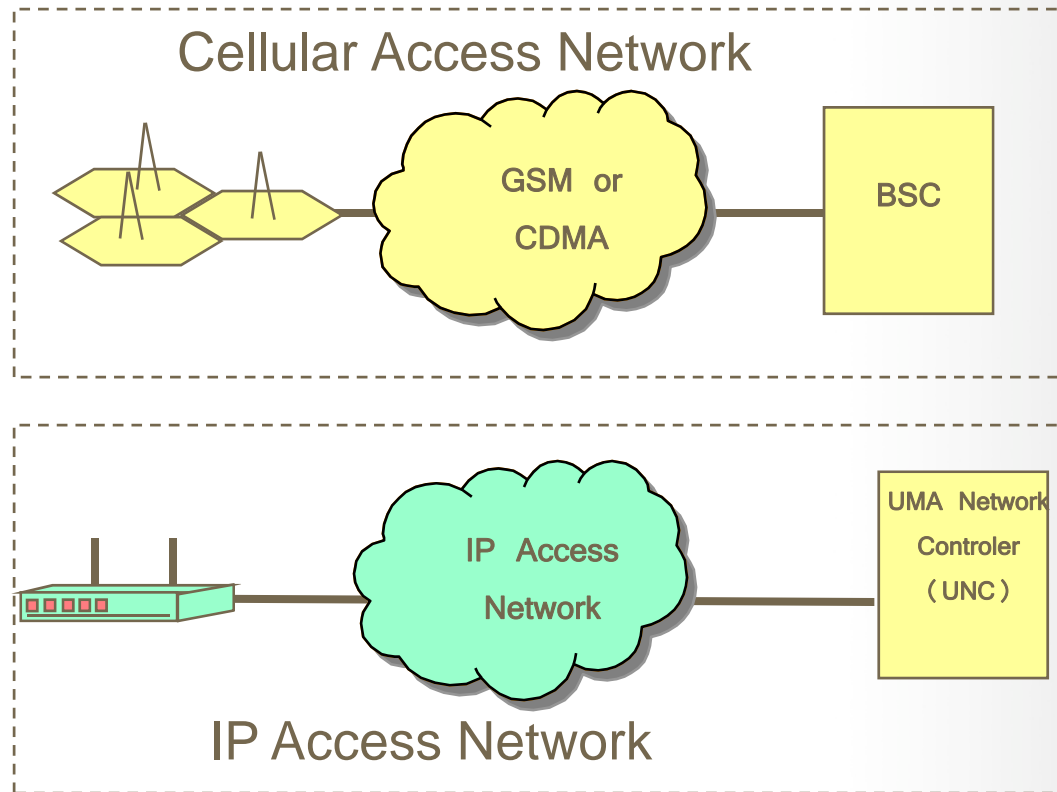
- Provide both mobile and fixed line service for the same device
- Provide both mobile and fixed line service for the same number... either single device or multiple
- Seamless/Uninterrupted switch over during an active call or session

FMC Single Device – Dual-Mode Seamless Handover across network

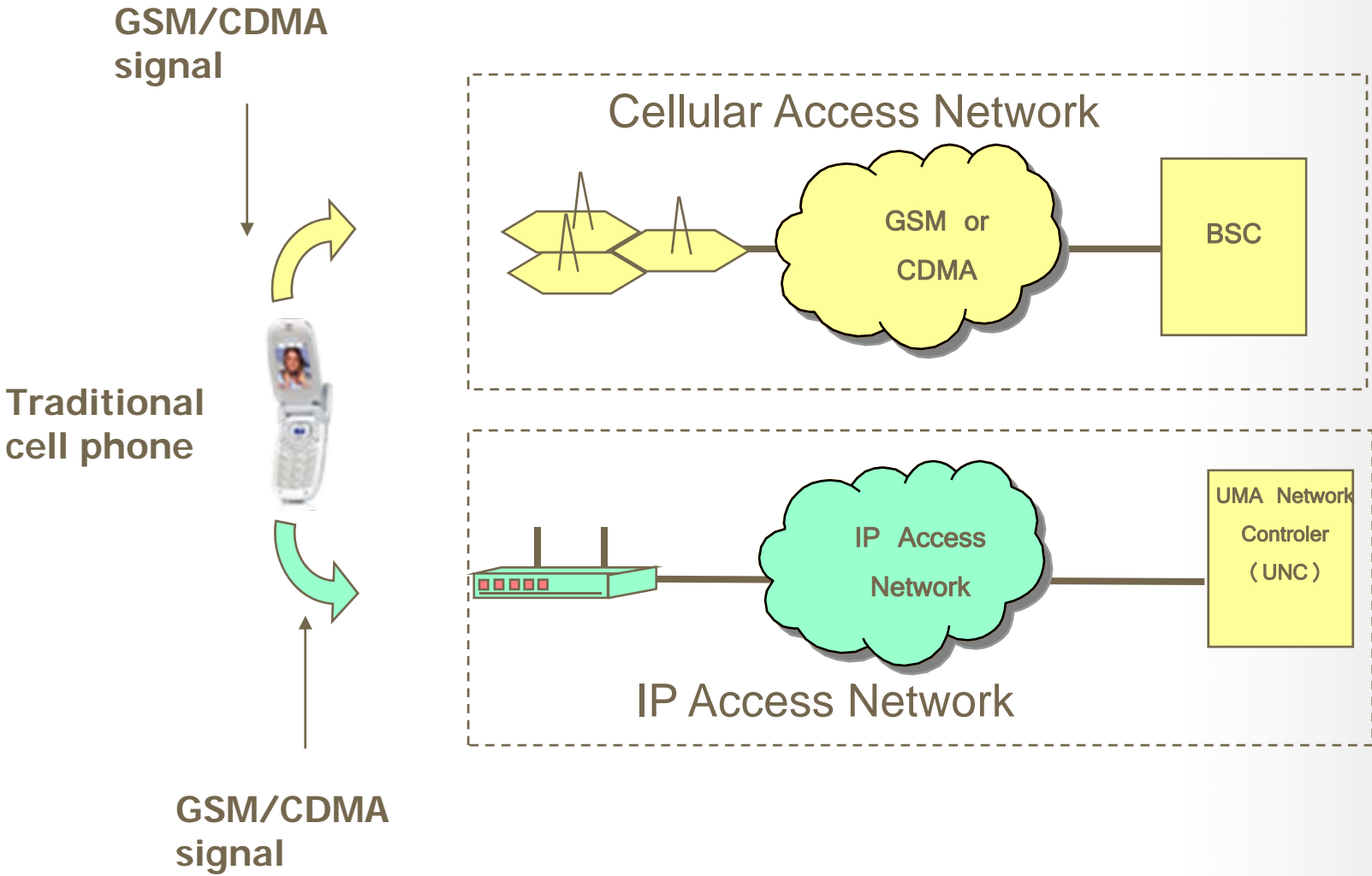
Traditional cell capable



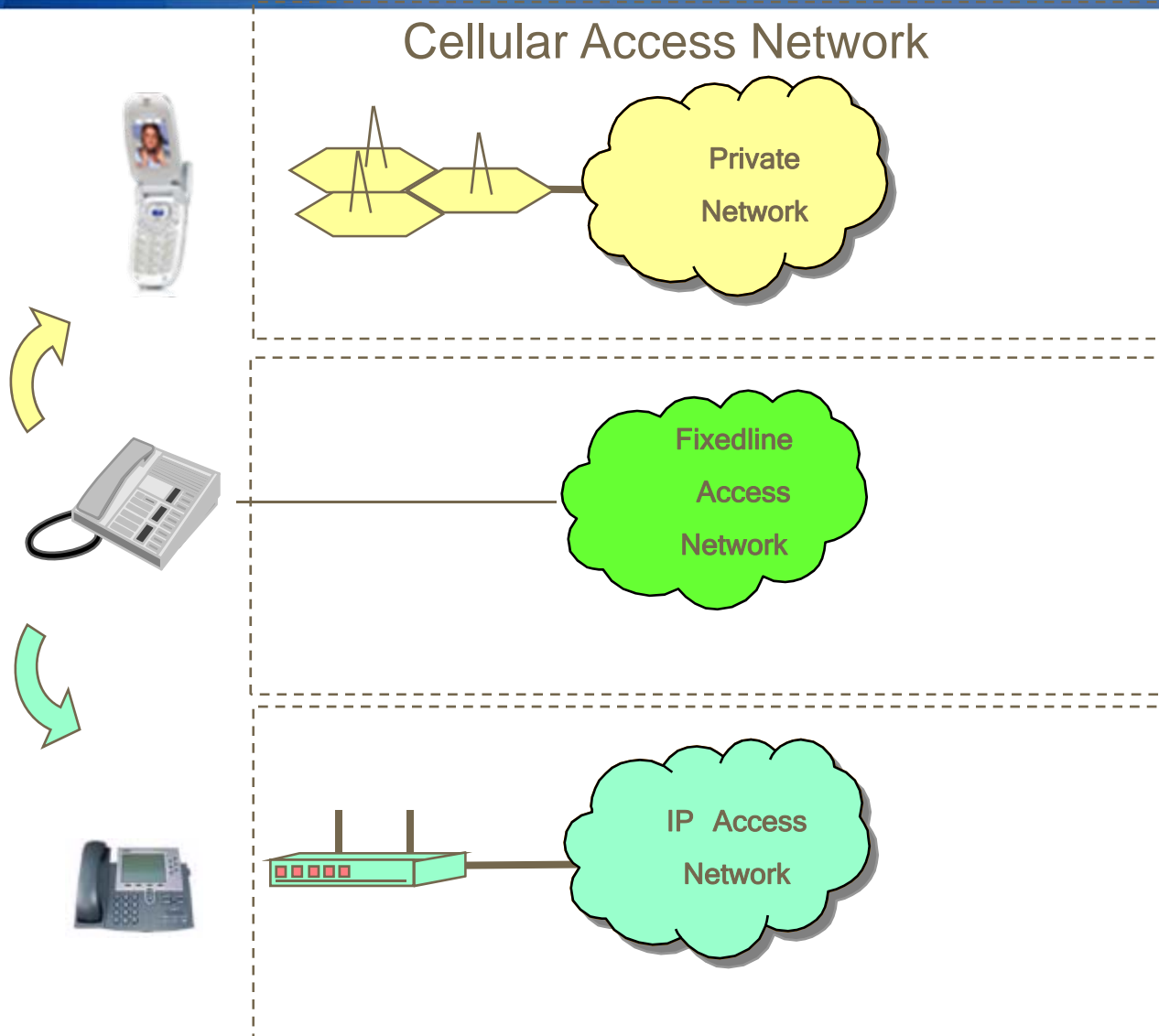
WiFi capable



FMC Single Device – Single-Mode Seamless Handover across network using Femtocells – very new



Seamless handover across Devices and Networks



Significant growth in communications to continue

- **Significant growth in Wireless usage**
 - Cellular – GSM, CDMA, EDGE, EV-DO, HSDPA
 - Broadband: WiFi, WiMAX
 - 3B WW wireless subscribers, 475 million or 15.8% are broadband

- **Various Fixed Broadband Access – Cable, DSL and FTTx**
 - 328M WW fixed broadband subs (compare to 1.1B PSTN)
 - 66% DSL, 22% Cable and 11% FTTx

- **IPTV subscribers worldwide will grow from 14.3 million in 2007 to 63.6 million in 2011 (1).**

- **FMC will drive fundamental change in both fixed and mobile industries, and the market is set to grow to a value of \$74 billion by 2009.(2)**

→ 1. The Multimedia Research Group press release (http://www.mrgco.com/press_releases.html#MLR0307)

→ 2. Visiongain press release (<http://www.visiongainintelligence.com/pressReleaseDetail.aspx?pressReleaseld=1023>)

IPTV Launches Around the World

Europe (over 54 operators)

- Ma ligne TV (FT) > 770k
- FastWebTV (FASTWEB) > 700k
- Free Telecom > 500k
- Imagenio (Telefonica) > 420k
- Belgacom TV (Belgacom) > 150k
- Tiscali TV > 40k
- B2 (Telenor)
- BlueWin (SwissCom) > 60k
- BT Vision (BT) > 3k
- Alice Home TV (Telecom Italia)
- T-Home (DT)



Asia

- Now (PCCW) > 800k
- Media on Demand (Chunghwa Telecom) > 300k
- BB TV (Softbank)
- Hana TV (Hanaro) > 250k
- On Demand TV (NTT)
- BestTV (China Telecom)

Trials in progress

- Bell Canada
- Reliance Infocom
- Telstra
- China Netcom
- China Telecom
- SingTel
- Brazil Telecom
- ETB (Colombia)
- Portugal Telecom

North America (> 100 operators)

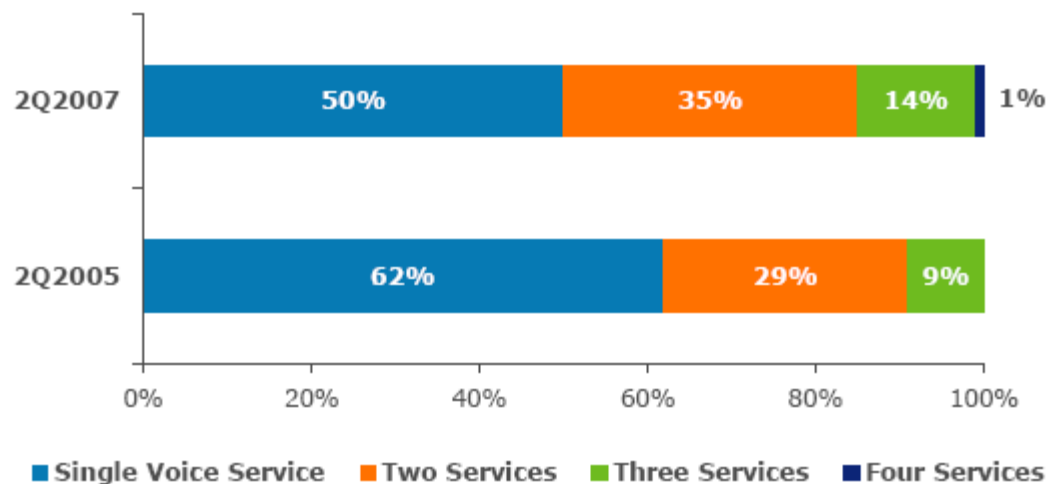
- FiOS TV (Verizon) > 350k
- U-verse (at&t) > 200k
- MTS TV (MTS Allstream) > 75k
- MAX (SaskTel) > 50k
- TELUS TV (Telus)
- Bell Aliant
- Choice TV (Qwest)

IPTV launches are sweeping across Asia and Europe

Consumers do want bundled Services

Time Trend for Customers With AT&T Relationships

AT&T customers' buying trends reflect the desire for increased bundled and packaged service offerings.



Source: AT&T Internal Data



The Primary Need for Bundling/Multi-Play = Convenience and Simplicity

What Do Customers Say?

Customers desire the benefits and convenience of a simplified set of integrated products from a single provider.

- Nearly 1 in 4 customers **would switch for convenience** to a single provider for all services.
- 1 in 3 customers interested in purchasing bundled services **do so for convenience**, while only 1 in 7 are interested in the price savings associated with bundled services.
- 2 in 3 customers indicated that they would **pay more for products that saved time and hassle**
- Customers purchasing 3 or 4 services are nearly **75% more likely to be very satisfied with AT&T** than customers purchasing only a single service.
- 1 in 3 customers would pay \$50 per month for **seamless 3-screen experience**.

Source: AT&T Internal Data



Simplicity and Convenience, an example

Case Study: iPhone

- ▶ Over 1M sold in first 74 days , 4M Sold in first 200 days
- ▶ Nearly half of iPhone customers who port their number are from VZ.

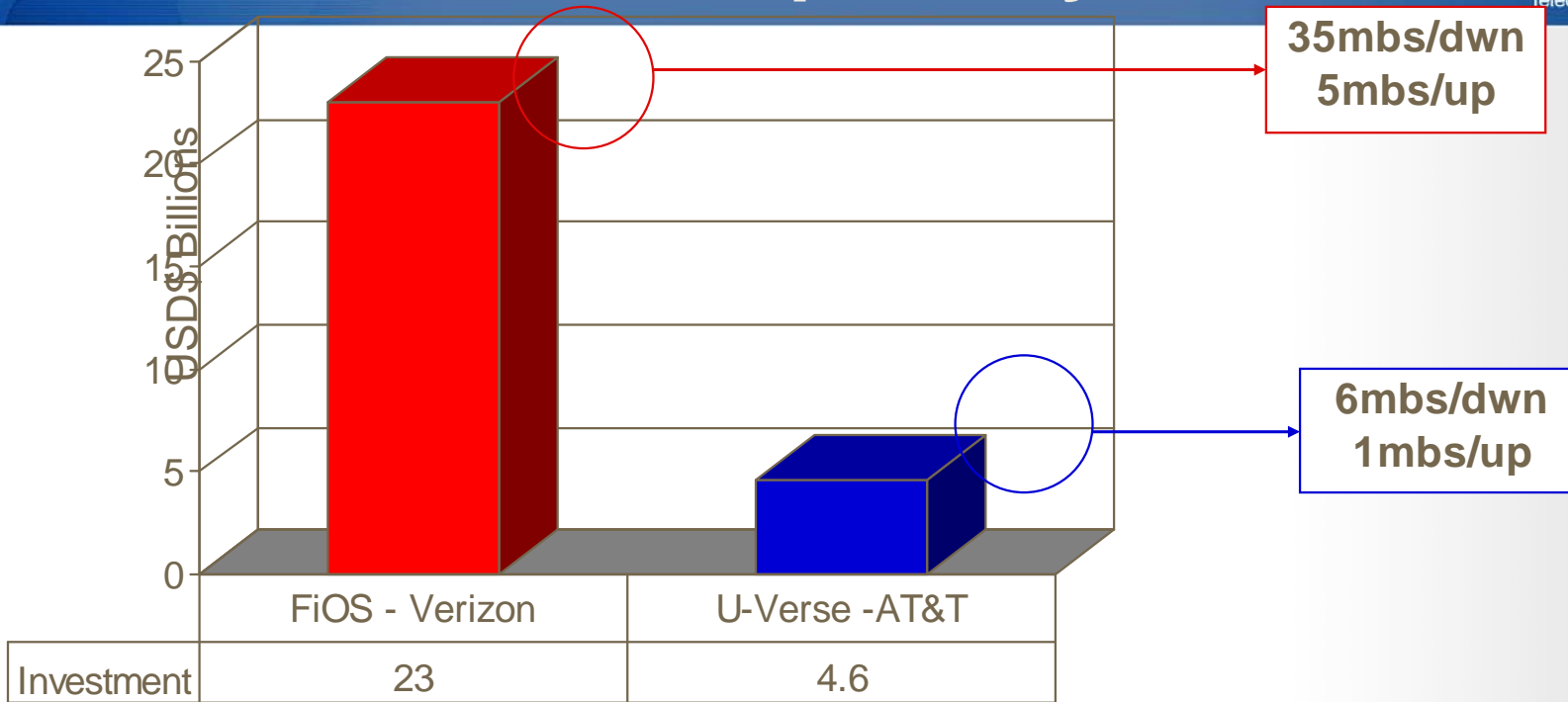
1. Customer controls the entire provisioning process.
 - 90% flow through
 - Activation time ~ 12 minutes
2. Product set-up and use integrated with familiar interfaces.
 - 77% using iPhone more than previous phone
3. Integration of features simplified through user interface.
 - Over 85% complete E2E overall satisfaction
 - Over 70% of iPhone customers agree that it is "the best cell phone out on the market today" and that it is "the ultimate all-in-one device."
4. Truly enabling web experience which creates advertising opportunities.
 - 30% of iPhone customers are new Internet browsers
 - Over 90% say iPhone is better browser than their previous phone



Source: AT&T Internal Data



Telcos continue to make huge investments in Triple Play



- Verizon / FiOS
- \$23B investment
 - 35mbs/DOWN_6mbps/UP
 - Up to 100Mbps
 - Fiber-to-the-Home
 - MPEG-2
 - 18 million homes by end of 2010

- AT&T / U-Verse
- \$4.6B investment
 - 6mbs/DOWN_1mbps/UP
 - Up To 6Mbps
 - Fiber-to-the-Node
 - MPEG-4
 - 18 Million homes by end of 2008

Key benefits of IPTV

- All services of digital TV
 - TV on demand (ToV)
 - Interactive Program guide (iPG)
 - Pause Live TV (PLTV)
 - Video on Demand (VoD)
- Time-shifted TV (TSTV)
 - Even for non-prerecorded shows
- Personal Media Library
- T-Commerce
- Headline on demand
- Interactive advertising
- Gaming
- Anywhere TV

Video Telephony across all Devices



- Across Mobile, TV, and PC
- “See what I see” from mobile to TV
- Fun and productive photo/video messages (combine with audio/music and text) on PC and TV
- Video Mail from mobile to TV to PC
- Video conferencing between TV, Mobile and PC

“Communication is 7% verbal, 38% vocal and 55% non-verbal”

Albert Mehrabian, Professor Emeritus of psychology, UCLA

Key Benefits of FMC

- Service Continuity anywhere
- Costs Savings
- Adjustable Quality of Service
- Convenience and Comfort
- Switch between devices during a call or session
 - Need to travel, Convenience and comfort
- Switch between network on the same device
 - Service Continuity, Saving costs and Quality of Service

Integration of Voice & Video with IPTV



- Caller ID on TV
- Divert calls on Mobile/voicemail
- Message Waiting indicator on TV
- TV-based services
 - VM, Call History, Click-to-talk, address book, video communications, video conference

Other services that are becoming more popular

- Targeted/personalized advertising
- Speech dialing
- Person locator
- Remote biometric monitoring
- Anywhere/Place-shifting/Time-Shifting access
 - E.g. DVR content available WW
- Personalized setting for communications
 - Priorities, video/audio-only, etc

What it all means for the consumer

- Cost Savings
 - Wifi versus cellular
- Acquiring more knowledge
 - Personal video library
- Improved Productivity
 - Communications is 55% non-verbal
 - Tracking people in real-time
- Convenience and Comfort
 - Switch between devices based on situation
 - Speech/video dialing
- Adding fun to the business
 - Any content, any where, any time, any device