

Mobile Data Services

The New Cash Cow for Pakistan Mobile Industry



**Local Smartphone
market share**
reaches 31% in 2015, GfK



QoS Benchmark
of 3G/4G Mobile Data
Services



RIVO
Device Review
Phantom PZ10



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Why Power Banks are a Must These Day?

The whole world is now onto portable electronics. Today it's not about whether someone has a mobile phone or not, rather it's how many? People carry multiple phones for business for personal use. Earlier we had laptops for the business executive. And today we have tablets. And a lot of them! Consumers are inundated with multiple portable gadgets including digicams, mp3 players, ipods, digital cameras, camcorders, portable DVD, PDAs, Mp3, Mp4, GPS, thermal equipment, healthcare equipment etc.

While gadgets are becoming more and more advanced with many features, one thing that is surely going down is the battery life, and that is simply the biggest worrying factor for any gadget user who now is doing much more with it. With touch screen, HD movies, speaker and other battery draining features being introduced, battery life is disappearing faster. Customers don't want to

be stranded with these high tech gadgets because of lack of power. Also with everyone on the move how do you ensure you carry chargers for all these gadgets, and what is the guarantee you will find charging points when you really need it. Think about it.

That endless search for the never available charging station Power Bank or Portable Battery Chargers come in handy in such situations. Power banks provide instant recharge for your portable devices.

These are external battery packs ranging in various capacities which have universal charging capacity. So one power bank will have connectors to the most of mobile and smart phones including

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Apple, Blackberry, Samsung, Nokia, HTC etc. and other digital devices. They are small and compact in size so can be easily carried around. These Power banks are also very easy to use. Just connect the charging cable to the device and your phone and it charges your phone wherever you are.

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Adnan Khan
Managing Editor

Dear Readers,

Technological boom is creating an extra-ordinary effect on socio-economic well-being of the societies all around the world. "Connected Devices- Smarter Societies" is a vision that is set as future target by many countries and now that Pakistan is on its way to achieve its technological pinnacle, IoT, M2M and smart societies are the concepts that are also gaining momentum in the country. 2014 has been especially good year for telecom operators as they got their hands on the next cash cow for them after the 3G/4G auction and secured Rs. 90 billion revenues from data services alone. How telecom operators came to achieve this and what future prospects they hold is an important question that Phone World team has tried to answer in this issue through its feature article.

A comparative benchmarking analysis of 3G/4G mobile networks has been included in this issue that helps to analyze the improvements/degradations made by each operator since the start of their services. This network audit report indicates the potential issues faced by the networks and outlines areas that need improvements for services and maintenance of a good balance between coverage, capacity and quality.

Although ICT sector is progressing at an impressive pace but still there are some hurdles that are holding it back, unjust taxation system being one of them. An analysis has been done on the current taxation system and the repercussions it has brought for the industry. SIM verification predicament is also one of the problems telecom sector is facing for a very long time now, Phone world has tried to give an unbiased views on the matter.

A welcoming news this month however was the survey conducted by PTA and FAB revealing that no harmful radiation is emitted by telecoms in Pakistan. Social media has become most important medium of communication today, its share in people's everyday life is remarkable now this is the reason why an article has been made part of this issue to explore the part social media can and is playing in education.

Phone World team puts great effort to bring together the best and finest quality work for its readers. I hope you guys will appreciate our efforts and give us your feedback so that we can further improve Phone World Magazine.

Enjoy reading....!!

Thank you,
Adnan Khan
Managing Editor

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Mobile Data Services

The New Cash Cow for Pakistan Mobile Industry



2014 was a historical year for the Telecom sector of Pakistan. The industry took huge leaps forward and achieved some major milestones, most significant being 3G/4G auction. Pakistan has a mobile penetration rate of 76% with more than 139.9 million users by the end of June, 2014. The predictions for the future are even brighter and the total mobile subscriptions would be swelling to over 190 Million by 2025 as per vision 2025 document released partly by PTA recently. The market is going through a correction mechanism of SIM verification that seems to be benefiting now rather than damaging the industry.

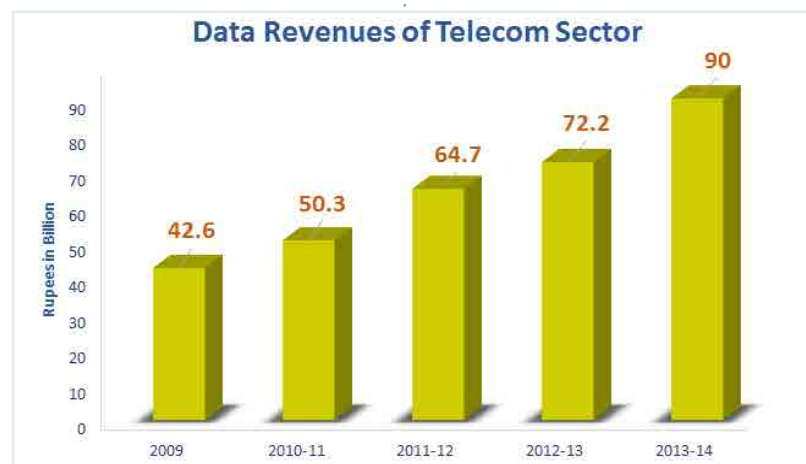
One of the major changes that are brought with the 3G/4G auction of April, 2014 is the increase in data revenue. During the Financial Year 2014, the telecom sector of Pakistan registered a growth of

24.6% that is more than double for the same period in 2013. Rs. 90 billion data revenues of telecom sector depict that data services have become the new cash cow for the operators.

Pakistan a Smarter Society: From Dream to Reality

With the growth of mobile broadband technology after the 3G/4G auction, access to

information and services will dramatically transform and will become a key driver to economic expansion. The innovation and vibrancy has just begun and the value it will bring to the socio-economic well-being of people will be massive. According to PTA's Vision 2025 document, Pakistani population will reach 226 million in 2025 with a median age of 26.4, depicting that consumer appetite for ICT services will increase many folds creating numerous opportunities for service providers. The number of mobile penetration



Source : PTA

is expected to rise to 194 million - with still over 63million population under 14 i.e. under age for a mobile phone presents the idea that market has potential to rise and expand. Mobile broadband penetration should be able to reach 79 million by 2025, a MBB penetration rate of just 35% , there is still a lot of opportunity for future growth beyond that period.

During the Financial Year 2014, the telecom sector of Pakistan registered a growth of 24.6% that is more than double for the same period in 2013

The PTA vision document emphasizes significance of the Internet of Things ecosystem that presents numerous opportunity for the wireless industry revenues by 2025 in different industry sectors such as energy, healthcare, science, transportation, retail and others industries that will follow the international trends. The trends predicted for Pakistani market in Vision 2025 document by PTA could be quite conservative as the potential exist

	2013	2020	2025
Population (Million)	186 Mn	207 Mn	226 Mn
Mobile Penetration Rate (%)	125 Mn	169 Mn	194 Mn
MBB Data Usage Total (TB/Mon)	2,609	327,430	845,315
Connected Devices Total Per Person	3.47/Person	1,362 Mn	2,146 Mn
Mobile Data Usage Per Person (MB/Mon)	1,824	7,305	11,220

Source: Population: UN Population Census. Mobile Estimate: Plum Consulting & PTA. MBB Data Usage: Portio Research - Values interpolated for 2025 from historical growth values. Connected Devices: Futurist Speaker - Values interpolated for 2025 from world average values

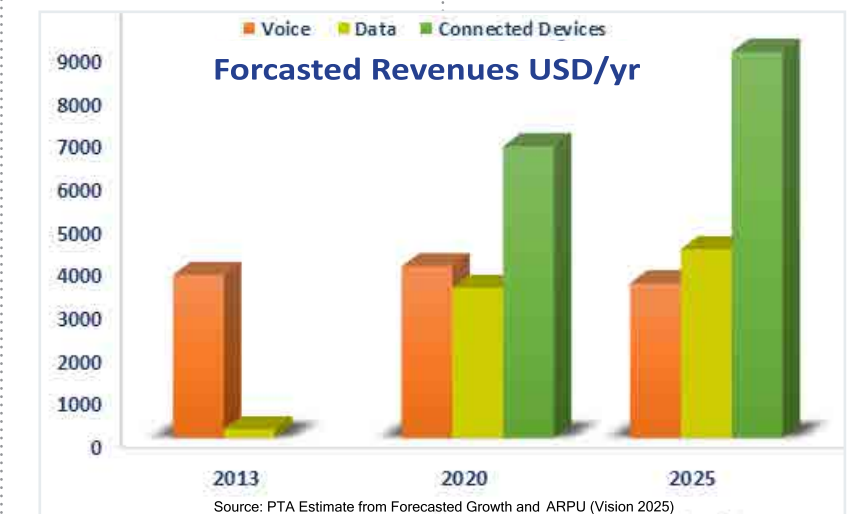
more for such growth in emerging market than developed ones. It is therefore expected that massive

expansion will be witnessed in public municipal services, health, education as well as security and public safety. But all of this will be only possible with expansion in Mobile Broadband. PTA's vision 2025 document envisions rapid expansion of MBB and rising connected community and devices that will result in increase of 7 times in Data services by conservative estimates. The most important development will be availability of 2.1 billion connected devices in Pakistan with an average person connected to 9.5 devices- (this is also the global average for

that revenues from connected devices will surpass both the voice and Data by 2020 and their combined revenues by 2025.

The Changing Trends in Telecom Industry

As of June 30, 2014 data revenues account for 19.3% of the telecom sector's overall revenue, up from 16.4% at the end of FY13 - the number for cellular segment, too, increased from 7.3% to 10.1%. According to PTA, the data revenue trend is likely to continue in the coming years.



Source: PTA Estimate from Forecasted Growth and ARPU (Vision 2025)

connected devices by ITU & IDC). This presents an 11 times bigger market opportunity than the mobile voice market. The Voice ARPU as is expected will probably result in

downward trend presenting flat growth or maybe even decrease. According to PTA, the increase in mobile penetration will have little or no effect on voice revenues - rather it will see a decrease after

2015 and essentially somewhere in future it will also become more of a commodity. The report also expects

"This is a healthy sign in the wake of 3G and 4G services in the country and shows that the use of internet and data services on the cellular mobile has been increasing," the telecom regulator said in its annual report.

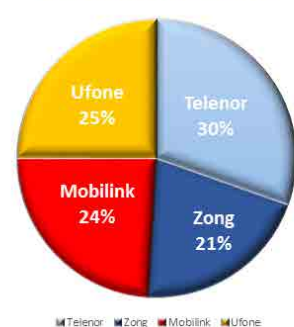
Data services have turned out to be the biggest strength for the telecommunications companies and the huge jump in the revenues is just a proof of that. By the look of it, this changing trend is going to grow further in the future. There are numerous reasons for the increase in data usage:

- Availability of 3G/4G networks
- OTT services
- Affordability of Smartphones
- Increasing its penetration

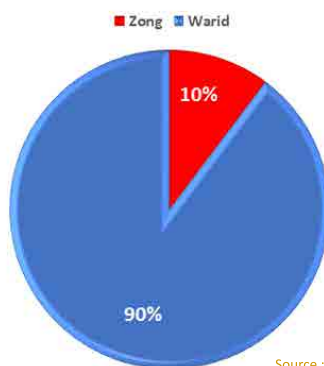
- Availability of free and compelling Applications

Since the arrival of 3G/4G services in the country last year, 3G connections account for around 9.07 million. Telenor leads the market with 2.74 million 3G users till the end of January 2014 whereas Ufone is at number two position with 2.25 million subscribers. Mobilink stands third with its 2.17 million subscribers while Zong is ranked fourth with its 1.85 million subscribers. Warid has recently started its 4G LTE services while Zong started its services at the end of last year. According to PTA, Zong almost doubled its 4G users in January 2015 to take the total count of its 4G subscriptions to 5,023 4G Users. Warid, on the other hands, recorded 44,075 LTE subscribers during the month of January.

3G Subscriber Base



4G Subscribers Base



Source : PTA

According to GSMA Intelligence Report, there are currently less than 700,000 3G/4G mobile broadband subscribers in the country so far. Mobile penetration reached 76% with smartphone penetration reaching 3.7 % as huge increase in mobile phone

was witnessed in 2014. Mobile broadband subscribers in the country are expected to reach 47 million by 2020 and 79m by 2025-PTA



Major section of Pakistani population is the younger generation who wants to stay connected and on the top of all happenings which makes the Pakistani market ripe for data interventions. With the increased use of 3G/4G services and rising influx of smartphones, the use of social media applications and over-the-top (OTT) services like Facebook, Viber, Skype, Tango and Whatsapp also amplified and the telecom sector witnessed a strong growth in its revenues from data services in fiscal year 2014.

Telecom operators are making huge investments. As per SBP's latest data, telecommunications sector attracted \$856.7 million in gross FDI inflows, about 55 percent of Pakistan's total gross FDI inflows in 1H FY15. The inflows are 755 percent more than same period last year. Moreover, net FDI inflows (gross inflow less outflows) were \$100 million in this period, as compared to a negative \$188 million in the year-ago period. Mobile phone retailers are also seeing more smartphone sales than feature phones. According to GFK's latest data on smartphone penetration, more than 85% of Smartphones are 3G/4G enabled devices.

Strategies Used by Each Operator to maximize Data Usage

In today's competitive world companies face strict competition throughout all the phases of product

life cycle. Telecom operators in Pakistan also made huge investments in securing spectrum, launching services, upgrading infrastructure and marketing their services. They are using different strategies to gain maximum number of customer base.

Data services have turned out to be the biggest strength for the Mobile companies and the huge jump in the revenues is just a proof of that

"The increasing use of smart communication applications via internet is slowly eroding the need for traditional SMS and voice calls," said the Pakistani regulator PTA. "Therefore, it is imperative for the cellular mobile operators to focus on providing innovative data services and promote the use of mobile broadband that could help improve ARPU's significantly."

1 Data Packages

All the four operators started their 3G services by offering variety of packages to attract highest number of users and came forward

Services	telenor	Mobilink	ZONG	ufone	warid
Social Pack	Free Facebook, Twitter, Line, Whatsapp	Facebook, Twitter, Nimbuzz, Mobilink Web Pass,	Facebook, Twitter, Whatsapp	Facebook	Free Whatsapp & Facebook
Classified Pack	Asani	Free OLX	Pakwheels, Daraz, Lamudi, Kaymu, Carmudi	-----	Pak Wheels App
Mobile TV	Telenor TV	Mobilink TV	-	UMobile TV	-----
Mobile Broadband	Telenor USB Dongles	Speednet stick, Mobilink WiFi device	4G LTE Wingle, Super 3G Wingle, Super 3G Mifi, Biz Connect, Super 3G router	-----	Warid Mifi
M2M	-----	-----	-----	-----	Shared Internet Plans
Cloud Services	-----	-----	-----	-----	Warid Mobile Backup
Awareness and Utilities	-----	Wikipedia Zero, Mobile Academy	-----	Utrack Business Ufone Website Builder	Mobile Stock Exchange, Jiammi - The Student Network App, My Warid App
Entertainment	Daily Motion Bundle	MobiMusic	Games Club, Zong Internet World, Zong	Utrack Business	Warid Sports Android App,
Mobile in store Payments	Telenor Apps	Billing for Nokia Store Gameloft's game store, KB games	-----	-----	-----

Source : Phoneworld Magazine

with variety of 3G packages for pre-paid and post-paid plans in order to cater to the needs of all customer types. The competition is quite tough in the ever expanding market and the biggest challenge for operators now is that how to make their Data tariff competitive, attractive and also profitable to get maximum users, as Data ARPU will have a profound impact on future revenues.

Operators have made customized data tariff plans keeping in mind the needs of all customers. Although most of the data users belong to the youth segment of the country with limited amount of money allocated for phone bills but it is also true that they are the ones who use maximum amount of data as well. So instead of comparing all daily, weekly and monthly packages offered by all operators let's have a look at the monthly data tariffs.

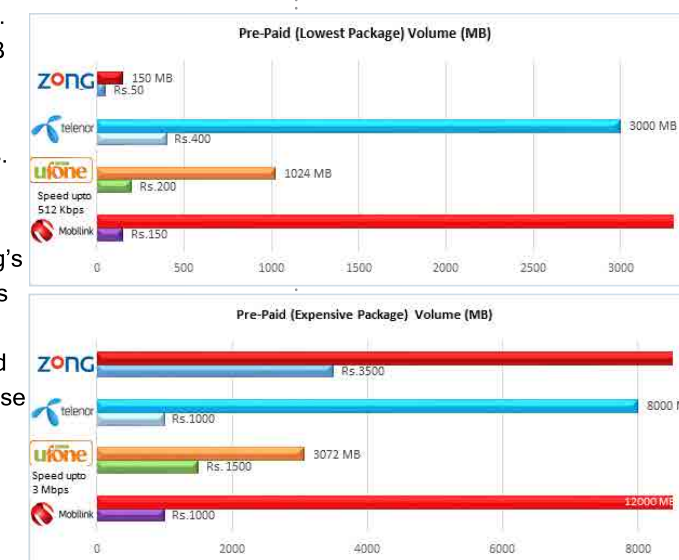
3G Prepaid Monthly Packages:

There are variety of data packages offered by all operators. Zong is offering eight different monthly packages for its prepaid customers starting from 150 MB of Monthly

Mini for Rs. 50 to 30GB of Monthly Premium Plus for Rs. 3500. The best thing about Zong's data tariff is that there is no speed limit on these packages. Zong customers can also buy add-

ons on its packages to get extra data volume with 10 MB of free data. Mobilink offers four monthly data packages starting from 3G

Monthly Lite with 5,000 MB data for Rs 150. Its most expensive monthly package is priced at Rs. 1000 which offers 12,000 MB data. Mobilink is also offering a special Monthly Hybrid Package which



includes 1000 Mobilink Mins, SMS & 2 GB data and costs Rs. 478. Ufone on the other hand has speed limitations on its packages.

The most economical of these is the monthly 1GB data package that charges RS.200 and has a speed limitation of 512 Kbps. The most expensive data package offered by Ufone is the Monthly 3GB data package which costs Rs.1500 and has a speed cap up to 3 Mbps.

Pakistan's mobile market is considered one of the most competitive with more than 140 million customers and ranked as 8th largest market in the world

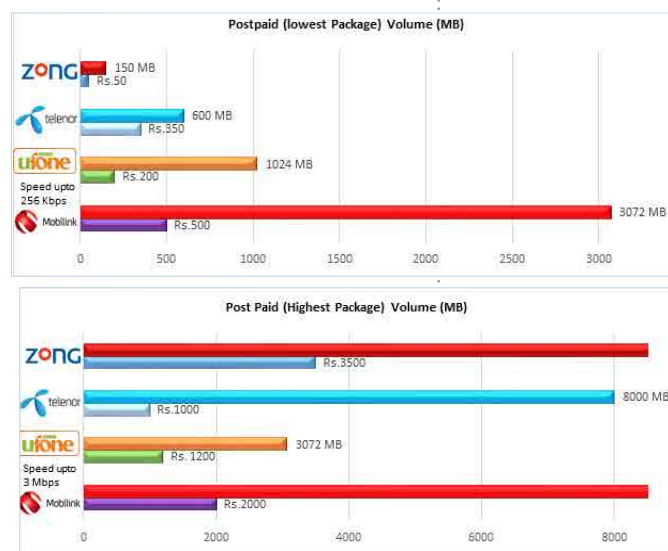
Few more data packages are offered by Ufone but these packages are speed limited, from 512 Kbps to 3 Mbps. Telenor is offering two monthly packages, Monthly Bundle and Monthly Plus Bundle. Monthly Bundle is priced at Rs. 400 with data quota of 3,000 MB while Monthly Plus Bundle is offered at Rs. 1,000 with 8,000 Mb of data.

3G Postpaid Monthly Packages:

Zong is the only operator that offers same data packages for all customers. Its prepaid and postpaid packages are same. Whereas, Mobilink is offering three monthly packages for its postpaid customers.

Monthly Mini - 3 GB - Rs. 500

Monthly Max -8 GB - Rs. 1000



3G Monthly Heavy - 25 GB - Rs. 2,000

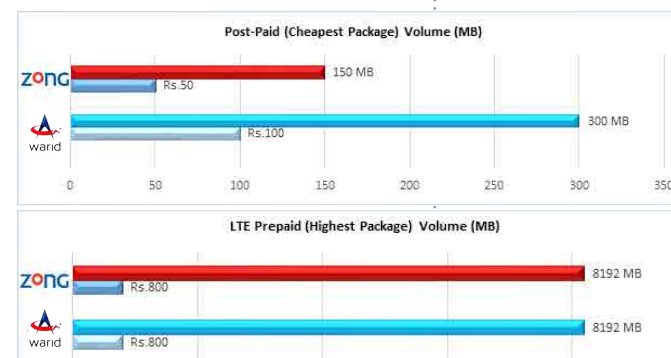
Ufone postpaid packages are available in 3 speed caps, 256 Kbps, 512Kbps and 3Mbps. The most economic among Ufone data packages is the monthly data package of 1 GB which costs Rs.200 (speed up to 256 Kbps) and the most expensive data package offered is the monthly 3 GB which cost Rs.1200 (speed up to 3 Mbps). Beside its Smart Plans for its corporate customers, Telenor is also offering three monthly internet bundles for postpaid customers.

Internet 350 - Rs. 350 - 600 MB

Internet 600 - Rs. 600- 4,000 MB

Internet 1000 - Rs. 1000 - 8,000 MB

4G LTE Prepaid Monthly Packages : So far Warid and Zong are the only two players in the LTE market. Although Zong is the fastest growing mobile network of



Pakistan but in LTE market, Warid is miles ahead of Zong in terms of

subscribers' base. Both operators are offering special LTE tariffs for their customers, Warid is offering five monthly plans for its prepaid LTE customers with data limit starting from 300MB at Rs. 100 to 8 GB for 800 Rupees.

Zong on the other hand is offering eight monthly 4G packages. The packages are same as its monthly 3G packages but obviously with better and faster speed. In addition to 4G data bundles, customers can also subscribe to 4G enabled hybrid bundles separately. There are two monthly hybrid bundle offers, Monthly Home 1 and Monthly Home 2, each bundle offers a special deal for customers which includes:

- (a) Unlimited on-net voice (24/7)
- (b) 500 FREE SMS /day
- (c) Data

4G LTE Postpaid Monthly Packages:

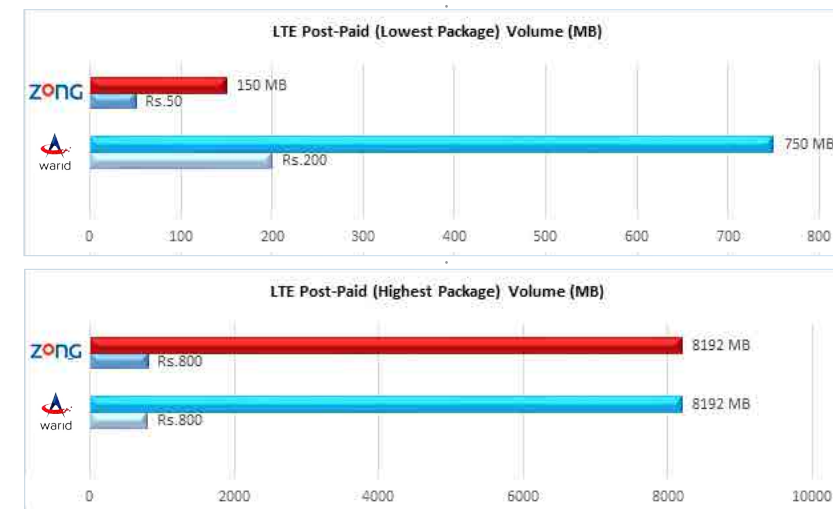
Warid's monthly LTE postpaid packages start from 750 MB for Rs 200 to 8GB for Rs 800, there are four monthly packages available in total for postpaid customers. Whereas Zong offers same packages for its postpaid customers as it offers for prepaid customers.

Zong, Telenor, Mobilink and Warid are also offering mobile broadband on 3G and 4G devices with special packages that are becoming quite popular

among the data users.

The number of mobile penetration is expected to rise to 194 million (85%) - with still over 63million population under 14 i.e. under age for a mobile phone. Mobile broadband penetration should be able to reach 79 million i.e. a MBB penetration rate of 35%

The prices of these dongles/Wingles start from Rs. 2500, each device is capped with specific data speed and bundle offer. Mifi devices that are currently being offered by Warid and Zong are comparatively expensive and start from more than 48, 00 Rupees.



2 Speed

One of the biggest factor of Telenor's success is that it offers cheapest and simplest pricing options in the market. However, effectiveness of speed is also a strong factor when considering 3G subscription.

Experts believe that the uptake of 3G services could have been faster had telco's not mishandled advertising campaigns Telecom companies concentrated to build their brand rather than the product itself

Although Ufone is the only operator that has capped its data speeds, probably due to the spectrum limitation but it is also the most transparent with declared speed

bands. Mobilink and Zong are also getting good customer feedback as they have the maximum spectrum at hand. Zong also hold strong position in 4G service now that Warid has also started its 4G services. However speed variations are currently an issue across the country and user

experience varies as the operators are still going through roll-out phase.

3 Video Calling

Video calling is the most prominent feature and major attraction of 3G facility.

It is much better and simpler than phone call and text messaging but requires high speed internet. Although users can opt for OTT services for free video-calling service but all operators are offering special charges on their video calling facility. Mobilink is charging Video Calls on a 30 Seconds Basis whereas Telenor and Zong are charging Video Calls on a 5 Minutes and per minute bases respectively. Ufone has opted a different approach and is offering conference call option in which up to 6 members can talk at the same time. Ufone has also started video sms service for 3G users. This offers

Operators	Video Call Offers
ZONG	Rs. 3.2 per Minute
telenor	Rs. 2 per 5 Minutes
ufone	One-time Conference Call Activation charges of Rs. 3.00/- + Tax
Mobilink	Rs. 2.99 per 30 Seconds or Rs. 5.98 per Minute

will allow 3G consumers to send and receive video messages.

The receiver will be able to play the video SMS instantly however in case he/she does not have video call enabled smartphone, an SMS containing a URL will be sent by the company which can be utilized later. The users will be charged Rs.1+Tax per minute for sending the video SMS to the desired number.

4 Social Media Pack

Social networking websites and applications are the most widely used activity on internet these days. This is the reason why all operators are trying to cash this opportunity by offering variety of social media packages to increase data usage.

Zong Social Pack: Zong is offering Facebook, Twitter and WhatsApp with 500MB worth of 3G/4G data with its Social Pack for a cost of Rs 10/Day.

Ufone Free Facebook Offer: Ufone has also started a free Facebook offer for both 2G and 3G customers that too without any subscription charges.

Telenor Social Media Offers: Telenor is the one operator that has offered maximum number of social media offers.

(a) **Daily Motion Bundle:** Weekly Dailymotion Bundle: Rs.75 (500mb for dailymotion url only + 500mb for all non Dailymotion urls) Dailymotion Hourly Bundle: Rs.5

(b) **Free Asani.com:** Telenor offers free browsing of Pakistani classifieds site asani.com.pk under the daily fair usage policy of 5MB per subscriber.

(c) **Social Pack:** Under this offer Telenor is providing free access to Facebook, Twitter & Whatsapp but with 100 MBs data limit for this bundle.

(d) **Free LINE:** Telenor also offered limited time offer on LINE

Messenger with zero subscription charges.

(e) **Free Twitter:** Telenor also started Free Twitter offer for its pre-paid customers with zero subscription charges and default activation.

Mobile broadband subscribers in the country are expected to reach 47 million by 2020 and 79m by 2025-PTA

(f) **Urdu Point:** Telenor also gives free access to its prepaid customers to the latest news, poetry, sports and entertainment in Urdu at UrduPoint.com, the largest Urdu web site in the world.

(g) **Sports Bundle:** Telenor's sports bundle is meant for the Football lovers. Under this offer customers will also get free football update anytime by activating the live score web-pass on Opera mini browser.

Offer	Price Plan	Subscription Price	Validity	Free Resources
Daily Sports Bundle	All Prepaid	Rs. 5.incl Tax	24 Hours	Unlimited
Monthly Sports Bundle	All Prepaid	Rs. 50. incl Tax	30 Days	Unlimited

Mobilink Social Packs
Mobilink is currently offering 2 Social Bundles:

(a) **Daily Social Bundle** with unlimited browsing on Facebook, Wikipedia, Twitter and Whatsapp for Rs.5.

(b) **Social Bundle** with unlimited browsing on Facebook, Twitter and Whatsapp and 300 for 3days charged at Rs. 10+ Tax.

Mobilink is also offering free unlimited browsing with its Wikipedia Zero package and

unlimited access to Nimbuzz messenger with its Nimbuzz bundle offer priced at Rs. 12/ weekly. Its free social media Offers also include: Free OLX and Free Twitter.

Mobilink Web Pass

Mobilink and Opera Software have introduced a new service, Mobilink Web Pass, for the very first time in Pakistan's market. Mobilink Web Pass allows users to purchase data bundles and browse the mobile internet on the Opera Mini browser.

With Mobilink Web Pass, mobile customers can easily buy time-based or content-based mobile data packages through a simple, one-click purchase, similar to how users buy apps today. There is no subscription string for these Web Passes; they can only be purchased online through Opera Mini browser.

Warid Social Pack

Warid has finally started its LTE services in the country and great deal of effort can be seen in its marketing and promotional

strategies. Like other operators, Warid is also offering free Facebook and Whatsapp package to attract the youth segment of the country.

6 Coverage

Coverage is a very important factor in maximizing the subscription base, 3G roll-out plans of all operators are under progress right now. Zong is providing its 3G services in more than 30 cities and on Motorway I and II now while Telenor has 3G coverage in 72 locations including Motorways.

Ufone has so far 27 location with 3G coverage Mobilink on the other hand, has 3G coverage in 34 cities and at 4 location on Motorway.

Warid has started its LTE services last month and so far its coverage is only available in the 5 major cities of the country.

The increasing use of smart communication applications via internet is slowly eroding the need for traditional SMS and voice calls

5 Marketing

The success of a product or service is dependent on its marketing more than the product/service itself. This is the reason why each of the operator is using variety of techniques to market their data services. Although their marketing campaigns did manage to attract lot of customers but better result could have been achieved if the campaigns were aimed with spot-on message as early impressions of customers to the 3G services were less than satisfactory. Experts believe that the uptake of 3G services could have been faster had telco's not mishandled mishandled advertising campaigns. Telecom companies concentrated to build their brand rather than the product itself, leaving many customers uneducated with regards to the actual benefits of 3G services.

Although operators have now finally started to change their approach in marketing campaigns and came forward with simple and to-the-point advertisements that are triggering massive response. To further maximize the data usage operators need to engage the customer by making them aware about the

actual product experience which obviously was not conveyed. Rather what is needed right now is to provide information about how data usage can revolutionize one's lifestyle.

Another thing that all operators need to consider is that there is a huge population in the country that hasn't used internet so far. Although it is quite understandable that due to selected network deployments during early stages, operators are eyeing high-demand user base only. But there is also no denying the fact that these first time internet users can become potential users if given an opportunity. Creating awareness about the role that 3G services can play in their life could be very helpful for the operators and customers alike.

7 App Stores

Another strategy carried out by operators to increase their data revenue and attract more customers is the App stores that give access to thousands of apps that can be downloaded directly to the handsets. All five operators are currently providing online app portals that offer variety of applications to the users including entertainment, infotainment, religious, social network, education and business solution applications.

Through these value added services operators not only facilitate

their customers and increase their satisfaction level but also bag high revenues; a win-win situation for all.

8 Smartphone Promotions

Another strategy used by all operators is the 3G enabled handset promotion. To increase the 3G/4G penetration in the market, operators are now offering different local and international smartphone brands at special prices and 3G bundle offers. In post 3G/4G scenario most of the mobile users were using feature phones, so this is a great strategy to attract customers to 3G services. The overall imports of 3G/4G enabled handsets has also increased after the auction and many international brands like OPPO, Apple and Lenovo have also entered the market.

Future Prospects

Pakistan's telecom market is considered one of the most competitive telecom market with more than 140 million customers and ranked as 8th largest market in the world. In a scenario where even half of 140 million customers are unique active subscribers then it is expected that 70 million strong base can potentially join Data in coming years, ranking Pakistan among Top 5 internet market of the world.

Pakistani are tech-hungry by

nature this is the reason why technology adoption is relatively high in the market. Therefore, in due course of time Data boom is expected in the market but there are certain factors that also stakeholders need to work upon:

- (a) Coverage
- (b) Device availability
- (c) Ecosystem building
- (d) Customer awareness

If done appropriately, next generation technologies especially data services can turn in to the biggest strength of telecom operators. But for that every stakeholder needs to play its part to ensure that industry flourishes in the right direction and benefits are reaped by all.

Social networking websites and applications are the most widely used activity of internet these days. This is the reason why all operators are trying to cash this opportunity by offering variety of social media packages to increase data usage



SIM Verification Predicament in Pakistan

In order to implement National Action Plan to root out menace of terrorism, the government and telecoms agreed to re-verify 103 million SIMs within 90 days through Biometric Verification System (BVS). Pakistan Telecommunication Authority has issued the mandatory instructions on January 12, 2015 for all telecom subscribers to re-verify their SIMs through Biometric process for security reasons. The cellular mobile operators have always worked with the government and provided all essential support in implementing required measures to

facilitate data verification exercises including 668 processes back in 2009, 789 verification processes in 2011 and now Biometric Verification System (BVS) introduced in 2014.

The industry has so far invested \$25 million on the provision of around 60,000 BVS devices and Rs 22 billion on previous mandatory verification processes with another significant amount to be spent on this re-verification exercise to enhance the availability of these BVS devices across Pakistan.

The cellular industry has urged all its valued customers to perform their national duty by re-verifying their mobile phone SIMs as per the schedule announced by the Pakistan Telecommunication Authority (PTA) and Ministry of Interior. The industry has also sought government's support to meet the extremely challenging task by ensuring cooperation of law enforcement agencies/local authorities, provision of security at service centers/franchise and BVS retailers across the country where re-verification process is underway.

The industry has so far invested \$25 million on the provision of around 60,000 BVS devices and Rs 22 billion on previous mandatory verification processes with another significant amount to be spent on this re-verification exercise to enhance the availability of these BVS devices across Pakistan

The Industry's volunteered support towards measures to maintain National Security in view of the prevalent law and order situation should be recognized accordingly. Moreover, the industry has also played a remarkable role through its corporate responsibility initiatives in overall social development as well as in emergency situations in the country.

The cellular industry has always been at the forefront in terms of cooperation with the government and security agencies in national security matters, and will continue its efforts in light of the prevailing security situation. Mobile telecommunication is also one of the largest contributors to the national exchequer, over the years the telecom industry has made a major and transformational contribution in the economic development of Pakistan.

Over the last three years, the telecom sector was already contributing an average of Rs. 124.8 billion annually to the national exchequer in terms of taxes, regulatory fees, initial and

annual license fees, activation tax, and other charges. During FY2014, telecom sector has contributed an all-time high Rs. 243.8 billion, registering a growth of 95.8% over the last year.

But despite the tremendous efforts made by telecom operators and telecom watchdog, there are still few issues that need to be sorted out for the benefit of all stakeholders and SIM verification is on top of that list. All SIMs irrespective of pre-paid or post-paid were to be re-verified during the two-phased exercise starting from January 12, 2015. For this purpose, the present Biometric Verification System (BVS), which was developed by investing millions of dollars by Pakistan telecoms, was further upgraded by establishing its linkages with NADRA (National Database and Registration Authority) to ensure speedy verification of SIM holders.

Over the last three years, the telecom sector was already contributing an average of Rs. 124.8 billion annually to the national exchequer in terms of taxes, regulatory fees, initial and annual license fees, activation tax, and other charges

The NADRA will charge tax for holding basic and detailed verification respectively from telecom companies. This step can prove quite helpful regarding the current security situation of Pakistan and also to counter terrorism in the country.

The Two-Phase Re-Verification Process

It was decided that the re-verification of SIMs will be undertaken in

two phases. The first phase was set from January 12, 2015 to February 26, 2015. During this phase a special focus was given for re-verification of SIMs from subscribers belonging to Karachi, Peshawar, DI Khan, DG Khan, bordering areas of Fata & Baluchistan. In second phase that started from Feb 27th, 2015, other subscribers from whole Pakistan will be re-verified during the remaining period of 90 days. Later on 27 Feb, 2015 these both phases were made one and the last date for all un-verified SIMs to be blocked was announced as April 14th, 2015.

Implications of Biometric Verification System (BVS)

In a country like Pakistan, implementation of policies and plans is usually a slow process and the outcomes are sometimes quite unexpected as well. For example many serious issues aroused after the initialization of the re-verification process. The public in general is having few objections related to this process. These ambiguities need to be cleared out to satisfy the concerns of citizens and gain their confidence. Following are the most common issues that people are complaining about.

Many serious issues aroused after the initialization of the re-verification process. The public in general is having few objections related to this process

1 Why was this initiative not taken before? The telecom companies with PTA's permission were allowed to only increase mobile penetration rate. Easy access was

available to buy and misuse SIMs. Even general stores and shops in the market were selling SIM cards without CNIC and proper registration.

2 No doubt the purpose behind Biometric Verification System (BVS) is appreciative and countering terrorism is the duty of public as well but if something happened because of government or PTA or cellular company's mistake then why public is paying Rs. 10 per SIM verification tax for it?

The time span provided to telecoms is limited and a huge line is always found in front of Telenor, Zong, Warid, Ufone and Mobilink Customer Care Centers, which is quite problematic for general public

Even now the process is not smooth enough. The time span provided to telecoms is limited and a huge line is always found in front of Telenor, Zong, Warid, Ufone and Mobilink Customer Care Centers, which is quite problematic for general public. Recently, a petition has been filed in Lahore High Court against Rs. 10 charges imposed by Pakistan Telecommunication Authority on biometric re-verification of SIMs.

Iffat Chaudhry, a common citizen, in her petition said that mobile phone companies and Pakistan Telecommunication Authority are charging customers for ill-practices they had been indulged from many years.

Govt has introduced the National Action Plan (NAP) after the barbaric APS Peshawar attack by the terrorists that took place on 16, December, 2014

Petitioner said that PTA failed to regulate SIMs' sale and hence telecom companies were given a free hand to sell SIMs without registrations. Miss Iffat also added that customers are paying a price for the mistakes of cellular companies and PTA combined. It won't be out of place to mention that telecom companies are already facing criticism for reported incidents of retailers charging more than Rs. 10 per one SIM re-verification. Another common citizen Mr. Kamran Khattak when asked about the process complained aggressively and shared his experience and said; "When I went to verify my Telenor SIM I was shocked to know that it is not registered against my name as I am using it since 5 years. The biometric machine was not detecting my thumb expressions after many tries. The Customer Care Representative provided me with the reason that my ID card has been expired. I promptly checked my ID card and saw that there are

few months left in its expiry date. Still I was asked to consult NADRA. At NADRA headquarters I was told that due to cheap and ill-functioning biometric devices daily 5-10 persons are misguided in the same way and sent to our office to renew their ID cards."

As we know that Govt has introduced the National Action Plan (NAP) after the barbaric APS Peshawar attack by the terrorists that took place on 16, December, 2014. Therefore, along with many other significant measures like establishment of Army Courts and this biometric re-verification (BVS) of all mobile SIMs issued before 1st August, 2014 was taken for the betterment of nation. This step was taken keeping in mind usage of non-verified mobile SIMs in heinous terror attacks in the country.

Despite many hurdle, the hopes of public are high for the results that such steps may provide. So far it seems that citizens are the ones who are paying the highest cost in the process

Hence, despite many hurdle, the hopes of public are high for the results that such steps may provide. So far it seems that citizens are the ones who are paying the highest cost in the process. Therefore it is required by the government and the operators to take public in confidence and make maximum measures to facilitate them.

QMobile LINQ L10



Qualcomm GPU Powerhouse behind the Extraordinary Graphic

QMobile is the one of the leading smartphone brands in Pakistan, in a very short time Q Mobile has secured the largest portion of cell phone market in Pakistan. LinQ series is the latest addition in Q Mobile extensive portfolio.

QMobile LinQ L10 is a quad core phone with 5 inch HD display. LinQ L10 has a 1 GB RAM and 8 GB ROM. The best thing about LinQ L10 is its QUALCOMM version GPU display chip which supports 720 x 1280 resolution and 320 dpi and offers unprecedented application performance. Qualcomm's graphical processor take mobile gaming to a whole new level with console-quality graphics, realistic 3D scenes and effects, HD and beyond.

Design

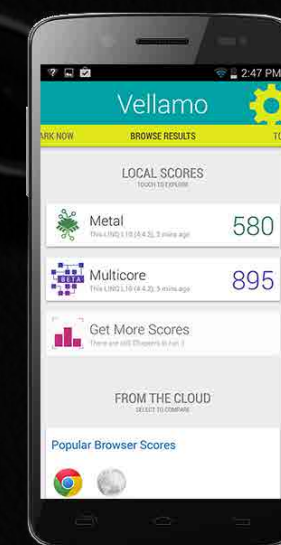
LinQ L10 has a stylish and slim shape with leather back cover. The LinQ L10 has 5" display with (146.2*72.4*8.8) mm dimensions. The back cover is made of leather material with good look and bulged at the center for the camera which proves that the rear camera would be good enough.

Performance & Benchmarking

The performance of QMobile LinQ L10 was remarkable in our benchmarking tests and met the expectations of common users.

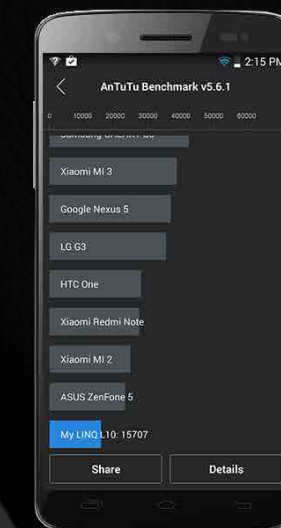
Vellamo









Vellamo is a Qualcomm's testing application which is a series of tests designed to evaluate which Android devices deliver the best mobile experiences. The suite provides the user with an overall performance score. That score can then be uploaded and compared to the scores of other devices. The scores obtained by this device with vellamo bench mark are good that takes QMobile LinQ L10 a place just below the international device Samsung Galaxy S3.



Antutu

With a single click of "Go" with Antutu which is one of the best benchmarking applications with 100s of millions of downloads, after been passing through the overall modules and specifications of a smartphone, Antutu reveals that the LinQ L10 scored 15707 points with five fingers multi-touch and position just below ASUS Zenfone 5 with satisfactory results.



 1.2 GHz Quad Core Processor	 5" HD IPS LCD Display	 GPS / Geo-tagging	 Expandable memory up to 32GB
 8GB / 1GB	 OS Version 4.4 (KitKat)	 8MP Camera with AF & LED Flash + 2MP Front Camera	 2000 mAh Battery





By Rizwana Khan

Is Telecom Tower Radiation REALLY DANGEROUS?

Harmful effects of radiation emitted by telecom towers has been a topic of debate for many years now. A lot has been written by proponents of both sides but the general public is still unaware and undecided about the matter. In the current times when the overflow of information has left people confused and exasperated, it is very difficult to believe what is right and what is wrong. The on-going discussion of harmful effects of telecom tower is one such issue that is confusing people for many years now. Numerous health risks

have been associated with the cell tower radiations like Irreversible infertility, DNA damage, Effects on Stress Proteins, Tinnitus and Ear Damage, Uveal Melanoma, Melatonin Reduction, Sleep Disorder, Salivary gland tumor, Cancer Risk etc. Considering the menaces that are associated with cell towers, it seems that radiation emitted by these towers is even equally dangerous as the one emitted by nuclear energy.

But the things aren't as bleak as portrayed by self-proclaimed environmentalists. Cell phones and

cell towers communicate through radio frequency waves, a form of energy in the electromagnetic spectrum between FM radio waves and microwaves. These waves cannot cause cancer by directly damaging DNA because like FM radio waves, microwaves, visible light and heat they are form of non-ionizing radiation and are different from stronger types of radiation like x-rays and gamma rays, which can break the chemical bond in DNA. At very high levels, RF waves can heat up body tissues but the levels of energy used by cell phones and towers are much lower.

The International Agency for Research on Cancer IARC noted that exposure to the brain from RF fields from cell phone base stations (mounted on roofs or towers) is less than 1/100th the exposure to the brain from mobile devices such as cell phones.

Many health risks have been associated with the cell tower radiations like Irreversible infertility, DNA damage, Effects on Stress Proteins, Tinnitus and Ear Damage, Uveal Melanoma, Melatonin Reduction, Sleep Disorder, Salivary gland tumor, Cancer Risk etc

Another aspect to be considered here is that cell towers or Base stations antennas use higher power levels so the level of exposure to radio waves at ground level is very low, as the energy from antennas is directed toward the horizon (parallel to the ground), with some downward scatter and signals are transmitted intermittently, rather than constantly. So at ground level the amount of RF energy is thousands of times less than the limit set by the international organization and regulatory authorities. Exposure levels are likely to exceed if a person is directly in front of the antenna, if this is the case the problem could be solved by limiting the access to that particular area.

Very few studies have focused specifically on cellular phone towers and their health risks and all point to the same direction that telecom towers are not dangerous to the environment. Experts have given three arguments to justify this claim:

First, the energy level of RF waves is relatively low, especially when compared to the types of radiation that are known to increase cancer risk, such as gamma rays, x-rays, and ultraviolet (UV) light.

Second, RF waves have short wavelengths, which can only be concentrated to about an inch or two in size. This makes it unlikely that the energy from RF waves could be concentrated enough to affect individual cells in the body.

Third, even if RF waves were somehow able to affect cells in the body at higher doses, the level of RF waves present at ground level is very low - well below the recommended limits. Levels of energy from RF waves near cell phone towers are not significantly different from the background levels of RF radiation in urban areas from other sources, such as radio and television broadcast stations.

The International Agency for Research on Cancer IARC noted that exposure to the brain from RF fields from cell phone base stations (mounted on roofs or towers) is less than 1/100th the exposure to the brain from mobile devices such as cell phones

A survey was recently conducted by PTA along with Frequency Allocation Board (FAB) in seven major cities of the country including Azad Jammu & Kashmir (AJK) to check the omission of power level from transmitters and receivers of Base Transceiver Stations (BTSs)/Towers installed by mobile companies. The results revealed that power level of radio waves of all BTSs surveyed is much below the prescribed danger limits and in line with the policy directives of

Ministry of IT & Telecom, World Health Organization (WHO) and International Commission on Non- Ionizing Radiation Protection (ICNIRP) guidelines.

According to PTA's annual report 2014, cellular mobile operators cover almost 92% of the land area of Pakistan

Since 2009 four nationwide surveys have been conducted to remove the misconceptions regarding hazardous effects of towers. It has been revealed that the towers have been installed and are working within the specified parameters defined by the regulator as well as the international bodies concerning the issue.

According to PTA's annual report 2014, cellular mobile operators cover almost 92% of the land area of Pakistan. A total of 37,576 cell sites have been erected by the cellular operators across the country as of June 2014 which is 4.7% more than the 35,889 cell sites reported at the end of FY2013. Now that 3G/4G services are in place the number of cell towers will definitely increase but the good news is that these towers will not affect the wellbeing of people and environment in any way.

The **Environmental Protection Agency** (EPA) states:

"At very high levels, RF energy is dangerous. It can heat the body's tissues rapidly. However, such high levels are found only near certain equipment, such as powerful long-distance transmitters. Cellphones and wireless networks produce RF, but not at levels that cause significant heating. In addition, RF energy decreases quickly over distance. At ground level, exposure to RF from sources like cellphone towers is usually very low."

By Kanwal Ayub

ICC CRICKET WORLD CUP 2015 ALL SET TO GET SOCIAL

As the cricketing world waits for its next champion, the excitement can be seen through Facebook statuses and Twitter tweets of fans across the globe

The ICC Cricket World Cup 2015 is here already, broadcasters, analysts, anchors and cricket commentators are all expressing their views on the game. Not only professional but every single cricket lover is acting like an expert who shouts out loud about his views on the global event using different social media.

There is no need to do 'the big TV ad', because its time when nothing can beat the engaging power of social media

The traditional media sectors such as TV and radio are undoubtedly enjoying their predicted result of

the much-awaited tournaments, but this time, it looks like the real winners are networking sites such as Facebook, Twitter, Instagram and YouTube that are being flooded with reviews, analyses and opinions of new & existing users.

The World Cup in 2010 was a different story with just 20% of social media hype unlike this time. Huma Yousaf, an enthusiastic cricket fan acknowledged the importance of digital media and stated, "There is no need to do 'the big TV ad', because its time when nothing can beat the engaging power of social media. All you need is a good social media campaign". She also spoke hopefully about Pakistan winning the World Cup 2015.

According to a number of die-hard cricket fans, this trendy

networking world of social media let them share and listen to more stories than any 30 - 60 second TVC.

According to a number of die-hard cricket fans, this trendy networking world of social media let them share and listen to more stories than any 30 - 60 second TVC

From the stadium of Melbourne to the screens in cafes of Islamabad, the entire country lived and breathed for the long-standing cricket enmity between India and Pakistan. 15th Feb, 2015, Sunday

triggered social media rage, with '#IndvsPak' one of the top trending hash tags on Twitter. #IndvsPak trended in the third position in worldwide trends while in India it was in the second place.

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But the excitement and frustration didn't stop after loosing; with the connectivity of social media, cricket fans from all over the world choked Facebook and twitter with minute-to-minute updates and then 'Tum Jeeto ya Haaro Suno, Humain Tumse Payar hai',

Operators in Pakistan also played their part by coming up with dedicated offer and packages for the World Cup. Mobilink has offered Ball-by-Ball cricket world cup coverage, Ufone brought Ucricket, Telenor Hat-Trick offer lets users to get updates 24/7, Warid launched sports app to cater the needs of cricket lovers and last but not the least, Zong dedicated an entire corner & introduced a game and social cricket junction.

The 2015 edition of the ICC Cricket World Cup is one of the biggest event in the cricketing history. This time the ICC launched its official app, which is available for free download on App Store and

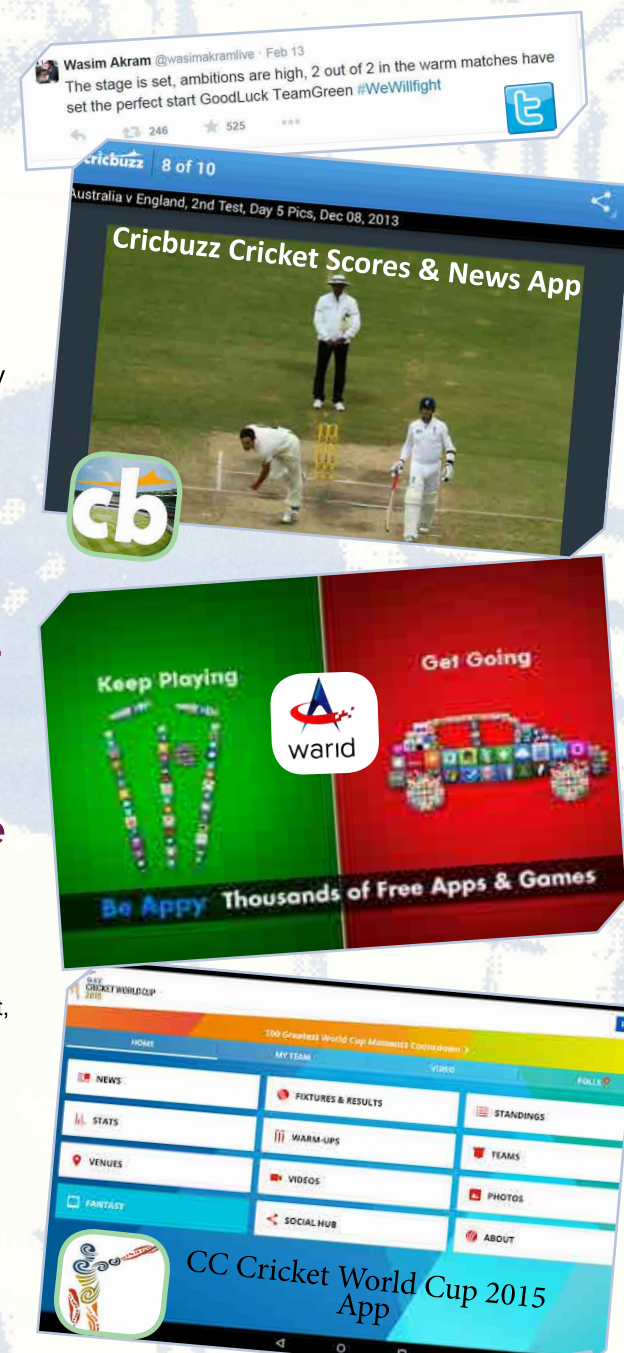
Google Play. There are several other dedicated apps for ICC Cricket World Cup i.e. Cricbuzz (iOS, Android, Windows Phone), ESPN CricInfo (Android, iOS, Windows Phone) and StarSports Cricket Scores (Android, iOS, Windows Phone).

All these apps are meant to keep fans thrilled with their innovatively designed features and will allow them to keep themselves up-to-date with all the latest news during the tournament.

Operators in Pakistan also played their part by coming up with dedicated offer and packages for the World Cup

The importance and power of social media was seen even before the start of the tournament, as Facebook and Twitter already started reporting comics, art and memes teasing each other. Here i would like to mention Arsalan Naseer, the founder of 'Comics by Arslan', who collaborated with Pepsi Pakistan for the World Cup 2015 campaign.

This year's World Cup will be memorable for many and social media will help those who can't be there to feel the pleasure.



By M.Bilal Abbasi

QoS Benchmarking of 3G/4G Mobile Data Services

This article provides a brief data specific assessment of the current networks with respect to the customer experiences while using the 3G & 4G mobile network in Islamabad. Apart from 3G data quality assessment we have also included the highly anticipated LTE networks of Zong and Warid as well. This QoS audit is also important as most operators have completed their initial roll-outs network optimizations and subscriber base is now also greater than it was three months back when first audit was conducted. It compares improvements/degradations made by each operator in their services for the end users.

Periodic benchmarking or audit of the QoS evaluation is important as it helps to evaluate customer's experience and secure a competitive edge in the market. The QoS standards are setup to make sure that the costumers are provided satisfactory level of services and

ensure that operators meet minimum acceptable standards of service.

This QoS audit is also important as most operators have completed their initial roll-outs and optimizations, subscriber base is greater than it was 03 months back when first audit was conducted

Regulator has its role to emphasize on the quality of the services, as mentioned in the QoS parameters in NGMSA licenses. The next QoS Audit is expected to be jointly undertaken with PTA and industry partners in more detail for other cities as well. With our results and feedback from the end users, the networks irrespective of the operator can improve further where required. The mobile network operators have to ensure quality of service for which regular performance survey and

measurements of quality parameters of their networks is conducted on regular basis.

Network Audit : The objective of the network audit is to understand and to indicate the potential issues faced by the networks and enable operators to improve their services and maintain a good balance between coverage, capacity and quality. QoS parameters are universally accepted Key Performance Indicators (KPI) that serves as the guiding principles for professionals to analyse and keep network services within specified threshold of the desired QoS criteria.

This QoS Audit report, as mentioned earlier, is based on the same drive route in Islamabad and for the key performance indicators mandated by Pakistan Telecommunication Authority (PTA) in its NGMSA license for comparative consistency. The QoS benchmarking was performed using standard network audit tools and commercial devices in two phases using the following standard procedure for such an exercise.

(1) Log Collection >> 3G and 4G

(2) Post Processing >> 3G and 4G

Analysis and comparison of the findings

Test Execution: The QoS Audit was conducted during the last week of February, 2015. For 3G network drive test was performed for two operators at a time. 3G Logs were collected for Zong and Mobilink during afternoon hours, the first day; and the same route and time was selected for Ufone and Telenor on the next day. For LTE, log collection was done during the morning hours for Warid and Zong networks. All the tests were conducted in mobility and the area covered the sector of F-6, F-7, and F-8 and Blue area in Islamabad. These areas are considered to have a good coverage.

The network assessment can be quite different for other cities. Our goal here is to make a more objective and technically accepted assessment to educate interested professionals, regulator, vendors and consumers about the current operational state of the 3G and 4G networks in Islamabad. The figure shows the drive route on which tests were conducted.



QOS Methodology, Technology & KPI's Explained

QoS Methodology : In our audit report we monitored the quality of data related services only. Please note the following scenarios for deducing the results;

>>> Two Samsung Galaxy S4 i9505.

>>> The devices were locked in the specified network mode preference.

>>> The tests were performed in mobility over a specific route.

>>> Our findings and conclusions may not be 100% consistent to the consumer experience.

Operators Spectrum & Technology: While, we have provided this in our earlier report but for those who have not read it, we will briefly explain the spectrum available with the operators and the technology deployed.

Operator	Uplink Spectrum (MHz)	Downlink Spectrum (MHz)	Spectrum
ZONG 3G	1920-1930	2110-2120	10 MHz
telenor 3G	1930-1935	2120-2125	5 MHz
ufone 3G	1935-1940	2125-2130	5 MHz
Mobilink 3G	1940-1950	2130-2140	10 MHz
ZONG LTE	1745.9-1755.9	1840.9-1850.9	10 MHz
warid LTE	1710.1-1718.9 (LTE+GSM)	1805.1-1813.9 (LTE+GSM)	3MHz

3G (Ufone and Telenor): Ufone and Telenor have 5MHz bandwidth in 2100 MHz spectrum that enables them to implement Rel-7 (HSPA)

of UMTS Technology. Under ideal conditions it can achieve a peak data rate of 21 Mbps (64 QAM) for downlink and 11 Mbps (16 QAM) for Uplink.

3G (Zong and Mobilink): Zong & Mobilink have invested more in the spectrum and have 10 MHz of bandwidth each in 2100 MHz spectrum that allows them to deploy Dual Carrier HSPA which can provide them with a peak data rate of 42 Mbps in downlink and 11 Mbps in uplink.

The table below shows the 3G Spectrum from the NGMSA auctioned spectrum that is allocated to different operators in Pakistan.

LTE (Warid and Zong): In addition to Spectrum in 2100 Mhz

for 3G, Zong also acquired 10 MHz in 1800 Band, the spectrum widely used for LTE deployment worldwide. Warid also has deployed LTE in the same band but they have done that in limited bandwidth (reported by industry sources, they have made use of only 3 MHz of spectrum for their LTE deployment). They have re-farmed their existing 1800MHz band and have LTE with 2G services. Their performance of the LTE Data has been included in the current report.

The table above shows the spectrum used by operators in Pakistan for

3G/4G deployment from the NGMSA auction and the spectrum reframing.

QoS Key Performance Indicators: To analyse this QoS, we have focussed on the following KPIs while collecting the logs over the drive route. These KPIs are specifically collected for conducting audit of their Data Services (previous QoS audit also included voice services).

3G Data Throughputs

- ✓ Downlink Throughput
- ✓ Uplink Throughput

4G Data Throughputs

- ✓ Downlink Throughput
- ✓ Uplink Throughput

4G Service Coverage Area

- ✓ **RSRP:** Received Signal Received Power
- ✓ **RSRQ:** Received Signal Received Quality
- ✓ **RSSI:** Received Signal Strength Indicator

LTE Service (KPIs): *In cellular networks, when a mobile moves from cell to cell and performs cell selection/reselection and handover, it has to measure the signal strength/quality of the neighbour or adjacent cells. In LTE network, a UE measures two parameters on reference signal:

RSSI - Received Signal Strength Indicator

RSRP - Reference Signal Received Power

RSRQ - Reference Signal Received Quality

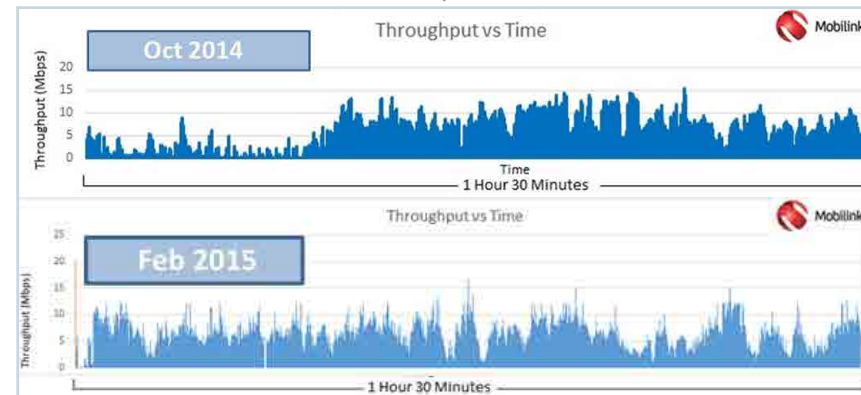
Quality of Service (QoS) Audit

It should be noted that the level of reporting of service quality may differ or will not be exactly similar with consumers own experience or operators own engineering team. While, we have provided clarification for 4G KPI's, for details regarding 3G KPI's please refer to our previous article "Pakistan's first 3G Mobile Service Benchmarking" on Phone World website. Since, LTE was launched recently and not included in our previous report therefore we have provided some additional information on its parameters above that are generally used to assess the data rates of downloads and uploads over the route.

3G Data Performance : For data performance analysis large files were downloaded via dialup connection. The transfer rates recorded using the tools varied according to the changes in factors like RSSI, RSCP and CQI for 3G; and RSSI, RSCP and RSRQ determined for 4G. FTP was used to download the files. Below is a brief interpretation of throughput for each network. The values are all recorded in mobility.

Mobilink: The graphs above shows the throughput values of

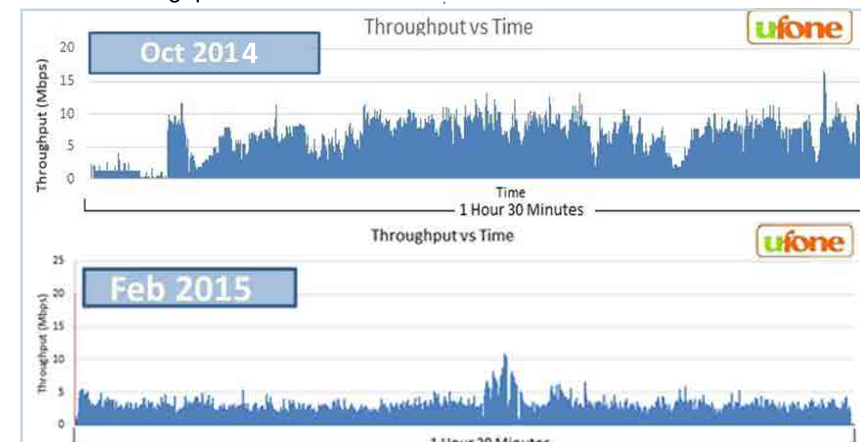
Mobilink network. The first graph shows the through-put obtained on Oct 2014 while the second graph shows the through-put obtained on Feb 2015.



15.19Mbps (16.9Mbps @ Oct'14) and average values achieved was 2.12Mbps (6Mbps @ Oct'14). The declining average throughput by more than 3 times should be of

During the first benchmarking exercise there was no data bundle activated because Mobilink offered free trial to its users trying to entice customer to use data. During the 2nd benchmarking exercise Mobilink's 3G services data bundles were used; the data users have also grown along with their appetite for using data on the go. During the second run large number of users in the same sector may have contributed to low RSCP and CQI which eventually resulted in low throughput especially in the beginning of the route. The max value achieved was 16.6 Mbps (15Mbps @ Oct'14) while the average value achieved was 2Mbps (3Mbps @ Oct'14).

Ufone: Ufone showed more consistency from the beginning to end unlike the previous audit. Apart from the initial period, it showed good behaviour throughout the route. The max throughput achieved was

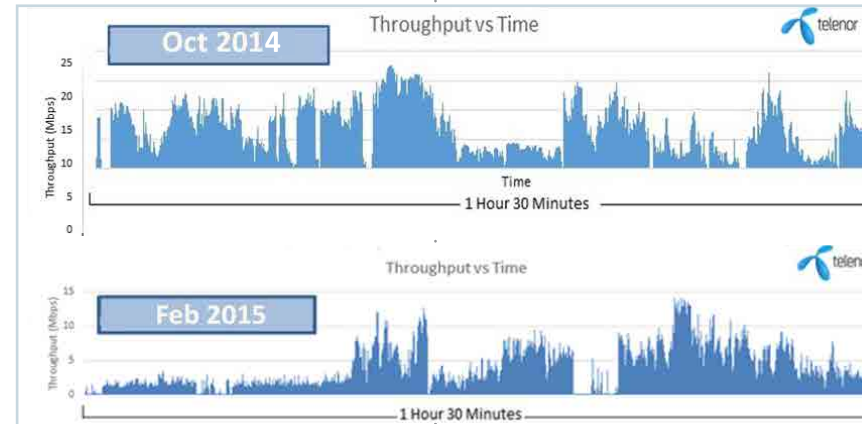


concern to Ufone when compared with results of test taken just 3 months back. However, even this value is equivalent to Mobilink's throughput that has twice the spectrum, which should be of concern to Mobilink.

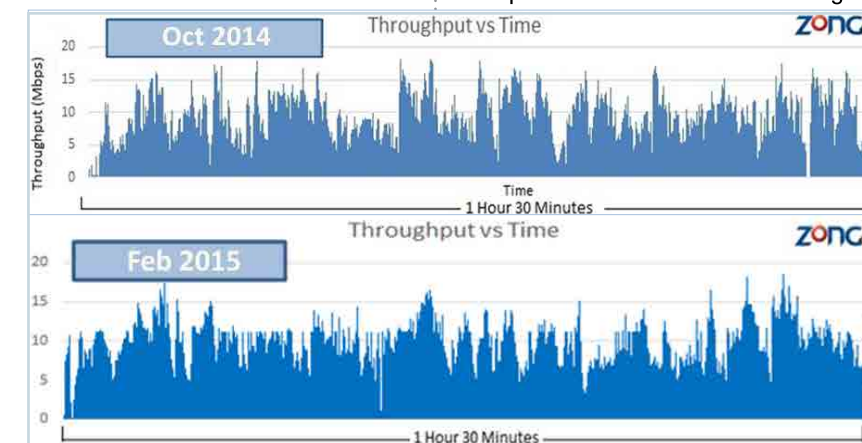
The next Quality of Services Audit is expected to be jointly undertaken with PTA and industry partners in more detail for other cities as well

Telenor: The Peak throughput achieved for Telenor was 14.1Mbps (18Mbps @ Oct'14) while the average value achieved was 4.0Mbps (5Mbps @ Oct'14). Some of the values achieved for throughput are low because of low RSCP which resulted in low CQI.

The uneven rise and fall of the graph indicates the continuing communication between UE and Node-B to manage assigning of the respective CQI to avoid disconnection and continuous through-puts, which requires network to be properly optimised.



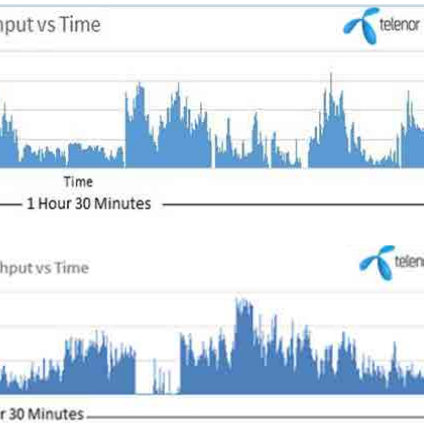
Zong: The graph for Zong shows an overall consistent performance.



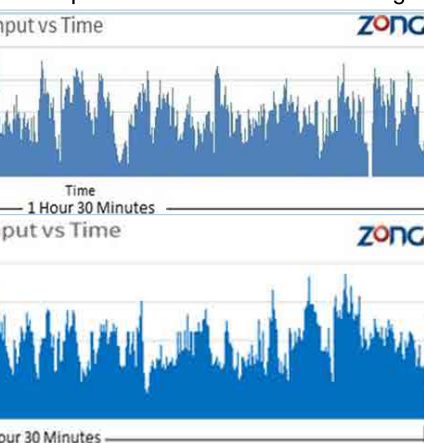
The network behaviour was very good although the max and average values are less than the one measured last time which may have occurred due to an increase in customers. The highest peak achieved was 18.5Mbps (21Mbps @ Oct'14) while the average value achieved was 5.28Mbps (6 mbps @ Oct'14). Also, it is encouraging for Zong and its subscribers to note that the drop in the average throughput was not as steep as it was seen in other networks.

Average Downlink (DL) Throughput Comparison for 3G: For the calculation of downlink throughput, files were

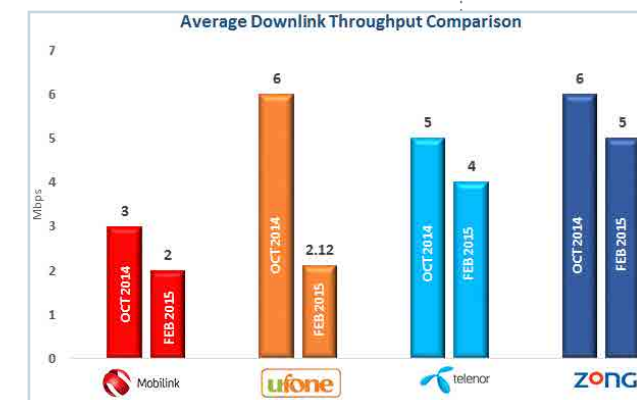
downloaded from the server and its downlink rate was measured. Since, it was in mobility, the CQI, RSCP and RSSI changed from location to location due to change in noise levels and possibly other available traffic at that time. The chart shows a summarized comparison



of the average DL data throughput performance of each operator during the previous and the current testing.



It can be seen that while for all operators the throughput has seen downward trend but the decrease has been nominal for Zong and Telenor that took the lead in achieving higher average downlink throughput of 4 & 5 Mbps respectively.



While, Mobilink throughput decreased as compared to last QoS audit but the most significant degradation was that for Ufone, that showed a drastic decrease and achieved around 2.12 Mbps from its previous value of 6Mbps.

It can be seen that while for all operators the throughput has seen downward trend but the decrease has been nominal for Zong and Telenor that takes the lead in achieving higher average downlink throughput of 4 & 5 Mbps respectively.

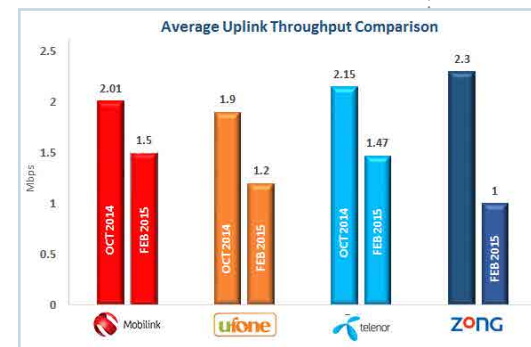
While, Mobilink throughput decreased as compared to last QoS audit but the most significant degradation was that for Ufone, that showed a drastic decrease and achieved around 2.12 Mbps from its previous value of 6Mbps.

Average Uplink (UL) Throughput for 3G: For the calculation of uplink throughput, again specific files were uploaded on the server and its uplink rate was measured. Due to mobility and communication between user and Node-B, it had to force the Node-B and the UE to select the best possible modulation to provide best achievable throughputs. It is the inherent property of the network to schedule data rates among the users judiciously.

For uplink throughput evaluation large files were uploaded to the FTP server from UE throughout the drive route. The graph compares the average upload through-puts that were achieved during the drive test.

From the graph it can be observed that while uplink throughput for all operators decreased, Mobilink was able to achieve the best uploads with an average of 1.5 Mbps, while Telenor has 2nd best throughput value of 1.47 Mbps. Zong

witnessed a very drastic decrease in its uplink throughput of over 130%, which is a serious issue for the operator to support its active data users.

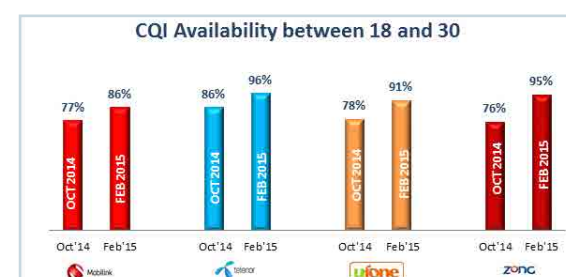


Ufone on the other hand achieved an average throughput of 1.2 Mbps which is lower than the throughput achieved previously.

Other factors adding to the low data rates are the number of hops from server to server and the resources available for the files to get transferred

CQI Value Comparison for 3G: Channel Quality Indicator (CQI) is the value calculated collectively by the User Equipment and Node-B indicating how fast or slow the UE can communicate with the network. In downlink and uplink the CQI values range from 0 to 30, where 30 indicates the best quality channel and 0 or 1 indicates the worst quality channel. This parameter is checked mainly for data services.

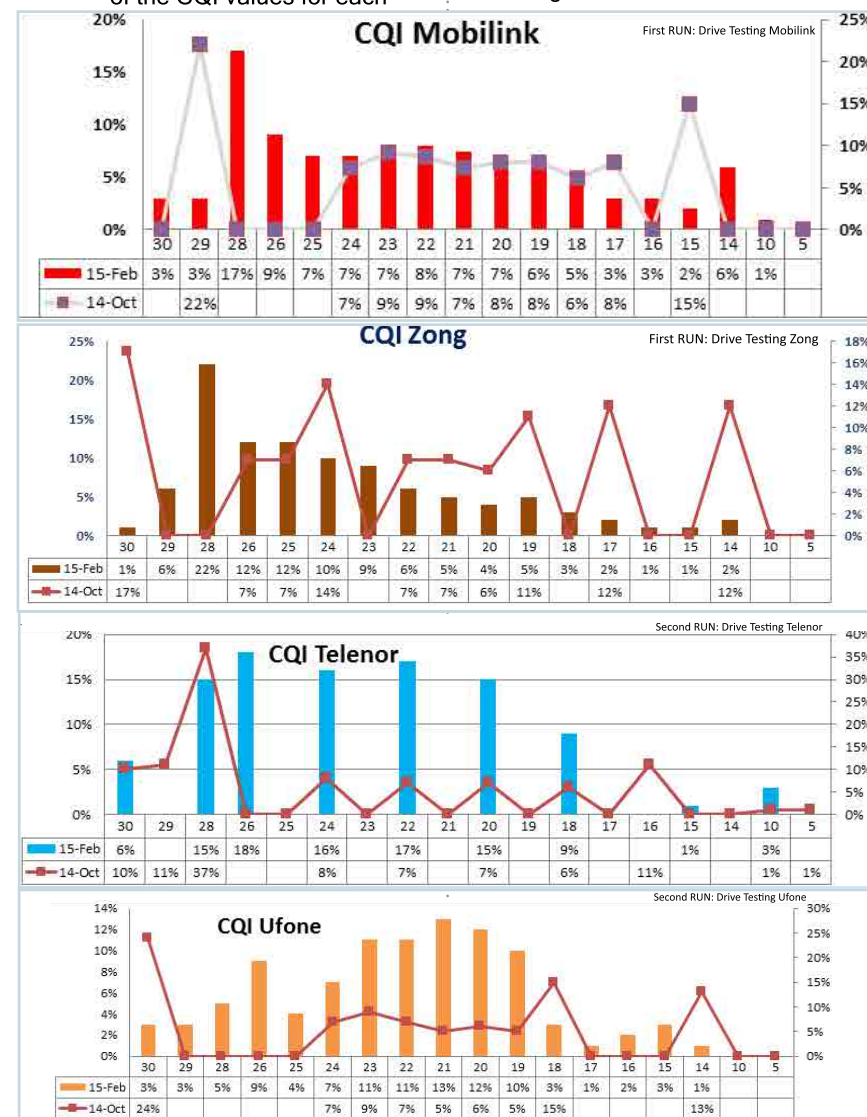
The figure shows the availability of good CQI i.e. between 18 and 30 for each operator in terms of percentage. For the ease of understanding of non-technical managers it can be stated that the



higher the percentage an operators remain within the given limit of 18 to 30 the better is the network performance for Data Performance. It is clear from the graph that each

operator has improved its good CQI for the proposed drive route. It also adds to the better data rates achieved for each operator as compared to its previous data rates in October 2014.

For detailed distribution we have added break down of the CQI values for each



operator below, which is self-explanatory.

The CQI for Mobilink has improved and shows higher CQI assignment over the route as seen from the bar chart when

compared with line chart. Similarly for Mobilink the CQI distribution is almost the same but comparatively have less contribution from good CQI values.

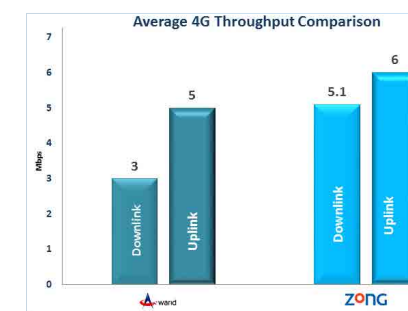
Also, as seen in the graph the overall for Zong, average CQI lies in good region which is clearly supporting the good downloads as its Lower CQI has very low contribution to the network.

Telenor had further improved its CQI values and therefore resulted in being the second best network in

terms of downloads.

Similarly, Ufone has also improved its CQI assignments which is evident from the graph but they still need to improve upon their resources for better data rates than before.

Average Throughput Comparison for 4G : 4G data throughputs were performed on the same route. The summarized Upload and Download throughputs are shown in the graph.



The values are less than 10 Mbps for both uploads and downloads which should have at least been achieved considering that there are not many users on the 4G network at the moment. This low Data throughput could be due to lesser number of Node-Bs in the sector.

For testing the Data Throughput, files of around 800 MB were processed more than twice during the testing. Considering the fact that these networks are still getting optimized for better performances; such values are acceptable for a common user. One more thing that should be taken into consideration is that the above readings are taken from mobility.

In 3G, Zong is best in downloads while Telenor still remains second best choice. Mobilink, on the other hand has the best upload through-put followed by Telenor

So it should not be compared to stationary values as those values are very high in comparison to the mobility.

Other factors adding to the low data rates are the number of hops from server to server and the resources available for the files to get transferred. For Example while using HTTP transfers, the site used for transfers may have issues or may have too many users to support at

the same time. So the site schedulers reduce the resources for each user to keep a common rate for each one of them. This issue did not raised during mobility because on closed traffic signals or other short breaks, an increase in Uploads and Downloads was seen which means that the rates increased during stationary period.

In 4G LTE, Zong once again took the lead and achieved higher throughput in both Uplink and Downlink as compared to its competitor, Warid-which understandably have much lessor spectrum

Secondly, it is important to note that both Warid and Zong may have a reasonable heavy user customer base in Islamabad. Therefore, the transferring data may be due to OTA updates, emails, web-surfing, streaming, active navigation etc., and most importantly internet hotspots. So both the operators, have to allocate their network resources to enable equivalent rates for each user. In this case the network assigns rates in a way that people near or away from the Node have acceptable rates in that particular sector. So at this stage the RSRP, RSCQ and RSSI and the UE communication begins to decide the best Resource Block for that particular customer.

Also, the throughput are a bit different than we see in 3G networks where the downlink throughputs are greater than the uplink throughputs. The unusual difference between upload and download also indicates towards requirement for better optimisation.

Conclusion

The purpose of this QoS benchmarking was to compare the existing four 3G and two LTE operators in Pakistan. This QoS benchmarking reports the comparison of the five operators by using standard KPIs for the most popular services like data download

and upload.

After performing the second benchmarking we are able to have an overview of the improvements that have been made and places where things can be further enhanced. From the summarized graphs of 3G throughputs we can observe that Zong is best in downloads while Telenor still remains second best choice in terms of downlink throughputs. Mobilink, on the other hand has the best upload through-put followed by Telenor. Though both download and upload are showing lower values than the first runs yet their CQI are distributed evenly to maintain better rates throughout the route. For 4G LTE Zong once again took the lead and achieved higher throughput in both Uplink and Downlink as compared to its competitor, Warid-which understandably have much lessor spectrum.

During the first benchmarking there were not many active users in the sectors therefore higher data rates were observed. But now with time more and more users are joining 3G and 4G networks and overall data through-puts are being shared among them. Even now the networks are still going through optimization and it will keep on improving further. The LTE network still need improvement and we can expect better results in the near future.

The significance of QoS survey can never dwindle as it is the only impartial and transparent way to identify the operators' quality of services. It not only helps the end user but the operator also become aware of their network performance. So the objective is to keep a healthy environment between users and operators.

The unusual difference between upload and download could also indicate towards requirement for better optimisation



By Saima Ibrahim

THE EVOLVING ROLE OF SOCIAL MEDIA IN EDUCATION



In present globalized world social networking has effected almost every angle of life. Gone are the times of traditional classroom learning as now there are many alternative ways of learning. Social medium, in 21st century is seen as the key driver of communications and marketing. Social media actually consists of “websites and applications that enable users to create and share content or to participate in social networking.” Social networks like Facebook, Twitter, Blogs, Google+, Slides Share and Wikis are the new tools for networking and knowledge sharing. These platforms have become the central concern for many educators, teachers and parents now a days. In a short time since its inception, people all over the world have welcomed this as an indispensable addition to education sector.

There is no doubt that Social Media has taken the world by storm. In today's world it is one of the best mediums for dissemination of knowledge and information

There is no doubt that Social Media has taken the world by storm. In today's world it is one of the best mediums for dissemination of knowledge and information. Younger generation uses social media more than any other age group. That is why, social media in education can be proven as a best tool of learning. We all agree that learning is not just studying a textbook but also interaction and communication.

The strongest element of students' success in college is their ability to form and participate in small study groups

An educational theory gaining momentum in the literature these days may open the door to increased use of social media in education. Dr. Richard J. Light (Harvard School of Education), is an advocate of social constructivism-a facet of social learning theory. According to this theory “people

learn most effectively when they interact with other learners”. According to Light, the strongest element of students' success in college is their ability to form and participate in small study groups. He suggests that this is more important than their instructors' teaching styles. Just like kids who learn more through “gamification of education”.

Some parents are of the opinion that social media can be very distracting and harmful for students. On the contrary, social media offers plenty of opportunities for learning and interaction

These outcomes have led some to focus on significance of social media—and its opportunities for “virtual study”—as an excellent way to increase student learning. Many users routinely use Twitter hashtags and Facebook pages to discuss specific topics.



Benefits of Social Networks in Education

- Provide a casual place of learning
- Encourage students to express their own thoughts
- Provide effective collaboration and communication
- Build an online learning community
- Extends learning beyond scope of class
- Platform for learning through social constructivism

For a generation who spends their maximum time in the virtual space, focus must lie on the key interests and needs of students while using social media in education. Also social media provide ways to enhance connection with students as it brings them closer

by alleviating the necessity of physical presence. Social media has been criticized a lot due to the effect it has on the way students produce and collect information. Some parents are of the opinion that social media can be very distracting and harmful for students. On the contrary, social media offers plenty of opportunities for learning and interaction. It is rather simple to see how students benefit from social media. By using technology in classrooms, the young generation is paving a new way of education and learning. Students are getting a chance to explore and experience the world not only by books and assignments but also by adapting a new form of communication. In a world where your networks and connections are important, graduates enter the workplaces with a lot more to offer.

Their ability to access, evaluate, maintain and share information is fantastic without even being aware that they are actually developing such skills day by day. The older generations need to understand the magnitude of this new style of communication

Teenagers are continuously connected to the internet through their mobiles, tablets, etc. and hence rapidly transmit information to friends, family and other connections. This information is a lot more than just hilarious videos or vacation snapshots. People share views, opinions, tips, projects, study material and other such useful stuff with each other. They exchange helpful information for classes and examinations. Their ability to access, evaluate, maintain and share information is fantastic without even being aware that they are actually developing such skills day by day. The older generations need to understand the magnitude of this new style of communication.

Students share personal information, links to other sites or comment on

someone's post. By doing this, they get engaged with each other instantly. The use of social media has made it easier and faster to interact with teachers about class-related topics. In a world where online engagements are important for businesses, these students are already experts at developing an online presence. Students are also experts in interacting with others on the internet. They know how to use basic as well as complex functions on various social media sites.

In a world where your networks and connections are important, graduates enter the workplaces with a lot more to offer


We are all aware of social media marketing. The ‘new media’ has led professionals to build a social media strategy to publicize their product and service. Social media marketing is seen upon as a skill which is an emerging career option. It has become essential for all types of businesses to incorporate social media marketing in their organizations. Students are extensively carrying out social media strategies for several companies all over the world.



The benefits of social media for students are many. The above are just a few to begin with. The young generation is going to learn and explore many wonders through social media in the coming years.

Social media marketing is seen upon as a skill which is an emerging career option. It has become essential for all types of businesses to incorporate social media marketing in their organizations

Smartphone Review

 By Ikram Ullah



HUAWEI Ascend Mate 7

Classy Smartphone with Great Battery Life

Huawei has launched a smartphone with the true smart features that became the main reason for its fame and reputation. The device so called the Huawei Ascend Mate 7 disappeared from our national market within a month as some sort of storm has blown and flew away all the Mate 7 from the market due to its fame, security and features. It has a huge FHD screen on an ultra-slim metal body that fits the best in one's hand.

The screen-to-body ratio has been maintained in such a compact style that takes the 6" Huawei Ascend Mate 7 to the leading edge. So either turn on your Mate 7 or port-in to Mate 7 and start your journey, live your life and practice your vision.

Design

Integrating as much of memory, speed, camera, battery and a bulk of sensors in a single module like Ascend Mate 7, is a challenging job. In fact, thanks to its invisible bezel and

high screen-to-body ratio that has been settled more compact than other 6" screen smartphones.

Ascend Mate 7 is 157.0mm High, 81.0mm wide and its Depth is 7.9mm. Still the weight is lessened to be just 185g (including the battery). The Mate 7 is available in three colors which are White, Black and a heart touching Golden color as well.

Display

The Huawei Ascend Mate comes with 6" FHD Screen, 1080P (1920*1080), 368PPI and with 16M colors.

Camera

An amazing smartphone deserves an exceptional camera to do justice. The Huawei Ascend Mate 7 is introduced with a 13MP camera that ensures you the best and detailed shots. Fitted with SONY's 4th Generation Sensor and 5

Aspherical Lens System, the camera performs the best in different lights conditions while making shots or capturing HD video. While the front camera is enhanced for video calling and best selfies. The low-light Performance ensures you to capture the right moments in any conditions.

Software

Huawei Ascend Mate 7 is bundled with Huawei Emotion UI 3.0 which is the latest version of Android KitKat 4.4.

The Huawei Emotion UI 3.0 has some smart features which are:

- Easy to understand i.e user friendly
- Easy to customize
- Easy to personalize
- Easy to learn with help and smart tutorials
- Easy to control
- And Easy to switch

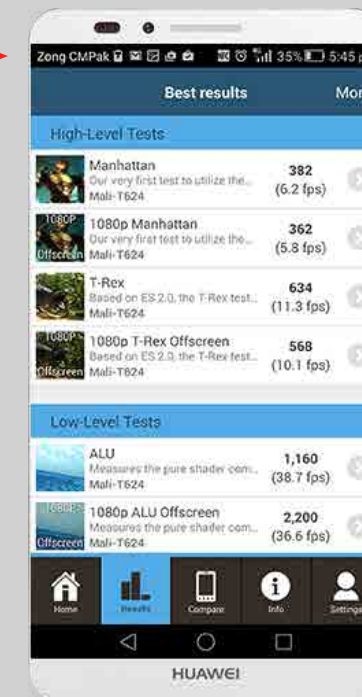
Performance and Benchmarking

Huawei Ascend Mate7 is the first smartphone powered by a super Octa-core Kirin 925 SoC chipset, which uses intelligent switching to provide the perfect balance between performance and power. Ideal for the most important things, like multi-tasking or enjoying your favorite 3D games or videos for longer period of time.

That's why, while checking the Ascend Mate 7 with bench marking tools like Antutu, it gave Mate 7 8th position world-wide. A smart technology for the smart world you live in.

GFX Bench

GFX Bench mark is an application that is used to check the GPU or Graphical Processing Unit of a smartphone. Mate 7 is fitted with ARM Mali-T624 MP4 (quad core) processor for performing smoothly in complex games with complex graphics to give best results.



AnTuTu

Antutu is benchmarking test that checks all aspects of a device, including UX, GPU, RAM, I/O and more just with a single click. Each item is individually assessed and given a score. For Mate 7, Antutu shows the score to be amazing and why shouldn't it be as the Mate 7 is integrated with a jet type functionality processor and 2GB of RAM.



Specs

Body: Dimensions :157 x 81 x 7.9 mms
Weight :185 grams

Display: Size : 6.0 inches
Resolution : 1080 x 1920pixels
Protection : Corning Gorilla Glass 3
Display Color : IPS LCD capacitive touchscreen, 16M colors, Multitouch

OS: Android OS, v4.4.4 (KitKat)

Processor: 1.8 GHz Quad-Core Cortex-A15 / 1.3 GHz Quad-core Cortex-A7, HiSilicon Kirin 925 GPU: Mali-T628

Chipset: HiSilicon Kirin 925

GPU: Mali-T628

Memory: 16/32GB built-in, 2GB RAM, (3GB on 32GB model), microSD card (supports up to 32 GB)

Camera: **Rear Camera:** 13MP, 4128 x 3096 pixels, LED flash Geo-tagging, face detection, HDR, panorama, Video (1080p@30fps)
Front Camera: 5 MP, 720p

Battery: Non-removable Li-Po 4100 mAh battery

Color: Obsidian black, Moonlight silver, Amber gold

Connectivity: v4.0, A2DP, EDR, USB (microUSB v2.0, USB Host, USB On-the-go), WLAN (Wi-Fi 802.11 a/b/g/n, dual-band, DLNA, Wi-Fi Direct, Wi-Fi hotspot), GPRS, EDGE, 3G (HSDPA, 42 Mbps, HSUPA, 5.8 Mbps), 4G (LTE, Cat6, 50 Mbps UL, 150 Mbps DL)

Pros

- Versatile memory
- Fingerprint scanner
- Slim and well finished
- Ultra power saving
- High quality Camera of 13MP

Cons

- Very expensive
- Sometimes the device behaves abnormally which may be a cause of multi-tasking activities.

Rating



With its better performance in all aspects including processor, memory, camera, battery, Operating System, we give Ascend Mate 7 **4.7**.



SMARTPHONE MARKET SHARE IN PAKISTAN Reaches 31% in 2015



its peak as many local and international brands have entered the market, offering wide variety of feature phones and smartphones.

With 600k units sold in January 2015, Smartphones segment is the main contribution of the Telecom devices Market in Pakistan-GfK

3 G/4G auction has not only created opportunities for the telecom operators but has paved new ways of growth for the smartphone manufacturers and distributors as well. The competition has reached

Smartphone penetration grew at a steady pace as it accounted 13% in January 2013, 23% in January 2014 and subsequently reached 31% by January 2015. According to GfK's recent market analysis, with 600k units sold

in January 2015, Smartphones segment is the main contribution of the Telecom devices Market in Pakistan.

Various reasons have been mentioned in the report for the increase in smartphone penetration. Development of Low End Smartphones, Dual SIM feature, larger screens and high Camera Resolution are the main drivers of Consumer demand for switching from feature phones to smart phones. Despite the financial crisis, Pakistan has shown huge demand when it comes to technology. Major portion of Pakistani population comprises of youth which gives an extra edge to the growing number of people are embracing connected devices. The young

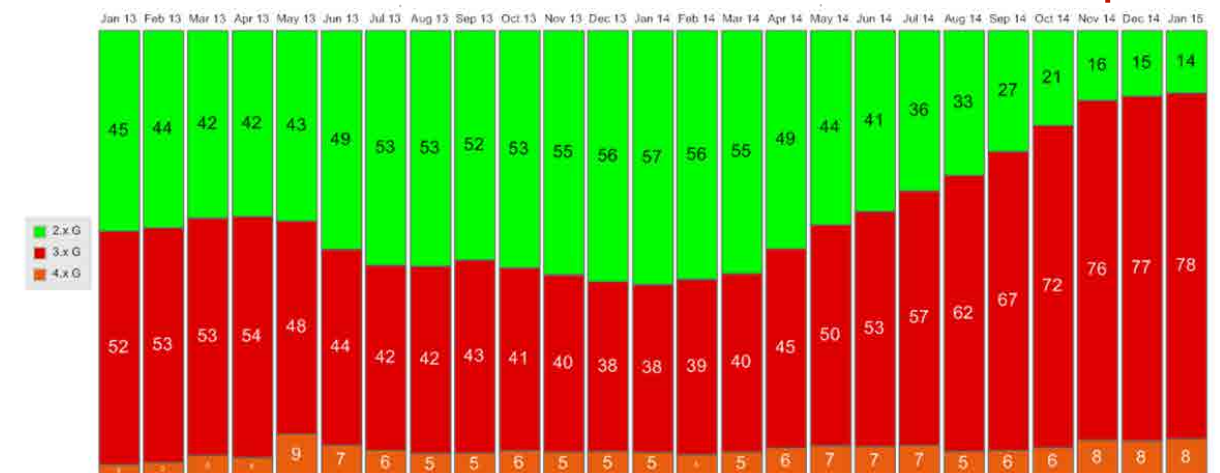
By Rizwana Khan

needs to stay connected 24/7 and this need is fulfilled through apps like Facebook, Twitter, Viber and WhatsApp but just being connected does not do the trick, playing online games watching videos or downloading files is just as important as using phone for calls and messaging. The awareness and appetite for newer technology has turned smartphones as the go-to devices for people.

Purchasing behavior of Pakistani consumers has changed over the time. The demand for smartphones has been growing for some years now mainly because of Wifi services.

Android OS is the mostly widely used operating system and used in most of the low-end smartphones this is the reason why Android based handsets have captured the largest market

Now that modern technology has become more affordable for the masses and 3G/4G coverage is becoming available in more and more cities, smartphone market is also expected to grow at the same pace



Source : GfK, PK, Smartphones, Generation Volume Share, Sales Unit %

Major portion of Pakistani population comprises of youth which gives an extra edge to the growing number of people embracing connected devices

The demand for mobile internet and smartphone was on rise before but massive impact of NGSM services can specially be seen on smartphone penetration as more than 85% of smartphones in the market are now 3G/4G enabled devices. With 3G now available in the main cities, the offer of 3G Smartphones is developing through a wider Brands Portfolio and through a more affordable price. 3G Smartphones ASP has decreased from \$230 to 140\$ in the last 18 months.

share in the country. The Pakistani mobile market has become quite complex as many local and international brands are making their market in the market, making the competition stiffer.

Significant boost in smartphone market is expected in future now that Chinese brands are also penetrating the market and manufacturers are making low-end smartphones at affordable prices.

Telecom operators are not only providing reasonable high speed internet but are also collaborating with local and international smartphone manufacturers to promote smartphone use in the country. Now that modern technology has become more affordable for the masses and 3G/4G coverage is becoming available in more and more cities, smartphone market is also expected to grow at the same pace.

About GfK



GfK is the trusted source of relevant market and consumer information that enables its clients to make smarter decisions. By using innovative technologies and data sciences, GfK turns big data into smart data, enabling its clients to improve their competitive edge and enrich consumers' experiences and choices.

Which mobile phones, smartphones and tablets are selling - where, at what rate and price, and why? What is the trend in mobile and broadband tariffs? How are consumers using their phones? Are you using the right tariff package, and offering the right features and design to reach your target customers?

GfK Telecom Retail Panel look at the full picture for the telecommunications sector, from market-wide trends, current brand performance and retail sales forecasts to the effectiveness of specific marketing activities for you and your competitors.

For more information:

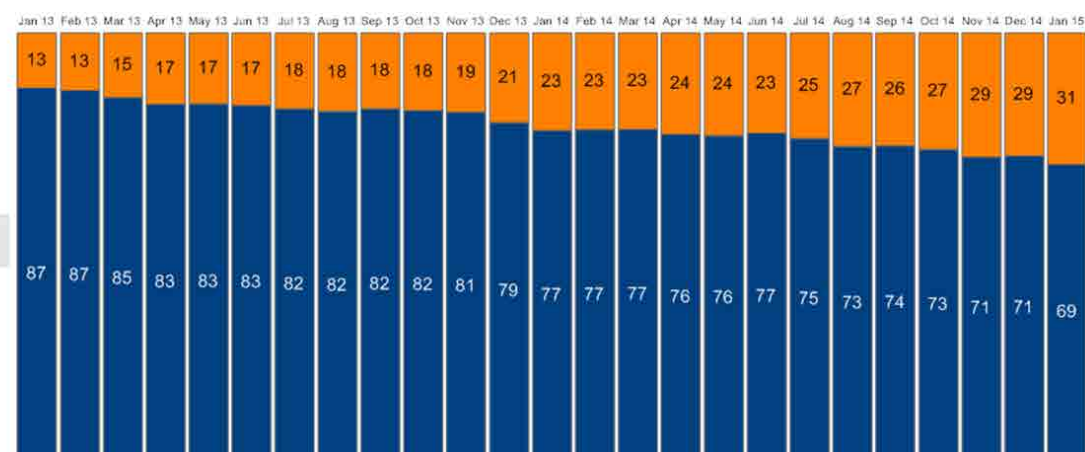
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Source : GfK, PK, Smartphones, Generation Volume Share, Sales Unit %

we play

THE MAKERS OF RUN SHEEDA RUN

We.R.play, the makers of 'Run Sheeda Run' is a well-established name and is one of the leading game based companies in Pakistan that is working with some of the BEST companies in the social and mobile game industry. From vector art to 3D models and from matte painting to 2D animation - team we.R.play has the talent and the skill set to deliver beyond the set standards of animation and gaming world.

We grew with time, started the company with just 2 people and now we have 35-40 members in our team

PhoneWorld team (PW) recently met the creative we.R.play team at their artistic office in 1-9 Islamabad, where we had an amazing and interactive meeting with Furqan Qureshi (Senior Game Engineer), Mehran Khan (Art Director), Saadia Zia (Senior QA Lead), Umer Manzoor Memon (Character Artist) and Hammad Ali (Marketing Head). The team exuded pure passion for the animation and games that turned company into one of the Pakistan's most successful and well-known start-ups.

Here's what they shared about We.R.Play journey...!!

PW: Initiations like software houses start with a small team or we can say with the group of friends, what's the story behind we.R.play?

Mehran Khan (Art Director): Well, it's been 4 years since we started we.R.play. Furqan and I were together right from the start, although our main focus was on game development, but 'service plan' was also in loop as a source of passive income. We grew with time, started the company with just 2 people and now we have 35-40 members in our team.

PW: When you developed your first game, did you have plan for taking it any further or it was just meant for play store?

Furqan Qureshi (Senior Game Engineer): Offcourse, we had our future plans; when we launched our first game, we were also in line with the growing trend of software houses and app development. No doubt that our main focus was on game development, but we also had debates on financial valuation. The whole business plan was to run both things in parallel.

PW: Tell us about the company structure?

Mehran Khan (Art Director): we.R.play is structured in a way that we have different departments working on different projects. Internal department works on

By Kanwal Ayub

intellectual property (IPs), that's where 'Run Sheeda Run' was made. Then we have service department, which is further divided into two sub departments i.e. 3D services & Quality assurance (Q.A).

3D service department create and design content for many international companies including a Disney owned company.

we.R.play is structured in a way that we have different departments working on different projects. Internal department works on intellectual property (IPs), that's where 'Run Sheeda Run' was made

PW: Can you name specific tools that you use to design and develop games? Do you have any special search engine?

Umer Manzoor Memon (Character Artist): When we talk about design, I would say 'Paper is king', every character or animation is first drawn on paper and then it is further polished in different softwares.

Furqan Qureshi (Senior Game Engineer): The game development engines we are using right now are the standard engines i.e. UNITY, it is one of the most widely used engine among developers. 'Run Sheeda Run', 'Space Leap' and many other games have been developed in UNITY. Other than that, we have developed many games on Cocos2D-X, which is a framework of open source

library. This is mostly used for mini-games, which are bit size games just like 'Flappy bird', 'DOTS', etc.

PW: What was the motive behind 'Run Sheeda Run' was it just for image building or you had plans for making money out of it?

Mehran Khan (Art Director): Well, not only in application development business but in any other business of the world, you don't just focus on 'image building'. Good image helps a company in promoting the ideas and uniqueness of its product. At the same time, one should also keep a realistic goal and future plans for business growth. The main motive behind developing 'Run Sheeda run' was to capture the local market.

PW: What issues did you face while addressing the local market?

Furqan Qureshi (Senior Game Engineer): Monetizing is the major issue with the local market of Pakistan, the trend of using plastic money is less, plus the people here don't do in-house purchases. However, we have some plans for this, which we cannot disclose right now.

Our QA team is quite active in finding quality issues, bugs and reporting them in a way that the developers and designers can understand how to tackle

PW: As it is believed that the basic thing in App development is "idea". So how do you people



generate ideas? What specific points you keep in mind about the originality of content?

Mehran Khan (Art Director):

It depends on which domain does the idea belongs to, if it is from any major project then the decision is taken by 5 of us and the top management. Other than this, usually what we do is that we take feedback from the entire team and let members vote for the idea they think is the best.

We have a vibrant telecom market and the introduction of 3G/4G has changed the scenario for app development in Pakistan. Although, we aren't as developed as other international markets, but the growth rate is quite fast

PW: Whose idea was the name 'Sheeda'?

Umer Manzoor Memon (Character Artist):

Probably someone made a joke about it & we all were like 'Hell yes', that's it. We did poll and the name 'Sheeda' was the ultimate winner.

PW: What importance does marketing hold in an app development business?

Hammad Ali (Marketing Head):

Marketing is one of the most important aspects of any business, whether large or small, retail or B2B. You can see many outclass apps in app store with less than 5% reach; this makes all your efforts go waste. Another important thing is that you should know the target market of your app, for example

for 'Run Sheeda Run' we not only focus on the online market but on the ground market as well.

PW: There are still many IT departments that don't engage QA in the application development process, what does Quality Assurance means to you?

Saadia Zia (Senior QA Lead):

Well, I would say all the efforts can go to waste if you don't keep a regular quality check. Our QA team is quite active in finding quality issues, bugs and reporting them in a way that the developers and designers can understand how to tackle. We also give advice on possible improvements that can be embedded in the continuous development future change requests.

Mehran Khan (Art Director):

Sometimes we don't give much importance to many minor things, which tend to create impudence to overall experience. So here QA department helps us in finding those problems.

PW: What potential do you see in Pakistan's local market?

Mehran Khan (Art Director):

Well, there is a lot more potential in Pakistan's app development industry, plus e-commerce gateways are also opening that will further encourage young talent.

When we talk about design, I would say 'Paper is king', every character or animation is first drawn on paper and then it is further polished in different softwares

Furqan Qureshi (Senior Game Engineer):

We have a vibrant telecom market and the introduction of 3G/4G has changed the scenario for app development in Pakistan. Although, we aren't as developed as other international markets, but the growth rate is quite fast. It's all about quality, if you develop an engaging product; it will be appreciated not only in local market but in international market too.

PW: Do you have any local project in pipeline?

Furqan Qureshi (Senior Game Engineer):

Yes, there is a game in pipeline i.e. 'Sheeda Universe', this is actually a mini game or you can say a small version of 'Run Sheeda Run'.

PW: How we.R.play is helping the new-comers? Do u prefer fresh graduates for professionals?

Furqan Qureshi (Senior Game Engineer):

We prefer fresh resource and the reason is that the passion we see in a fresh graduate is quite remarkable and valuable.

PW: Would you like to enlist the recent big-hits by we.R.play?

Mehran Khan (Art Director):

- Lost Twins getting selected for the best game
- Roboques
- Pocketgems
- Run Sheeda Run's recognition
- Yaarian

PW: Any message you would like to give to app developers?

Mehran Khan (Art Director):

Unleash your inner creativity; we've been working in this industry for last few years and every time we learn a new language, a new framework, or a new library, we become "young" app developers all over again. Just don't stop your learning!

By Rizwana Khan

Telecom League



The first ever Telecom Football League Tournament was organized by Pakistan Telecommunication Authority (PTA) in November, 2015 which was participated by telecom entities such as Zong, Ufone, Warid, Ericson, Huawei and others.

Semifinals were played between Telenor & PTA and Mobilink & Zong, while final was played between Mobilink and Telenor. PTA secured third position in the tournament while Zong came fourth. Chairman PTA Dr. Syed Ismail Shah was chief guest at this occasion and he distributed prizes among the winners. He hoped that more such events would be organized to promote culture of healthy activities in the telecom sector.

We are looking forward to have such events this year as well.



By Saima Ibrahim

Economic Benefits of Reforming Mobile Taxation in Pakistan

Mobile sector in Pakistan has enabled almost 130 million people to be connected and have access to latest information. This will further be enhanced with the arrival of mobile broadband i.e; 3G and very recently launched 4G services. This growth of mobile industry is highly productive for both social and economic development of the country. Now we can say that mobile industry has the potential to accelerate the economic and social development of Pakistan in order to meet the objectives of PTA Vision 2025. According to GSMA Intelligence and World Bank report, 1% increase in mobile penetration can lead to a 0.28% increase in the GDP growth rate of Pakistan. A more relevant study of World Bank indicated that every 10% increase in mobile broadband penetration can accelerate the economic growth of middle-income countries (Pakistan) up to 1.38%. Therefore it is very important to

understand the "Telecom Taxation in Pakistan" and how further it can be improved in order to overcome the regulatory uncertainties.

Mobile industry has the potential to accelerate the economic and social development of Pakistan in order to realise the Vision for creating smarter societies

After the arrival of 3G and 4G, the future of Pakistan's telecom industry can get brighter if

the government of Pakistan reconsider its taxation policy. Still there are 60 million Pakistanis that don't have access to mobile services. Hence, there is dire need to understand the barriers that are affecting the growth of mobile industry in general and mobile taxation in particular.

The GDP per capita of Pakistan is \$1,307 (2013 est.) whereas the tax paid on a SIM card in our country is about 30% of average daily wage in Pakistan (US \$ 2.46). The citizens and operators are heavily taxed that affects the affordability of mobile services in Pakistan. Following are the main taxes that are paid by every Pakistani citizen:

1.	Tax on SIM card	PKR 250
2.	Tax on Handset*	a) Import Tax: PKR 250 b) Sales Tax: PKR 150-500
3.	PST & FED	a) PST: 19.5% b) FED: 18.5%

*There is additional income tax on imports.

Tax paid on a SIM card in our country is about 30% of average daily wage in Pakistan-GSMA

Telecom operators pay more than US\$1.2 million taxes every year, which is actually about 30% of the overall revenue of telecom sector. Apart from these corporate taxes other taxes include:

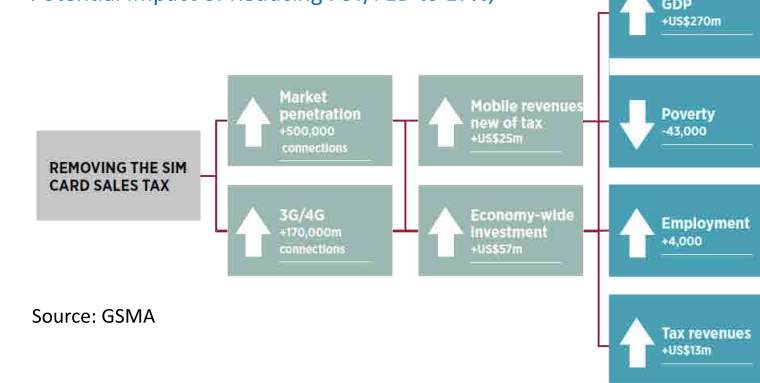
- a. Custom duties and other charges on imports
- b. Annual regulatory fees
- c. Spectrum acquisition costs

The Average Revenue per User in Pakistan is one of the lowest in region and worldwide as well. Since 2006 the Foreign Direct Investment (FDI) in telecom sector has also been very low. This indicates an uncertain environment for investors even after the launch of 3G and 4G. That is why in 2013, Pakistan stood

at 127th position on the Ease of Doing Business Index. Pakistan's taxation policies are characterized by a lack of transparency and a lack of harmonization.

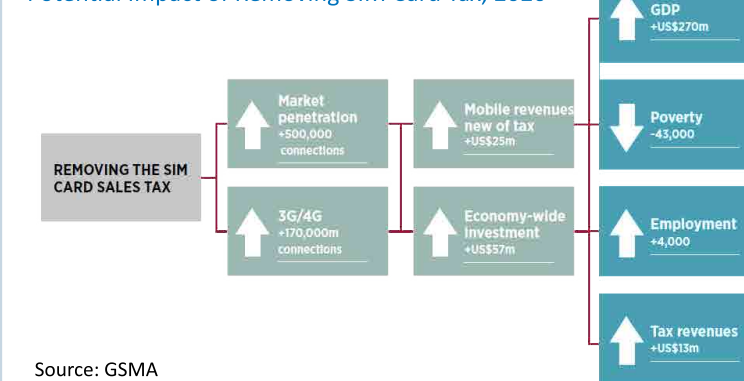
fees, charged differently in each province and on a variety of tax bases, makes the tax system complicated and problematic.

Potential Impact of Reducing PST/FED to 17%,

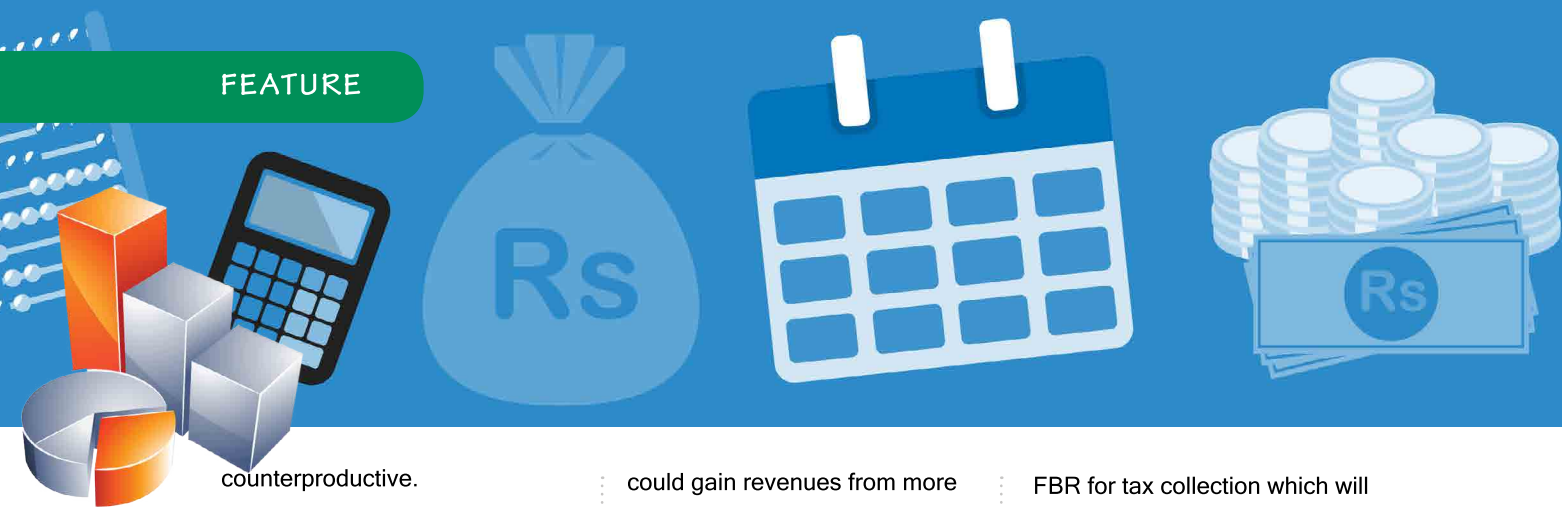


Taxes vary between Pakistan's four provinces. This multitude of

Potential Impact of Removing SIM Card Tax, 2020



Today, the mobile sector makes a significant contribution to Pakistani government revenues. It accounted for 7% of the \$31.5 billion in tax revenue collected in 2013. However, it is important to recognize that while high taxation on the mobile sector may deliver short-term benefits for government, this comes at the cost of long-run economic growth, and is ultimately



counterproductive.

By reducing and rationalizing taxes on the mobile sector, the Pakistani government can not only increase digital and financial inclusion and economic growth, but it can also generate higher tax revenues through more efficient and broader-based taxation.

High taxation on mobile sector may deliver short-term benefits for government but this comes at the cost of long-run economic decline, and is ultimately counterproductive

Furthermore, reforming mobile taxation has the potential to increase and enable the investment required to further expand mobile broadband network infrastructure.

According to the GSMA Report "Digital Inclusion and Mobile Sector Taxation in Pakistan", removing the tax could increase the number of mobile connections exponentially.

The productivity increase and growth induced by the expanding mobile sector could produce an increase of US\$270 million in GDP, lifting 43,000 Pakistanis out of poverty.

While tax revenues could be lower in the short-term due to decreased tax on the mobile sector, increased GDP growth means that the government

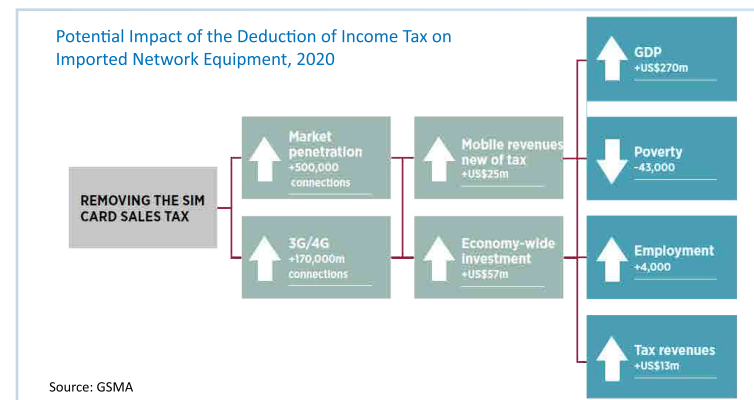
could gain revenues from more broad-based taxation; over time, the net impact on government revenues could be an increase of up to US\$13 million in 2020.

3G/4G Connections Booming the Revenues

While comparing to the regional ratio, the deployment of 3G/4G in Pakistan is low; currently it is only 1% of the whole population. Presently there are about 9 Mln 3G/4G subscribers in Pakistan.

FBR for tax collection which will enable operators to invest in network coverage and high-quality infrastructure.

Today, mobile networks support essential services that boost productivity and drive economic growth for the 130 million Pakistanis that have access to them. In parallel, 60 million of our fellow citizens remain unconnected. Broadening access to mobile through sector-



Productivity increase and growth induced by the expanding mobile sector could produce an increase of US\$270 million in GDP, lifting 43,000 Pakistanis out of poverty

After the launch of super-fast broadband subscribers are increasing day by day. The Government needs to provide breathing space by relaxing taxation regime rather burdening the mobile industry forcing them to act as the extension of the

specific tax reductions has the potential to accelerate Pakistan's development, deliver a wide range of life-changing services and, as a result, support progress towards the smarter society.

Government needs to provide breathing space by relaxing taxation regime rather burdening the mobile industry, forcing them to act as the extension of the FBR for tax collection

By Rizwana Khan

The Man Who Invented The Web Tim Berners-Lee

Today Dotcoms, bloggers and Google all have one man to thank for their place in the current progressive and innovative era and that is Tim Berners-Lee. He made the ingenious leap with Worldwide Web by combining the internet with the hypertext concept.

The breathtaking growth of the Web has been an incredibly good feeling a lesson for all dreamers ... that you can have a dream and it can come true

Sir Timothy John "Tim" Berners-Lee (born 8 June 1955) also known as TimBL, is an English computer scientist, best known as the inventor of the World Wide Web. He made a proposal for an information management system in March 1989, and he implemented the first successful communication between a Hypertext Transfer Protocol (HTTP) client and server via the Internet sometime around mid-November of that same year. While at CERN, Berners-Lee developed a program for himself, called Enquire, that could store information in files that contained connections ("links") both within and among separate files—a technique that became known as hypertext. His goal was to provide researchers with the ability to share their results, techniques, and practices without having to exchange e-mail constantly. Instead, researchers would place such information "online," where their peers could immediately retrieve it anytime, day or night. Berners-Lee wrote the software for the first Web server and the first Web client, or "browser", between October 1990 and the summer of 1991. The first "killer application" of the Web at CERN was the laboratory's telephone directory—a mundane beginning for one of the technological wonders of the computer age. I just had to take the hypertext idea and connect it to the TCP and DNS ideas and — ta-da!— the World Wide Web. Berners-Lee is the director of the World Wide Web Consortium (W3C), which oversees the Web's continued development. He is also the founder of the World Wide Web Foundation, and is a senior



researcher and holder of the Founders Chair at the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL). He is a director of the Web Science Research Initiative (WSRI), and a member of the advisory board of the MIT Center for Collective Intelligence.

I just had to take the hypertext idea and connect it to the TCP and DNS ideas and — ta-da!— the World Wide Web

In 2004 he was awarded a knighthood by Queen Elizabeth II of the United Kingdom and the inaugural Millennium Technology Prize (€1 million) by the Finnish Technology Award Foundation. In April 2009, he was elected a foreign associate of the United States National Academy of Sciences. He was honored as the "Inventor of the World Wide Web" during the 2012 Summer Olympics opening ceremony, in which he appeared in person, working with a vintage NeXT Computer at the London Olympic Stadium. Berners-Lee is also the author, along with Mark Fischetti, of Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web (2000).

Smartphone Review



RIVO Phantom PZ10

The mobile phones market is abuzz with Rivo Mobile - a new entrant in the market, but backed by the experienced Advance Telecom, which enjoys an unprecedented reputation in the Pakistan market and abroad, because of its huge distribution network and above par customer services. Rivo was launched on the 15th February, 2015 at a huge launching ceremony held at the Lahore Expo Center.

Rivo Phantom PZ10 is a sleek, smart and extremely light device that comes in two colors; black and white. It is a powerful phone with the latest android operating system and equipped with a powerful Qualcomm Snapdragon Quad Core Processor and 1 GB RAM at a competitive price that will certainly attract the customer.

Design

Rivo Phantom PZ10 has been designed in Hungary and by finishing of the phone shows that a lot of R&D has gone into making it light weight.

Phantom PZ10 is extremely light weight - weighs around 100 grams. The shape and size is user friendly and fits well in the palm of the hand.

Display

With a 4.7" HD IPS Display with capacitive smooth touch makes it extremely receptive to the touch. The results on the screen are extremely crisp and sharp.

Camera

Rivo Phantom PZ10 rear camera is supported with an LED Flash with 12 MP. The powerful camera shoots up to 6 MB picture with FHD and Auto Focus technology.

The front camera is 2 MP which is excellent for selfie lovers and active social media users.

Software

Rivo Phantom PZ10 features the latest version of Android Operating System version KitKat 4.4.2.

Hardware Features

The device is powered by the Qualcomm Snapdragon Quad Core Processor for blazing fast multi-tasking performance, battery efficiency and exceptional graphics for your games, media and social media etc.

The Rivo Phantom PZ10 comes with 1GB RAM and 8GB ROM which can be extended to 32GB with a microSD Card. Rivo Phantom PZ10 is a dual SIM phone. Fitted with a sleek battery with power of 1750 mAh, Battery Guru and Built-in AntiVirus.

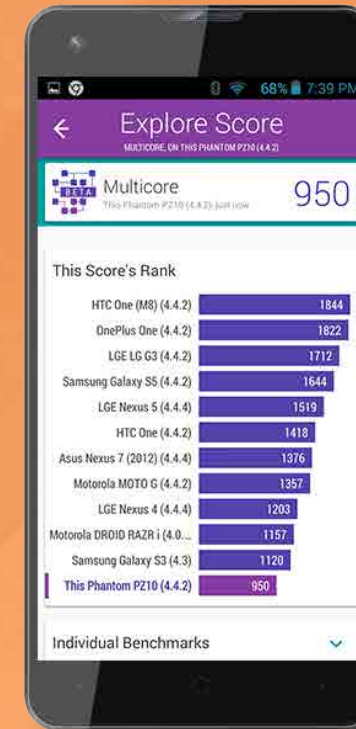
Performance and Benchmarking

Benchmarking the Rivo Phantom PZ10 reveals that the device performs quite good and is far ahead in benchmarking standards.

Vellamo

Vellamo is a Qualcomm's testing application which is a series of tests designed to evaluate which Android devices deliver the best mobile experiences. The suite provides the user with an overall performance score.

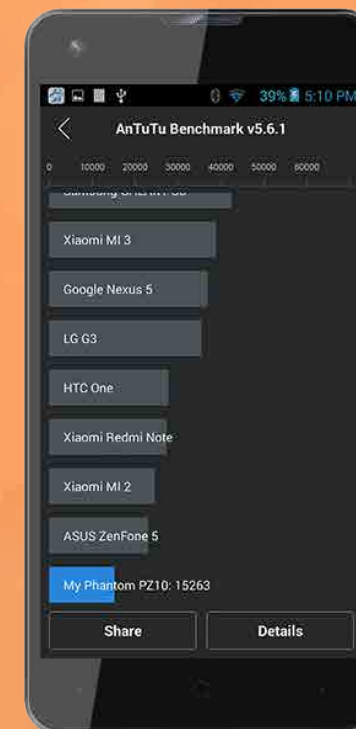
Rivo Phantom PZ10 has scored 950 points with respect to the multicore part with Vellamo which is comparatively low as compared to other smartphones yet compromises have to be taken between the price and



AnTuTu

Antutu is a benchmarking application with than 100 million downloads and shows the best benchmark after it examines the overall performance of the smartphone.

With the Click and Go test suite, Antutu comprehensively tests all aspects of a device, including UX, GPU, RAM, CPU, I/O and more. Each item is individually assessed and given a score. These scores can be uploaded to the Antutu database, and then used to rank your device among all other Android devices. Antutu also checks that the screen can support touch up to five fingers at once.



Specs

Network: 2G, 3G Enabled WCDMA

Weight: 100 grams

Display: IPS, 4.7 Inches, HD Display

SIM: Dual SIM

OS: Android OS, v4.4.2 (KitKat)

Processor: Qualcomm Quad Core Processor

Media: Audio Player, Video Player, FM Radio, Ring Tones, Loud Speaker, Headphone jack 3.5mm Jack

Design type: Bar

Memory: RAM: 1 GB
Internal: 8 GB, microSD up to 32 GB

Camera: Rear Camera: 12 MP, autofocus, LED flash
Front Camera: 2.0 MP

Battery: 1750 mAh

Color: White, Black

Data: GPRS, EDGE, Web Browser HTML5

Connectivity: Bluetooth, WiFi, USB, 3G

Pros

- Very light weight
- 5MP front camera
- Dual SIM

Cons

- New brand
- With the same specs and price, one can get a branded smartphone as well.

Rating

Design: 4.6

Value for Money: 4

Performance: 4.3

Feature: 4.3



SHOAIB AKHTAR

First Brand Ambassador of m-Mobile

Shoaib Akhtar spurt into the picture in the 1999 World Cup with a long, hurtling run-up and blistering speed. He is a Pakistani cricketer who will remain in the pages of cricket history as the fastest bowler in world. He is also known as the "Rawalpindi Express" due to his fast bowling; he bowled at 161.3 kph. Born in a small family residing near Rawalpindi, Shoaib earned great fame and fortune for himself and Pakistan national cricket team. He retired after the 2011 World Cup and made many interesting records during his career.

Recently, Shoaib (SA) has become the brand ambassador of m-Mobile, a newly launched mobile brand. Phone World team (PW) got a chance to have a small chat with Rawalpindi Express at the launch ceremony of m-Mobile. Here are the few moments from Shoaib Akhtar's life he shared with our team.

PW: Which was your first mobile phone?

SA: Sony Ericson was my first mobile brand.

PW: Which mobile phone are you currently using?

SA: These days I am using M-Mobile P15i.

PW: What's Your Favorite App?

SA: Facebook and Twitter are my favorite Apps. I used both of them regularly.

PW: Checking mobile phone is probably the first thing most of the people do when they wake up in the morning, how important is your smartphone for you?

SA: Nowadays mobile phone is an essential gadget. I travel a lot so I use my phone to always stay in contact with my family and friends back home. So I would say that checking my phone at any time is actually keeping me update about the people for whom I feel concerned.

PW: : Is it a distraction for you?

SA: It is rarely a distraction, most of the time it is great facilitator in my day to day life.

Smartphone provides a very convenient way to manage all social media activities effectively & efficiently. And it is definitely a great way to stay connected to your fans and keep them engaged and interested in your life

PW: Smartphones have given a tremendous opportunity to connect with people through social media. What role do you think its playing in Celebrities' life in terms of fan following and popularity graph?

SA: Smartphone provides a very convenient way to manage all social media activities effectively & efficiently. And it is definitely a great way to stay connected to your fans and keep them engaged and interested in your life.



By Saima Ibrahim

PW: There are many fake ids and pages of celebrities on social media; would you like to share your official pages (i.e. Facebook /twitter /Instagram)?

SA: Yes, I have official pages on Facebook & Twitter.

<https://www.facebook.com/TheFastestBowler>

<https://twitter.com/DaFastestBowler>

Collaboration with M-Mobile is a project that I have taken up after a long time and I hope that it work for both of us

PW: Have you been contacted by any other telecom operator or mobile company to work with them?

SA: Yes, many times but due to my busy schedule I was never inclined to work with them. Collaboration with M-Mobile is a project that I have taken up after quite a long time and I hope that it works for both of us.

PW: What are your future projects? Which you like to share with your fans?

SA: My priority plan is to establish a Cricket Academy for the training of talented youth of Pakistan. I want to provide a platform to all those who have talent but don't get the opportunity to play on national and international level.

My priority plan is to establish a Cricket Academy for the training of talented youth of Pakistan

PW: Where do you see yourself in the next five years?

SA: : In 5 year time I see myself as the Cricket Coach. I don't want to be a typical coach who is only concerned about the performance of his players on the ground rather I would also like to prepare them to face every type of challenges in life.

PW: Any message you would like to give for your fans?

SA: : Never believe in short cuts, only hard work is the key to success in life.

I travel a lot so I use my phone to always stay in contact with my family and friends back home



Rapid Fire Questions

Favorite color?

Black & Blue.

Favorite food?

All Pakistani Food & Sea food.

Favorite car?

Lamborghini.

Favorite cricketer?

Mr. Imran Khan.

All-time favorite movie?

The Message (PBUH).

One thing you really like about yourself?

Doing Charity.

Rate yourself as a cricketer on a scale of 1 to 10?

Always No.1.

ANTICIPATED TECH-TRENDS OF 2015

The world is full of gizmo freaks these days and the courtship between mankind and machine is destined to reach its peak in 2015

Year 2015 just started and this could be the year that could very well be our first small step into the space age. As we have entered into the New Year there are many significant and important things to look forward to. Technically speaking there has never been a dull year in the mobile and technology industry, every New Year comes with a potential advancement in technology and lots of different surprises.

In 2015, we could be seeing the transition of chipsets to 64-bit for Android. Qualcomm- the largest chipset maker on Android has stepped up to the challenge with wide-range line-ups of 64-bit chips covering everything from high end to low end devices. The Snapdragon 810 will be

implemented at the heart of many flagship devices, leading the way with impressive new features like higher clock speeds, faster RAM and higher graphics. The new chipset will also feature camera pixels improvements and more efficient recording in high resolution like 4K.

The release of Apple's new smart watch is perhaps the most anticipated occasion for 2015

Let's go through some of the top gadgets and equipment's that will revolutionize the technology industry in 2015.

APPLE WATCH

The release of Apple's new smart watch is perhaps the most anticipated occasion of 2015.



Tim Cook the CEO of Apple Inc. unveiled Apple Watch at a massive event in the fall of 2014 alongside iPhone 6 and iPhone 6 plus. Apple watch will have different designs and apps that users can modify.

Apple Watch might be expensive but with the rumours flying around that the cheapest version of the Watch will only cost about \$350.

Virtual Reality head mounted display is one of biggest things for gadget lovers to look forward to

The gold version could reach a starting price of the whopping \$5,000. In exchange, you get a truly exquisite engineering marvel with a dedicated Watch operating system, as well as capabilities to track some of your vitals, and act as a reminder for you to keep a healthy lifestyle.

OCULUS RIFT

Virtual reality gadgets have always created a buzz in the past, but now a consumer version will finally hit the market in the summer of 2015.



Virtual reality has gained a lot of fame and popularity with the video game industry, entertainment industry and tourism industry. It has also attracted a lot of companies to produce their own virtual reality gadgets. Oculus Rift is not only option available in the market but Samsung and Sony will also be releasing virtual reality head gear of their own.

PROJECT ARA

We all have been hearing about this Project Ara from quite some time now, well this might be the year when Google and Motorola may introduce what will be the only phone you'll ever need.



Project Ara is a phone with modular upgrading. In other words, you can remove and replace the parts of your phone as per your requirement. For example, if a new camera were to come out with higher pixels then all you have to do is buy a camera module.

Project Ara will be the only phone you'll ever need. With upgradable modules user can replace any parts of your phone as per their requirement

The screen is also replaceable, so you no longer have to worry about cracked screens costing you over \$150. You can change or replace any module as per your liking, now you won't have to buy a new phone with higher specs you just need to

replace the module which you think needs to be upgraded.

BENDABLE PHONE SCREENS

Samsung recently announced that it will start mass producing bendable displays in 2015. Samsung has been working on bendable screens for smartphones over the past few years, but the company is now promising that display technology will be ready to arrive in real products starting this year.

CHEAPER 4K TVS


4K TVs are nothing new to most of the avid technology followers but in 2014 it primarily failed to live up to the expectations that were built around it due to high price points.



The prices of 4K TV's were too high and were far from normal persons range. But this time they are quite resolute to make their presence felt in the mainstream. LG and Sony, both these electronics giants are ready to come up with 4K that is expected to replace 1080p soon.

LG and Sony, both these electronics giants are ready to come up with 4K that is expected to replace 1080p soon


TOP MUST HAVE APPLICATIONS & GAMES FOR YOUR SMARTPHONE



Hangman Rating : 5.0 Price: Free


Think your vocabulary is strong? Test your skills with two player Hangman! Take your phone and challenge your friends with a battle of words.

PAKISTANI SOFTWARE DEVELOPER APPLICATION




Mobilink TV (Official App) Rating : 4.4 Price: Free

Mobilink TV is a Mobile TV application for watching Live TV on your android phone over Mobilink data network. You can now watch all popular TV channels anytime anywhere on the best 3G network. This service is for Mobilink subscribers only. Mobile TV Bundle @ Rs. 10 for 24 hrs.




Microsoft Outlook Preview Rating : 3.7 Price: Free

The official Microsoft Outlook app for Android phones and tablets. Outlook works with Microsoft Exchange, Office 365, Outlook.com (including Hotmail, MSN), Gmail, Yahoo Mail, and iCloud.




LIMBO Rating : 4.8 Price: Free

The Most Wanted Drift Game Ever. Insane feeling of powerful sport cars. Unique driving on different surfaces - asphalt, grass and sand. Racing on high detailed tracks.




SpongeBob: Sponge on the Run Rating : 3.9 Price: Rs 402

Watch live video and broadcast live on your phone or tablet - anytime, anywhere! Watch live and recent videos, discover upcoming events. Broadcast live to any number of viewers using the camera of your device




Elevate - Brain Training Rating : 4.4 Price: Free

Elevate is a freemium brain training app that allows users to train a variety of brain faculties, such as listening, memory and comprehension.




EatOye - Order Food or Reserve Rating : 4.1 Price: Free

Order now or book a table from Pakistan's largest food ordering and reservation service, EatOye!




ArtFlow -Tablet Sketchbook Rating : 4.3 Price: Free

Convert your tablet or phone into digital sketchbook with more than 70 paint brushes, smudge, file and eraser tool. This fast and intuitive painting application will unlock full power of your imagination.



ooVoo Video Call, Text & Voice Rating : 4.3 Price: Free

With ooVoo you can make FREE high quality video calls, voice calls, and send text messages to easily connect to your friends and family around the world. Make clear and crisp video calls with up to 12 people on a group video call.




SnapMovie (road movie maker) Rating : 4.0 Price: Free

SnapMovie is a movie maker app. SnapMovie lets you to record and share life's best moments through beautiful videos.



ICC Cricket World Cup 2015 Rating : 4.4 Price: Free

The official ICC Cricket World Cup 2015 app gives you full tournament coverage of all the action from Australia and New Zealand including live scores, official video and match highlights, ball by ball commentary, notifications, exclusive video and much more.




Jumpy Jump Rating : 5.0 Price: Free

Jump your way to the highest score. collect coins, grab power-ups, and kill monsters to boost yourself and reach the edge of universe and beyond.



Picture Shop - Photo Editor Rating : 4.7 Price: Free

Picture shop - Photo Editor is a simple, easy to use and free image editor. With this application you can turn your mobile device in a small studio.



HEX:99 Rating : 3.8 Price: Free

HEX:99 is an incredibly simple, yet incredibly challenging action game. It is accessible due to the simple controls, awesome music and beautiful, vivid visuals. The challenge level is high but infinitely rewarding for those who master HEX:99.



PTCL Smart TV (PTA Official App) Rating : 3.8 Price: Free

PTCL now introduces Smart TV Application, for its consumers in Pakistan along with other new features. Watch 150 PTCL Smart TV channels on your Smart Devices.



Smash Fish for Kids & Toddlers Rating : 5.0 Price: Free

Do you love playing whack a mole kind of games? Here comes the lovely fish version with a cute interface. Objective. Hit the fish but don't hit the bomb. Easy! Kids and toddlers love playing this game. Have fun!

TELECOM CAMPAIGNS

★★★★★

Worid Mifi LTE

Highlighted Feature:
TCV introduces Worid mifi LTE with 100GB FREE for 3month

After the launch of Worid LTE, introducing Mifi service was a good move to hold the customers back. The company used an eye candy who could steal viewer's attention i.e. Fawad Khan, a celebrity who is seen as one of the most dreamy heroes in Pakistan.

Overall, it was a passable advertisement with a good video good music and not to forget the shared internet plan is a pain reliever for many.



★★★★★

Muskurahatoon kay 14 Saal

Highlighted Feature:
Ufone celebrated its 14 year with #BestofUfoneAds

This TVC brings all the brilliantly paired funny moments and punch lines of Ufone's best ads up till now. Teri mehrbani, Tu sasti choor call mila le bari baat hai, Raham na kha Ragar dey, Sachi Yaari Jaib pe bhaari, Listening to all of these lines again was quite pleasing to ears, it also made many feel nostalgic (:p) This time, Ufone's team took a chance and aired a TVC that was simply a cluster of all the previous commercials, & still managed to become the show-stopper of the month.



★★★★★

Lakhoun ki Call

Highlighted Feature:
Telenor introduces 'Lakhon Ki Call Offer 2' for its customers

The TVC is a re-launch of Telenor Talkshawk's "Lakhoun ki Call offer", that allows subscribers to win Rs. 5 Lakh daily and Rs. 10 Lakh weekly.

Though we never liked 'Sachi yaari sab pe bhari' theme but Mehwish Hayat deserves praise for the way she justified the role of 'Shabbo', whereas Maummar Rana, being a senior actor acted quite wobbly.

Winning 5 – 10 Lakh rupees without jingling into any codes, packages, term & conditions is a win-win situation.

The advertising campaigns play a very vital role in promoting a brand/product. A truly memorable campaign creates a visceral response – but one bad campaign can ruin all. PhoneWorld keeps a close eye on the latest ad releases of the telecom industry. Here is a critical review of the latest telecom campaigns.



★★★★★

Mobilink Mobile TV

Highlighted Feature:
TVC introducing Mobilink Mobile TV, where users can watch LIVE World Cup

Mobilink mobile TV has cater the needs of cricket lovers in Pakistan. On the one hand, we never want to miss any update from the match and on the other hand, load shedding is one of the biggest problems in Pakistan.

This TVC is a simple way of telling people that load-shedding is no longer a problem and they can now enjoy all Cricket World Cup matches from their smartphone with Mobilink TV Application.

★★★★★

Rhythm RX60

Highlighted Feature:
Qmobile signed Priyanka Chopra to endorse its new range of Q LINQ smartphones

A good advertisement plays an important role in creating a favorable image for company, especially when it is the very first advertisement of the company, where it needs to create an impact on the viewers.

RIVO Mobiles played very smartly while launching their mobile phone ads. There are some pretty good pieces of sweetness listed in this campaign just like using a smartphone for proposing someone and showing couple selfies. I would like to add an extra (*) for the selection of song 'Hai kissa wohi'.



★★★★★

Qmobile Q LINQ

Highlighted Feature:
Qmobile signed Priyanka Chopra to endorse its new range of Q LINQ smartphones

Qmobile mobile once again signed the top notch actor from Bollywood industry for advertisement campaign of its latest smartphone series i.e. LINQ X70, X100 & X300.

Other than Priyanka Chopra, there was nothing new or creative in the TVC; it just looked like Priyanka has replaced other celebrities, where all the other gears of the campaign were same. 'I'm LINQed are you?' is the very same and typical signature tagline that has been adopted for NOIR series. Qmobile should have at least changed the tagline for its new brand.

All in all, the TVC was a truly Qmobile's TVC, so we would minus (-) a star for not being creative.

LOCAL BRANDS

New Arrivals



QMobile Linq L10

OS : Android v4.4, Kitkat
Display: 5 inches
CPU: 1.2 GHz, Quad-Core
Camera: 8 MP
Memory: 8GB built-in, 1GB RAM

RIVO Phantom PZ10

OS : Android v4.4, Kitkat
Display: 4.7 inches
CPU: Quad-Core
Camera: 12 MP
Memory: 8GB built-in, 1GB RAM



Gfive President Smart 5

OS : Android v4.4, Kitkat
Display: 5 inches
CPU: 1.2 GHz, Dual
Camera: 5 MP
Memory: 4GB built-in, 512MB RAM

MMobile P15i Splendor

OS : Android v4.4, Kitkat
Display: 5 inches
CPU: 1.2 GHz, Quad-Core
Camera: 8 MP
Memory: 4GB built-in, 1GB RAM



RIVO Phantom PZ8

OS : Android v4.4, Kitkat
Display: 4.5 inches
CPU: Quad-Core
Camera: 12 MP
Memory: 4GB built-in, 1GB RAM

Club hello 101

OS : Android v4.4, Kitkat
Display: 5.5 inches
CPU: 1.2 GHz, Quad-Core
Camera: 8 MP
Memory: 4GB built-in, 1GB RAM



Voice V40i

OS : Android v4.2, Jelly Bean
Display: 4.5 inches
CPU: 1.2 GHz, Dual-Core
Camera: 5 MP
Memory: 4GB built-in, 512MB RAM

QMobile X300

OS : Android v4.4, Kitkat
Display: 4.5 inches
CPU: 1.3 GHz, Quad-Core
Camera: 8 MP
Memory: 4GB built-in, 1GB RAM



MMobile T30i Splendor

OS : Android v4.2, Jelly Bean
Display: 7 inches
CPU: 1.2 GHz, Dual-Core
Camera: 5 MP
Memory: 8GB built-in, 1GB RAM

Gfive President G6 Plus

OS : Android v4.4, Kitkat
Display: 5.7 inches
CPU: 1.3 GHz, Quad-Core
Camera: 5 MP
Memory: 8GB built-in, 1GB RAM



which 1 would YOU like to CHOOSE ?

Microsoft Lumia 532



OS: Microsoft Windows Phone 8.1
Chipset: Qualcomm MSM8212 Snapdragon 200
CPU: Quad-core 1.2 GHz
Camera: 5 MP
Memory: 8 GB, 1 GB RAM

Huawei Honor Holly



OS: Android OS, v4.4 (KitKat)
Chipset: Mediatek MT6582
CPU: Quad-core 1.3 GHz
Camera: 8 MP, autofocus, LED flash
Memory: 16 GB, 1 GB RAM

Lenovo Vibe Z2 Pro



OS: Android OS, v4.4 (KitKat)
Chipset: Qualcomm MSM8974AC Snapdragon 801
CPU: Quad-core 2.5 GHz
Camera: 16 MP, autofocus, Dual-LED flash
Memory: 32 GB, 3 GB RAM

Microsoft Lumia 535



OS: Android OS, v4.4 (KitKat)
Chipset: Qualcomm Snapdragon 805
CPU: Quad-core 2.7 GHz
Camera: 16 MP, autofocus, LED flash
Memory: 32/64 GB, 3 GB RAM

Sony Xperia Z4



OS: Android OS, Lollipop
Chipset: Qualcomm Snapdragon 810
CPU: Quad-Core 1.2 GHz
Camera: 20.7 MP, Autofocus, Dual-LED flash
Memory: 32/64 GB, 4 GB RAM

Microsoft Lumia 435



OS: Microsoft Windows Phone 8.1
Chipset: Qualcomm MSM8210 Snapdragon 200
CPU: Dual-Core 1.2 GHz
Camera: 2 MP
Memory: 8 GB, 1 GB RAM

Lenovo Vibe X2



OS: Android OS, v4.4.2 (KitKat)
Chipset: MediaTek MT6595m True8Core
CPU: Quad-Core 2.0 GHz
Camera: 13 MP, autofocus, LED flash
Memory: 32 GB, 2 GB RAM

Sony Xperia E4



OS: Android OS, v4.4.4 (Kitkat)
Chipset: Mediatek MT6582
CPU: Quad-core 1.3 GHz
Camera: 5 MP, autofocus, LED flash
Memory: 8 GB, 1 GB RAM

Samsung Galaxy S6



OS: Android OS, Lollipop
Chipset: Exynos 7420
CPU: Quad-core 1.3 GHz
Camera: 20 MP, autofocus, LED flash
Memory: 32 GB, 3 GB RAM

Huawei Honor 3C



OS: Android OS, v4.4.2 (KitKat)
Chipset: HiSilicon Kirin 910
CPU: Quad-Core 1.6 GHz
Camera: 8 MP, autofocus, LED flash
Memory: 8 GB, 1 GB RAM

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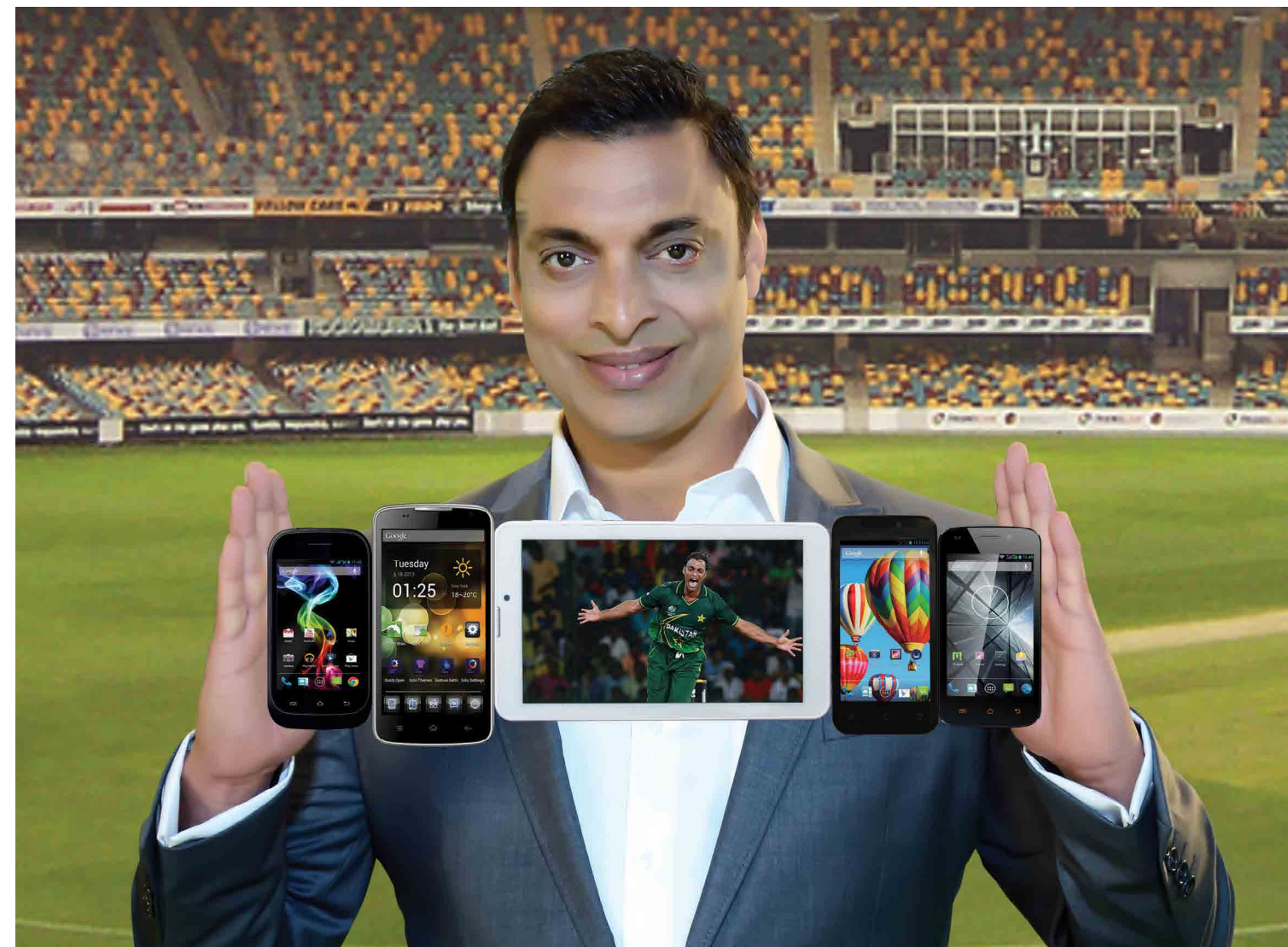
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SPLENDOR P12i

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- ✓ Dual Sim Dual Standby
- ✓ 4.5" WVGA IPS Screen
- ✓ Android 4.2.2 Jelly Bean
- ✓ Rom 4GB / RAM 512MB
- ✓ 5MP with LED Flash Light Front Digital Camera

Rs. 10900



SPLENDOR P10i

- ✓ Dual-Core 1.2Ghz
- ✓ Dual Sim Dual Standby
- ✓ 4.0" WVGA IPS Screen
- ✓ Android 4.2.2 Jelly Bean
- ✓ Rom 4GB / RAM 512MB
- ✓ 5MP with LED Flash Light Front Digital Camera

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SERVICE CENTERS

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Abdullah Haroon Road, Saddar.
021-32742221.

LAHORE

No. 51, First Floor,
Hussan Center, Hall Road.
042-37249737

RAWALPINDI

C1-C2, 2nd Floor,
Akhtar Plaza, Saddar.
051-5700009

SARGODHA

No. 10, 1st Floor,
Trust Plaza.
0346-5310041

PESHAWAR

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SAMSUNG

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