



The power to do more

BYTES

The fuss with 3G

For the last few days the newspapers and Social Medias are going on and on about 3G. That's because government just auctioned out the spectrum for 3G to the private operators from the 2100 band. All the GSM operators are now preparing to launch 3G in the shortest possible time. Most of them have already trained their manpower, equipped themselves with necessary hardware and software upgrades and is the last stage of commercial deployment. But as users, are we aware about 3G, its benefits and limitations? Here in today's issue of 'Bytes' we take a closer look in 3G from a user's point of view.

What is 3G?
Well, no matter however you try to google about 3G, all you are going to get is some weird definition saying 3G is third generation wireless data service plus some technical gibberish. Indeed it is true that 3G is third generation wireless service. What it means is that the service that we use now is second generation (2G). Down side of 2G is that it has much slower speed. Hence it can support audio only. But 3G generally has ten to twenty times' higher speed than 2G. Hence it opens scope for video call, group video chat and high speed data service. It was first launched nearly thirteen years back in Japan (yup, we were still using those Nokia's to light fire back then). In Bangladesh, 3G was first launched on trial basis at August 14, 2008 by Ericsson. That demonstration, called Alokito Bangladesh, was the first step towards 3G. With green signal from the government, BTRC took more than 3 years to formulate guidelines, develop expert manpower and appoint consultant to guide the whole tedious process. And after jumping all those hurdles, finally the day came: 12th October, 2012. PM's maiden video call via state owned Teletalk marked commercial launch of 3G operation in Bangladesh. For the geeks who want to know: the most popular form of 2G in Bangladesh is GSM and CDMA. When it comes to 3G, the most basic forms are UMTS, W-CDMA, EV-DO etc. Mehedi Zaman, an engineer of Huawei who was involved with the implementation of 3G in Teletalk and now working for Airtel's 3G project, shares: "In Bangladesh most operators

slabs i.e. 256Kbps, 512 kbps and so on up to 4Mbps. Just to let you know no major operators in the world practice this approach. No speed limit- that's what most operators go for. The speed does vary but only depending on the devices that you are using, network strength that you are getting, weather you are in etc. Grameenphone, the market shark, is probably going to follow this approach. At least that is what it indicates from the recently uploaded



FAQ in their webpage. A top level employee of Robi, requesting anonymity, said that Robi plans to launch 3.5G from the very beginning – enabling the subscribers to enjoy a 7.2 Mbps speed. Pretty good, right? Since all the operators plan to launch 3G+ technology, we can expect speed no below than 0.2Mbps (The primitive forms of 3G) as far as 14.4 Mbps. Be sure, if you are using 1 GB of mobile internet package in your smartphones then you're are doomed. With all these speed (and provided you're a YouTube fanatic like me) your 1GB is not going to last a week. Khaled Hafiz, a businessman and a 3G user of Mohakhali says: "Back then I had leftovers from my 1GB limit. Not

have access to live streaming of sports broadcasts, radio channels, multiplayer online games and TV programs. The sole 3G operator in BD currently has an internet TV service with many channels. They are categorized as Live TV and IPTV. Local channels where free at first now but now they charge 25p/min. Other channels require daily, weekly or monthly subscription for a nominal fee. Moreover this service does not require any internet package either

What not to expect
Back there we went on and on about what to expect. Now let's have a look on what not going to drop on your lap. For starters, this service is pricey. How price? Browsing through Teletalk and other South Asian operators packages what we can say is that video calls may be three to five times of a local call that you are paying now. In case of data packages, they are not that expensive. In fact what we noticed that generally after launch of 3G data services, the price of 2G data packages goes down. We estimate that 1GB price of internet should be around BDT. 250-300/-.
Handsets limitation is the most frustrating part of 3G. Stats show that only 10% handsets are 3G ready in Bangladesh. Even if one has 3G it does not mean s/he is going to get the glare of full speed. To be sure what standards your handset supports. Any device that does not support up to 21.2 Mbps is not going feel the full-fledged fury of 3G. Besides handset, coverage is going to be an issue too. If you are not residing in the capital or anywhere near the capital, then you have to wait for a while. Initially all the operators are going to launch it in

Infos	INDIA	NEPAL	SRILANKA
Demographic Info			
First Launched	11/12/2008	18/5/2007	16/08/2006
Providers	Most of the operators	NTC, NCELL	Dialog, Mobitel, Etisalat, Airtel and Hutch
Subscriber Base	8%= ~22 mil (Q2 2013)	2%= ~300K (Q4 2012)	13% = ~2.9 mil (Q4 2012)
Coverage	More than 90%	35-40%	more than 70%
Data Service			
downlink	0.4-21Mbps	1.8-14.4 Mbps	~7.2Mbps
uplink	0.2-8.8 Mbps	0.2-4.4 Mbps	~1.8 Mbps
Internet Packages	Prepaid/Postpaid	Prepaid/Postpaid	Prepaid/Postpaid
Unlimited internet	No	No	No
pay as you go price	10kb/Indian Rs 0.03/- (BDT 0.4/-)	100kb/Nepali Rs 0.01 (BDT 0.007/-)	1 Mb /Lankan Rs 0.50/- (BDT 0.29/-)
Pricing	Per 1 GB = Rs. 250/-	Per 1 GB= Rs.699/-	Per 1 GB= Rs. 240~300
VAS Services			
i. Internet Radio	Yes	Yes	Yes
ii. Internet TV	Yes	Yes	Yes
Beyond 3G	Yes, 4G LTE	Under Process	Yes, 4G LTE

are deploying 3.5G. It comes in the following forms: HSDPA, HSPA+, Dual carrier HSDPA etc and has higher uplink and downlink speed than 'Just 3G'; resulting phenomenal surfing experience."

What to expect
Since it is a new service in Bangladesh, many are not totally aware of what to expect from it. The good news is most of the rumors that were floating in ether is true. You are definitely getting high speed mobile broadband and video call for sure. Not only that, it also opens a varied scope of value added service (VAS) one can subscribe to. Internet TV and internet radio are most common of all. More over other services like video caller ring back tune, video messages etc might be there too. In short the VAS totally depends on the creativity of the operators. So now comes the question what might be the speed. Yes, I know this is the most anticipated part of 3G service. Ahmm.... Well it totally depends on how your operator is planning to market its data packages. Teletalk, the only state owned and lone provider of 3G, has data packets of various speed

anymore. Each month I now subscriber 2GB of 1 Mbps speed." have to ' But like all operators in the southern basin, all the operators are going to have separate internet packs just for 2G (existing network). One Now comes the part about video calling. Saying your boss you are sick when in fact you are 'chillin' with your friends is getting a lot tougher, my friend. With the video calling feature your handset can transmit live footage via the front camera of you phone to the other end. Depending on the network conditions the quality of the streaming might vary from perfect to grainy. But jokes aside, it is 'the' most premium feature in a 3G network. Thus get ready to be charged for it. And FYI you don't need to buy any internet package to originate a video call, so data are saved for now. When you see 3G or 3.5G or even H popping up beside the network sign of your mobile's screen, only then you are good to go for a video call. And same applies for the other end. Lastly come services like internet TVs, radios, online games. Unfortunately this totally depends on the operator and your smartphones OS. Depending on these two, you may

parts of Dhaka and adjacent areas only. But thanks to a BTRC directive for 3G, all the divisional cities are going to get 3G access with 9 months of the auction.
Another concern that you might not see coming is call congestion. Our GSM networks are nearly clogged now. And the growing number of 3G handsets in the market is going to make video calling a tad bit hard. BTRC has also expressed their concern regarding this issue, especially since none of the operators have purchased 15 MHz frequency. Though the top executives of the operators have dismissed this issue, we are still not so assured.
Epilogue
3G for mass (since Teletalk covers only a tiny fraction of the total subscriber base) is really going to be interesting. All who were clenching their fists for the tide of high speed, waiting days are almost over. Just hang on for a couple more months.

SHAHRIAR RAHMAN

HANDS-ON REVIEW

Samsung S4 ZOOM

Camera with a phone on it

Phones and cameras go together like our proverbial carbonated beverage and biriyani. Okay so that's not really a proverb but sounds good? Let's see if the S4 Zoom has a delicious mix.

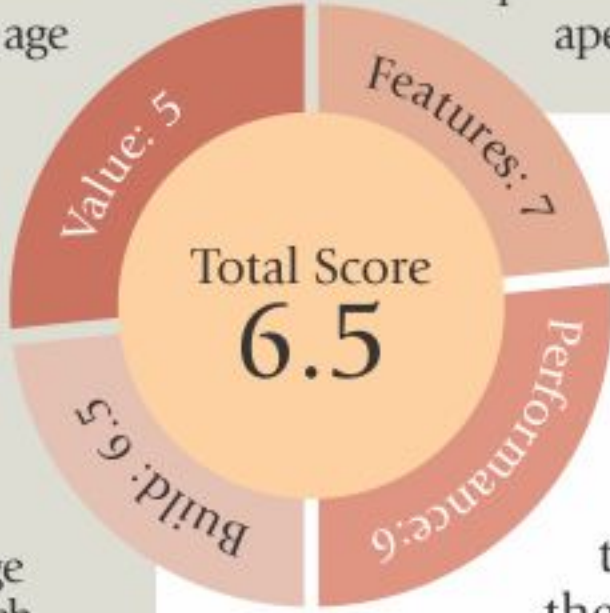
At first glance, it's bulky in an age when camera phones are all about being sleek. But this has 10x optical zoom lens equivalent to 24-240mm with image stabilization. That beats any smartphone that boasts digital zoom which as we know is just plain useless. There's a glass cover over the lens preventing accidental damage to lens cover. Hope it's also scratch proof.

Being a mini S4, it should be a capable phone but we're really here to see if it sets a bar as a camera as well. It features a 1/2.3" 16MP image sensor. Typical midrange point and click fare but terrific for a smartphone. You can select burst, panorama or macro for shooting that brightly colored flowerinsect we never see in real life. Sound & Shot records ambient sound with the photo. You can also make an animated GIF to create hilarious shots of friends nodding their heads as if they are syncing to Miley Cyrus. Ouch.

You can go almost full manual. Shutter speed, aperture, exposure



e and ISO, metering, sharpness, and so on. You use the ring around the lens to zoom and that's it. We were hoping it would offer options for controlling shutter speed and aperture at



Verdict

Great display, terrific c zoom capability for a smartphone. The bulky dimensions will deter a lot of people but if photography is your new thing, this is the perfect albeit a little difficult-fit-in-the-pocket phone. The S4 Zoom may be a little odd looking but then so was the Note when it came out and then became a runaway success.



least. Hopefully a firmware update will add it later.

The photos show a lot of fine detail captured. Compared to typical smartphones, the response time is fast between turning it on and snapping a picture. You get 1080p video recording at 30fps or 60fps at 720p the latter being great for smooth action scenes. You won't get this mode on most other phones.

What we didn't like was that hardware shutter button doesn't unlock the camera when the screen is locked. When screen is unlocked, you hold the camera button and it will activate after at least 2-3 seconds. It's faster just to hit the camera icon.

As a phone it has a dual

Specs

Display: Super AMOLED & gorilla glass 3: 4.3 inches
OS: Android 4.2.2 **CPU:** 1.5 GHZ Dual Core
ROM: 8 GB **RAM:** 1.5GB
Connectivity: LTE, HSUPA etc.
Camera: Primary 16MP & secondary 1.9MP. Has 1/2.33" sensor size, touch focus, 10x optical zoom (24-240mm)
Sensors: Accelerometer, gyro, proximity, compass
Price: Tk. 47,500/-

JUST IN



ASUS Zenbook UX32A Ultrabook

Asus Zenbook UX32A Ultrabook packs brilliant performance into thin, sturdy bodies. Weighing just 1.45Kg and artistically-crafted, this laptop has a spectacular metal finish with precision-etched concentric circles. ZENBOOK UX32A extends value with powerful graphics, offering Integrated Intel® HD Graphics 4000 in a HD 13.3-inch wide view panel. Under the hood, there's 3rd gen Intel i5 1.7 GHz processor, 6 GB DDR3 memory, 500GB hard drive plus 24GB SSD hybrid storage, HD audio with Bang & Olufsen ICEpower® speaker. The slim notebook also offers a wide range of ports- 3 USB 2.0, HDMI and VGA.

Price: Tk. 72,000/-



KGGuard branded TC401 CCTV Solutions

KGGuard branded TC401-4HW227A-500G 4 Channel DVR is available in Bangladesh now. It has 4X600TVL camera that can upload images to the cloud, supports H.264 Level Format, has remote viewing compatible with smartphone, tablet and PC and supports night vision. Moreover it is weatherproof. This intelligent CCTV solution also has motion detector, snap shot e-mail alert service and many more.

Price: Tk. 30,000/-

D-Link 3G Modem in Market

Computer Source Limited, country's leading ICT product and service distributor in the local market has introduced a 3G modem of D-Link, DWM-156 for the HSPA internet users. The D-link HSUPA 3.75G USB Adapter (3G modem) allows users with a computer/Laptop to connect to worldwide mobile broadband Operator. While connected, users can transfer data, stream media, and send SMS messages through internet. Its download speed is 7.2 Mbps and Upload Speed is 5.76 Mbps. It has a built-in MicroSD card reader slot which can be used for optional removable storage.

Price: Tk. 3,100/-



NEC VE 281 XG Projectors

NEC's VE281 XG projectors are now available in Bangladesh. With DMD reflection, this formal looking projector has 1024X768 resolutions, image size of 30-300 inch, color of 16.7 Millions, contrast ratio of 3000:1, built in speaker, remote controller etc. 3.3 kg weighing this projector comes with 1 year after sales service.

Price: Tk. 40,000/-



Windows Developer's Conference 2013 held in Dhaka

On Saturday, September 14, 2013 Microsoft organized Windows Developer's Conference 2013 at IDB Auditorium in spontaneous presence of 300 attendees jointly with Ministry of ICT and MCC Ltd. Keynote speeches were delivered by Microsoft's Technical Evangelist, Tanzim Saqib and the Secretary of Ministry of ICT over telephone. In this daylong capacity building conference, local app specialists SwagataPrateek, RahatYasirAnindo, Foyzul Karim and Sheikh Abdullah Al-Jubair conducted technical sessions around Windows Store and Windows Phone apps development. Audience was also presented with a demo on Windows 8.1 Preview running on a lucrative Surface RT device. The art of apps design, building apps using web technologies and how to harness cloud power into the apps were also covered in the conference