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Monetization of Content on Advanced Wireless Technologies

A Knowledgefaber Article on Mobile Advertising on Advanced Wireless Technologies

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12/02/2009

Summary

Mobile is the hottest medium of communication, information dissemination and exchange today and is expected to be the leading communication channel for the advertisers, revenue sources for the content providers and operators. With mobile broadband becoming a possibility because of the advent of the 3G/4G wireless technologies, it's logical that the next revolution will happen in the world of mobile internet and mobile advertising will be driven because of that. The mobile phone is a device that allows marketers for the very first time to achieve their actual objective: build and nurture one-on-one, personalized, two-way communication relationships.

This article focuses on mobile advertising. **Existing revenue generation methods and new revenue models are proposed and discussed.**

Objective/Scope

The document covers the various services that can be monetized to generate revenue streams for content providers, telcos, and others. Each service has been discussed covering how to generate revenues; their advantages & disadvantages, the current market conditions and forecasts for the services are also provided in some cases. This document has been developed keeping in mind to be technology independent, so that the content provider need not depend on any single technology.

Lets start with Mobile Internet

Internet on mobile or mobile web as they call is growing like wild-fire. We all know the Mobile web is exploding in popularity. The growth in Mobile broadband (WCDMA, HSPA, HSPA+) is just exponential. And the expectation is that the demand will continue to grow. Mobile broadband traffic will see a 40-fold increase in traffic up to 2017. The main drivers are advanced wireless technologies such as 3G and 4G, new internet user-behavior (who wants to be connected anytime, anywhere), Content consumption becoming mainly digitalized and devices that are becoming more suitable for internet experience.

Opera Mini, Opera's mobile browser, grew its monthly users by 11 percent to nearly 40 million users in October from 32 million users in August. In terms of page views, Opera Mini delivered 17.2 billion last month, a 238 percent annual increase, indicating that mobile web usage is growing fast.

Though some part of mobile advertising will still be done on non-mobile internet based platforms such as SMS (especially in developing countries) but Knowledgefaber believes that the explosive growth will come from the mobile internet and specifically mobile broadband related services.

Recent Developments

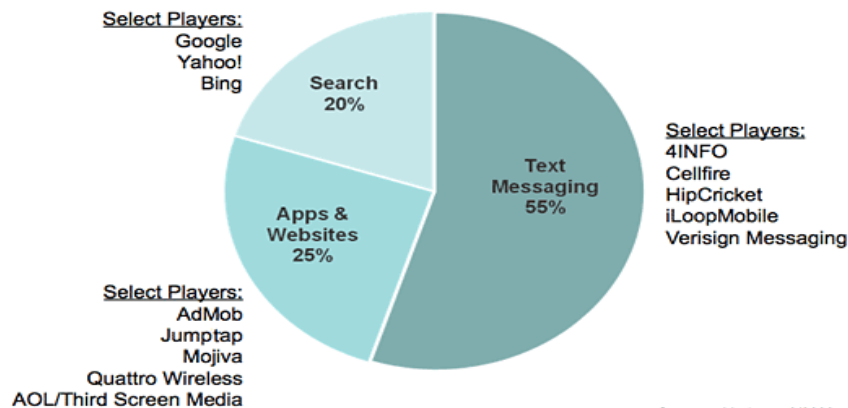
Google's buy of AdMob has served as a shot in the arm for the domain. Google's online focus has been on developing the display advertising side of the business **as was evident from earnings call, etc.** As it is evident that one of the largest mobile advertising network in the world, with a presence in 64 countries, Admob brings to Google immediate scale in display, and an entry into mobile advertising beyond search, particularly with iPhone and application based advertising units.

In anticipation of a shift in the trend, People Group owned VAS company "Mauj Mobile" partnered with Mobixell, a USA-based mobile advertising firm. Mobixell's Ad-It advertising solution will be used to insert ads into WAP portals, SMSs, ring-back-tones, missed-calls-alerts as well as in-game and ad-funded content. Also broadcasters such as Channel V and Star TV India are making plans to monetize mobile TV applications with branding and ads

Mobile Advertising

Mobile advertising is a sector of the advertising industry that is geared up to provide an edge over the traditional advertising media. The tremendous reach, the ability to categorize the audience and serve relevant ads, the measurability of the effectiveness are just a few of the advantages of this realm of advertising.

Mobile Advertising Spending, 2009 (est.)



Market Size

There industry feels that the growth in mobile advertising is going to overtake all other forms of advertising. **Knowledgefaber estimates that currently the mobile advertising market globally is expected to be around \$1.3-1.6 B and will grow to become a \$11-13 B by 2015.**

The drivers for growth would be:

- Evolved devices – As it appears now, smart phones are going to be a major driver. Within smartphones certain devices (and operating systems) would be popular. Admob reported that for them 50 per cent of ad requests from smartphones in October were from the Apple mobile OS. Symbian, which dominates the smartphone market in terms of platform, was only responsible for 25 per cent of requests, followed by Android with 11 per cent and BlackBerry with 7 per cent.
- Advanced Wireless Technologies such as 3G and 4G including LTE and Wimax are going to supply the underlying infrastructure and solve the biggest problem quoted by users today – Bandwidth.
- Data price wars (once voice price wars taper down). Operators might throw in free video calls if you can see few ads while connecting the call as an example.
- Call it local search or a more advanced version called “augmented reality” is going to be a major driver as well. Provided the location can be tracked accurately and effectively with GPS or other technologies (Watch out for augmented reality). With IMS and presence we could see companies using Pay Per Position on applications like city maps / directories. Also, marketing to people via alerts / coupons when they enter hot spots will be a hot application.

Revenue Streams for Mobile Advertisements

Revenue streams are the ways in which the service can be utilized to generate money for the various players in the mobile advertising industry. **The various streams identified by Knowledgefaber are discussed below:**

1. SMS / MMS based ads
2. Audio calls
3. Ringtone based ads
4. Callertune based ads
5. Video calls and Video applications
6. Video sharing ads like youtube
7. Gaming Ads – Single and multi player
8. Social networking based ads
9. Idle screen based Ads
10. Content based ads
11. Pay viewer based ads
12. Bluetooth and wifi services
13. Mobile search
14. Localised based Ads
15. Navigation based Ads
16. Gps based applications
17. Mobile blogging
18. Mobile Stocks trading
19. Mobile TV

SMS/MMS based Ads (Volumes but limitations)

Ads can be sent to the individual customers using the SMS/MMS. SMS based advertising has been popular for a long time now and is a cheap method of advertising. Also, group sms's can be sent to reach a wider audience. This method can also give negative feedback about the product as the customer becomes indifferent to these ads because of the intrusion into the privacy.

With the help of additional pictures and sounds embedded, the multimedia message is a better way than the plain text message in conveying the message in the ad. But the major issue is the limited options available for images and sounds that can be embedded.

Ads about various brands, products, etc can be sent to multiple customers with the text and multiple messages.

Advertising opportunities with audio calls (Not used)

Whenever an audio call is made, an audio ad can be played before the data path is activated. Though this is a very cheap way of placing ads, but has lot of disadvantages. The main disadvantage would be the intrusion of privacy of the customer and the customer gets frustrated when the ads are played every time a call has been made. Also, the advent of callertunes has made this service as the least selected route for mobile advertising.

Ringtones based Ads (has potential if companies can create their proprietary music)

Ringtones are frequently used by many customers and are provided by many mobile operators. This involves the playing of a monotonic/polyphonic/MP3 tune whenever an audio/video call is received by the customer. Because of the increased competition, most of these ringtones are provided for free by the mobile operators, mobile device manufacturers and are also available online for free. The major usage of this service is the film industry which releases these tunes for creating awareness and publicity for the film.

Now, this service can also be used by the companies who wish to create publicity events. For example, a company like Coca Cola can create youthful and catchy ringtones that are provided to the mobile operators who in turn provide these ringtones to the customers via SMS/MMS.

Callertunes based Ads (can grow as CRBT is a big VAS segment)

The callertunes that are played before the datapath is activated at the receiver end can be used for promotional activities. Now instead of the callertunes, ads can be placed by the mobile

operator. To avoid the issue of privacy, the default callertone can be replaced with the ad and later the selection of the callertone can change the callertone. The advantage is that when the user doesn't want to change the callertone, the advertisement can be played. Therefore there exists free publicity to the products/company. The major issue is the choice of the default callertone. The choice of the product (for example: cosmetics) may not be preferred by men as the callertone. Therefore popular brands that are applicable to everyone like Coke, Pepsi can be advertised using this methodology.

Video calls and video applications (expected growth area)

With the advent of 3G/4G technologies, video calls and other video applications like video conferencing, video streaming, etc. are possible. Therefore these streams provide an excellent revenue source for the content providers like google, yahoo, Bloomberg, etc.

When a video call is made in a 3G technology, the mobile handset displays the real time video transmission of the recipient when the call is successfully made. During the ringing process, the mobile operator can display video ads to the customer's mobile. These ads are provided to the mobile operator by the content provider. Now, the content provider can either select a pre-determined list of ads (that are to be displayed) or a dynamic list of ads to the mobile operator. Therefore the content provider is the main focus point for the ads and the mobile operator acts as a channel for providing the ads to the end customer.

Since the 3G mobiles have video streaming facilities, the video ads can be played even during the entire length of the call. Because no video streaming of the recipient call is required during an audio call, the video ads can be played during the entire duration of the call. The advantage is that there exists longer viewing time for the end customer and hence the revenues of the content providers will increase compared to a video call. Since the content provider plays a major role in selecting the ads that are to be displayed, the content provider controls the revenue stream.

Video ads using Video conferencing

Whenever multiple users get into a conference, video ads are displayed before the conference call is activated. Also, there exists time lag when a conference call is activated because of the synchronization between the multiple parties. Then, pleasant video ads can be displayed for all the users. Once again, the control of the ads rests with the content provider and hence has the additional opportunity to earn more revenues.

Video streaming

Also users can stream videos from one mobile to another mobile using P2P application which are supported in 3G. Then video ads can be displayed to the users during the video streaming initiation process. This segment can be expected to gather huge revenues because of the frequent file sharing done by many consumers. In all the above video applications, apart from video ads, audio and text ads can also be sent but the leverage of 3G is gained only when the video ads are transmitted.

Video sharing like youtube, google video etc

When a 3G/4G user uses the internet facility through his/her mobile phone, he/she can access the youtube or other commonly used online sharing websites. Now content providers can share ads through such video sharing websites and provide this youtube content for sharing. Also, before any video is played in the mobile, video ads can be transmitted to the mobile customer. The mobile customer views this ad for a few seconds before the actual video is played. Since most content providers have easy access to video sharing websites (google – youtube, google videos) this channel involves least cost to the content providers.

Also mobile customers can be paid if they share any video ads to other customers. Especially, if there are some exceptional ads that captivate the user then there is high probability that these ads are shared with other users also (viral marketing). In that scenario, sharing these ads can also earn some minimal amount to the customers but achieve the necessary publicity.

Gaming Ads – Single and multiplayer games

High resolution and high end games can be played in 3G/4G enabled mobile devices. There exist mainly single player games in most of the mobile devices. Multiplayer games are now becoming a reality.

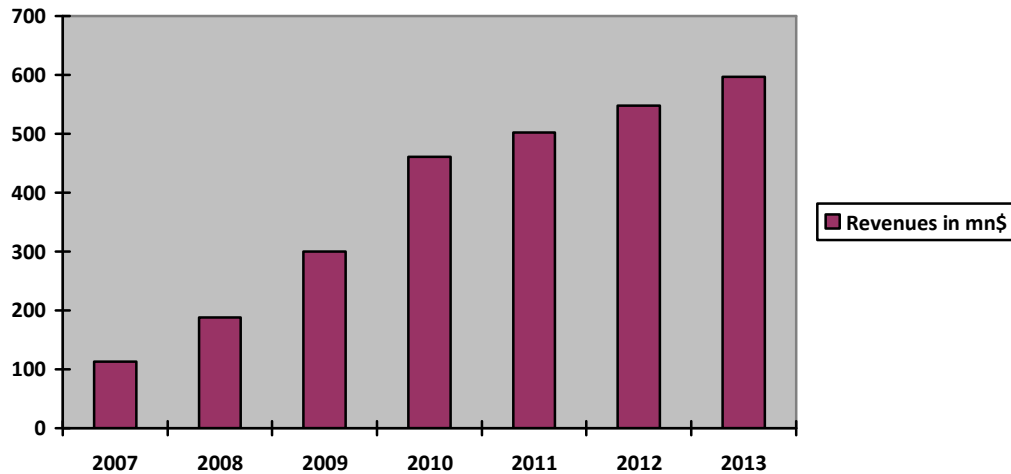
Single player games

Just before the games are selected for play in a mobile device, most mobiles display ads about the platform being used like (Java powered games etc.). Now during this initialization time, ads can be displayed. But these ads are generally static ads and are present in the mobile device at the factory itself. Therefore the mobile manufacturers are the main focus point for this revenue generation.

Multiplayer games

For multiplayer games, the users are connected across the internet. Therefore whenever the user connects to the internet for the games, the content provider can display video ads to the mobile user. Also, the content provider can send multimedia ads to the user about other online gaming websites where the user needs to click the url sent to his mobile. Then the user can access the ad and hence can generate revenue to the content provider.

In 2007, revenues generated by Java and BREW mobile games reached RMB 777 million (\$113.3 million). Java/BREW mobile game revenues are expected to maintain their high growth momentum and reach RMB 1.29 billion (\$188.1 million) in 2008 and RMB 3.16 billion (\$460.77 million) in 2010.



The global video gaming market is expected to grow at a CAGR of 8.9% over the period 2008-2013 to reach \$76.1bn in 2013. In the future the market will be driven primarily by online and mobile gaming formats, which in turn are being driven by increasing internet, broadband and Mobile penetrations.

In terms of game categories, which include console and hand-held, online, wireless, and PC games, in the U.S. PwC expects wireless to grow the fastest -- 28.6% -- ballooning from a \$646 million market last year to \$2.3 billion by 2010.

Social networking Ads

Social networking websites like twitter, facebook etc are the latest happenings and the time spent on internet for social networking sites is 17% (Aug 2009). Therefore this segment offers huge sources of revenue for the content providers and mobile operators. The major advantage

would be displaying relevant ads like film ads, ads about youth products like apparels, cosmetics, electronic gadgets etc that can be displayed on the facebook page (similar to the google search page). The web page can be modified to have a permanent space for the video ads & image ads. The other way includes subscription to RSS feeds where the user would be getting continuous updates about the products/brands/companies etc on his mobile. Visiongain believes that revenue from mobile social networking and user generated content will grow to around \$60 billion in 2012. Social networking is going mobile and is poised for spectacular growth over the next five years, mobile social communities will be attracting members in swarms, more than tripling in size from 50 million to 174 million by 2011. For the moment, MySpace and Facebook are hot. News Corp. paid \$580 million last year for MySpace as part of a \$1.3 billion Internet acquisition spree. Facebook just received an additional \$25 million in venture capital. According to the latest forecasts, marketers will pony up an estimated \$280M in the USA to advertise.

Idle screen Ads

This innovative feature involves the display of Ads when the user's mobile is in idle mode. With the advent of the 3G/4G, there exist idle mode scenarios, where the mobile operator can sense the usage of the mobile device.

Content Provider based Ads

This involves the content provider transmitting Ads whenever the mobile is in idle mode. Since the mobile is kept in an idle for a fairly sufficient time in a day, there exists a large time window where the ads can be displayed on the user's mobile.

The disadvantage is that the efficiency of the ads decreases because the user might not be viewing the ads and the content provider cannot rely on this model. So, this model can be used for a per unit time basis instead of per ad basis.

Device based Ads

This can be done with mobiles like Apple's iphone where particular software is placed inside the mobile which is registered with the company's application server whenever the mobile is in idle mode. Since 3G/4G is an IP convergence network, the Apple application server can be connected to the mobile network provider. Then the device manufacturer can send ads to the mobile device in the idle mode.

Content based Ads

Content based Ads are the best way a content provider can leverage upon its strengths of providing relevant information. Whenever the user searches, visits any websites, shares particular videos etc, the content provider can display similar video ads to the user's search content.

The selection of the relevant ads relies upon the content provider's skills and hence the content providers can use this model for stable revenues. The other advantage is that these ads can be of various formats like audio, video, image and text. Therefore it offers a competitive advantage to the content provider compared to industry peers.

The size of the market was EUR 27.4 billion in 2006 and the market for display advertising on portals is large and growing. Between 2006 and 2007, US spending on portal display ads grew by 16% to €4.2 billion, while in Western Europe it increased by 18% to €1.5 billion¹².

Country	Revenues	Growth rate
US	4.2 B Euros	16%
Europe	1.5 B Euros	18%

Pay Viewer Ads

This involves paying the end customer marginal amount every ad the viewer agreed to view.

This has the advantage of mass communication as multiple users can be contacted through this model. Therefore the content provider can send video, image ads and click the relevant online websites through the mobile. This is possible with 3G/4G technology as high bandwidth is required for this service.

Bluetooth and Wifi services

This relates to the transmission of the Ads from the nearest network point to the mobile user using Bluetooth and Wifi services. Especially these services when available at airports lounge, cafe shops etc where the user has ample free time to view the ads. Since Bluetooth has slower data rate image and multimedia ads can be sent through this service whereas Wifi can send video ads as well. These ads use push methodology where the user needs to click the URL sent to his mobile. But this alternate way of transmission helps in getting additional revenues to the content providers.

Mobile search

The Mobile search based ads is going to remain as the major category within overall mobile advertising market. This is the best application model where the core competency of the content provider is utilized. Content providers can help the mobile users in retrieving information on the web using mobile supported search engines. Now, with the search results relevant text, image ads and video ads can be displayed. Now this is a source of revenue to the content providers. Within this local search is going to be the biggest category as compared to on-portal searches or web searches on mobile.

Localised search based Ads - This relates to relevant ads to a particular location/country Ads when a user searches for information. For example Ads about the local grocery stores, departmental stores can be displayed first when the search request is from the same locality. Therefore the content provider seeks additional fees from the clients because of the specialized service for localized services. Also the mobile user can get more localized Ads rather than generalized Ads. This benefits both the local companies and the content providers because of the win-win situation to both of them.

The local online advertising market is also rapidly growing; for example, in the US, it is estimated to have grown by 26% to reach €6 billion in 2007. Online directory and local search services generated €2.1 billion in the US, while the European market for the same was €2.04 billion in 2007. Expected CAGR till 2014:15%

Navigation search based Ads - When the user is in a roaming mode, then the user can still get both the localized Ads and the roaming location Ads because of the 3G/4G technology's soft switchover techniques. Therefore the navigation based Ads are an extension to the localized Ads when the user is in roaming status.

GPS based Ads

Whenever the user uses the GPS technology to locate destinations, the content provider provides relevant ads of nearest restaurants, repair centers, refueling stations etc. Text and image ads are sent to the mobile user.

Mobile Blogging

There are applications like Wordpress2 for iPhone Mobile Blogging. Similar text applications can be made and publishing can be monetized and the blogs may be imbedded with text advertisements to generate revenue.

Mobile stock trading

Certain firms provide customized features for iPhone3G users including a mobile stock trading application to enhance user experience. They form alliances with banks and this way every transaction can be monetized. E.g. Mobile Money Ventures LLC (MMV), a joint venture of Citi (NYSE: C) and SK telecom (NYSE:SKM), today announced that it is providing Citibank Hong Kong with a new service platform that supports mobile banking and mobile stock trading

Mobile TV

The mobile TV market is a dynamically evolving convergence of the media, mobile communications, and consumer electronics industries. It consists of a global ecosystem of content providers, service providers and retailers, network operators, and network and device equipment vendors. The mobile TV ecosystem collectively provides an end-to-end, information and entertainment (“infotainment”) service over wireless networks to end-users in mobile environments.

Customers are increasingly watching a variety of programmes on their mobiles, such as drama programs, news and sport, for a longer period of time. Arrival of DVB-H broadcast mobile TV networks is further a favourable development. Unlike 3G video offerings, Mobile TV uses a portion of UHF spectrum that's different from the one used for standard over-the-air TV broadcasts.

Korean automotive MoTV market penetration exceeded 46% of the total addressable (covered) number of Korean passenger car registrations. Japan and China have shown disappointing results. Europe is also stagnant. Brazilian Mobile TV market has started to get flooded by automotive ISDB-T STBs.

Successful deployment of premium services like mobile TV requires integration of flexible licensing, rights management, and device authentication solutions. Some monetization ways could be dynamically inserting pre/post roll ads, overlays, contextual text ads, semantic text ads,

etc. Ads on Mobile TV will have high user acceptance like normal cable. **Some Mobile TV ads could be like:**

Companion ad - a banner ad that displays related content concurrently with a video ad

Cursor chase - ads that chase after the viewer's cursor as it glides across the screen

Expanding ad - expands in size and direction upon user interaction

Floating ad - moves across the user's screen or floats above the content

Free-form expanding - features multiple floating elements placed anywhere on the page that expand like an expanding when viewers interact with them

In-page ads - appear on a web page, outside of the video player or window

In-stream ads -pre-, mid-, or postroll videos that appear in the video player or window

Interactive video - includes polls, games, or other interactive options in the video ad

Interstitial - advertising placed in between the origin website and the destination website, either physically or in time.

Locked floating - floating ad "locks" into place on the page and will not move

Well defined video properties with targeted content can work with sponsors on established video ad networks; the ideal market for these platforms remains effectively monetizable. Industry experts believe that mobile TV will capture bulk of audiovisual advertising on mobile devices. Mobile phone users are ready for Mobile TV services with the potential market size estimate to be \$360 million in 2008. In emerging economies Mobile TV could reach a penetration level of more than 1/20th of the total mobile subscriber base immediately. One figure says, currently the Mobile TV subscribers (who have used Mobile TV just once to view for a few minutes) would be around 70,000+ subscribers on 2.5G networks.

As per another industry estimates, Search, In-Game and In-Application form of advertising has the maximum potential as they are non-intrusive and pull based and hence there are no privacy issues in it.

Recent Related Developments

Local language mobile advertising - South East Asian countries such as Thailand and Indonesia had shown more interest in local language advertising, than those in India.

Mobile TV conditional access system & Mobile TV viewership measurement presents opportunity - The Conditional Access System explains the applications which charge the end customers with usage fees. This is the revenue stream especially once the technology becomes mature. This section encompasses various applications like social networking, gaming, stock trading etc. The TRP measurement system explains about the methodology, in which the process of TRP ratings generation, measurement for the mobile content is in discussed. This will provide inputs to the content providers in selecting the ads/content that needs to be sent to the consumer. Nagravision, a Kudelski Group company announced today that Russian carrier Dominanta's mobile TV services will be protected by the Nagra Mobile TV conditional access system. Digital rights management technology developer SafeNet announced that it has partnered with Irdeto, a provider of content security for digital TV, IPTV and mobile, to offer security technology for mobile TV platforms that combines conditional access with digital rights management.

With mobile broadcast TV consumption on the rise - by 2014 there will be over 300 million people worldwide watching TV on their mobile phones. The original TRP measurement methods like calculating gross rating points (GRP) and multiplying with audience will not work for mobile TV. GPS can be used to an extent in measuring in terms of real time measurement. Ubiquitous GPS can also help in achieving minute-to-minute insight about viewers. Companies like Rentrak have defined this category of measurement across multiple screens. US company Telphalia provides the first audience measurement panel for mobile television. FLO TV, a subsidiary of Qualcomm along with Rentrak has started mobile TV viewing measurement and reporting. Nielsen has a program called Anytime Anywhere Media Measurement focussed on developing methodologies for tracking mobile TV viewership measurement. Mobile TV viewership management is still in a nascent phase.

Conclusion

Given the dwindling ARPUs of Mobile Operators, it is imperative that the scope for revenue expansion has to be through innovative channels and one of which is certainly going to be mobile advertising. Innovations both in terms of business models and products, from all stake holders in the value chain such as operators, brands, advertisers, mobile application providers, ad network, media agencies would be the key. For mobile advertising to succeed a more collaborative approach is required. One recommendation for publishers is that they should establish business model by working with ad networks. Networks can maximize revenue from mobile traffic.

One of the prominent issues in the mobile advertising debate has been the concern of pushing unsolicited content to a consumer's mobile phone, which is seen as the most personalized device. To overcome this issue, creation of innovative scenarios whereby the consumer is in control of the content they receive on their mobile and begin to interact with the brands they have a relationship with, would be a success factor. A typical scenario could be when a customer bought 12 bottles of anti-dandruff shampoo from P&G, he gets a message that he has been upgraded to a premium customer and get 2 bottles free which he can also pass on to a friend or family.

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