

Ref:

Court order dated 4th July, 2013 in WP No.958-2013-

{Bytes for All Vs Federation of Pakistan}

Meeting with Bytes for All, Academia and Industry on technical solution for blocking of URLs link (https with special emphasis on https) at PTA HQs Islamabad, 22nd July, 2013

1. Background of the Meeting:

a) The Honorable High Court Lahore, Lahore vide order dated 4th July, 2013 in case titled Bytes for all Vs. FoP and etc., directed PTA and petitioner to conduct a meeting to explore technical solutions/possibilities for blocking and unblocking of URLs links (*http* with special emphasis of *https*). Pursuant to the court order and availability of the technical expert(s) on behalf of the petitioner, as communicated vide email dated 16th July, 2013, a meeting was scheduled for 22nd July, 2013 at 1330 at PTA HQs Auditorium Islamabad (copy of correspondence on email is attached as **Annex "A"**).

b) Educational institutions and stakeholder(s) were invited by PTA along with the petitioner's technical experts. Representatives of the following were invited for the meeting :

i.	Bytes for All	Petitioner
ii.	Ministry of Information Technology (MoIT)	Line Ministry
iii.	ISPAK	ISP Operators
iv.	Pakistan Telecommunication Company Ltd (PTCL)	Operator
v.	Trans-world Associates (TWA)	Operator
vi.	Lahore University of Management Sciences (LUMS)	Academia
vii.	Nat University of Science & Tech (NUST)	Academia
viii.	University of Engineering & Tech Taxila (UET Taxila)	Academia
ix.	Center for Advanced Research in Engineering(CARE)	Academia
x.	COMSATS	Academia
xi.	Inst. Of Space Tech (IST)	Academia
xii.	Mohammad Ali Jinnah University (MAJU)	Academia

c) Invitees who could make to participate in the meeting were only from Bytes for All (No foreign technical expert was in the team of Bytes for all), PTA, PTCL, TWA, CARE and ISPAK representatives (attendance sheet is attached as **Annex-"B"**).

2. Proceedings:

a) PTA welcomed all the participants and started the meeting with recitation of Holy Quran.

b) As per presentation, specific statements regarding the HTTP and HTTPs were displayed before the technical experts/ participants for discussion and comments.

2.1 PTA's statements on HTTP Management:

- i) Several operators within Pakistan have systems in place which are capable of restricting limited number of URIs viewership.
- ii) Their capability vary from operator-to-operator with time due to upgrades.
- iii) In all instances it requires **manual** feeding of blasphemy URIs which is very

2.1.1 Technical Experts Feedback on HTTP statements:

Sr.	Tech Experts	Statement # i	Statement #ii	Statement #iii	Statement #iv
1	PTCL	Agreed	Agreed	Agreed	Agreed
2	TWA	Agreed	Agreed	Agreed	Agreed
3	ISPAK	Agreed	Agreed	Agreed	Agreed
4	NUST	-*	-	-	-
5	LUMS	-*	-	-	-
6	UET TAXILA	-*	-	-	-
7	CARE	Agreed	Agreed	Agreed	Agreed, as long as URIs are identified.
8	COMSATS	-*	-	-	-
9	MAJU	-*	-	-	-
10	IST	-*	-	-	-
11	MOIT	Agreed as per information provided by Bandwidth operators	Agreed	Agreed	Agreed

(*Technical Experts were absent)

2.2 PTA's statements HTTPs Management:

- 1) No system within Pakistan has been deployed which is capable of blocking viewership of “innocence of Muslims” video on HTTPS without disrupting other HTTPS traffic.
- 2) Some operator(s) in Pakistan claim capability to stop viewership of “innocence of Muslims” video on HTTPS by shutting **ENTIRE** Youtube HTTPS **domain**.
 - a) However, this situation is browser and vendor dependent.
 - b) Depending on Domain owner policy changes, HTTPS blocking **may** not be possible in some instances.
 - c) Such HTTPS management on FACEBOOK & TWITTER would bring entire websites down.

2.2.1 Technical Experts Feedback on HTTPS statements:

Sr.	Tech Experts	Statement #1	Statement #2	Statement#2 (a)	Statement# 2(b)	Statement #2(c)
1	PTCL	Agreed,	Agreed, but cannot guarantee	Agreed	Agreed	Agreed
2	TWA	Agreed	Agreed, TWA cannot do this	Agreed	Agreed	Agreed
3	ISPAK	Agreed	Agreed	Agreed	Agreed	Agreed
4	NUST	-*	-	-	-	-
5	LUMS	-*	-	-	-	-
6	UET TAXILA	-*	-	-	-	-
7	CARE	Agreed	Agreed	Agreed	Agreed	Agreed
8	COMSATS	-*	-	-	-	-
9	MAJU	-*	-	-	-	-
10	IST	-*	-	-	-	-
11	MOIT	Agreed	Agreed	No Comments	Agreed	Agreed

*(Technical Experts were absent)

3. Discussions During the Proceedings:

- i) The meeting was conducted in an interactive mode, the technical experts on behalf of the Bytes for all intermittently raised questions with the PTA. Some of their questions were responded in between, however, the questions related to non technical aspects were avoided in most instances as the same were not included in the agenda of the meeting.
- ii) The petitioner stated that almost 98% of Pakistan's internet traffic passes through the Pakistan Internet Exchange (PIE) owned by PTCL and if filters are placed at PIE the solution shall automatically be passed to all ISPs. On this issue, TWA responded that their traffic is totally independent of PTCL. ISPAK stated that ISPs have different blocking capacity with a minimum capability about 15 to 20 thousands URLs. Very small ISPs don't have filtering arrangements. ISPAK further denied the claim that 98% traffic of Pakistan is passing through the PIE. CARE added that HTTP blocking can be 100% successful if all the traffic entering in Pakistan is converged and synchronized at one point. CARE added that the blocking has to be implemented at Service point level.
- iii) 'Bytes for all' asked the technical experts that why automatic blocking is not

no database provider exists today who have prepared such a list commercially, secondly PTCL added that the definitions of blasphemy are not consistent worldwide which was agreed by all technical experts.

- iv) Bytes for all asked a non-technical question about the arrangements with facebook, which was responded by MoIT.
- v) In response to a query from Bytes for all with regard to blocking of www.vimeo.com website, PTA stated that the [https](https://) URIs could have not been blocked from within Pakistan. PTA further stated that none of the URIs can be blocked on HTTPs by any Pakistani operator. Petitioner argued that they have snapshots to prove otherwise. PTA demanded those snapshots. The petitioner responded that the same shall be submitted in the Hon'ble Lahore High court. Bytes for all recorded their descent on PTA statement i.e., 'No system within Pakistan has been deployed which is capable of blocking viewership of "innocence of Muslims" video on Youtube HTTPs without disrupting other HTTPs traffic'.
- vi) Bytes for all asked whether MIMP (Man In Middle Proxy) is being used by PTCL or not. PTCL answered 'No'. Dr. Zaheer (CARE) was asked to respond on this issue. Dr. Zaheer said that even if MIMP is used, Google doesn't allow to access, but in some other browsers even if it is possible it gives warning creating panic among users, especially among those who use trusted sites for business and financial matters. Dr. Zaheer further added that MIMP cannot be widely used as no such system exist which could block HTTPs URIs on a country wide level of this size. While discussing about Https blocking CARE added that if IP is blocked, whole site shall be blocked.
- vii) Dr. Zaheer added that keyword blocking suggestion is impossible to apply on the huge traffic of Pakistan.

4. Questions session from Bytes for All:

- i. Referring again to blocking of www.vimeo.com Petitioner asked that if there is no way of blocking URIs as suggested by PTA and operators then how it was blocked? The same is responded as mentioned at para 3(v), supra.
- ii. Bytes for all stated that PTA has changed its tactics three times regarding appearance of the message by PTCL's web blocking system when a URL is blocked. PTA objected to the word 'tactics' and explained that PTA tried to organize an approved format to be displayed by all major Pakistani ISPs to indicate that blocking has taken place in Pakistan.
- iii. Bytes for all implicated that in order to protect the interest of the users PTA is not playing its legal role. In reply it was clarified that decision / policy of blocking and unblocking of any website does not lie within its mandate under the Pakistan Telecommunication (Re-organization) Act, 1996. It was further informed that upon receipt of direction of the Federal Government for blocking / unblocking of any site, PTA implements such decision through the Telecom Service Providers. TWA responded to 'Bytes for all' and informed that PTA is not the right forum for such questions and the same may be asked from MoIT.

5 Conclusion

Based on the afore-mentioned discussion and deliberations on technicalities with regard to URIs (HTTP & HTTPs) web blocking the following is concluded:

- i) There are two cable landing station operators in Pakistan i.e. PTCL & TWA. Their traffic does not converge at one single point. Therefore, all blocking efforts have to be carried out by both the operators respectively.
- ii) The two Landing station operators and all major Internet Service Providers are

- iii) Currently, automated blocking of Blasphemy content on Internet is not possible:
 - a) Technical Experts stated that automatic blocking is not possible for blasphemy as no vendor exists today who have prepared such a list commercially for automated use;
 - b) Secondly all experts agreed that definitions of blasphemy are not consistent worldwide.
- iv) No system within Pakistan has been deployed which is capable of blocking viewership of “innocence of Muslims” video on HTTPS without disrupting other HTTPs traffic.
- v) If IPs are blocked the whole site is blocked. In case of unblocking of IPs e.g. Youtube, the blocking of HTTP URIs shall be done manually subject to identification of URIs and within the constraints of the system & human resource at landing stations. Keeping in view the system constraint and large numbers of blasphemous URIs there will be instances where the video “Innocence of Muslims” and other blasphemous content will be available on Youtube. There is a huge possibility of availability of new such links on daily basis.

6 Meeting Closure:

Meeting was closed with vote of thanks to and from the participants.

Enclosures:

- i. Emails Correspondence Annex-A
- ii. Attendance sheet Annex-B
- iii. Presentation Annex-C

Note: As a matter of record it is pertinent to note down here that during the entire meeting/ discussion, the attitude and the conduct of the legal counsel & Chairman of Bytes for All was not proper, even they did not avoid to use indecent remarks. However, despite the aforesaid, PTA in respectful compliance of the court order continued the meeting professionally. In addition it is also pointed out that ‘Bytes of All’ team raised various objections/ observations, most of them non-technical, however did not suggest any technical solution on the subject. .