Bitstream services and saturations

30 June 2012 YtD

The DSLAM saturation is an issue which has become particularly important in recent years in Italy as well as in other countries. As a consequence, it has been a matter which the Supervisory Board deeply analyzed.

The phase-out of the production of the ATM equipments brought Telecom Italia to progressively switch to IP/Ethernet equipments. The same experience is being faced by the main telecommunications Operators worldwide.

The implications for the platform maintenance activities as well as the significant growth in the bandwidth consumption by the end users caused since 2010 significant problems in terms of switches saturated and consequently closed to the sale of xDSL services.

Following a number of complaints by the alternative Operators, most of which are not yet equipped with IP / Ethernet platform, the Supervisory Board opened a proceedings on this issue and implemented a strict monitoring system status.

This document reports the situation of the DSLAM saturation updated at the end of June 2012.

Asymmetric bitstream services

The monitoring activity conducted by the Supervisory Board in the first half of the year highlighted the substantial increase in the number of exchanges closed to marketing among those served by ATM DSLAM and miniDSLAM. Telecom Italia established a pre-warning mechanism able to detect the forthcoming saturation of the exchanges (so-called "amber light"). Such a mechanism is available on Telecom Italia Wholesale Portal, and displays those exchanges which might become saturated within three months if no interventions are carried out.

Figure 1 shows the number of exchanges equipped with ATM DSLAM providing 7 Mbit/s ADSL services at risk of saturation (the so called "exchanges in amber light", see red columns) over the first half of 2012. The yellow columns indicates the number of exchanges, among those of the previous group, not served yet by IP/Ethernet DSLAM too, in addition to the ATM DSLAM.

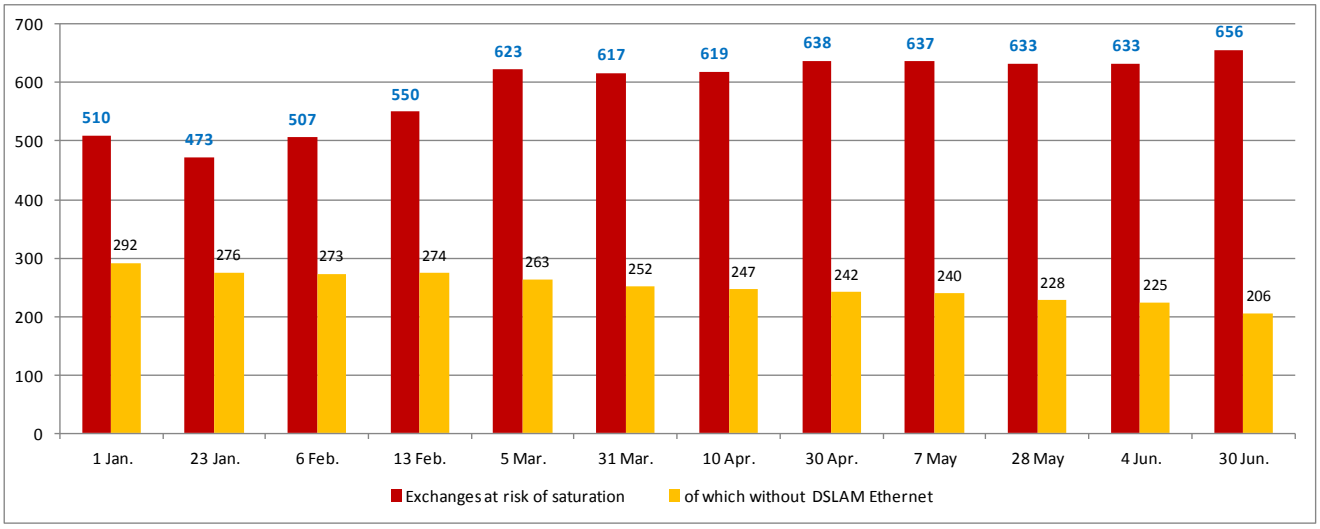

Figure 1 – Exchanges at risk of saturation (amber light) – I Half 2012 YtD (7 Mbit/s ATM DSLAM)

The number of exchanges in "amber light" status increased till it reached 656 on 30th June 2012, an increase of 29% during the first six months of the year. Only 206 out of a total of 656 of the exchanges (31%) are not equipped with IP/Ethernet DSLAM. If we consider only this group, the number from the beginning of the year decreased.

Figure 2 reports on the red columns the number of the exchanges providing 7 Mbit/s ADSL services saturated during the first half of 2012. The yellow columns indicates the number of exchanges, among those of the previous group, not served also by IP/Ethernet DSLAM, in addition to the ATM DSLAM.

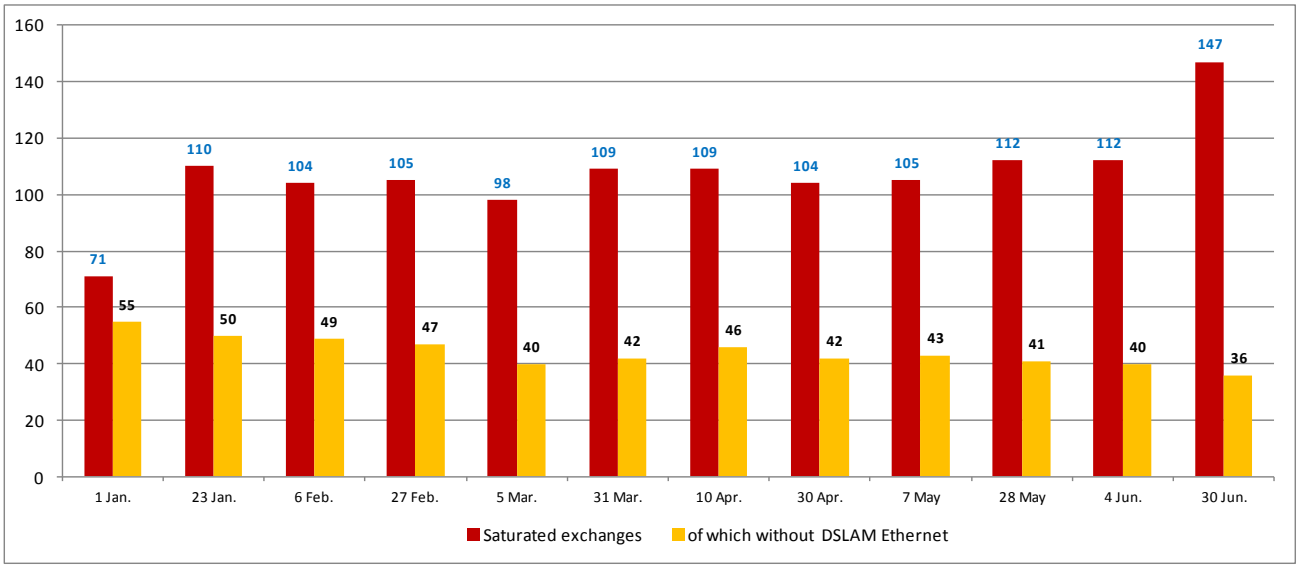

Figura 2 – Saturated exchanges – I Half 2012 YtD (7 Mbit/s ATM DSLAM)

The graph highlights the sturdy increase of the number of saturated exchanges (+107%) which during the first half 2012 grow from 71 at 1st January 2012 to 147 at 30th June 2012. It is worthwhile to note the high percentage (75,5%) of saturated exchanges equipped with ATM DSLAM, but open to marketing thanks to the availability of IP/Ethernet DSLAM. It means that the exchanges totally closed to marketing of asymmetric bitstream services at 30th June 2012 amount to 40 out of 147 (27,2%). This number takes into account also the 4 exchanges saturated both on ATM DSLAM and on Ethernet DSLAM too.

Symmetric bitstream services

As far as the symmetric bitstream service is concerned, Telecom Italia confirmed for 2012 the decision taken in the previous years, that is that targeted desaturation interventions will be implemented only for those exchanges where a great Retail or Wholesale commercial interest has been ascertained.

This choice made not it possible to define an action plan by the end of 2011, thus deferring the decisions on the operations to be adopted to 2012, following the trend of commercial demand.

Conclusions

The phase-out of the ATM technology causes the constant and strong increase of the number of exchanges equipped with ATM DSLAM saturated. In these exchanges it is possible to market ADSL services only if an IP/Ethernet DSLAM is available.

It is therefore evident the necessity and urgency that for xDSL services a migration plan from the ATM technology to the Ethernet one is defined by the Operators. If such a plan will not be defined, the troubles encountered so far for the delivery of new xDSL lines will increase strongly over the next months.