PARITÀ DI ACCESSO
Organo di Vigilanza

TELECOM ITALIA

Newsletter
To Deepen Specific Topics

"Progress of the desaturation plan for ATM DSLAMs"

Introduction

Telecom Italia launched an action plan for the desaturation of the ATM switches which provide 7 Mbit/s asymmetrical bitstream services. This plan, published in December 2010, provides a total of 1,882 interventions for DSLAM expansion.

The planned interventions aim at keeping the number of saturated switches served with 7 Mbit/s ATM DSLAM at year end under 100 units, with a percentage of customer base served at saturated exchanges below 1%.

As for the exchanges served by Minidslam, it has not been set up a comprehensive plan of desaturation. According to Telecom Italia, specific interventions will be implemented where agreements with local governments will make it convenient.

Exchanges served by 7 Mbit/s ATM DSLAM

The following chart (Fig. 1) considers the exchanges served by ATM DSLAMs for 7 Mbit/s asymmetric bitstream services, and shows the number of the saturated exchanges (red line) and the number of exchanges at risk of saturation (the so called "amber light" status, see yellow line) in the period January - June 2011.

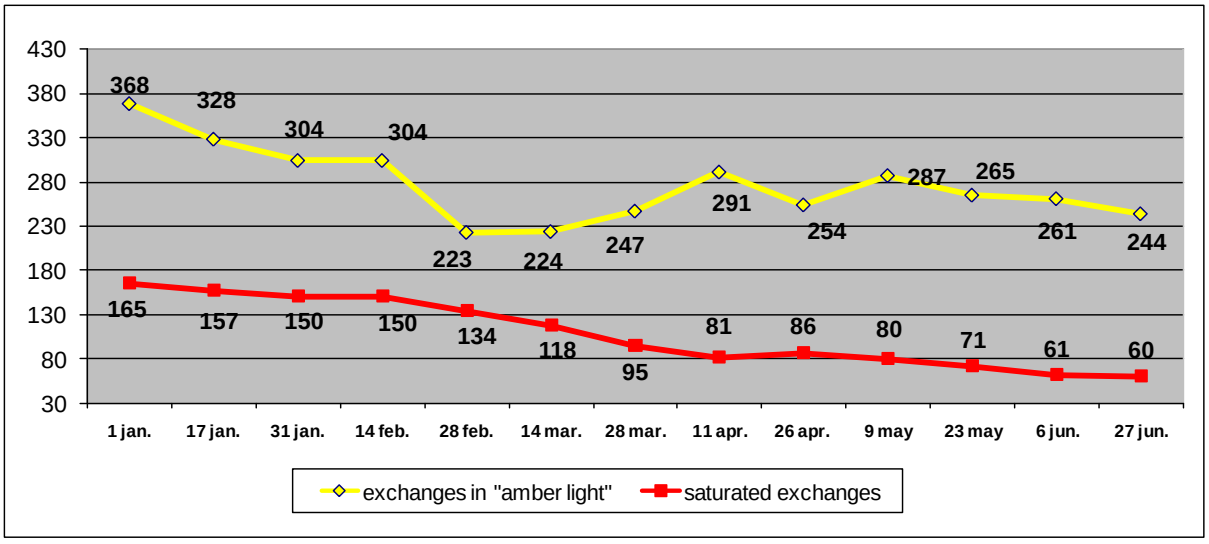

Fig. 1 – Trend of the saturated exchanges and the exchanges at risk of saturation (ATM DSLAMs for 7 Mbit/s services)

The chart shows that the number of exchanges in "amber light" status decreased until the second half of February and, immediately after an increase in the period March-April, started to dwindle in the following months till a value of 244 units. In the first half of 2011 it was therefore recorded an overall decline of 33.7% in the number of exchanges at risk of saturation.

During the second quarter of 2011 the number of saturated exchanges served by DSLAM 7 Mbit/s decreased: this trend brought the stock at the end of June to 60 units (-63.6% compared to the value recorded at beginning of the year) and below the values forecasted in the technical plans of Telecom Italia for the second quarter (100 units). The number of desaturation interventions implemented by Telecom Italia during the first half of the year is about 45% higher than the planned figure contained in the Technical Plan for the Quality of the Fixed Access Network (2010 Annual Plan), published in December 2010. The following chart (Fig. 2) shows a comparison between the expansion interventions planned for 2011 (green) and the actual figures (in orange).

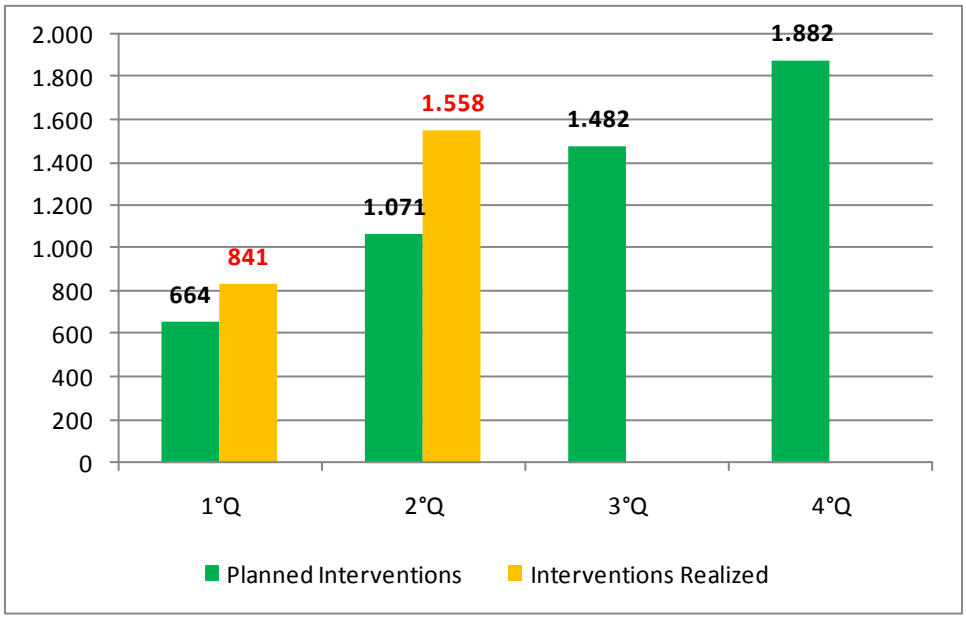

Fig. 2 – Desaturation Interventions in 2011 on exchanges served by 7 Mbit/s DSLAMs

Exchanges served by ATM MiniDSLAMs

The following chart examines the exchanges served by miniDSLAMs and shows the number of the saturated exchanges (red line) and the number of exchanges at risk of saturation (yellow line) in the period January - June 2011.

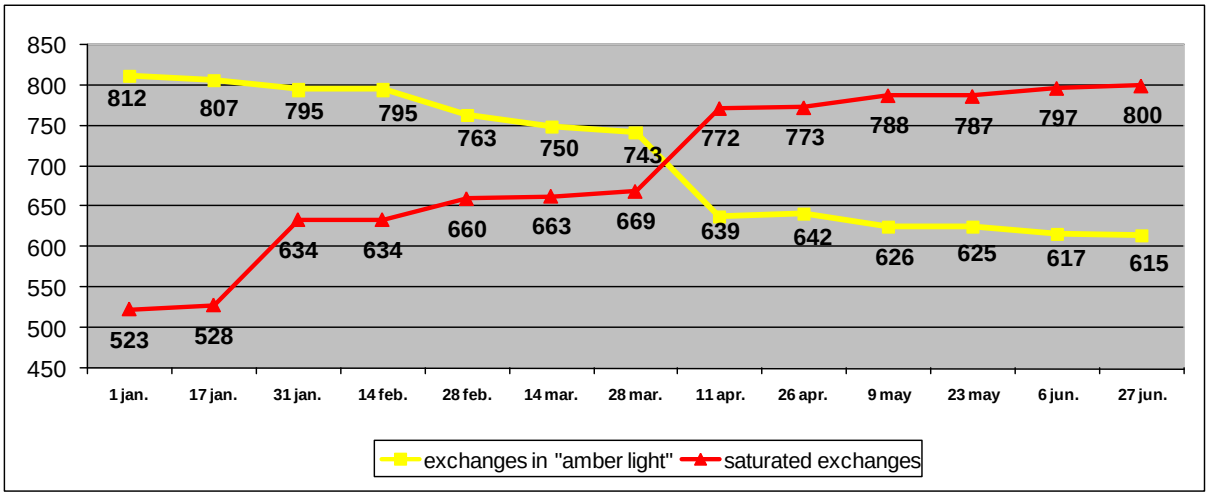

Fig. 3– Trend of the saturated exchanges and the exchanges at risk of saturation (served by miniDSLAM)

The chart shows that the number of exchanges in “amber light” status decreased continuously until the value of 615 registered in June, while the saturated exchanges increased steadily: in June they were 800 (+53% compared to the value recorded at beginning of the year). This figure is nevertheless 100 units lower than the forecast reported for the II Quarter 2011 in the Telecom Italia Quarterly Program for Quality of Fixed Access Network.

The increase of the saturated exchanges is due to the high number of exchanges in the “amber light” status which became saturated: it highlights the absence of intervention plans for the desaturation of miniDSLAMs, as moreover declared by Telecom Italia.

As regards the resources which trigger the movement to "amber light" status when they reach critical levels of availability, it turns out that of the 615 exchanges in the alert state in June 2011, only 36 (approximately 6%) were declared to be at risk of saturation because of the high level of occupation of the backhauling bandwidth capacity, while the remaining 579 (corresponding to approximately 94% of the total) were declared critical because of the high level of occupation of the termination ports on the DSLAMs.

Conclusions

- The interventions plan implemented by Telecom Italia brought to a marked decrease of the number of saturated exchanges served by ATM 7 Mbit/s ATM DSLAM. At the end of the second quarter, this number (60) is lower than the planned one (100).
- The number of saturated miniDSLAMs is increasing in all geographic areas in line with the policy of non-intervention communicated by Telecom Italia: the exchange areas served by miniDSLAMs are all at low profitability levels, and do not justify the expenditures needed for the expansion. Telecom Italia, however, is committed to making public the intervention plans in case the agreements reached with the local authorities (Lombardia, Emilia Romagna, Province of Trento) would make it profitable the expansion of miniDSLAMs in those areas.