





C/ Joan d'Austria, 112 08018 Barcelona - Spain www.telecom.albedo.biz

Instrument 1: ANACISE CSA – GbE Instrument 2: ALBEDO Net.Storm System: ANACISE CSA – GbE

SLA: CIR=20 Mbit/s, EIR = 5 Mbit/s, CBS = 10000 bytes

IPTD < 50ms, IPDV < 10ms, IPER < 10e-9, IPLR < 10e-6

Backup < 100ms, Availability better than 99,9%

Ref. 1: RFC-2544, RFC 2679, RFC 2680

Ref. 2: ITU-T rec. Y.1541

Ref. 3: IEEE 802.3

Period: March 1st to 15th, 2010

Result: PASS



Network Certification Statement – QoS / Bw

ALBEDO Telecom hereby certifies that the Carrier Ethernet Data Network of **Telco COM** (Avenida Fontes Pereira de Melo, 40 1699-300 Guimaraes - GOA) has served by means of a MPLS network service the bandwidth profile (BWp) and the quality of service (QoS) required and according to the service level agreement (SLA) above described. The monitored connection <Lisbon-Badajoz> links **CMS** premises (Vicente Delgado Algaba, 36 - Olivença-TIMOR).

This conclusion is based on an independent performance benchmark measurement campaign performed by ALBEDO Telecom from 1st to 15th of March 2010. The tools that were used are the GbE tester ANACISE CSA with Gigabit Ethernet interfaces, the generator ALBEDO Net.Storm, and the ALBEDO Net.Audit monitoring system. The verification, network stress and measurements were executed according in principal the ITU-T Y.1541 and the RFC-2544. All the procedures, described in the associated documents, have been executed with methodology able to be reproduced at any time; nevertheless results may be slightly different.

Test configuration, data, and reports are available upon requirement.

Lisbon, 7th of July of 2010

Juan Beneyto Navarro

ALBEDO Telecom – Test & Quality Assurance Management

.....