UNION POSTALE UNIVERSELLE
24e CONGRÈS

Quality of Service

UPU Global Monitoring System (GMS) report to the Nairobi Congress

Report of the Postal Operations Council

1 Subject	**References/paragraphs**
Report to the Nairobi Congress on the UPU Global Monitoring System (GMS).	§§ 1 to 34
2 Decision expected	
The Congress is requested to take note of this report.	§ 35

I. Report

A. Background of the link between quality of service and terminal dues

1 In 1999, the Beijing Congress decided that there should be a link between the quality of service and the level of terminal dues payments, with the overall goal of improving the end-to-end quality of service of international mail. That mission was assigned to the Quality of Service Link Project Team (PT 3) of the UPU Terminal Dues Action Group (TDAG) from 2001 to 2004.

2 The implementation plan related to the measurement system for the quality link between ICs (industrialized countries), called the "IC–IC system", was approved by the POC in 2003 and started running in January 2005.

3 In 2004, the Bucharest Congress confirmed through resolution C 46 that all the countries in the target system would have their terminal dues affected by the quality of service results, and instructed the POC to "propose the necessary improvements to enable the maximum number of countries to participate".

4 PT 3 of the Terminal Dues Project Group (TD PG), following the work of the previous TDAG PT 3, proposes an affordable Global Monitoring System that provides for all UPU members.

5 A Monitoring System Subgroup was formed to develop initial project plans related to the measurement system design, management, costs, financing and implementation. It was decided that such a link should be based on a measurement system that was diagnostic, external, permanent and reliable.

6 In 2007, the POC decided to task the Quality of Service Project Group (QS PG) with the further development of the UPU Global Monitoring System (GMS), as well as with the development

of all related tasks, such as procurement, governance structure, legal issues, UPU bodies, the pilot phase, and implementation.

7 The GMS Development Group (GMS DG) was formed and tasked with the finalization of technical specifications for a future Global Monitoring System.

8 This document describes the proposed GMS with respect to the UPU global quality of service linked system.

9 The key events and milestones are envisaged as follows:

– presentation of a full proposal to the POC following the Congress;

– development of a tender process for selecting the monitoring system provider;

– commencement of a pilot in 2009; followed by

– a phased-in implementation from 2010 with members participating on a voluntary basis.

B. Relevant stakeholders

10 Terminal Dues Project Group

– Performance reports to the quality of service linked terminal dues system.

11 Quality of Service Project Group, Letter Mail Programme

– Provide information on inbound performance on a country-by-country basis.

12 Quality of Service Fund

– Provide information to monitor quality improvement in relation to projects funded through the Quality of Service Fund.

C. Project organization

13 The Quality of Service Project Group Steering Committee (QS PG SC) created specific project areas to progress the GMS project:

– communication;

– technical design;

– governance;

– legal matters;

– Nairobi Congress proposals;

– procurement;

– set-up, pilot and final implementation;

– standards and interoperability;

– financing.

14 The last POC approved the GMS technical design and the proposed methodologies and models for implementing the GMS in respect to the various project areas.

D. General concept of the GMS

15 The objective of the measurement system is to provide, for each participating designated postal operator (DPO), precise diagnostic quality of service performance results for inbound mail that will be linked to terminal dues remuneration. The measurements will consider the time required by the destination DPO from the arrival (handover point) of the test items to their final delivery.

16 To calculate a DPO's performance, the system will compare the measurement results with delivery standards duly accepted by the designated UPU body. These standards must be compatible with each DPO's published domestic delivery standards.

17 To minimize measurement costs, another basic principle is that only first class letter mail will be measured. The system is designed to meet the fundamental requirements of the terminal dues system. It allows better temporal control of the statistical design than using non-priority letter mail.

18 The GMS is based on external measurements, meaning that external panellists will receive the test items and will require that their addresses remain unknown to the given DPO. It will also be based on the use of RFID diagnostic technology. This technology allows the identification of the arrival of test items prepared without any external marks that could be identified by postal employees.

19 To guarantee maximum flexibility for the future as well as to be able to provide the UPU community with reliable information (in terms of concept and costs), the proposed GMS is designed as a stand-alone technical specification of the system (i.e., it is not dependent on other measurement systems or conditions). It must be self-sufficient with respect to the analysis, management and publication of data. The possibility of taking advantage of synergies with other systems might be considered.

E. Key principles and requirements of POC, TD PG and QS PG

20 To achieve these goals, a measurement system has to be developed and put into place. The GMS should follow these basic principles:

– customer-driven;
– globally applicable;
– affordable;
– transparent and fair;
– sufficiently accurate and reliable;
– external to UPU members;
– diagnostic;
– locally relevant;
– simple;
– continuous.

21 Having been given these key principles and requirements, the UPU GMS Development Group (GMS DG) presented initial GMS technical design proposals to TDPG, which were noted. TDPG set out a list of further principles as guidelines for the GMS DG to pursue its technical work. The GMS guidelines include:

– ensure that all the participating countries are measured through at least one permanent flow;

– provide for the achievement of the minimum statistical accuracy, between 1% and 5%, according to DPO categories, i.e. the bigger the inbound volumes the greater the accuracy;

– ensure that non-permanently measured flows be weighted in a way that smaller countries' flows cannot be neglected (i.e., pool results should be weighted against the permanent flows according to the total volumes coming from countries in the pool); and

– ensure that the GMS fulfils the above-mentioned principles at the minimum cost.

F. GMS technical design

22 A team was formed and charged with developing an affordable global quality of service monitoring system that would be able to accommodate the diverse needs of the UPU members. The GMS DG was to develop a proposal on the technical specifications of such a comprehensive global system.

23 The team has carried out its work in line with its mandate and proposed a solution that balances the need for sufficient statistical accuracy and affordability for all UPU member countries.

24 The GMS envisages a monitoring system based on test letters. The test letters will simulate real mail flows between DPOs. Radio frequency identification (RFID) transponders will be inserted in each test letter and will be automatically recorded by RFID gates or readers installed at the office of exchange (OE) or air mail units (AMUs) of each receiving DPO. The data read at the OE will signal the start of the study. The test letters will then be processed like other mail and be sent to receiver panellists. The test letters will be such that they are externally indistinguishable from other mail and, therefore, minimize the risk of being given special treatment by the receiving DPO. The panellists will then record key aspects of the test letter, such as when it was received, what condition it was in, etc. This last record from the panellist, when compared to the data captured by the RFID equipment in the office of exchange, enables the duration or the quality of service of the inbound stretch to be determined.

25 The GMS shall be inbound mail volume driven. The underlying principle is that the higher the inbound mail volume, the higher the terminal dues at risk – therefore the greater the accuracy of the results required.

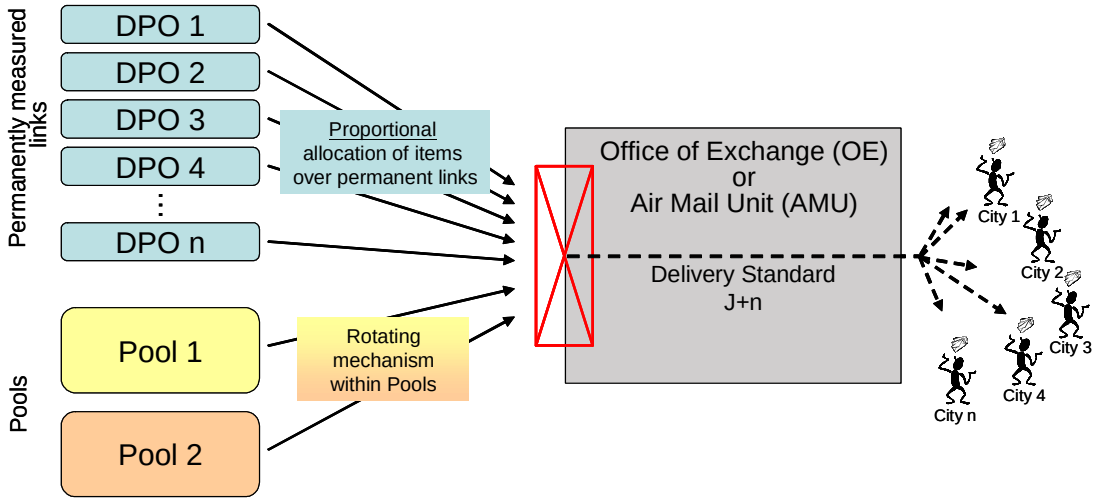
26 DPOs will, as with real mail, receive test mail from all countries of the world. The test mail will be organized into permanently measured flows and pools. Permanently measured flows will represent high volume flows to the receiving DPO. Pool flows will largely represent medium and marginal flows and will be broken further into two pools – Pool 1 and Pool 2. The pool mechanisms ensure that the importance of the flows is taken into account and a sufficient correlation is provided between the importance of each test item and the actual mail volume it represents. This also ensures that, from a global perspective, marginal flows from smaller countries are pooled so that when combined, their total pool volume is significant enough. The pools give some protection to DPOs with low mail volumes, which might otherwise have their mail disregarded (as they would be insignificant when compared to large flows from large countries).

27 The number of permanent links has been determined to provide a fixed amount of coverage for each DPO category level. The number of samples for the permanent links is determined by the expected coverage. The expected coverage has been determined from the profile of gross domestic product (GDP) compared with the UPU total GDP. The GDP was chosen as a traditionally accepted proxy for relative global mail volume in the absence of actual mail volume data.

28 The design has to provide information for operational purposes as well as cover as much of the country as possible, in accordance with universal service obligation (USO) principles. For this reason, the city distribution is the sum of the number of office of exchange (OE) and an assigned number of the next most populated cities.

29 The number of valid test mail items is determined by using the binomial model. There are no approved alternatives at this time. The numbers have been adjusted so that the results are robust against bias arising from the simplified design structure, particularly with respect to the sending country and destination city structure. The assumption is an on-time percentage of 85%.

30 The following graphic outlines the main elements of the GMS:



31 At the heart of the GMS will be the sending and receiving of test letters via panellists. The test mail piece shall be a P&G mail format priority mail letter weighing up to 50 g. Dropper panellists will "drop" or insert test letters for receiver panellists. Receiving will take place either at door address or a P.O. box – whichever is the norm for the country. Panellists will have to be recruited and trained very carefully. Similarly rigorous data validation, data analysis and reporting is required. The GMS envisages the use of the Internet by panellists for responses. There will be tools that carry out basic logic checks and challenges as data are entered. Powerful analysis and reporting tools will not only help in monitoring and managing panellists' performance, but will provide mechanisms for DPOs to query and have their queries resolved expeditiously.

32 The GMS provides for many in-process checks such as panel response validations. There will also be external checking in the form of an external audit. This is to help eliminate any gaps that might exist and, ultimately, provide assurance to all stakeholders.

33 The GMS will accommodate increased statistical accuracy by offering a number of "boosting" options. Boosting or the sending of additional test items will be permitted at different levels from an individual flow or link to multiple flows or even upgrading the DPO category level to one with higher volumes and an associated increased accuracy. As a general principle, the DPO requesting the boost will cover any ensuing costs. Boosting will also have to be for complete measurement periods, i.e. January to December, and follow the distribution requirements of the regular study design.

34 A key aim of the GMS is to provide an affordable global measurement system. The system has been designed in such a way that the costs are appropriate to the DPO level and, therefore, the DPOs mail flows. A summary of the costs per classification type is provided below.

Estimated total costs	*Level A*	*Level B*	*Level C*	*Level D*	*Level E*
One-off costs	80,000 EUR	55,000 EUR	41,500 EUR	12,000 EUR	9,500 EUR
Annual operating costs	83,000 EUR	33,000 EUR	20,000 EUR	8,500 EUR	3,300 EUR

Table 1 – Cost estimates.

II. Decision expected

35 The Congress is invited to take note of this report.