UPU-agreed measurement systems External audit 2024

Universal Postal Union
International Bureau

Audit report
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pwc

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1. Executive summary

1.1. Scope of work

The UPU GMS has been running Quality of Service measurements since 2009, starting with 21 designated operators (DOs). This number rose over the years reaching 70 DOs in 2024 that participated in the UPU Quality of Service link to terminal dues (commonly referred to as UPU QS link). Similarly, the International Post Corporation (IPC) has been running the UNEX for the UPU terminal dues (UNEX UPU TD) measurement system, for which 16 DOs were measured and participated in the QS link in 2024. Having two UPU-agreed measurement service providers (MSPs) measuring 54 designated operators for the purposes of the QS link calls for transparency and reliability in the measurement output to provide the confidence needed going forward in the quality of postal service delivery not only in each country measured but also at on a global level.

As a proven and reputable audit services provider, PwC was pleased to support UPU with this challenge, leveraging our extensive experience in the postal industry, particularly in quality monitoring and auditing.

In agreement with the UPU Directorate of Postal Operations (DOP), we performed our activities for the two MSPs, UPU GMS and UNEX UPU TD, using the UPU Global Monitoring System Technical Design 3rd Edition (UPU GMS TD) with the following scope:

- Reperformance on samples of calculation of statistical design and allocation of links and items for the year 2024 for countries both in the UNEX UPU TD and in the UPU GMS measurements
- Reperformance on samples of item validation for the period from January to November 2024 for countries in the UNEX UPU TD sample and for countries in the UPU GMS sample.
- Verification of bundling on samples for the period January to August 2024
- Analysis of RFID diagnostic monitoring with two RFID service providers
- Analysis of Panel Management and planning and production of test items at the two service providers serving UPU GMS and UNEX UPU TD for GMS measurements.
- Quality of Service: Analysis of sent and received items for the months January to June 2024 for all countries in the UNEX UPU TD for GMS measurement and of all countries in the UPU GMS measurement.
- Follow-up on recommendations in the 2023 report.

1.2. Observations

Events like the disruptions of international mail flow in and out of Ukraine and Russia, affected the measurement during 2024.

The UPU Global Monitoring System Technical Design 3rd Edition, v1.0 (UPU GMS TD) released in August 2020 became effective from January 2022. One of the key differences in this Technical Design was the possibility to use a domain coverage instead of the city coverage. We observe a certain increase in countries opting for the domain coverage and on the basis of the sample countries analysed we have not noted any difference in quality related to the choice.

Calculation of statistical design and allocation of links and items for the year 2024

Performed work	Result/observations	Impact for measurement
In close contact with key contact persons at the UPU International Bureau (UPU IB) and IPC, we performed a recalculation of the statistical design and allocation of links and items for a sample of three countries of the UNEX UPU TD measurement (a level A, a level B and a level D) and four countries of the UPU GMS measurement (a level A, a level B, a level C and a level E), based on the rules of the UPU GMS TD.	No deviations from the UPU GMS TD.	No impact.

Item validation for the period from January to August (to September for UPU GMS) 2024

Performed work	Result/observations	Impact for measurement
All items for the seven DOs in the sample (the same as for the statistical design calculation reperformance for the period from January to August 2024 for countries in the UNEX UPU TD sample and January to September 2024 for countries in the UPU GMS sample were verified as being correctly marked as 'On-time' or 'Delayed'.	No deviations from the UPU GMS TD.	No impact.
The correct application of validation rules as stated in Appendix G of the UPU GMS TD (P1.1, P1.2, P1.5, P1.7) has been verified.	Minor exceptions have been noted only for rule P1.1 (timely registration of dropping). For rule P1.4 (bundling), refer to the bundling paragraph.	These exceptions have no impact on the measurement.

Verification of bundling on samples for the period from January to August (to September for UPU GMS) 2024

The same sample as in the reperformance of validation has been also used for the verification of bundling.

Performed work	Result/observations	Impact for measurement
Verification of bundling on the sending side based on planned date and on effective date.	No or minor bundling observed.	We do not consider these deviations as non-compliance issues, but we suggest improving the controls: refer to section 4.4 (suggestion to relevant UPU bodies).
Verification of bundling on the incoming side.	Bundling on the inbound side continues to be generally high for the countries in the sample, in some cases reaching 33% of the test items, exceeding the thresholds defined by the UPU GMS TD. This bundling is not generated by bundling on the sending side, which was minor. The reason is unclear, since the origin of the bundled items cannot be identified to specific countries. Bundling requests from designated operators could affect the measurement.	We do not consider this bundling a non-compliance issue, but we suggest the relevant UPU bodies to address the possible issue arising in future from the application of a systematic bundling check as defined in paragraph 18.1.7 of the UPU GMS TD. To be noted that it is responsibility of the designed operator to request a bundling check and that in future, in line with the UPU GMS TD automatic bundling check could be implemented by the Measurement Service Providers (MSP).

Analysis of Panel Management and planning and production of test items at the two service providers serving UPU GMS and UNEX UPU TD for GMS measurement.

Performed work	Result/observations	Impact for measurement
We performed an analysis of Panel Management for the two service providers serving UPU GMS and UNEX UPU TD for GMS measurements. The analysis focussed on the recruitment, training and management of panellists, the test item production and test item circulation, as well as the data collection and validation.	We found no evidence that the controls for the production up to dispatching of test items and for panel management. verified on site the previous year are not applied during the whole period in scope. Data collection is centrally managed at UNEX UPU TD IPC and UPU GMS.	No impact

Analysis of RFID diagnostic monitoring with two RFID service providers

Performed work	Result/observations	Impact for measurement
We performed an assessment of the processes and of the technologies deployed for the RFID with 4 service providers used by several of the QS link DOs.	No deviations from the UPU GMS TD.	No impact.

Quality of Service: Analysis of sent and received items for the months January to June 2024 for all countries in the IPC UNEX UPU TD for GMS measurement and in the UPU GMS TD

Performed work	Result/observations	Impact for measurement
Following up on the analysis of panel management for all measured countries (IPC UNEX UPU TD and GMS TD) we performed an analysis of 'Valid on Target' measurement in relation to the expected allocation accordingly to UPU GMS TD.	The results of this analysis, performed on the first 11 months of 2024 and detailed in section 4.3, indicate that only 3 countries have a "Value on Target" below 60%. The low VOT is not currently caused by items failing to reach their destination, but rather by missing readings on the incoming side. In some cases, the causes have been identified—for example, one designated operator in the UNEX UPU TD measurement is struggling with the implementation of passive technology for reasons beyond its control, or test items without RFID are being used for training purposes.	We do not observe currently an impact for the measurement. The statistical representativity of the measurement can be questioned, if VOT is widely too low.

Findings from the previous year

There was no open finding from the previous year.

The uncertainty remains about a specific measurement for one country in the UNEX UPU TD measurement that is struggling with the implementation of passive technology for reasons beyond the control of the operator.

General result

Based on our procedures as described in this report, no non-compliance issue was identified to the UPU GMS TD.

Nothing else came to our attention that caused us to believe that the activities performed by UPU GMS, by UNEX UPU TD measurement systems or by the service providers in the audited areas were not compliant with the UPU GMS TD document.

This report has been prepared solely for the use of UPU in connection with the audit as requested by the UPU IB and should not be quoted in whole or in part without our prior written consent. No responsibility to any third party is accepted, as the report has not been prepared for and is not intended for any other purpose.

The procedures performed by us do not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements. Consequently, we do not express any assurance on the information included in this report.

Points of attention for the relevant UPU bodies

The following points, already raised in 2022 could currently represent a compliance issue and we suggest the relevant UPU bodies take a decision on how to handle this with regard to the performance measurement.

1) We noted that, for the countries in the sample, the number of test items that should be considered bundled according to UPU GMS TD (in paragraph 18.1.7 'Bundling on arrival due to operations') is relatively high, in some cases reaching 40% of the items. Since the bundling on the sending side is very limited, the bundling on the inbound side is very likely caused by irregularities in the international transportation.

   We suggest reconsidering the rule defined in paragraph 18.1.7 of the UPU GMS TD to avoid in future possible discussions in relation to the removal of large numbers of test items from the measurement.

2) We observed a general good quality in the management of panellists for both service providers and on the circulation of items. However, we have identified several items lacking readings. Based on our analysis of RFID providers, we believe that these missing readings are likely due to local operational issues, such as items not passing through the gates.

2. Scope of our work

The main objective of the external audit was to assess whether the methodology, its implementation and the calculation of quality of service (QS) measurement results by the two MSPs were compliant with the UPU GMS TD document in 2024.

The scope covered the following areas and components:

- Verification of the statistical design (incl. allocation of links and items)
- Recalculation of the Performance Measurement
- Recalculation of validation of item
- Verification of bundling
- Calculation and reporting of Quality-of-Service results
- Quotas – Panel Management and letter production review
- Kantar – Panel Management and letter production review
- IPC UNEX UPU TD – Panel Management audit
- Mieloo & Alexander – RFID Assessment
- Lyngsoe Systems – RFID Assessment
- Kyubisystem – RFID Assessment
- UPU – RFID Assessment

3. Audit methodology and process

Based on our postal measurement experience, we have developed specific audit procedures that we applied in this engagement.

We performed an assessment of the current postal measurement procedures that will allow UPU to understand the quality of service they are getting from their service providers in comparison with what is required by the UPU GMS TD 3rd Edition document. We also provide clear insight on where improvements are needed and clear enforceable recommendations.

Our approach is:

- Independent
- Comprehensive
- Reliable and robust
- Statistically accurate
- Quality-driven and standardised
- Tested and proven over many years
- ISO 9001 consistent

While the methodology is standardised, PwC recognises that each client's environment and requirements are different. Hence, we customised it for this specific task, focussing on the four areas in respect of compliance to the UPU GMS TD document:

- Calculation and reporting of Quality-of-Service results
- Panel Management
- Quality control and validation
- RFID Diagnostic Monitoring

Our methodology this year was underpinned by the following tasks:

- Understanding the requirements of the UPU GMS TD specification document.
- Assessing the risks and mapping all elements in focus to our specific audit process (ref. diagram 1). We produced a viable, solid and efficient work plan.
- Collect information in appropriate mode: we know what should exist and how it can be assessed.
- Obtaining during the UPU and IPC interviews information and documentation by exchanging experience on postal measurement management with like-minded PwC people.
- Performing efficient walkthroughs with very experienced and skilled individuals of the key service supplier.
- Understanding deviations and confirming them with follow-ups. Performing recalculations wherever appropriate, leveraging our specific tools for this purpose.
- Formulating preliminary reports that can be validated.
- Producing a final report that is adequate for management and for those who have to work with it.
- Findings are formulated in a way that will help follow-up actions and improvements.

This methodology was used from the first year, confirming situation and progress, leveraging all of the experience from previous years.

Audit Process

System set-up | Statistical design | Panel Management | Test item production | Test item circulation | Data collection, validation, evaluation | Data analysis | Reporting | Archiving | Quality control

Process execution against design at MSP and at organisation managing the systems

System set-up	Statistical design	Panel Management	Test item production	Test item circulation	Data collection, validation, evaluation	Data analysis	Reporting	Archiving	Quality control
Operations and IT set-up Panel set-up and organisation Quality assurance set-up	Data collection validation, organisation and trans-mission for implementation of statistical design Application of GMS technical design, especially geographical requirements, in implemented statistical design	Recruitment of panellists Panel performance management through KPIs Incentive management Panel training	Generation and preparation of test items Programming and integration of RFID tags Dispatch of test items	Test item circulation Registration of induction and delivery information and return of test items	Data entry and validation of panellist induction and delivery dat Evaluation of panellist data Validation of panellist data against RFID data Diagnostic monitoring	Data analysis Exception reporting Proactive analysis to identify potential project risks Accuracy of calculations	KPI(s) Reporting according to timetable Recommend-ation from site survey process	Archiving of text items	Contingency planning Quality controls KPIs Change management process Process monitoring

Demonstrating understanding of GMS technical design by Measurement Service Partner (MSP)

Existence and extent of documentation for all audited areas

Correct application of GMS technical design

Implementation of country specific design parameters

Implemented internal controls framework

4. Audit results

4.1. Results per audited area

Based on our procedures as described in this report, an issue was identified concerning potential non-compliance with the UPU GMS TD in relation to the shortage of test items by UNEX UPU TD for the first six months of the year, for which compensatory measures need to be assessed.

Nothing else came to our attention that caused us to believe that the activities performed by UPU GMS, by UNEX UPU TD measurement systems or by the service providers in the audited areas were not compliant with the UPU GMS Technical Design 3rd Edition document.

The following table provides an overview of the results in the audited areas. When we noted at least one non-compliant finding, we have marked the area red; otherwise, it is marked yellow when there was at least one partially compliant finding. Areas are marked green when non-compliance issues were not detected in the given area. The numbers included in the table below indicate how many findings were identified per measurement area (in total 2, see detailed list in section 4.2.

Measurement areas	UNEX UPU TD meas.	UNEX UPU TD meas. – PMC – Kantar	UPU GMS meas.	UPU GMS meas. – PMC– Quotas
A. Statistical design (sample design)				
B. System configuration and inputs				
C. Panel management				
D. Test Item production				
E. Test Item circulation (distribution/sending/receiving)				
F. Data collection, validation and processing				
G. Transit time calculations				
H. Statistical Analysis				
I. Reporting				
J. Archiving				
K. Quality Control				
L. RFID Diagnostic Monitoring system				

Compliance rating: Compliant Partially compliant Non-compliant

4.2. Detailed findings

The following list shows the current identified and open findings.

Finding ID	Area ID	Area description	Assessment area	Compliance	Issue description	Significance	Recommendation/Assessment results
1	**E1**	Item readings in the inbound	**UPU GMS measurement** **IPC UNEX** **UPU TD measurement**		There are some operators where the number of readings on items reaching destination is suboptimal compared to the general performance.	Low	We recommend analyzing the situation with operators who have a low number of readings. A low number of readings is not considered non-compliance in itself, as GMS has established mechanisms to account for low VOT levels. The statistical representativity of the measurement can be questioned, if VOT is widely too low.

Compliance rating:  Compliant  Partially compliant  Non-compliant

Significance rating: Low Medium High

4.3. Quality of Service: Analysis of sent and received test items for the months January to June 2024

4.3.1. Analysis on VOT for IPC UNEX UPU TD countries

This analysis covers the 2024 allocation and circulation of test items from January to November 2024 for all countries within the UNEX UPU TD measurement system, where issues related to panellist management were noted in the first half of 2022.

Initially, we recalculated the VOT, considering only items eligible for performance recalculation. Subsequently, we analyzed all items that reached their destination, including those without an inbound registration. We also verified the accuracy of the allocation calculations for a sample of countries through recalculation.

As a result, we noted that the overall VOT—calculated as the ratio of valid items to the minimum allocation—stands at **95.2%.** Only one country is below 60%, due to factors beyond the postal operator's control.

The analysis shows an improvement compared to the previous year.

We also evaluated how many items reached their destination and observed that only **80.2%** of these items had an inbound registration. There are two countries with a value lower than 60%.

4.3.2. Analysis on VOT for UPU GMS countries

We conducted the same analysis on the allocation and circulation from January to November 2024 for all QLINK countries in the GMS TD Measurement. We observed a VOT of **95.1%,** which is essentially similar to the value measured for UNEX UPU TD countries. Only two countries are below 60%.

An analysis of the number of items reaching their destination without an inbound registration shows a pattern similar to the IPC UNEX UPU TD, with an overall result of **86.3%** and only two countries are below 60%. Initiatives in this regards are ongoing.

4.3.3. Conclusion

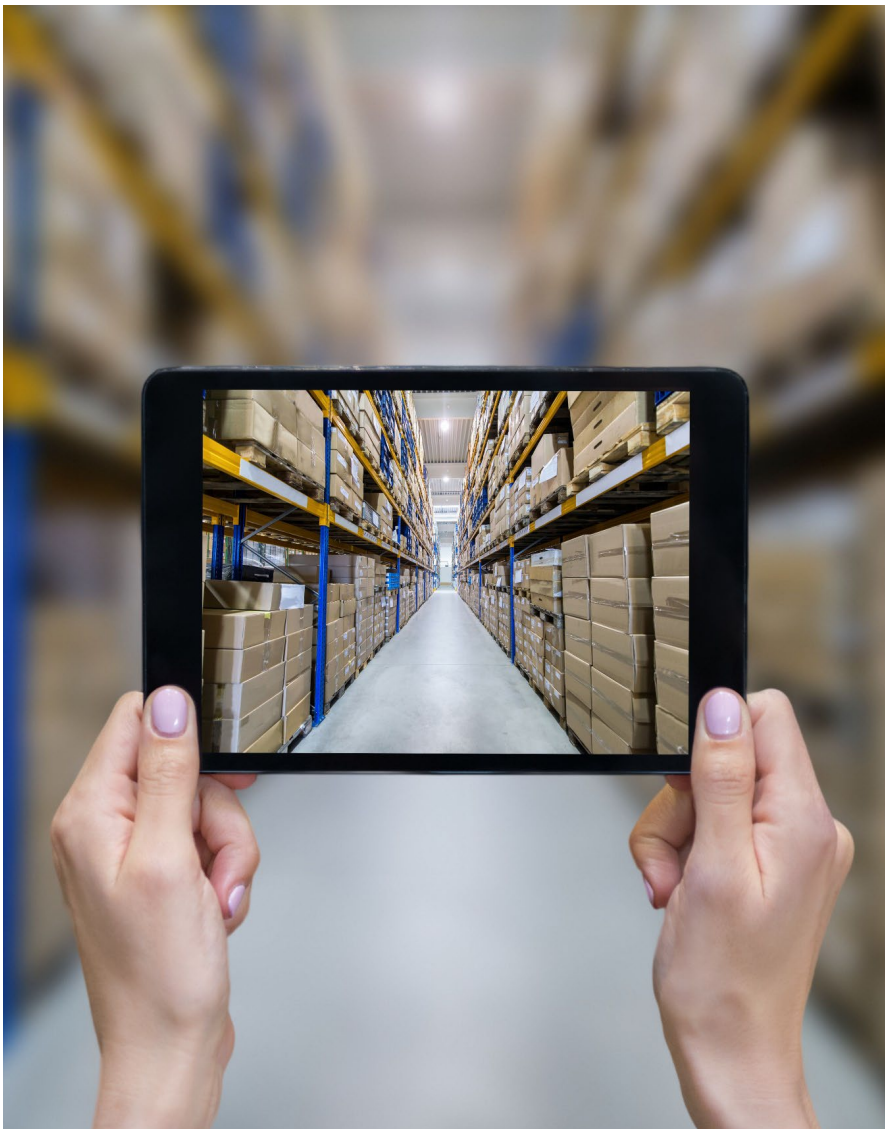
We observe that even if generally the VOT threshold of 60% is reached, there are some operators where the number of readings on items reaching destination is suboptimal compared to the general performance. It is essential to monitor this to prevent a gradual decline in Quality of Service.

4.4. Points of attention for the relevant UPU bodies

The following points for 2024 could currently represent a compliance issue and we suggest the relevant UPU bodies take a decision on how to handle this with regard to the performance measurement.

ID	Title	Description	Suggestion	Status in audit
1	Rules on handling bundling	We noted that, for the countries in the sample, the number of test items that should be considered bundled according to UPU GMS TD (in paragraph 18.1.7 'Bundling on arrival due to operations') has improved, but in one case is still reaching 32% of the items. Since the bundling on the sending side is very limited, the bundling on the inbound side is very likely caused by irregularities in the international transportation. The rule in paragraph 18.1.7 of the UPU GMS TD states that test items identified as bundled on arrival due to operations will be excluded from the measurement. Identification can occur on request by the designated operators or on analysis of the MSPs. If automatic checks are introduced by the MSPs there is a potential of a large number of test items being excluded with a significant impact on VOT.	We suggest reconsidering the rule defined in paragraph 18.1.7 of the UPU GMS TD to avoid in future possible discussions in relation to the removal of large numbers of test items from the measurement. We also suggest for the performance measurement of 2024 that these test items be kept in the calculation to avoid reducing too much the VOT, with a larger impact on the measurement compared to the one caused by bundling.	The utilisation of the bundled test items for the performance measurement is subject to the decision of the relevant UPU bodies.
2	Inbound readings	We observed that a decrease in VOT, despite being generally sufficient, due to a reduction in valid test items, could stem from problems with inbound registration. Our analysis indicates that Panel Management at Kantar has seen improvements and continues to maintain high quality at Quotas. However, we have identified several items lacking readings. Based on our analysis of RFID providers, we believe that these missing readings are likely due to local operational issues, such as items not passing through the gates.	Taking into account the current quality monitoring, we recommend intensifying interaction with operators with a low readings rate to help them identify and resolve operational issues that may result in a too-low VOT.	The decision to utilise the available lower number of items for the performance measurement is subject to the decision of the relevant UPU bodies.

Annexes



A1 Rating criteria

Compliance rating criteria

The compliance rating indicated the compliance of the different assessment areas with the UPU GMS TD document.

Non-compliant means a clear violation of the UPU GMS TD document.

Partially compliant means a minor deviation from the UPU GMS TD document with no expected impact on the final measurement results. The significance rating provides indication on the severity and on the priority. Partial compliance can be related to

- a decision to deviate in order to improve quality in certain areas,
- a different interpretation of the UPU GMS TD document or
- a minor mistake in applying the rules.

Compliance rating:


Compliant


Partially compliant


Non-compliant

Significance rating criteria

The significance is an estimation of the impact on the measurement of the identified issue.

- Low means no impact on the measurement results.
- Medium means an impact on the measurement results that should be analysed, but expectation is that the impact does not change the measurement.
- High means that the measurement result is affected, and the implications should be analysed in detail.

Significance rating:

Low

Medium

High