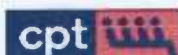


**Support to UK Tram
Activity 9 Work Group
“OPERATIONAL PERFORMANCE MEASURES ”**

**Proposed Guidance for Tramway Performance Measuring
Regime**



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Title	Support to UK Tram Activity 9 Work Group - OPERATIONAL PERFORMANCE MEASURES – “Proposed Guidance for Tramway Performance Measuring Regime”		
Customer	UK Tram Ltd		
Customer reference			
Confidentiality, copyright and reproduction	UKTram Ltd Distribution only on the basis of strict confidentiality. Confidentiality to be maintained. Enquiries about copyright and reproduction should be addressed to the Project Manager UKTram Ltd.		
File reference	C:\users\lukt\strategy\Act wg 9/2009		
Report number	1		
Issue number	Final		
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Approved by	UKTram Board		

UKTram

Proposed Guidance For Tramway Performance Measuring Regime

UK Tram Activity Group 9 considered the various performance measuring regimes extant or proposed for UK Tramways.

Tramway Performance Regimes range from the very complex to the over – simplified; no two are the same, although all of them have the same objective; to provide a method for quantifying the performance of a tramway.

The wide range and dissimilarity of each tramway means that bidders, irrespective of the procurement method, have had to consider anew the implications of each tramway separately. This process adds to the set – up costs of each scheme for both public and private sectors and in itself adds an element of risk.

Furthermore, there are varying degrees of expense involved in operating the varying regimes, from the fully automatic self – reporting, to the labour intensive inspection force.

The relative merits of each scheme have been considered, and it is felt that there is no imperative reason for such differences. A standard performance regime for all tramways is therefore proposed, and is set out in Appendix 1. The reasoning is set out in the following sections of this paper. It should be noted that this proposal is recommended for any new tramways. It is not recommended that existing tramways should be required to change, although it is open to the respective Promoters and Operators to consider the implications of so doing. Similarly, Promoters and Bidders for those tramways that are at some stage of a procurement process might wish to consider adopting this proposal if both sides feel that there would be a net benefit in so doing. There may be a useful opportunity to change Performance Regime when tramways are about to have extensions and/or additional lines.

It would be useful to run the proposed Performance Measuring Regime in tandem with the existing regime to compare and contrast data output of the two schemes and to validate the output of the new regime.

Principles

A clear consensus soon emerged that any performance measuring regime should have the following characteristics:

- All measurement should be objective;
- Measurement should be self – reporting as part of the tramways SCADA system as much as possible;
- Human intervention/inspection should be used only where no alternative exists;
- The regime should be transparent and capable of audit;
- There should be no exceptions allowed;
- Perverse incentives are to be avoided;
- Measuring adherence to schedule.

Each of these is set out in detail below:

All Measurements should be Objective

The aim here to avoid as many disputes as possible as to whether a criterion has been satisfied or not. Disputes in this context are counter – productive, waste time and generate an adversarial attitude with no winners. There must be no scope for a subjective appraisal, especially by persons who are not professionally competent. The only exception is subjective assessment by passengers, and measuring passenger satisfaction trends must be part of any public transport operation.

The team considered the input versus output argument and concluded that it was a sterile discussion. It was agreed that nothing can be measured non – controvertibly and the example of a clean tram was used. Measuring whether a tram is clean (output) is notoriously difficult, but measuring whether they have been cleaned in accordance with the specification (input) can be recorded and checked. “Measuring what can be measured is a good maxim”

In case of concerns that the inputs may not produce the desired output, there is always an overriding duty of safety, care and good industry practice explicit in the contract.

Any operator who baulks at accepting those contractual duties should not be awarded the contract.

Avoiding contractual disputes avoids an adversarial relationship leaving both parties better placed to consider how to make the system better. By avoiding disputes of detail within a wider problem, both sides can work towards solving the greater problem as it is rarely possible for this to happen with one party working in isolation.

Measurements should be self – reporting

The aim here is simply to avoid disputes and therefore costs, both direct and consequential. Automate as much as possible, even if that means a margin of compromise on how well in theory a criterion is satisfied

For measurements such as cleaning there needs to be a mechanism to ensure that contracted cleaning is carried out. Contractors must be required to ensure that they are supervising their operatives sufficiently well to ensure that work claimed has in fact been undertaken. Such supervision should be incorporated into the operator's quality management system, possession of which must be a pre – qualification requirement for any operator.

The regime should be transparent and capable of audit

The need for this needs no explanation. The audit process is improved the more automatic the measuring system becomes; not only is the audit process made easier, it will tend to pay more attention to adherence to operating and reporting processes rather than detail. Spotting failures of operating or reporting procedures is in fact more fundamental than finding individual errors of commission or omission.

Exceptions

A number of current regimes have, either explicitly or implicitly as a function of the description of the performance targets, immunities from penalties for any consequences that could not be blamed on the operator/maintainer. These should, where possible, be avoided

The Performance Regime Guidance has therefore been calibrated to provide headroom which recognises that perfection is not always achievable, and provides an average allowance for the inevitable minor events that lead to a short period of degraded operation..

In addition, the performance regime should not merely be couched in financial rewards and penalties but should allow the sponsor reasonable powers to enforce remedial actions which do not involve the levying of fines or termination of the Concession.

Both the operator and its client must be able to agree what major events will be exempted from the performance regime and these must be signed off at the start of the contract

Therefore setting targets of less than 100% does not encourage slack operational control; conversely it encourages high standards, focusing management attention on maintaining service instead of looking for contractual loopholes and excuses.

Avoidance of Perverse Incentives

It is important to avoid circumstances where an exceptional event leaves no incentive to recover the service quickly, and polarised criteria (e.g. failure to rectify one failure of a piece of equipment within a certain times loses all the payment for that item) leave no incentive. If the operator has missed the target and the money cannot be recovered, there is no incentive to carry out the repair/replacement until the next month.

Wherever possible, the performance targets are availability – based on a sliding scale, for example platform lighting based on availability over the reporting period, rather than the obligation to replace a failed light unit, in this case an output rather than an input is easier to measure and more meaningful.

Measuring Adherence to Schedule

As there are measurement criteria within the regime to take account of both early and late tram starts, the regime will be measuring against those times laid down in the timetable.

The operator and sponsor shall agree contingency plans, separate to the performance regime, to deal with service recovery at times of degraded operations.

UK TRAM – ACTIVITY TEAM 9
OPERATIONAL PERFORMANCE MEASURES

It is intended that the following performance measures should meet most promoter, operator and customer needs.

However, additional measures may be added to meet specific system needs, if justified by the benefits it brings in applying appropriate and fair incentives to operator and promoter and to passenger satisfaction.

Measure	Description	Criterion for payment	Purpose	Control Mechanism	Comment
M1	Daily Reliability	98%	No. of Trips Run	<ul style="list-style-type: none"> Every Trip requires a unique identifier Route Specific There are no exemptions – the 95% criterion is a recognition that not all cancellations be blamed on or avoided by the operator 	<ul style="list-style-type: none"> Measures below are aimed to prevent cancellations Penalty for cancellations should be greater than any saving made from cancellation Part completed trips recognised, but would contribute to score at a less than pro rata level (e.g. trip which covered 50% of the route might count as 25% trip) Where the trip is operated at below capacity again the trip shall count as 50% If a trip is more than 10 minutes late it is deemed to be a cancellation
M2	Monthly Trips Completed	98%	Reliability	<ul style="list-style-type: none"> As Per M1, information fed from Tram Recorders by Operator 	<ul style="list-style-type: none"> Typically a system wide target, however could be route specific if required No exemptions from penalties
M3	Early Departures from Originating Tram Stop	100%	Punctuality	<ul style="list-style-type: none"> As Per M1, information fed from Tram Recorders by Operator 	<ul style="list-style-type: none"> No valid reason for early departure
M4	Monthly Late Departure from Originating Tram Stop	97%	Punctuality	<ul style="list-style-type: none"> Measure Monthly and reported by Operator 	
M5	Complete Customer Satisfaction Survey and Mystery Traveller Survey if required in operating specification	100%	Customer Service	<ul style="list-style-type: none"> Carried Out Once per Year 	<ul style="list-style-type: none"> Survey Questionnaire to be agreed between Sponsor and Operator

M6	Customer Comments must be responded to within 14 days (acknowledgment within 7 days)	98%	Customer Service	<ul style="list-style-type: none"> Operator must log and record full range of customer comments and system must be auditable 	
M7	Monthly Passenger Information Display Availability	98%	Passenger Information	<ul style="list-style-type: none"> 24 Hour measurement – target allows for maintenance. Hours should be monitored and measured at Control Room 	
M8	Tram Stop Timetable Information	98%	Passenger information	<ul style="list-style-type: none"> Spot checks at Stop 	<ul style="list-style-type: none"> Specified aimed at information on Tram Stop
M9	Tram Cleaning	95%	Customer Perception	<ul style="list-style-type: none"> Cleaning measure input rather than output Monitor at the point of cleaning and not at end of day Cleaning log subject to audit Increase level of inspections based 	<ul style="list-style-type: none"> Operators Cleaning schedules will contain frequency and specification of cleaning
M10	Tram Graffiti Removal	95%	Customer Perception	<ul style="list-style-type: none"> Offensive Graffiti remove within 24 hours of defect log All other graffiti within 48 hours of defect log Glass etching to be treated as tram damage 	
M11	Tram Stop Cleaning	98%	Customer Perception	<ul style="list-style-type: none"> Input rather than output as per tram, each tram stop to be cleaned daily Deep Clean to be undertaken Monthly 	<ul style="list-style-type: none"> Don't incentivise all stops to be cleaned during the morning
M12	Tram Stop Graffiti	95%	Customer Perception	<ul style="list-style-type: none"> As per Tram Graffiti above 	

M13	Tram Stop General Damage Repair	98%	Customer Perception	<ul style="list-style-type: none"> Availability of Assets to be monitored 	<ul style="list-style-type: none"> Incentive should be to maintain the asset rather than to respond to minor repairs Monitored through Asset Register
M14	Infrastructure Damage Repair	98%	Customer Perception	<ul style="list-style-type: none"> As M13 above 	<ul style="list-style-type: none"> As M13 above
M15	Conductor / Ticket Machine Availability	98%	Customer Perception	<ul style="list-style-type: none"> Availability based measured through auditable Staff log and Ticket Machine maintenance records 	<ul style="list-style-type: none"> Operator may perceive this as superfluous if taking the revenue Sponsor sees it as essential in recording passenger journeys to justify further investment in extended network
M16	Passenger Emergency Help Point Availability	98%	Customer Perception	<ul style="list-style-type: none"> Availability based 	
M17	CCTV Availability	98%	Customer Perception	<ul style="list-style-type: none"> Availability based 	
M18	Tram Stop and Car Park Lighting	99%	Customer Perception	<ul style="list-style-type: none"> Availability based 	
M19	Tram Ride Measures	100%	Customer Perception	<ul style="list-style-type: none"> Annual Survey 	<ul style="list-style-type: none"> System should be within Final Accepted Specification
M20	Tram Noise Measures	100%	Customer Perception	<ul style="list-style-type: none"> Annual Survey 	<ul style="list-style-type: none"> System should be within Final Accepted Specification