

Greater Manchester Transport Committee

Date: 11 October 2019

Subject: Metrolink Annual Performance Report

Report of: Daniel Vaughan, Head of Metrolink, TfGM

PURPOSE OF REPORT

Provide an overview of the operational performance of Metrolink services.

RECOMMENDATIONS:

Members are asked to note the performance of Metrolink services.

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Risk Management – n/a

Legal Considerations – n/a

Financial Consequences – Revenue – n/a

Financial Consequences – Capital – n/a

Number of attachments included in the report: 2

- Appendix 1: Period date listing
- Appendix 2: Metrolink Performance

BACKGROUND PAPERS:

- Metrolink Service Performance – 28 April 2019

TRACKING/PROCESS		
Does this report relate to a major strategic decision, as set out in the GMCA Constitution		No
EXEMPTION FROM CALL IN		
Are there any aspects in this report which means it should be considered to be exempt from call in by the relevant Scrutiny Committee on the grounds of urgency?		N/A
GMTC	Overview & Scrutiny Committee	
N/A	N/A	

1 ABOUT METROLINK

- 1.1 Metrolink is the largest urban light rail network in the UK. It provides a fast, frequent service which is fully accessible to all, running 7 days a week, 364 days of the year.
- 1.2 The Metrolink network is owned by TfGM and is operated on TfGM's behalf through a contract with KeolisAmey Metrolink (KAM).
- 1.3 The network uses high-floor trams with raised platform stops and currently carries approximately 45 million passengers each year.
- 1.4 There are currently 120 trams serviced from two depots with 103 required to operate the weekday morning peak service. 10-12% of the fleet are usually undergoing maintenance.
- 1.5 Trams service 93 stops covering routes totalling just under 100 Km. When the Trafford Park Line opens in 2020, an additional 6 stops will open, and the network will expand to cover 102.5 km. Metrolink is the most accessible of the public transport networks in Greater Manchester, providing step free access to all stops.

2 ANNUAL PERFORMANCE SUMMARY

- 2.1 The Metrolink Annual Report provides a performance summary for the Period 19 August 2018 (Period 6 2018/19) through 17 August 2019 (Period 5 2019/20).
- 2.2 Metrolink continues to grow, with 45.0 million trips recorded on the network for the 12-month period leading up to the end of August 2019, an increase of 3 million trips compared to the equivalent period in August 2018 (42 million trips).
- 2.3 Additional capacity was added to the network with the number of double units increasing on the Altrincham, Bury and East Didsbury lines. Capacity on the Ashton line was increased, changing to a 6-minute service frequency in January 2019.
- 2.4 A change to zonal fares was implemented, reducing the number of ticket combinations, simplifying the ticket offering for customers. Metrolink has recently introduced a contactless "touch-in, touch-out" service to give customers even more flexible, value for money options.
- 2.5 99.2% of scheduled miles were operated during the 12 months to August 2019 against a performance target of 99.4%.

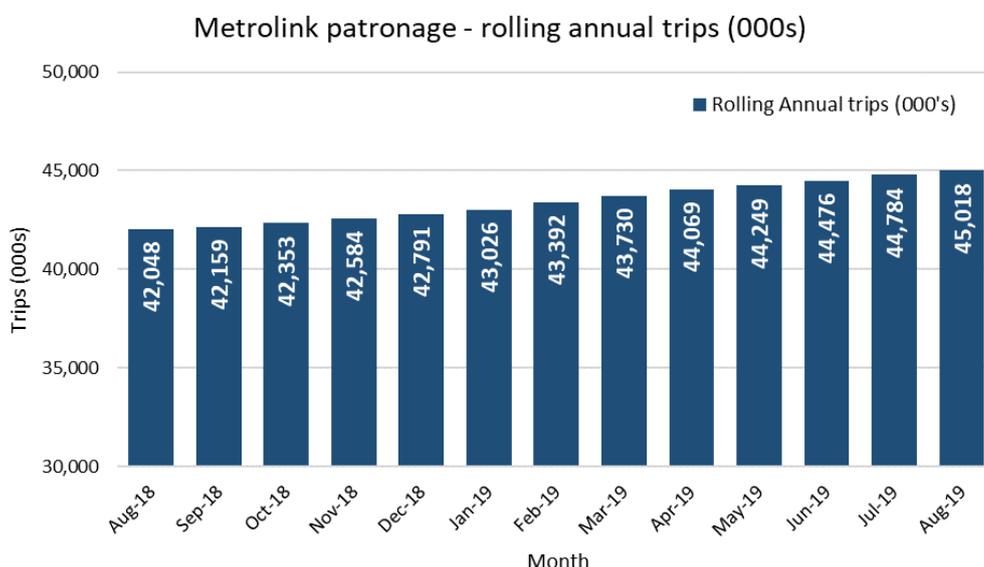
- 2.6 Punctuality on the network was 90.5% against a target of 90%. This was despite facing several significant operational challenges during certain periods of the year.
- 2.7 A sustained period of high temperatures resulted in a significant number of tram faults during the summer period in both 2018 and 2019. These combined with an increase in road traffic collisions adversely affected vehicle availability and reliability which came in below target.
- 2.8 Network infrastructure performance delivered above target, with relatively few service affecting faults being recorded during the 12-month period to August 2019. Only 3 periods recorded results below target, primarily due to issues with signalling or overhead line faults, the most serious of which, an overhead line fault near MediaCity UK, resulted in a downtime period of 2 days on the Eccles line.
- 2.9 Recorded incidents of crime and anti-social behaviour on the network increased, primarily as a result of KAM measuring and enforcing byelaw infringements from January 2019. A number of high-profile crime incidents took place on the network during the year. Work continues in partnership with KAM, TfGM and GMP to address crime and anti-social behaviour on the network.
- 2.10 Changes at GMP will mean more uniformed police officers dedicated to broader transport policing in Greater Manchester. This renewed focus is welcome and will be implemented before the end of 2019.
- 2.11 Customer satisfaction was measured by Transport Focus, the Independent National Body which advocates for passengers on public transport including bus and rail. Metrolink has been nominated by Transport Focus for the 'Rail Operator of the Year' at this year's National Transport Awards.
- 2.12 Customer satisfaction ratings for Metrolink remain high at 90%. 60% of customers were satisfied that Metrolink provided "value for money", an improvement on the 2017 result. Customer contacts were down overall with ticket vending machines the number one source of complaints.
- 2.13 KAM continues to drive social value through the Metrolink contract, with an improved approach to environmental management, engagement with schools and youth groups as well as 28 new apprentices and trainees from underprivileged backgrounds across Greater Manchester. More than 40% of procured products and services are now sourced within a 25-mile radius of Greater Manchester.
- 2.14 TfGM and KAM continue to benchmark Metrolink against similar networks. A recent study commissioned by KAM found that the section between Cornbrook and St Peters Square is the busiest section of the light rail anywhere in the world. A separate independent study ranked Metrolink as 5th best from 32 networks studies, and first for "utilisation of assets".

2.15 Work continues at pace to ensure that the Trafford Park Line is ready for operational service in 2020. 27 new trams were ordered in advance of Trafford Park line opening, with the trams due for a phased delivery starting in 2020.

3 PATRONAGE

3.1 Patronage measures the number of trips that are being made on the network.

3.2 The rolling annual patronage to the end of August 2019 was circa 45 million trips, with the annual target of 43 million trips reached in December 2018.



3.3 The network has continued to see significant growth which is in the region of 3 million trips higher than the equivalent 12-month period to the end of August 2018.

(12 months to August)	2015	2016	2017	2018	2019
Metrolink Patronage (000 trips)	32,400	35,700	39,600	42,000	45,000

3.4 Year on year there has been a healthy patronage increase on all lines, with the exception of the Ashton line. We are working in partnership with KAM to invest in demand and operational modelling tools which will enable us to maximise existing capacity on the network and support the future growth in patronage.

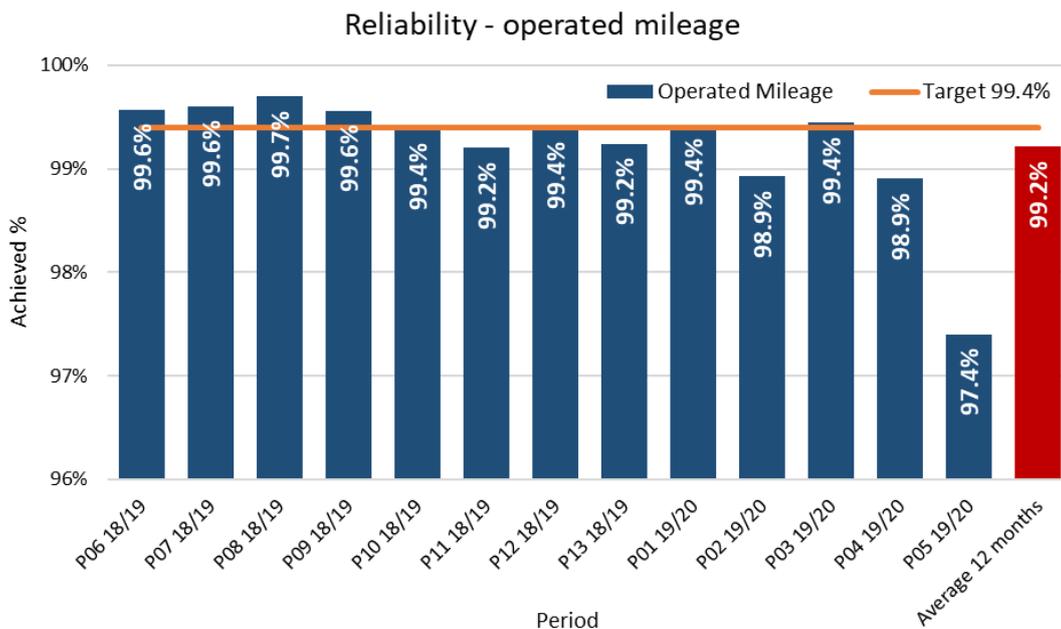
3.5 The demand for additional capacity is increasing across the network, despite additional doubles running on Altrincham, Bury and East Didsbury lines since early in 2018. Capacity was enhanced with the introduction of the six-minute service on the Ashton line in January 2019 to stimulate additional patronage growth.

4 OPERATIONAL PERFORMANCE

Reliability

4.1 Reliability is measured by operated mileage. Operated mileage is the number of tram vehicle miles operated versus the number of scheduled miles.

4.2 A miles operated target of 99.4% was set for the year 2018/19, with the annual average reliability measure being achieved across the full duration of the year.



4.3 Network reliability fell short of the annual target in Periods 11 and 13 2018/19, and fell significantly below target in Period 2, Period 4 and Period 5 2019/20. A combination of factors influenced operational shortfalls during these periods, including:

- An increase in road traffic collisions in Periods 2, 4 and 5;
- Signal failures at Victoria and service disruption due to a youth strike against climate change;

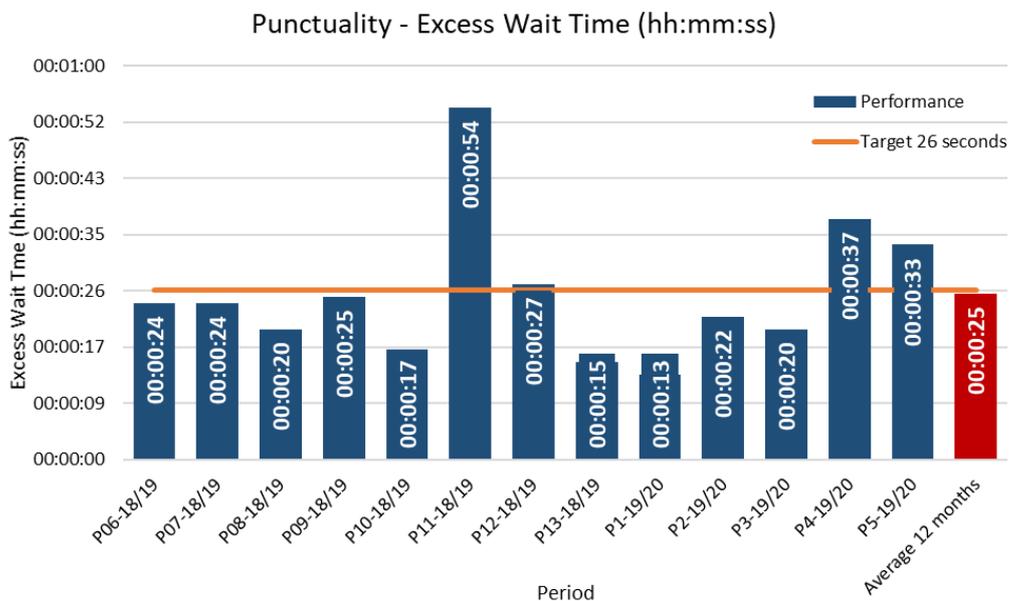
- Points failures in Bury, Eccles, at Victoria and at St Peter’s Square;
- Damage to a pantograph at Deansgate-Castlefield during Period 5 and at Eccles during Period 11;
- a cracked rail at Victoria, and
- an increase in the number of tram faults during a sustained period of hot weather conditions.

4.4 Reliability results remained consistently above the annual target between Period 6 (start 19 August 2018) and Period 9 (end 11 November 2018) and was at target in Period 10 (09 December 2018– 05th January 2019). Collectively these periods account for the highest seasonal variation in patronage across the duration of the year, therefore delivery of consistent and good operational performance across this duration was extremely positive.

Punctuality - Excess Wait Time

4.5 Excess Wait Time (EWT) is a measure of punctuality. It is the average time passengers wait over what would have been expected if the service was running exactly as scheduled. For Metrolink, Excess Wait Time will be 3 minutes +x seconds for 6 minute, or 6 minutes +x seconds for 12-minute service frequency.

4.6 The EWT average performance for the 12 months to August 2019 was 25 seconds, marginally below the 26 second target.



4.7 As previously referenced, performance during Period 4 had a significant impact on the resulting annual average. In addition, Period 11 (06 January – 02 February 2019) was also a particularly challenging period, with factors affecting punctuality across the network including:

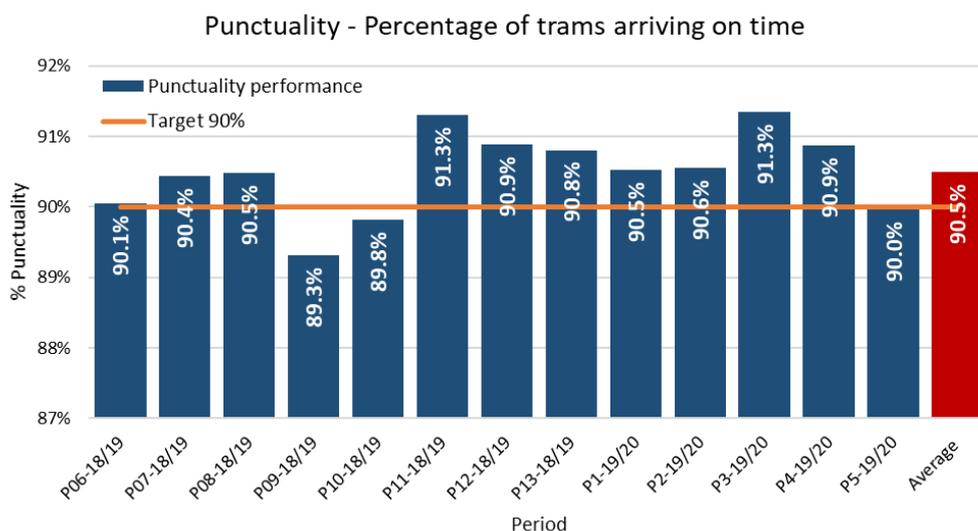
- A pantograph failure on the Eccles line at Harbour City on 17th January;
- A car incursion onto the track on the Rochdale line resulting in a four hour delay during the evening peak period; and
- Significant snowfall during the morning peak period on the 30th January 2019 affecting all transport networks across Greater Manchester.

4.8 This followed five consecutive periods of network punctuality being at, or better than target across the busiest periods of the year.

Punctuality - Percentage of trams operating to time.

4.9 TfGM also reports on the percentage of trams arriving at stops within the 6- or 12-minute service frequency. This measure is reported publicly on the tfgm.com website, and broken down on a line by line basis (see Appendix 2).

4.10 The annual average punctuality performance covering the 12 months (13 periods) between August 2018 and August 2019 was marginally better than target at 90.5%.

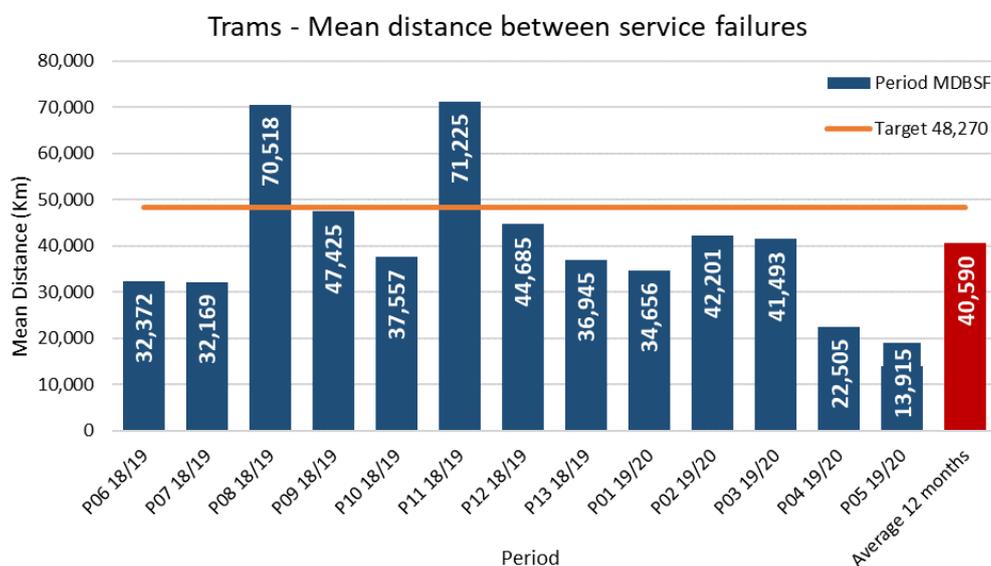


4.11 Although Period 11 was challenging in relation to Excess Wait time, with the exception of 17th January (on time falling to 79%) and 30th January 2019 (on time performance 88%), the percentage of trams arriving on time was particularly strong with non-disruption days averaging 92% on time within Period 11.

4.12 The percentage of trams arriving on time during Period 9 (11th November – 8th December 2018) reflected the impact of significant road traffic issues within Manchester City Centre as a result of Regent Road works, midweek football match ingress and crowding at the City Centre Christmas markets which required service diversions around the City Centre utilising Market Street rather than Exchange Square. This disruption continued into, and was reflected within Period 10 punctuality results.

Asset reliability - Trams

4.13 The distance between service affecting failures provides a comparison of asset reliability by type of asset.



4.14 30 service failures per period were reported in both Period 6 and Period 7 2018/19, with contributing factors including an increased number of brake and air conditioning faults resulting from increased temperatures, and higher numbers of road traffic collisions.

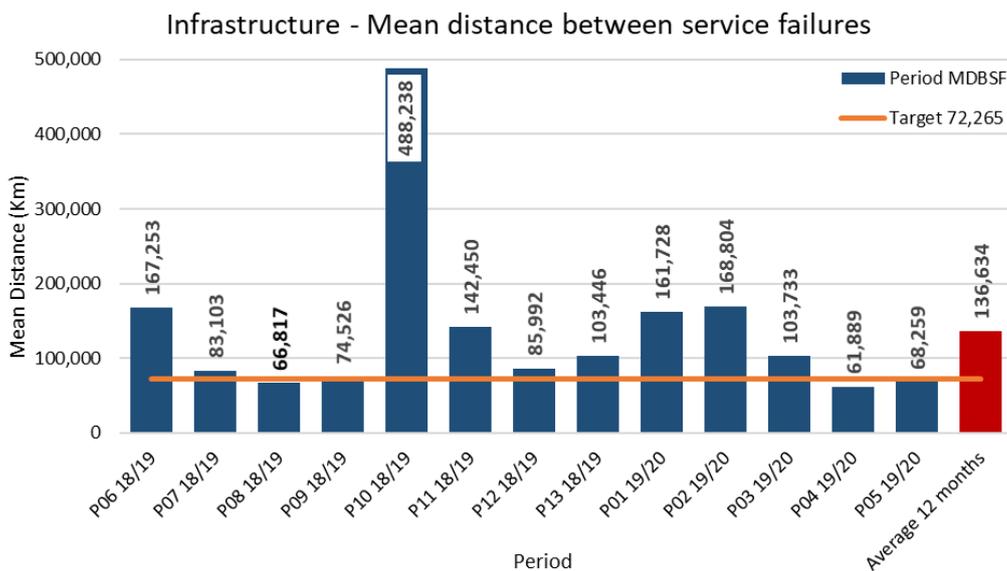
4.15 Period 13 2018/19 and Period 1 2019/20 were adversely impacted by a number of tram in service failures, axle bearing issues and fractures on the roof frames of a number of vehicles.

4.16 As referenced in the “Reliability” section, tram availability was significantly affected by adverse weather conditions, road traffic collisions and a pantograph failure in Period 4 and Period 5 19/20

4.17 Consequently, the rolling 12-month operational performance fell short of target (48,270 km) by approximately 7,500 km.

Asset reliability - Infrastructure

4.18 Infrastructure reliability performance, in terms of service distance travelled between failures, was well in excess of the annual target, only falling below target three times during the year.



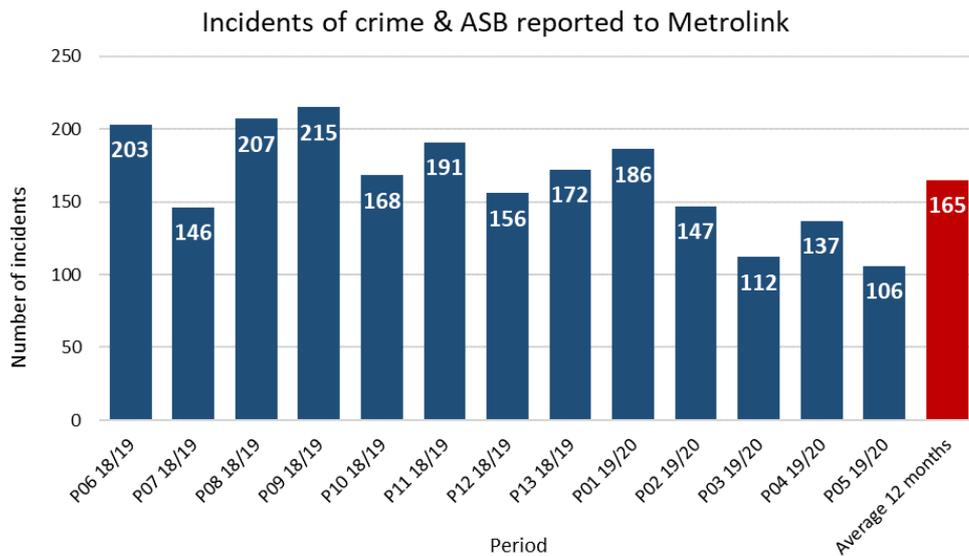
4.19 In addition to issues already referenced occurring in Period 4 and Period 5 2019/20, Period 8 (14th October – 10th November 2018) also failed to hit target.

4.20 Infrastructure failures in Period 8 included a signalling failure at Queens Rd, point's failures and communications (fibre optic network) failures at St Peter's Square and between Bury and Whitefield.

Crime & Anti-Social Behaviour

4.21 On average, 165 incidents of crime and anti-social behaviour per month were reported to Metrolink across the duration of the year, the majority occurring at night.

4.22 Significantly higher number of incidents were reported in Period 6, Period 8 and Period 9, with periods 6 and 8 closely correlated to dates of school holidays within Greater Manchester.

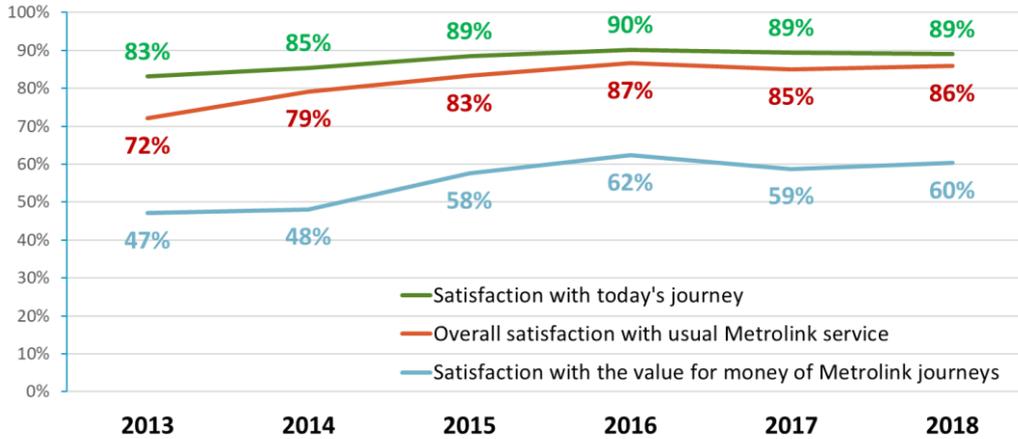


- 4.23 Several high-profile incidents of crime and anti-social behaviour occurred during the year, with a number of these incidents being reported on the Oldham Rochdale line.
- 4.24 TfGM has been working closely with KAM and GMP over the duration of the year to identify hotspot areas and direct additional resources to address crime and anti-social behaviour on the network.
- 4.25 A significant increase in tram surfing incidents was recorded during the year, with over 63 separate incidents reported between July 2018 and the end of August 2019. A multi-agency group was formed comprising TfGM, KAM and GMP representatives, and a number of initiatives implemented to address the issue. The average number of tram surfing incidents has reduced from 7 incidents per period pre-March 2019, to 3 incidents per period post-March 2019.
- 4.26 As a result of byelaws being enforced on the Metrolink network, total recorded incidents have increased from 1,570 in 2017/18 to 2,063 in 2018/19.

Customer Satisfaction

- 4.27 Transport Focus has undertaken a program of customer surveys across the Metrolink network from October 2013, measuring passenger satisfaction across several variables including overall journey experience and value for money.
- 4.28 Significant increases in customer satisfaction ratings have been recorded since the survey began, demonstrating positive ratings against a context of increasing patronage over the period.

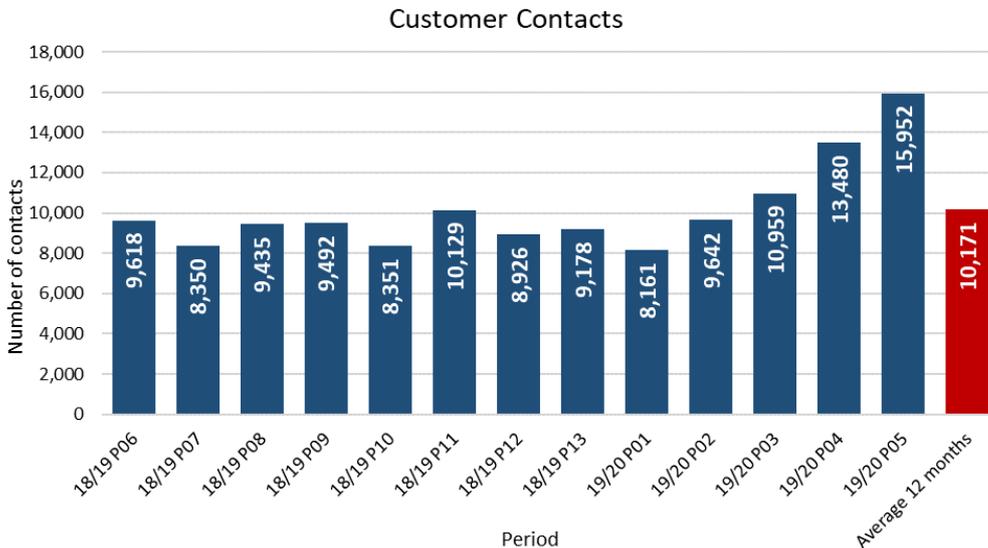
TfGM Metrolink customer satisfaction indicators



4.29 A target of 90% customer satisfaction with today's journey has been set as a key performance indicator, with performance from the 2018 survey marginally below the set target at 89%.

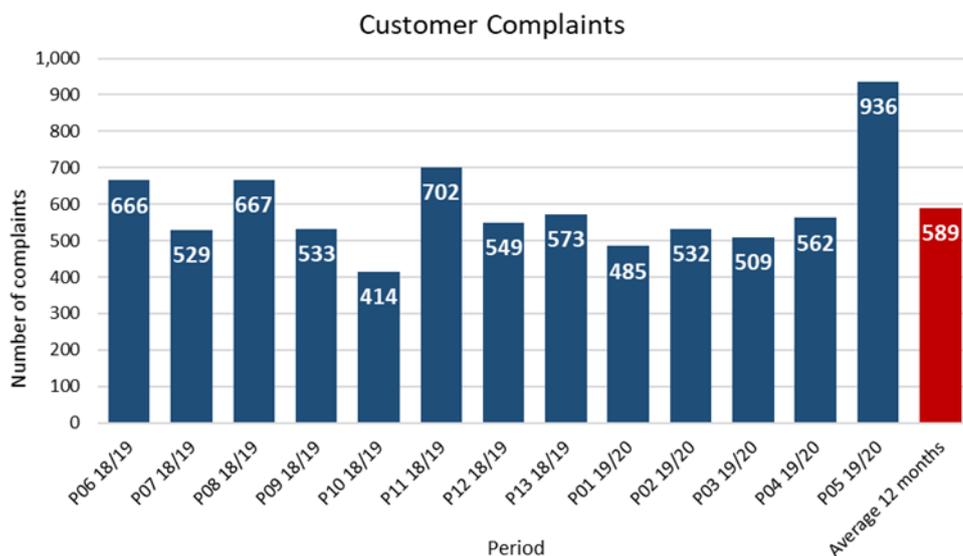
Customer contacts and complaints

4.30 113,700 customer contacts were dealt with over the duration of the year, averaging at just over 10,000 customer contacts per period (excludes twitter contact).



4.31 The category of contacts varies by period, but general enquiries about the network typically account for a third of contacts. During the period of change to zonal fares in January 2019, customer contacts regarding tickets increased to over 20% of enquiries (from an average of 18%).

4.32 Complaints account for 1 in every 16 customer contacts. As per enquiries, the category of complaint varies on a period basis, but cash lost in Ticket Vending Machines is consistently the highest complaint category, followed by service disruption and inappropriate behaviour on the network.



5 CAPITAL PROGRAMME

Trafford Park Line

- 5.1 The Trafford Park Line project made excellent progress during the year with most of the civil engineering and highway works completed ahead of schedule.
- 5.2 The main electrical, overhead line and control systems work is now firmly underway with a view to testing trams on the live system from January.
- 5.3 Works to transform the highway network to facilitate the Trafford Park Line will be completed at the end of 2019.
- 5.4 Works are continuing to transform the Crumpsall Metrolink stop in preparation for the start of the new Trafford Park Line service during 2020.
- 5.5 Several engineering possessions took place on the Bury Line throughout the year to install new rails, overhead line and signalling systems at Crumpsall as well as new passenger facilities. The Crumpsall works will be completed by the end of the year.

Fares and Ticketing

- 5.6 Two major developments in Metrolink fares and ticketing took place in the first half of 2019, the changes to a zonal fare system and the introduction of contactless payments.
- 5.7 The introduction of zonal ticketing significantly simplified Metrolink ticketing to make it more flexible and convenient for customers.
- 5.8 The introduction of contactless payments in July removed the need to buy a ticket or download an app, giving passengers flexibility in the way they interact with Metrolink services. The system “caps” the daily amount that passengers pay at the value of the equivalent travelcard once passengers touch-in and touch-out at platform validators for each leg of their journey.
- 5.9 As of mid-September, over 250k journeys have been made on the new contactless system. While the system is a success, there remains a significant number of customers failing to “touch off” at platform validators to complete their journey resulting in some overcharge. TfGM provides refunds where applicable and is looking at ways to make touching out more consistent.

New trams

- 5.10 An order for 27 new Bombardier M5000 trams was placed during the year. The trams will start to arrive and enter passenger service during 2020.
- 5.11 Several infrastructure changes are required to facilitate the additional capacity that the trams will bring such as new substations, depot stabling facilities and park and ride enhancements at Whitefield and Radcliffe.

Other enhancements

- 5.12 Several other significant enhancements are underway across the network including upgrades to passenger facilities at Cornbrook and Shudehill tram stops.
- 5.13 Progress has also been made with respect to upgrading Heaton Park and Whitefield stops, with the aim of completing improvement works in 2020.

6 Corporate Social Responsibility

- 6.1 KAM has broadened the scope of the customer facing Ambassador role over the past 12 months. The role prioritises customer engagement and forges links with local communities.

- 6.2 A bespoke programme of activity has been delivered with local schools and several initiatives have been undertaken with the wider community. The following are just a few examples of activities which have taken place in the past year:
- Sponsorship of six mentees at Chorlton High School;
 - Continuing engagement with the “Women in Engineering” campaign;
 - Close partnership working with youth offending teams to deliver presentations on the impact of anti-social behaviour and crime;
 - Ongoing work to provide food bank donation boxes at both Metrolink depots; and
 - Promotion of independent lifestyles and supporting people with a disability through work with the Pure Innovations organisation.
- 6.3 KAM has committed to apprenticeships within the local community, employing 28 new apprentices and trainees from underprivileged backgrounds across Greater Manchester in the last year.
- 6.4 More than 40% of procured products and services are now sourced within a 25-mile radius of Greater Manchester, ensuring that we continue to support industry and employment within and around the region.
- 6.5 These activities are designed to showcase the Metrolink brand in a positive light by educating a diverse range of the Manchester community on behaviours and safety, as well as supporting projects which champion local vulnerable communities.

7 RECENT OPERATIONAL PERFORMANCE

- 7.1 As the charts in earlier sections of this report show, performance in the most recent quarter has been impacted by several road traffic collisions as well as signalling issues in key locations. As a consequence of this challenging period, a number of trams have been out of service for repairs. Some of these have been out of service for some time due to the lead time for replacement parts. The outcome is that vehicle availability struggled for a time to meet the requirements to operate peak weekday service and therefore a number of services which would have operated as a double unit, have had to operate as a single unit. Gradually these trams have come back online but the capacity challenge will not be fully resolved until the new batch of trams become operational.

- 7.2 Vehicle reliability and availability will continue to be monitored at a senior level by both KAM and TfGM.
- 7.3 KAM's Operational Incident Reduction Group continues to visit key locations on the network where high numbers of road traffic collisions occur. A recent site visit to the Ashton line took place with Tameside Council and similar meetings will take place in other Local Authority areas with a view to making changes at key junctions to improve road safety.
- 7.4 Despite these recent challenges, performance is returning to targeted levels. The ability to provide capacity to meet demand remains our biggest challenge but with the Trafford Park line opening and new trams arriving in 2020 the outlook for Metrolink passengers is good.

Danny Vaughan
Head of Metrolink

Appendices

Appendix 1 – Period date listing

This report details the highlighted Period/s

Financial Year	Period	Start Date	End Date
2018/19	1	01-Apr-18	28-Apr-18
2018/19	2	29-Apr-18	26-May-18
2018/19	3	27-May-18	23-Jun-18
2018/19	4	24-Jun-18	21-Jul-18
2018/19	5	22-Jul-18	18-Aug-18
2018/19	6	19-Aug-18	15-Sep-18
2018/19	7	16-Sep-18	13-Oct-18
2018/19	8	14-Oct-18	10-Nov-18
2018/19	9	11-Nov-18	08-Dec-18
2018/19	10	09-Dec-18	05-Jan-19
2018/19	11	06-Jan-19	02-Feb-19
2018/19	12	03-Feb-19	02-Mar-19
2018/19	13	03-Mar-19	30-Mar-19
2019/20	1	01-Apr-19	28-Apr-19
2019/20	2	28-Apr-19	25-May-19
2019/20	3	26-May-19	22-Jun-19
2019/20	4	23-Jun-19	20-Jul-19
2019/20	5	21-Jul-19	17-Aug-19
2019/20	6	18-Aug-19	14-Sep-19
2019/20	7	15-Sep-19	12-Oct-19
2019/20	8	13-Oct-19	09-Nov-19
2019/20	9	10-Nov-19	07-Dec-19
2019/20	10	08-Dec-19	04-Jan-20
2019/20	11	05-Jan-20	01-Feb-20
2019/20	12	02-Feb-20	29-Feb-20
2019/20	13	01-Mar-20	31-Mar-20

Metrolink Performance

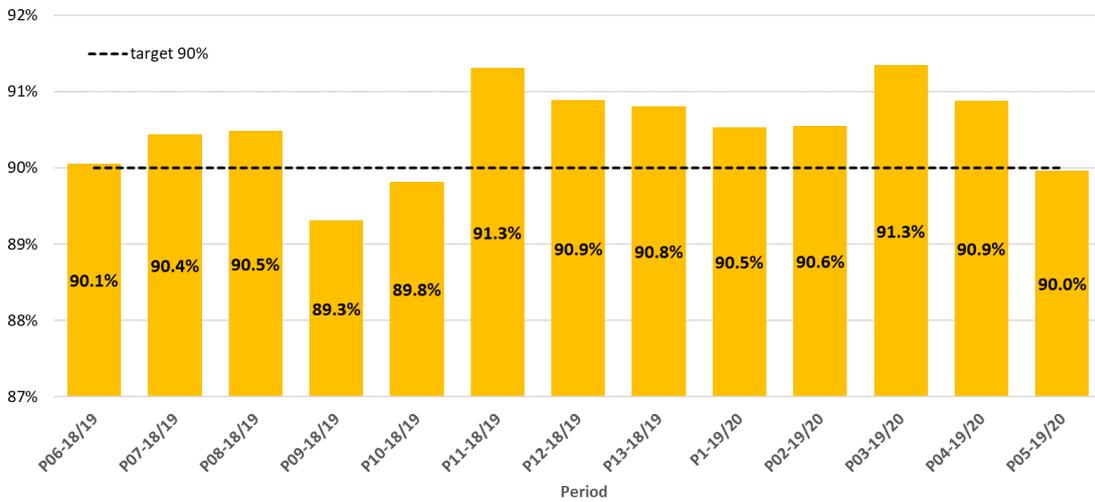
Network Summary



Punctuality

Percentage of trams departing less than two minutes late.

Average: 90.5%



Reliability

Percentage of planned miles operated.

Average: 99.2%

