

Real-time network management: Lessons and legacy from the 2018 Gold Coast Commonwealth Games

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About us



4 to 15 April, 2018 - GC2018 in numbers



More than **seven million** estimated trips were taken across the Games period in April. Public transport was free to ticketed spectators to help them enjoy the Games



2.3 million local bus trips



More than **600,000** heavy rail Gold Coast line trips



More than **1.1 million** light rail trips



More than **1.5 million** spectators connected to Games venues on shuttles buses

GC2018 TMR workforce

- There were 517 TMR employees seconded from right across the state to undertake GC2018 roles between 26 March and 15 April 2018
- 69 different Games time roles were utilised
- The mix of roles included front-line customer service and communications, load zone and facilities management, safety and security, real time traffic and transport network management
- 5887 individual shifts were completed during this time
- 48,156 hours were collectively worked.



GC2018 and transport objectives

Deliver an effective transport task to contribute to a successful Gold Coast 2018 Commonwealth Games (GC2018):

- Enable spectators and Games Family—particularly athletes—to reach venues on time
- Keep the Gold Coast moving.



1 million+	50,000	6600	3500
Ticketed spectators	Games workforce and volunteers	Athletes and team officials	Accredited media

\$420m	\$163m	\$357.7m	>300km
7.5km Light Rail extension to Helensvale	Heavy Rail line duplication	Pacific and Smith Street Motorway upgrades	Designated routes and traffic management

GC2018 challenges and learnings

- Geographical spread of venues- Gold Coast, Brisbane, Cairns and Townsville
- Already congested road network:
 - Linear road network with topography (water crossings) creating natural bottlenecks
 - High percentage mode share for private car use
- Limited public transport options across Gold Coast and servicing venues
- Large daily spectator movement from Brisbane (Pacific Motorway and rail link).



Advanced Transport Modelling

- 8 major model versions over 6 years
- Assumptions endorsed by an Integrated Transport Taskforce (GOLDOC, TMR, CoGC)
- 360 scenarios tested over 6 years to inform planning decisions
- An “hour block” view of the network, key venues and locations
- Network plans developed from a baseline of the model with refinement over time
- Refined based on assumption changes, schedule changes and ticket sales data
- The model generated a range of other tools for predicative analysis of demand and travel patterns.



Enhanced public transport timetables and Games Journey Planner



- 24 hour service during GC2018
- Maximum frequency 10 trams per hour (six minute frequency)
- 17 of 18 (one contingency) trams in use at peak times.



- 24 hour operations across GC2018
- Six trains per hour—boosted to eight for peak periods
- 176 additional services across GC2018.



- 24 hour operation on key routes
- 12 routes uplifted to 'turn up and go' (15 minute frequencies)
- All other routes ran weekday timetables

Shuttle bus network and Park 'n' Ride

13 park 'n' rides = 10,000 car parks

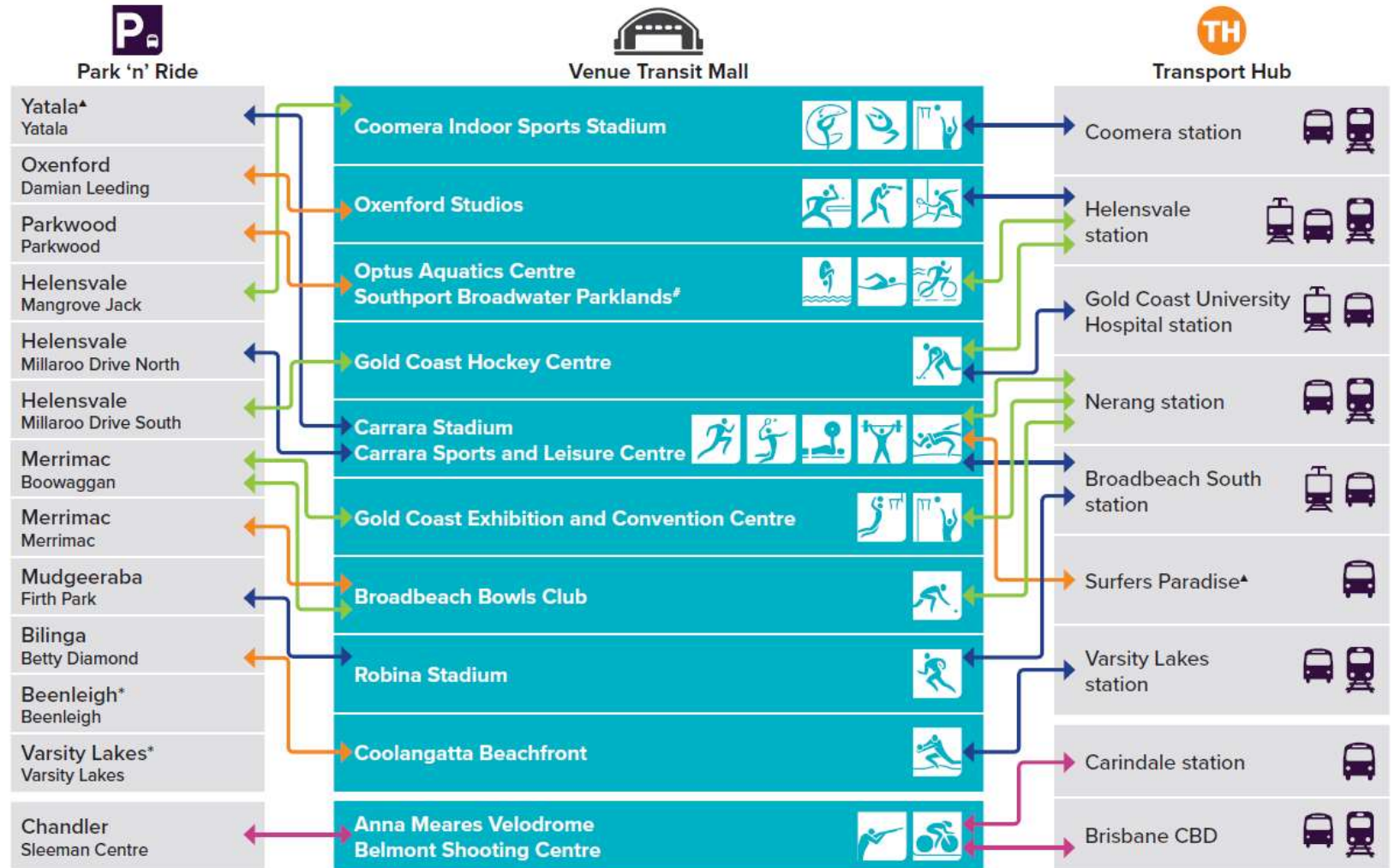
Nine transport hubs

20+ shuttle bus routes linking to venues

24 hour GC2018 bus route

400+ buses

600+ drivers



* These park 'n' rides are available for spectators and workforce. All Games venues can be accessed by train with a connection to public transport.
 All other park 'n' rides are for pre-booked ticketed spectators only.
 * Triathlon – ticketed spectators only (nb. Marathon is an unticketed event and patrons will not be able to use event shuttles or catch free public transport)
 * Event shuttle from Surfers Paradise Transport Hub services Carrara Stadium only



Outcomes - Public transport patronage

Average daily passenger journeys (pre-GC2018)



Average daily passenger journeys (GC2018)



Outcomes – Spectator travel experience and temporary initiatives



86%
positive overall travel experience to the Games

Quality of services

The quality of public transport services were received extremely positive amongst spectators, with nearly all feeling safe and secure on public transport.

Ease and efficiency of services



Quality of services



Feeling safe and secure



Transport accessibility



Games Time Public Transport Coordination Centre

- 24 hour operations
- GTPT Hub: multi-modal public transport hub with operator representatives – QR, Surfside, GoldLinQ, GamesLinQ, Secure Parking
- Real-time demand and incident management including live changes to public transport operations
- Integrated with Road Network and Travel Demand Management hubs to effect real-time network and customer behaviour changes
- Two temporary depots to support event shuttle operations.



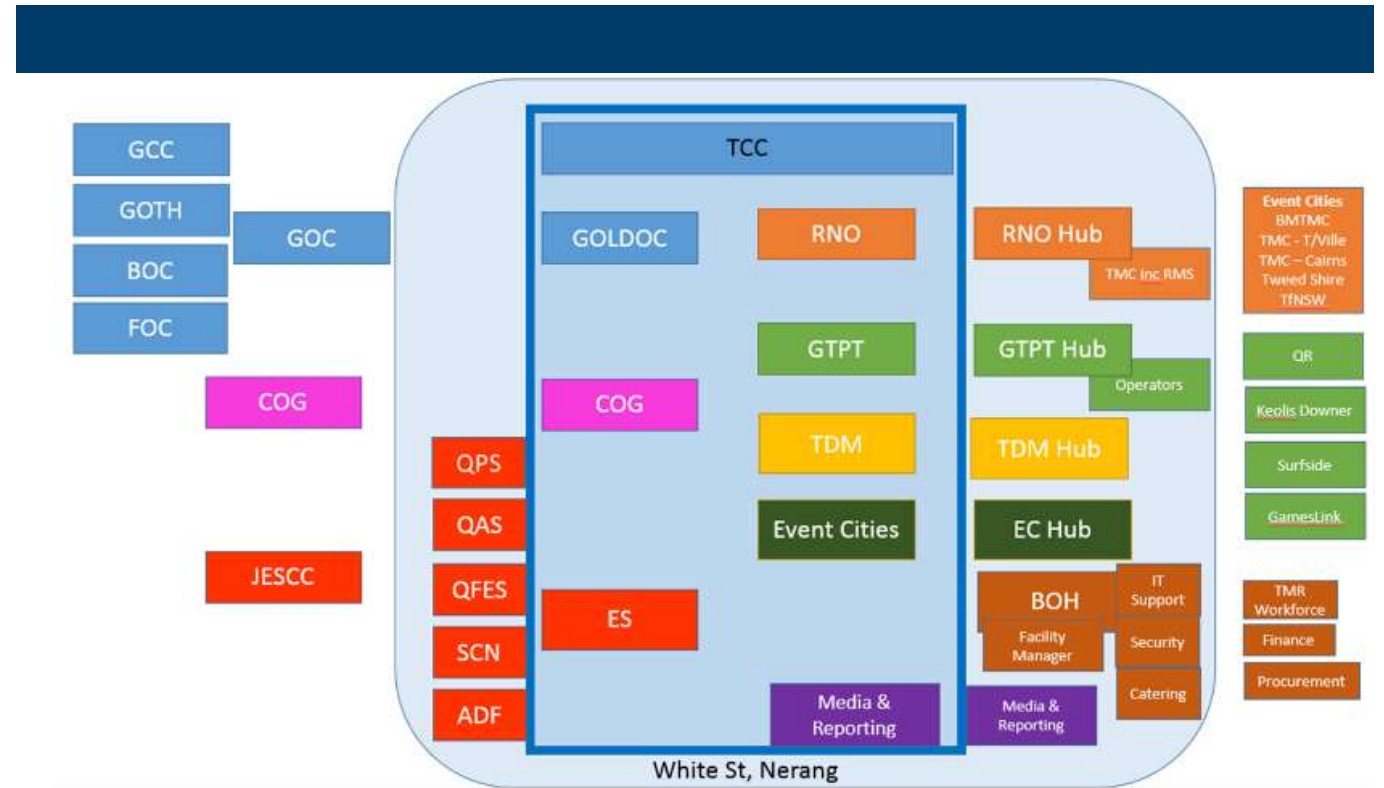
Games Time Public Transport Coordination



- Ability to deploy additional services to meet demand and respond to incidents
- Direct link to ground employees at public transport facilities including transport hubs, malls and park 'n' rides to assist customers
- Accessible services integrated across the urban, shuttle and taxi network to provide bespoke accessible services between venues and public transport facilities.

Integrated operations with a Transport Coordination Centre

- Bespoke incident management system
- Integrated road, public transport and security operations
- Multi-agency representation: transport operators, police and emergency services
- Linked to wider GC2018 operations centres, including the Games Operations Centre (GOC), Joint Emergency Support and Coordination Centre (JESCC) and the City Operations Group (COG).



Public Transport service delivery partners



- Uplifted services for all events
- Provided additional as-required services to manage demand
- Full-time role in the GTPT Hub for network coordination.

- Developed new, bespoke network including procurement of vehicles and drivers solely for GC2018
- Full-time role in the GTPT Hub for network coordination.

- Provided rail contingency fleet and rail infill services
- Dynamically altered service provision mid-games to assist with the Gold Coast task
- Remote link into the GTPT Hub and provided a resource for critical network events.

- Uplifted services for Brisbane venues
- Provided additional late night services to connect customers from rail.

- Involved in planning throughout
- Uplifted services for GC2018
- Provided vehicle tracking technology to the GTPT Hub and a remote link to the operations centre.

Legacy – TMR Transport Coordination Centre (TCC)

- The TCC will be a TMR-led multimodal operations centre integrating key operational activities in real-time.
- Co-located operations employees from across TMR manage and influence network movements in real-time through situational awareness, operational response and customer engagement.
- The TCC will mitigate disruption caused by day-to-day congestion, large infrastructure upgrades, major events and significant unplanned disruptions, such as severe weather.



Benefits of the TCC

- Improve transport coordination to keep SEQ moving
- Maximise the capacity of the existing network
- Provide more reliable travel times
- Reduce overall delay minutes
- Improve customer information provision
- Deliver a safer, more accessible transport network.



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