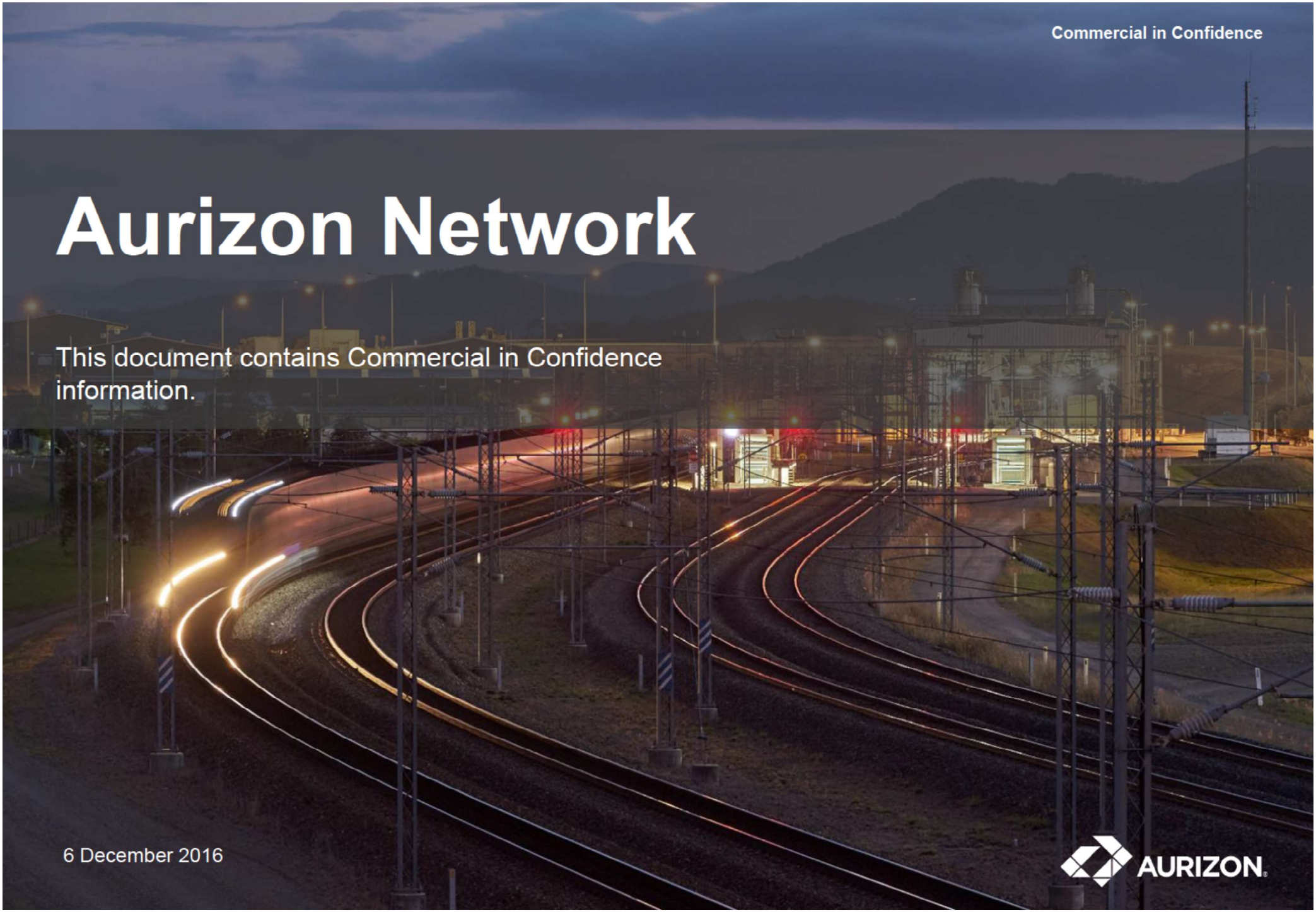


Aurizon Network

This document contains Commercial in Confidence information.

6 December 2016

AURIZON

Consistent with the QCA Act we are seeking "a return on investment commensurate with the regulatory and commercial risks involved"

NOT A REGULATED UTILITY

- Relatively small number of customers, exposed to a single asset class (coal)
- Volatile operating environment, including increased counterparty risk and longer term structural issues with regard to future demand of thermal coal
- Fragmentation of the Regulated Asset Base (RAB) by system increasing the risk of asset stranding
- Revenue deferrals which result in expansion capital being excluded from the RAB e.g. approximately $260m of Wiggins Island Rail Project (WIRP) related capex

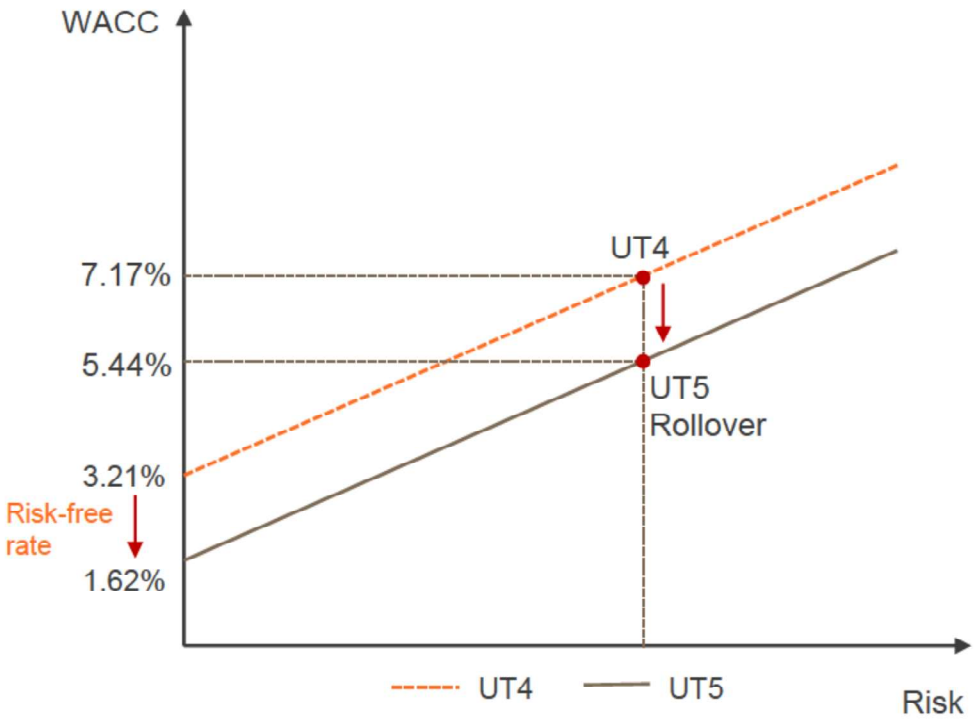
REAL WORLD EMPIRICAL EVIDENCE

- Aurizon Network is perceived by the rating agencies as having a higher business risk and thus requires a higher credit metrics (e.g., FFO/Debt) to maintain the same BBB+ credit rating

FFO/Debt Ratio	Aurizon Network	Utilities
Moody's	>18%	>7%-8%
S&P	>13%	>7%-8%

AURIZON

QCA's WACC methodology does not deliver a return commensurate with Aurizon Network's risk profile



- In UT4, we believe that the QCA delivered a return lower than Aurizon Network's risk profile
- However, if the UT4 WACC of 7.17% is rolled over in UT5, an even lower WACC of 5.44% is implied
  - Mathematically driven result because of the reduction in risk-free rate
- WACC @ 5.44%
  - Is inconsistent with investor expectation
  - Widens the gap between the QCA WACC and the appropriate return commensurate with Aurizon Network's true risk profile
- WACC @ 5.44% also relies on a strong assumption of excess (equity) returns held constant
- Cost of equity that declines 1-to-1 with the risk-free rate is highly implausible
- Aurizon Network believes its true risk profile (β) is greater than the QCA's UT4 decision

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We believe that a different approach by the QCA on 3 of the WACC parameters will drive a return closer to Aurizon Network's risk profile

Regulator	MRP	Risk free rate		Distribution Rate
	Siegel	Term matching	Long term	FAB data
QCA	✓	✓	x	x
NZCC	✓	✓	x	n/a
AER	x	x	✓	✓
ACCC	x	x	✓	✓
IPART	x	x	✓	✓
ERA*	x	x	✓	✓
ESCSA	x	x	✓	✓
ESC	x	x	✓	✓
UK Regulators (e.g., Ofgem)	x	x	✓	n/a
US Regulators (e.g., STB)	x	x	✓	n/a

* The ERA does not use term matching for rail but does for energy

MRP

- Siegel approach is one of the four methods used by the QCA to determine the MRP
- Siegel approach disregarded by all other Australian regulators and most international regulators

Risk free rate

- The QCA aligns risk-free rate term with Aurizon Network's regulatory cycle (4-year) to satisfy the theoretical NPV=0 principle
- Risk free rate aligned to the regulatory term is unique to the QCA and NZCC
- The QCA is the only regulator that uses different risk-free rate terms in the CAPM model

Distribution rate

- As acknowledged by the Tribunal, estimating distribution rate using FAB data is not contentious among regulators
- The QCA is an outlier among regulators to use the ASX 20 firm approach which inflates distribution rate due to the existence of foreign tax

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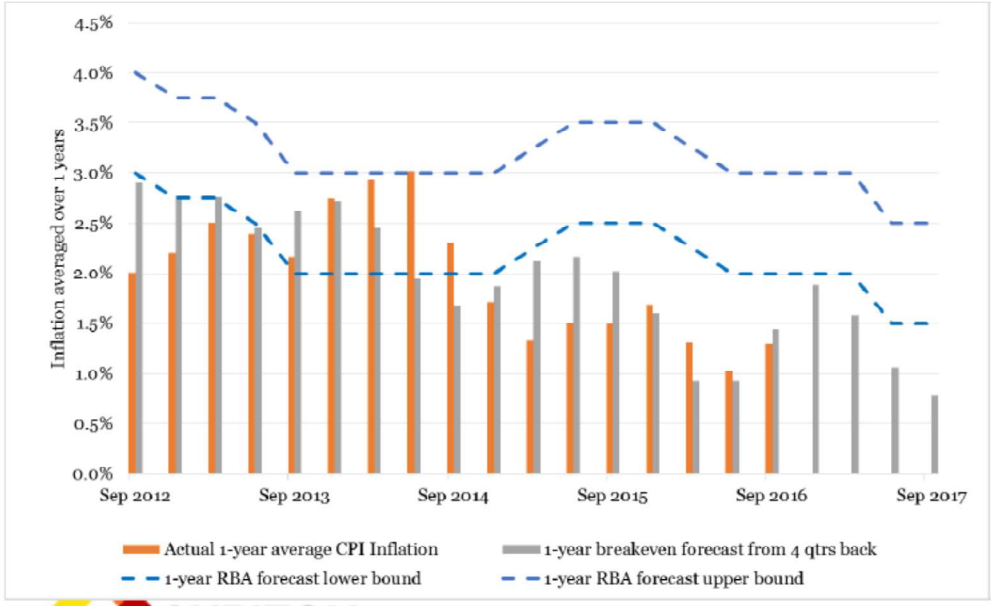
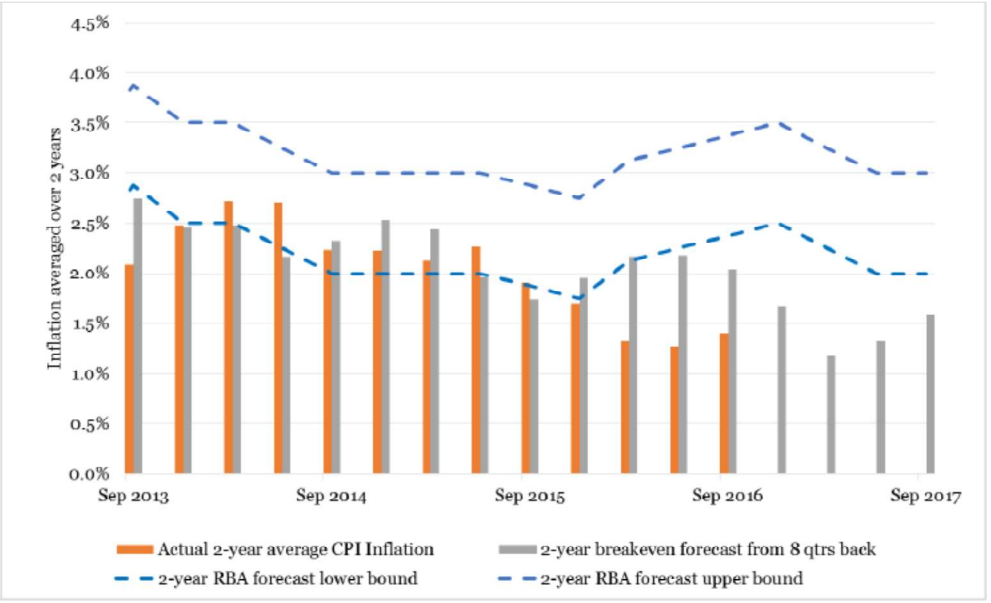
Aurizon Network's inflation forecast methodology

- Maintaining the current QCA approach of an inflation forecast of 2.5% is inconsistent with current market expectation and will undercompensate Aurizon Network
- The QCA has recognised the issue of inflation forecast in the DBCT Final Decision and decided to adopt the geometric average of RBA short-term forecast and the mid-point of the RBA inflation target range (2.5%)
- However, Aurizon Network believes the breakeven inflation forecast (the difference between the nominal and indexed 4 year government bond) provides a better inflation forecast than the RBA short-term forecast
  - It is a market based methodology and consistent with cost of capital build-up
  - It reflects the weighted average of all possible future outcomes, while the RBA method relies on strong assumption that inflation will revert back to 2.5% after the RBA's short-term forecast horizon (2-year)
  - It has better forecasting properties than RBA short-term forecast (less biased and lower root mean square error)





Appendix

Low returns impact incentives to maintain and improve network performance

1 Limited investment in technology and innovation

Recent projects that may not have proceeded in a low return environment include:

- PACE – software developed by Aurizon Network with the University of Newcastle which enables it to optimise track access planning for maintenance. Led to overall reduction in planned closure hours from 1360 to 878 (btw FY14 and FY17)
- Project Himalaya - [redacted] modernisation of end of life mechanised plant. Delivers higher productivity and reduces track access times
- Resin based culvert solutions – limits need for full replacement. Substantially reduces track closures and reduces renewal costs
- Ballastless Track Slab – for critical network points. Removes closure requirements enhancing network productivity
- Robotic welding technology – currently under assessment. Potential to materially reduce closure over-runs and increase rail weld reliability, reducing closure hours, enhancing performance to plan and network reliability

2 No capex beyond minimum to sustain current volumes

Increased risk of asset failure prior to replacement:

- At present we seek to replace as close to life expiry as present, using an asset criticality/matrix to prioritise renewals
- Our approach is already conservative, for example, in November a feeder station failed, 4 months prior to its planned replacement
- Fix on fail is not only more expensive, but results in greater network outages. For example in March 2015, a rail defect in Goonyella identified during an inspection required urgent repair: this resulted in over 24 hours of unplanned delays

Future backlog of deferred capex impacting future capacity

- Aurizon Network has recently ramped up rail replacements because modelling demonstrated that if the rate was not increased, it would have been unable to meet the resulting future renewal requirements – without investment now, these requirements would have spiked in future years making it practically impossible to replace expired assets from an asset availability, resourcing, cost and capital planning perspective
- Critical maintenance and renewal backlogs result in extreme safety issues: the UK Network Rail Hatfield crash, which killed 4, was due to rail defect, resulting from a cumulative backlog of work. The rail had been identified for repair 21 months prior but not addressed

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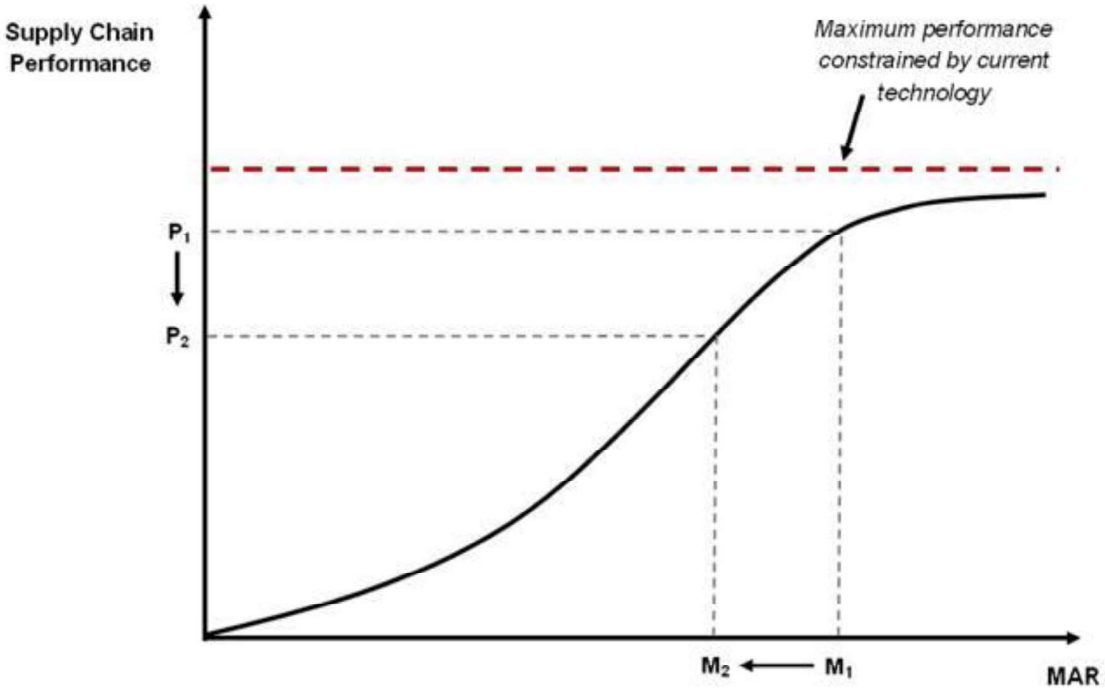
A reduction in the maintenance allowance will see a reduction in operational performance



M_1 = MAR reflects efficient costs and return commensurate with commercial and regulatory risks

M_2 = MAR below efficient costs

MAINTENANCE COSTS ARE FIXED [redacted]

[redacted]

If MAR is set too low, AN will still meet core safety and contractual obligations, but cost-out will affect performance

CASE STUDY: Callemondah

A rail defect on no. 4 Arrival Road needs repair. The low labour solution is to temp plug (4hrs) with final works next day (8hrs)

To prioritise throughput, Aurizon Network chooses "high" labour solution, resulting in a 3.5 then 2.5 hour close, saving 6 closure hours. This avoids c.17 cancellations, at ~150k tonnes of coal (worth ~ $45m/$15m at current met/thermal coal prices)

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