BUILDING FIBRE HOW HARD COULD IT BE?

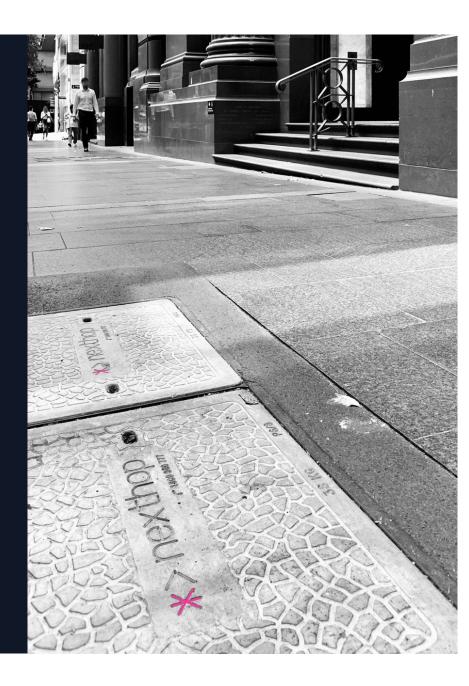
DAVID BROWN

EdgelX/@dabbles beer4peer/@dabbles AusNOG 2021 (Apr 2022)



WHY BUILD ANOTHER FIBRE NETWORK?

*> nexthop



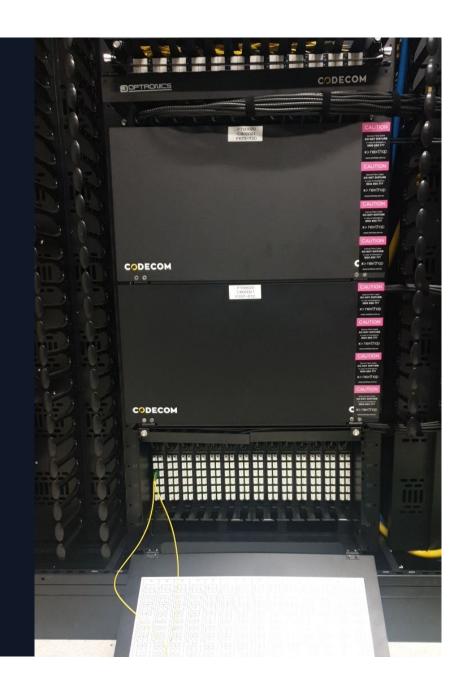
TPG MOBILE NETWORK





PAPERWORK Carrier License Legal Intercept TIO





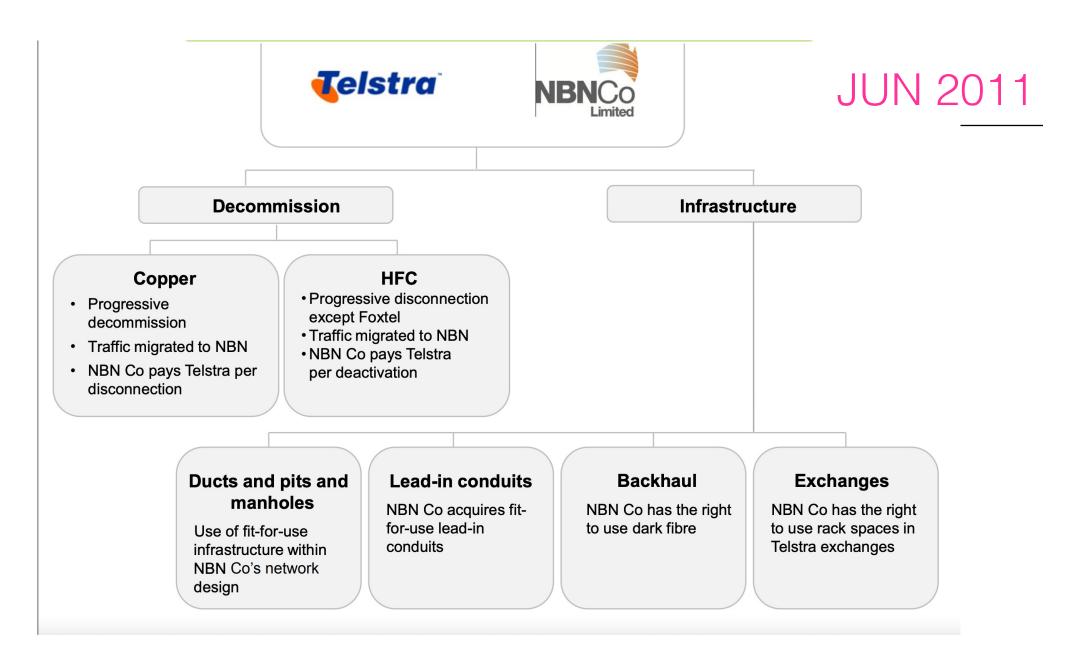
WHERE ARE WE PUTTING THE CABLE? Underwater Build Duct Power Poles Telstra Duct NBNCo Duct

*> nexthop



TELSTRA AND NBN





VOCUS FEARS TELSTRA DUCT EVICTION

New space race is underground.

Vocus Fibre has raised concerns that it and other lessees of Telstra duct space could be forcibly evicted to make way for NBN Co.

ITNEWS SEP 2011

https://www.itnews.com.au/news/vocus-fears-telstra-duct-eviction-275026

GREEN SPAGHETTI MONSTER

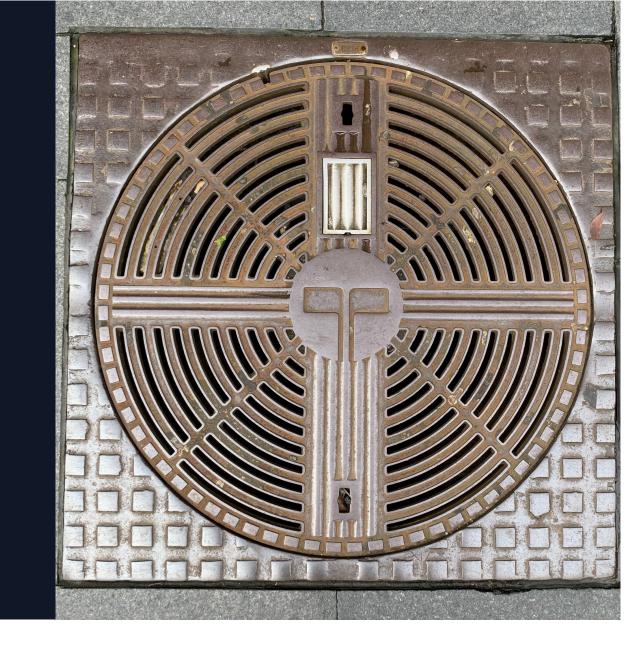


TELSTRA DUCTS AND TUNNELS 370,000 KM





TELSTRA TUNNELS





G.P.O. 1890



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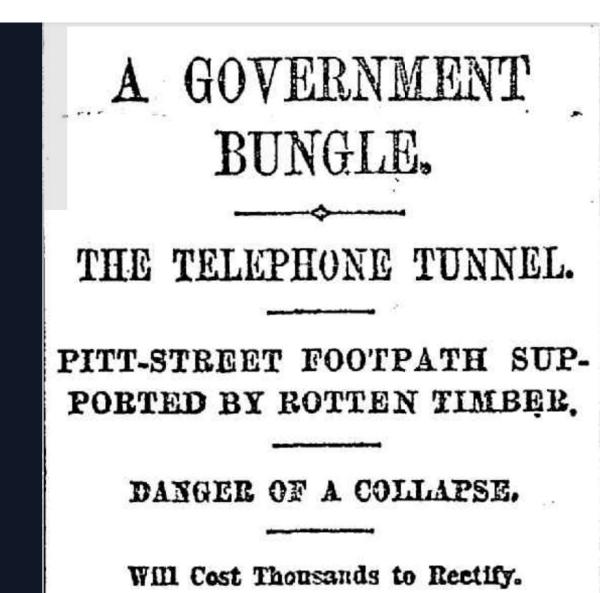
THE TELEPHONE TUNNELS

1892	G.P.O. to Moore St, Pitt St to Castlereagh St	700ft (200m)	£3,330
1895	Moore St to Exchange in Bridge St	1478ft (450m)	£4,444
-	Moore St to York St and on to Clarence St	1530ft (466m)	£3,413
1896	G.P.O. to Park St, Park St to Goulburn St, Goulburn St to the Railway Station	6977ft (2126m)	£17,974
	Castlereagh St to King St near St James Church	1128ft (343m)	£2,804
	Clarence, Kent and Liverpool St	3920ft (1194m)	£9,456
		4579m	£41,421 \$6,694,097.79 \$1,462 per metre

The Australian Star 1897 - https://trove.nla.gov.au/newspaper/article/231817727

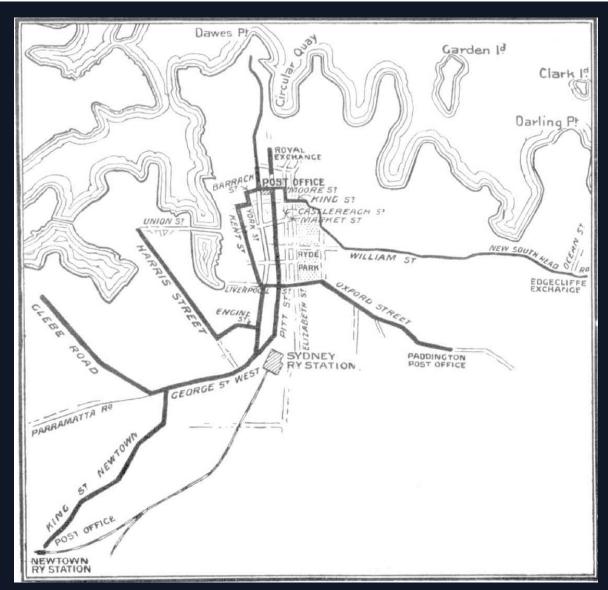
PITT ST TUNNEL 1897

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https://trove.nla.gov.au/newspaper/article/126243880

TUNNEL MAP 1911



https://trove.nla.gov.au/newspaper/article/263730572







1960

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TELSTRA DUCTS WHERE ARE THEY? MODERN API



Source: LinkedIn

MICROSOFT WORD + EMAIL

Forms

- Duct Access Application Form TP_ADR_C0_June 2021 (DOC, 3MB)
- Duct Access-study-request C0_D0_June 2021 (DOC, 137KB)
- Completion Inspection form_JCI_ICI_June 2021 (DOC, 114KB)
- DCP_Design Construction_proposal_M0_June 2021 (DOC, 126KB)
- CFD_Form_June 2021 (DOC, 105KB)
- Joint field-inspection request F0 June 2021 (DOC, 98KB)
- Duct_cancellation_request_CA_June 2021 (DOC, 113KB)
- Duct cancellation-compliance-inspection-form_CCI_June 2021 (DOC, 136KB)
- Manhole and Pit Layout Template (DOC, 249KB)
- Carrier_Evidence_ Request_Form_June 2021 (DOC, 37KB)
- EIC Study Request Form (DOC, 28KB)

FIRST NEXTHOP DUCT STUDY

Ducts Available Ducts Unavailable Bare Fibre 107 (m) 1,314 (m) 208 (m)

CALL THE LANDLORD



STUFF Cable, Tags & Tape, Joints, Pit Lids, Wall Boxes, Panels



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CABLE

CORES

12 sm@rt 12 MLT

72 sm@rt

72 MLT

144 MLT

144 sm@rt

360 FLEX

720 FLEX

1728 FLEX

312 sm@rt

DIAMETER

10mm 6.3mm

10.7mm

6.3mm

13.5mm

8.4mm

16.5mm

13.5mm

16.5mm

28mm

MAX DRUM

12km 12km 12km 12km

> 12km 10km 5km 5km

> > 5km

12km



MONETISE THE RISERS / TIO

Common Overseas

Telecommunications Act – Low Impact Facility / IBSCE

License Agreements

PIPE Networks Pty Ltd v Commonwealth Superannuation Corporation



HAND DIGGING



RESTORATION COST

BLUE STONE \$1

\$1000/m2

NORTH SYDNEY SANDSTONE

PERTH

\$3000/m2

\$4000/m2

D

GOOD NEWS / BAD NEWS



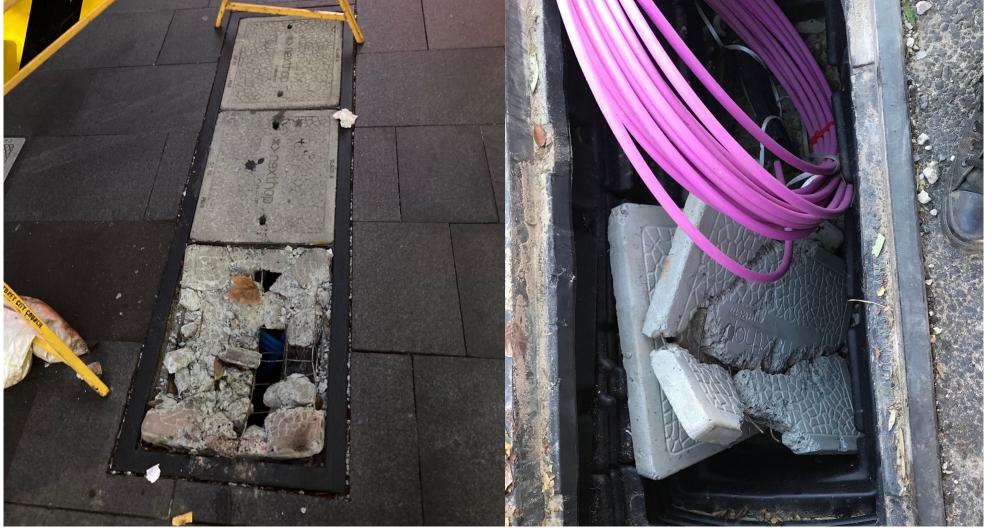
PAVERS BEFORE / AFTER



BROKEN PIT LIDS



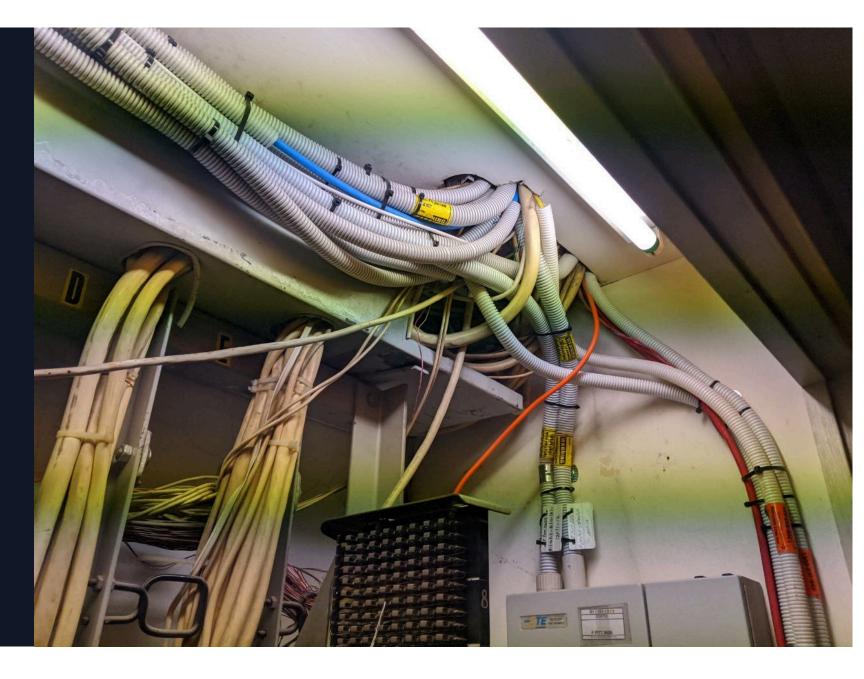
MORE BROKEN PIT LIDS



OBSTRUCTION



RISERS





DATACENTRES



ALEXANDRIA



NIMBY



THANK YOU

x> nexthop