To: QUESTnet Management Committee

From: Graham Rees

QUESTnet Configuration Notes.

Proposed letter to the AVCC in response to the their request for confirmation of configuration of equipment of the Queensland regional network of the AARNet.

The equipment configuration detailed in the AVCC report of the 21 December 1989, has been changed from that previously discussed with Mr G Huston during November.

I can't vouch for the accuracy of the pricing, since I don't have a price list.

Please let me know of any problems or suggestion asap so we can reply by the 15 January as requested.

Cheers,

Graham REES

QUESTnet Network Configuration

QUESTnet (Queensland Education, Science and Technology Network) is the Queensland Regional Network of the AARNet.

One major change in this configuration is the upgrading of the lines to the University Colleges from 9600bps to 48Kbps. This has been done for parity with all other similar institutions in Australia.

Details of the configuration are shown on the attached diagram and spreadsheet.

QUESTnet Hub

The QUESTnet Hub is located at the Prentice Computer Centre, The University of Queensland.

- The Hub has been configured with the largest chassis (AGS/2) by the AVCC possibly because of power supply requirements. It may be possible to use an MGS/2 chassis.
- Two CSC-4T Modules are included giving 8 serial lines which can operate up to speeds of 2Mbps each. This configuration results if one spare line.
- CSC-2E Module to connect to the QUESTnet and UQ Ethernets.
- SW-BSA Standard Bridge and Routing Software.
- SW-XSA X.25 Software to support the QUESTnet X.25 network.
- The Applications Server will initially be used to support smaller institutions (BCAE and GCCAE) and X.25.
- PSE Service fees are to cover the operational costs of the existing X.25 network in Queensland which is provided by The University of Queensland.
- Facilities Management covers the operational costs of the Hub and regional equipment.
- Regional Development funding is to provide for development of regional applications and value added services.

The University of Queensland

Connection by an Ethernet port directly to the Cisco Hub.

Queensland University of Technology

Connection by a Telecom 48K DDS line to a Hybridge-D. (A Hybridge-D has one E (Ethernet) and one T (Serial line to 2Mbps) connection). There is an existing ADS (Analogue Data Service) to QUT used for X.25. This connection will be required at least until early 1991.

Griffith University

There is an existing 2Mbps link to Griffith. Some bandwidth will be split from this link to provide the circuit for a Hybridge-D.

James Cook University

A Hybridge-D connected via a Telecom 48K DDS link.

University College of Central Queensland

(Formerly Capricornia Institute of Advanced Education). UCCQ uses X.25 extensively to support its distance education program. This site is configured with a larger chassis to support a serial line X.25 connection.

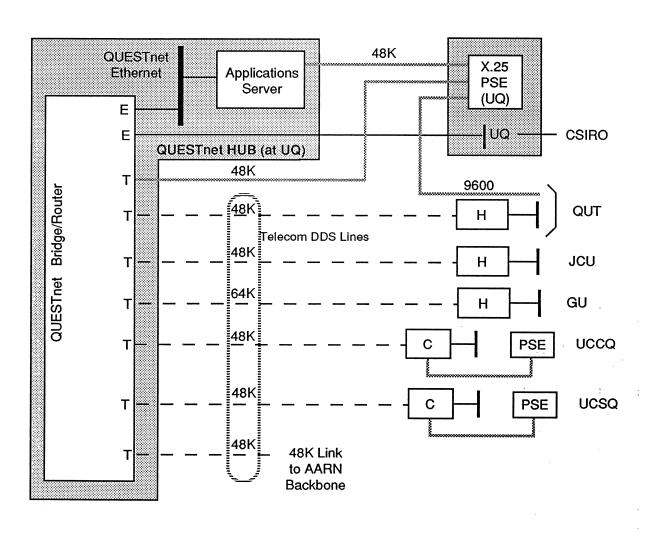University College of Southern Queensland.

(Formerly the Darling Downs Institute of Advanced Education). This institutions also make use of X.25 to support its distance education program and has been configured the same as UCCQ.

Gold Coast CAE

This institution will become a college of Griffith University from July 1990. As such it will require a connection fro parity with other university colleges. It is not clear what type of connection will be required.

CSIRO

The CSIRO connection will be via the Ethernet at the University of Queensland. All other CSIRO Queensland connections will be to the Division of Geomechanics, presently located on The University of Queensland St Lucia campus.

QUESTnet Ethernet

Applications Server

48K

X.25 PSE (UQ)

E

E — CSIRO

QUESTnet HUB (at UQ)

UQ

T

48K

QUESTnet Bridge/Router

9600

T — 48K — H — QUT

Telecom DDS Lines

T — 48K — H — JCU

T — 64K — H — GU

T — 48K — C — PSE — UCCQ

T — 48K — C — PSE — UCSQ

T — 48K — 48K Link to AARN Backbone

Ethernet

X.25

Serial Line (Router to router protocol)

Bridge/Router Types & Connection

C - Cisco MGS/2
H - Hybridge-D ET
E - Ethernet
T - Serial Line to 4Mbps

QUESTnet Network - Initial Configuration

	B	C	D	E	F	G	H	I
4							Expenditure	
5	Location	Equipment	Notes	Qty	Capital	Recurrent	1990	1990
6								Subtotals
7								
8								
9								
10	Hub	AGS/2		1	$14,996	$1,575	$14,996	
11		CSC-4T		0.5	$4,943	$519	$4,943	
12		CSC-2E		0.5	$2,331	$245	$2,331	
13		APP-LV4		2	$12,004		$12,004	
14		SW-BSA		1	$2,506		$2,506	
15		SW-XSA		1	$4,221		$4,221	
16		Ethernet Txvr, cable		2	$1,400		$1,400	
17		Applications Server		1	$20,000	$6,000	$20,000	
18		PSE Connection		2		$8,000	$8,000	
19								$70,401
20								
21		Facilites Management		1		$25,000	$25,000	
22		QUESTnet Regional Development		1		$35,000	$35,000	
23		QUESTnet Management		1		$5,000	$5,000	
24								$65,000
25	UQ	CSC-2E		0.5	$2,331		$2,331	
26								$2,331
27	QUT	Hybridge-D		1	$13,126	$1,378	$13,126	
28		CSC-4T		0.25	$2,472	$260	$2,472	
29		DDS 48K		1	$2,760	$12,984	$2,760	
30		Existing ADS Service		1		$1,500	$1,500	
31		PSE Service		1		$4,000	$4,000	
32								$23,858
33	GU	Hybridge-D		1	$13,126	$1,378	$13,126	
34		CSC-4T		0.25	$2,472	$260	$2,472	
35		Part cost of 2Mbps Service		1		$12,984	$12,984	
36								$28,582
37	JCU	Hybridge-D		1	$13,126	$1,378	$13,126	
38		CSC-4T		0.25	$2,472	$260	$2,472	
39		DDS 48K		1	$2,760	$35,976	$38,736	
40								$54,334
41	UCCQ	MGS/2		1	$12,004	$1,260	$12,004	
42		CSC-1E2S		1	$6,002	$630	$6,002	
43		SW-BSA		1	$2,506	$0	$2,506	
44		SW-XSA		1	$4,221	$0	$4,221	
45		APP-LV2		1	$396		$396	
46		APP-LR1		1	$99		$99	
47		CSC-4T		0.25	$2,472	$260	$2,472	
48		DDS 48K		1	$4,115	$23,760	$27,875	
49								$55,575
50	UCSQ	MGS/2		1	$12,004	$1,260	$12,004	
51		CSC-1E2S		1	$6,002	$630	$6,002	
52		SW-BSA		1	$2,506	$0	$2,506	
53		SW-XSA		1	$4,221	$0	$4,221	
54		APP-LV2		1	$396		$396	
55		APP-LR1		1	$99		$99	
56		CSC-4T		0.25	$2,472	$260	$2,472	
57		DDS 48K		1	$4,115	$23,760	$27,875	
58								$55,575
59	UCGC	DDS 9600		1	$1,740	$6,840	$4,290	
60								$4,290
61	CSIRO	UQNET Service Fee		1		$4,000	$4,000	
62								$4,000
63							$363,944	$363,944