



The Oxford Network Evolution (TONE) Project ICT Forum Update

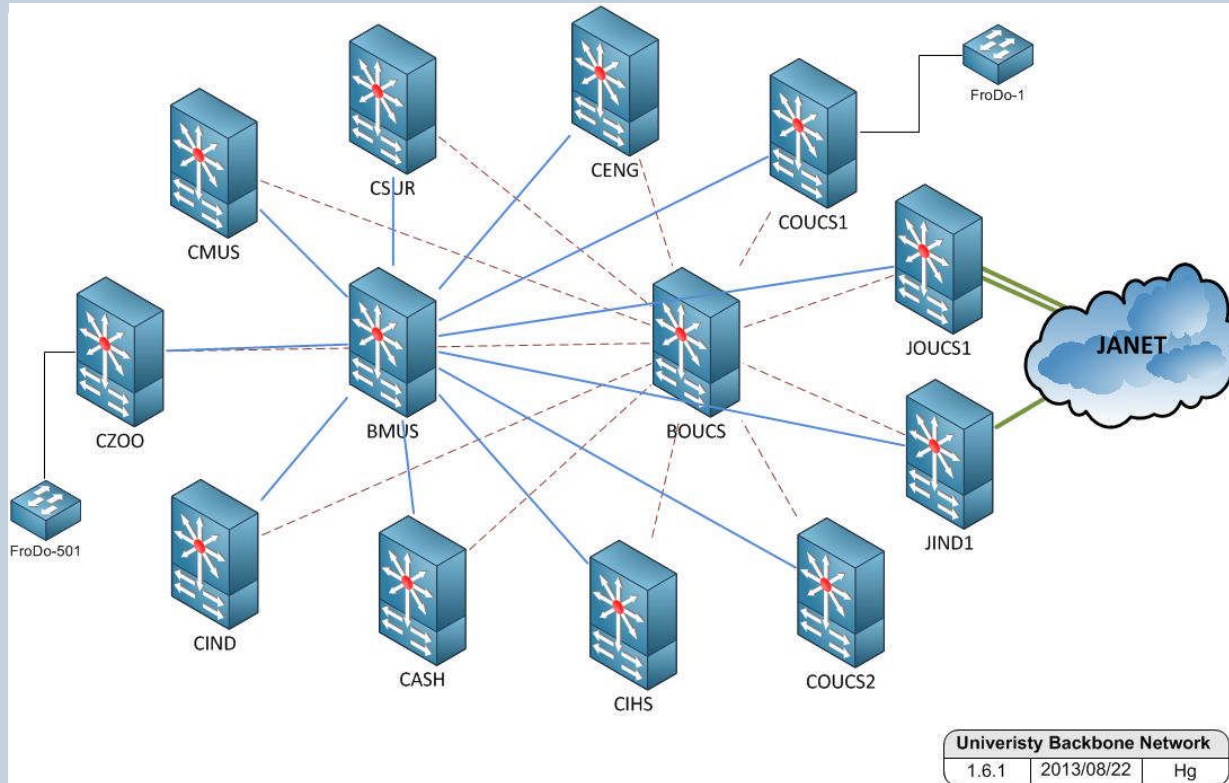
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IT Services
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Agenda

- Overview
- Summary – User Requirements
- Our proposals to meet principle User Requirements
- Costs
- Phase 1 scope & timetable
- Governance & Evaluation
- Questions

Caution: We are now under ‘procurement rules’.
All material is **‘confidential’** & University staff **only**

Current state



➤ ~100,000 registered 'devices'

➤ 1,274 active/1,4870 licensed WAPs (COWLS)

➤ 249 FroDo's & UPSs

➤ 300km external optical cable

➤ Secure Network

➤ 416 Switches & routers

➤ ~4.5k phones

(As of 17/12/13)

Summary – User Requirements

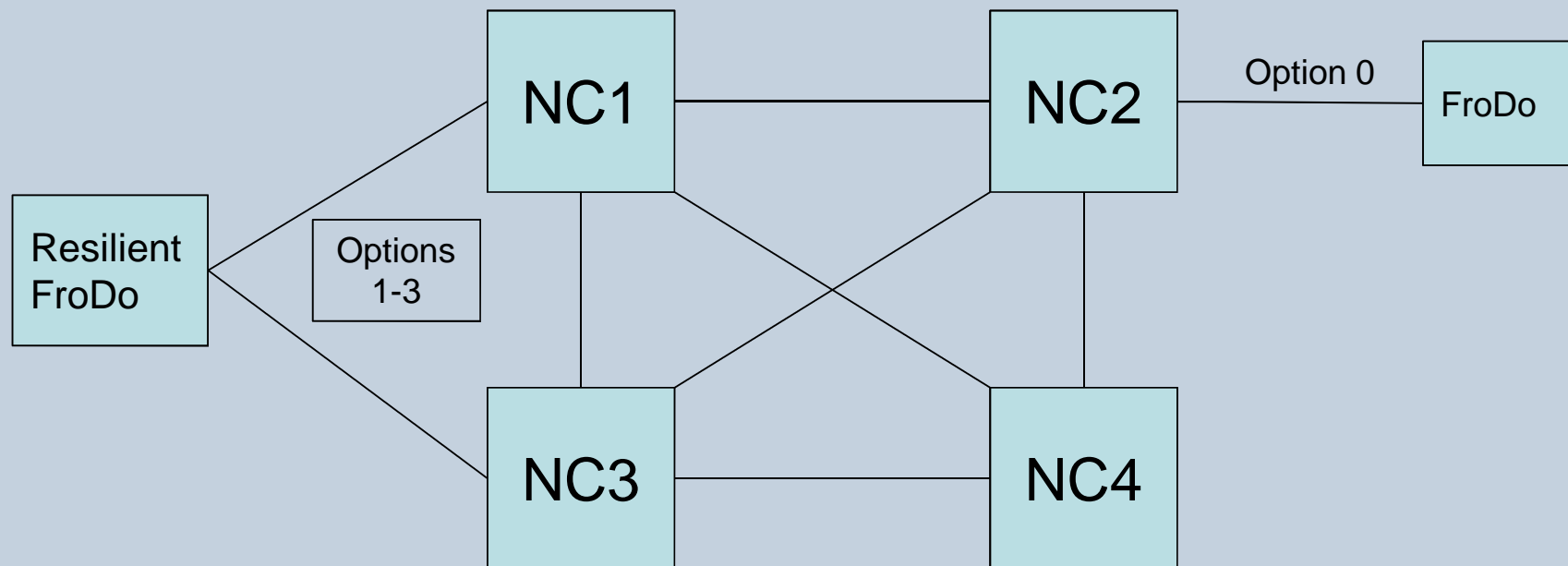
- Resilience
 - Fibre Backbone
 - Core Equipment
 - FroDo
- Bandwidth
 - Scalable
 - Up to 10Gbit/s to Edge
 - Ready for “Big Data” Projects
- Feature Availability
 - IPV6
 - QoS
 - HD Video

Resilience(1) - proposals

Option	Resilience	Provision
Option 0	1 x non resilient 'Edge' device 1 x fibre connection (same cable)	Standard
Option 1	Option 0 + 2 x fibre connection (same cable) 2 x resilient connections into core	Extra
Option 2	Option 1 + single resilient 'Edge' device	Extra
Option 3	Option 2 + completely separately ¹ routed fibre cable (<i>where possible</i>)	Extra
Option 4	Option 3 + second 'Edge' device located in different part of the building	Extra

Note 1. 'separately routed' means the physical separation of specific circuits so that there are no common interconnection points or cable routes

Resilience(2) – examples



NC= New Core

Our suggestions - Bandwidth

Bandwidth	Provision
1 Gbit/s	Standard
2 Gbit/s	Additional Charge
10Gbit/s	
40Gbit/s	

Costs

- Annual Charge =

$$\frac{(\text{Capital Cost} + (n \times \text{Annual Maintenance Costs}))}{n}$$

- $n = ?$
 - Initial thoughts: $n=5?$
- ⇒ Longevity

Draft Scope for TONE (Phase 1) Project

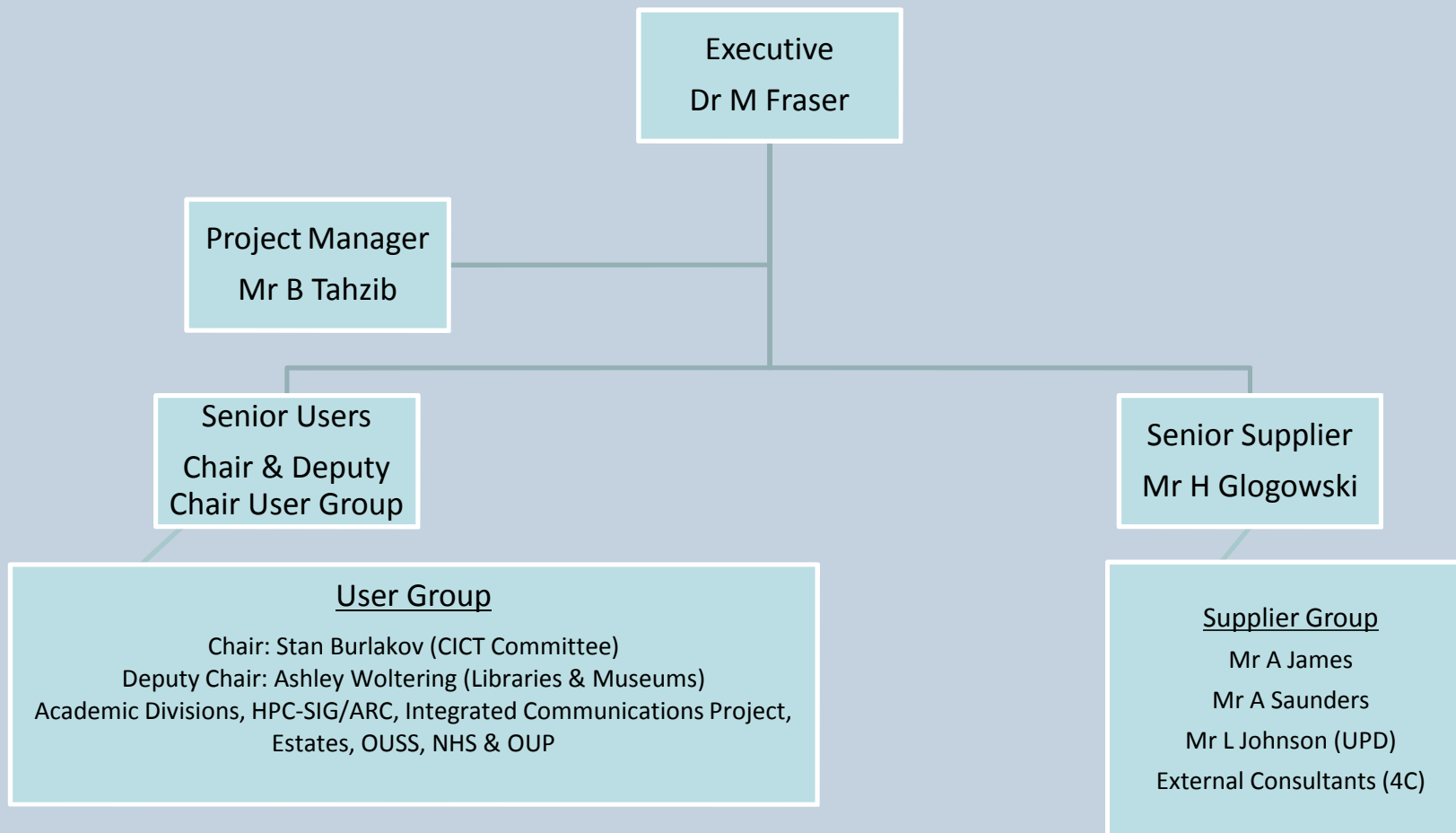
- Strategic Review (aka Phase 2 PID)
 - Where are we?
 - Equipment, locations, cabling, ...
 - Scope: what's in & what's out?
 - Phasing?
 - What do we need the network to do for the next 5-7 years?
 - Seek funding for TONE (Phase 2)
- RFI (Market and assumption testing)
 - Credible equipment manufacturers
 - Credible partners
 - Likely costs
- Develop ITT

Project timetable (Revised)

Phase 2 PID, RFI & ITT	October-January 2013	TONE Phase 1
RFI issued	13/12/13	
Project Evaluation Groups	December-January	
RFI returns	24/01/14	
Phase 2 approval sought	29/01/14	
Issue ITT	21/03/14	<i>Phase 1 complete</i>
<i>ITT Return</i>	<i>Early-May'14</i>	<i>Proposed 'Phase 2'</i>
<i>Develop shortlist</i>	<i>June-July 2014</i>	
<i>Supplier selection</i>	<i>August-September 2014</i>	
<i>Place contract</i>	<i>October 2014?</i>	

A tad ambitious 😊

TONE (Phase 1) Project Board



PESGs Proposed at TONE User Group

Technical & Specialist Networks

Lead: Andy Saunders

Evaluators: Stan Burlakov, Henryk Glogowski, Alistair James, Gerard Robinson, Andy Saunders, Ashley Woltering, 4C Strategies,

SME: Andy Davies, Stuart McRobert, Andy Richards, Mark Round, Jemima Spare, Robin Wilkinson

Implementation & Support

Lead: Alistair James

Evaluators: Henryk Glogowski, Alistair James, Andy Saunders, 4C Strategies

SME: ?

Commercial & Legal

Lead: Luke Johnson

Evaluators: Henryk Glogowski, Luke Johnson, 4C Strategies

SME?

Thank you for your time
Any Questions?