
















全学期解析班

科目: COMP3331/9331

进度: week2



- Rui
- UNSW MIT在读
- 均分HD

Name	WebCMS3 Item	Mark	
FinalExam		38.5/40	
Lab1	Lab Exercise 1: Tools of the Trade	10/10	
Lab2	Lab Exercise 2: HTTP & Socket Programming	10/10	
Lab3	Lab Exercise 3: DNS & Socket Programming	10/10	
Lab4	Lab Exercise 4: Exploring TCP	10/10	
Lab5	Lab Exercise 5: TCP Congestion Control and Fairness	10/10	
Lab6	Lab Exercise 6: Throughput, IP Fragmentation and Routing	10/10	
Lab7	Lab Exercise 7: NAT, Ethernet and ARP	10/10	
Labs		20/20	
MidTerm		14.5/20	
Sessional		54.5/60	
Total		93/100	
assign	Assignment Specifications	20/20	



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课程OUTLINE

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课程相关重要资料

[LINK](#)



每周课程资料内容都会更新在Github : [LINK](https://github.com/lrlrlrlr/COMP9331_COMP3331_20T3)

https://github.com/lrlrlrlr/COMP9331_COMP3331_20T3

- 格式很重要
- 注意答案要简洁
- 注意DUE的时间
- 提交方法



Lab1 讲解

Lab1 DUE: 周二 中午11点(AEST)

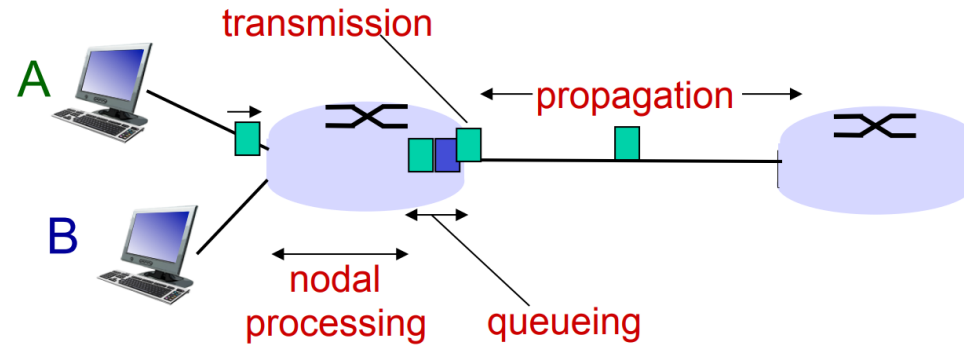


WEEK 1~2 实践内容讲解

1. Ping
2. Traceroute
3. SSH
4. Ifconfig
5. Netstat
6. Nslookup
7. Dig
8. Grep
9. Wireshark

WEEK 1/2 知识点回顾: Delay

Four sources of packet delay



$$d_{\text{nodal}} = d_{\text{proc}} + d_{\text{queue}} + d_{\text{trans}} + d_{\text{prop}}$$

* d_{proc} : nodal processing

- check bit errors
- determine output link
- typically < msec

* d_{queue} : queueing delay

- time waiting at output link for transmission
- depends on congestion level of router

* d_{trans} : transmission delay:

- L : packet length (bits)
- R : link bandwidth (bps)
- $d_{\text{trans}} = L/R$

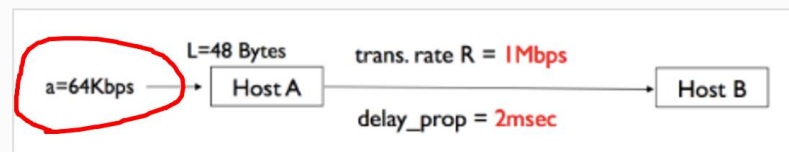
* d_{prop} : propagation delay:

- d : length of physical link
- s : propagation speed in medium ($\sim 2 \times 10^8$ m/sec)
- $d_{\text{prop}} = d/s$

WEEK 1/2 知识点回顾: Delay例题

* Seek the solution and share with other students below

How much time elapses from the 1st bit of 1st is created until the last bit of 1st packet arrives at Host B?



Delay计算:

$$d_{\text{proc}} = \text{加载数据} \quad 48 \text{ bytes} * 8 / 64\text{Kbps}$$

$$d_{\text{queue}} = \text{排队延迟} \quad 0$$

1 bytes = 8 bits

注意单位转化!

$$d_{\text{trans}} = \text{传输延迟} \quad 48\text{Bytes} * 8 / 1\text{Mbps}$$

$$d_{\text{prop}} = \text{传播延迟} \quad 2 \text{ ms}$$

谢谢观看

DueApe – 让你的海外学习更简单