



12 Pages

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[illegible]

(Gweler yr ochr arall am y fersiwn Cymraeg)

SURNAME: PI-TR-90

FORENAME(S): GEORGE

CHRISTIAN

[illegible]

(See the other side for English version)

8. Rhaid dychwelyd pob llyfr. Ni chaniat arholi o dan unrhyw amgylchiadau.

3. Rhaid i'r atebion fod mewn llawysgriften ddarllenadwy. Gall yr Arholwyr naill ai anwybyddu sgrifft annarllenadwy, neu drefnu iddi gael ei theipio a chael yr ymgeisydd i dalu.
4. Ysgrifennwch eich atebion mewn inc.
5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw ftras nodiadau yn y llyfr atebion a thynnu llinell drwyddynt.
6. Ni ddylid rhwngo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwyllywr/gwylwyr.

1. Rhwch yr holl wybodaeth yn gofynnir amdani yn y blychau isod.
2. Rhwch eich enw yn y lle a ddarparwyd ar y dde, pigwch et a'i seilio i lawr (gan ddefnyddio'r label a ddarparwyd) i guddio'ch enw.

Cyfarwyddiadau i Ymgeiswyr

12 Tüdalen

Llyfr Atebion Arholiadau

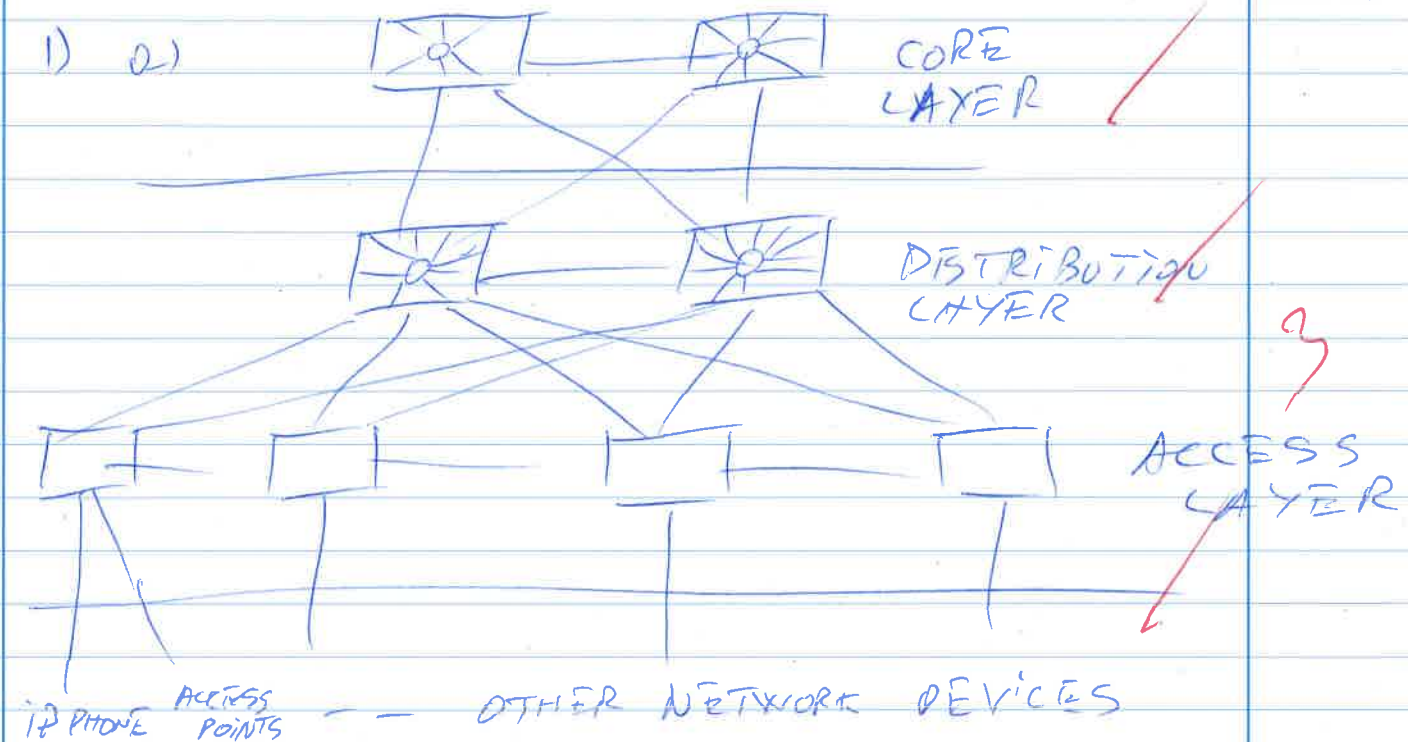


Prysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Llenwch, plygwrch a seilwch
(gweler nodyn 2 isod)

CYFENW:

ENW(AU) CYNTAF:



ACCESS LAYER CONNECTS DEVICES (PC, ACCESS POINTS, IP PHONE, —) TO THE NETWORK.

FEATURES :

- QUALITY OF SERVICE (QOS)
- LINK AGGREGATION
- PORT SECURITY
- VLAN
- FAST ETHERNET / GIGABIT ETHERNET
- POE / POE+ OVER ETHERNET (POE)

DISTRIBUTION LAYER CONTROLS THE FLOW OF NETWORK TRAFFIC AND DISSEMINATES BROADCAST USING ROUTING. HIGH-POWER SWITCHES WITH HIGH AVAILABILITY AND HIGH POWER FEATURES.

- LAYER 3 SUPPORT
- SECURITY POLICIES / ACCESS CONTROL LIST (ACL)

- LINK AGGREGATION ✓
- QOS (QUALITY OF SERVICE) ✓
- HIGH FORWARDING RATE ✓
- REDUNDANT COMPONENTS ✓
- GIGABIT ETHERNET / 10 GIGABIT ETHERNET ✓

CORE LAYER - ~~SW~~ (BACK BONE) ✓
- CAPABLE OF TRANSMITTING HIGH AMOUNT OF DATA ✓

FEATURES:

- LAYER 3 SUPPORT ✓
- QOS ✓
- LINK AGGREGATION ✓
- VERY HIGH FORWARDING RATE ✓
- REDUNDANT COMPONENTS ✓
- GIGABIT ETHERNET / 10 GIGABIT ETHERNET ✓

b) INBOUND ACL IS THE ACL SETED ~~ON~~ TO FILTER THE INCOMING TRAFFIC (TRAFFIC THAT COMES FROM EXTERIOR) ✓

OUT BOUND ACL - ACL SETED FOR THE OUTGOING TRAFFIC (TRAFFIC THAT GOES OUT) ✓

c) STORE AND FORWARD IS A SLOW SWITCHING METHOD. THE SWITCH RECEIVES THE ENTIRE FRAME AND COMPUTES CRC. IF CRC IS VALID, SWITCH VERIFY MAC TABLE ✓

(RBT)

AND USE APPROPRIATE INTERFACE TO FORWARD FRAME.

CUT THROUGH SWITCHING METHOD:

THE SWITCH ~~RECEIVES~~ RECEIVE AND EXAMINE THE FRAME UNTIL DESTINATION ADDRESS AT MINIMUM. THEN MAKES A DECISION HOW TO HANDLE FRAME. ~~THE~~ IT TAKES 10 MICRO SECONDS FOR SWITCH TO MAKE A DECISION. ✓

4) i)

- i) EASY PROJECT AND APPLICATION MANAGEMENT ✓
- SMALLER BROADCAST DOMAINS ✓
- SEPARATE DATA TRAFFIC FROM VOICE TRAFFIC ✓
- IT EFFICIENCY ✓

ii) DATA VLAN -

- IS A VLAN THAT ~~DATA~~ CARRIES USER GENERATED TRAFFIC. IT CAN CARRY VOICE OVER IP OR MANAGEMENT TRAFFIC BUT THIS WILL NOT BE PART OF DATA VLAN ✓

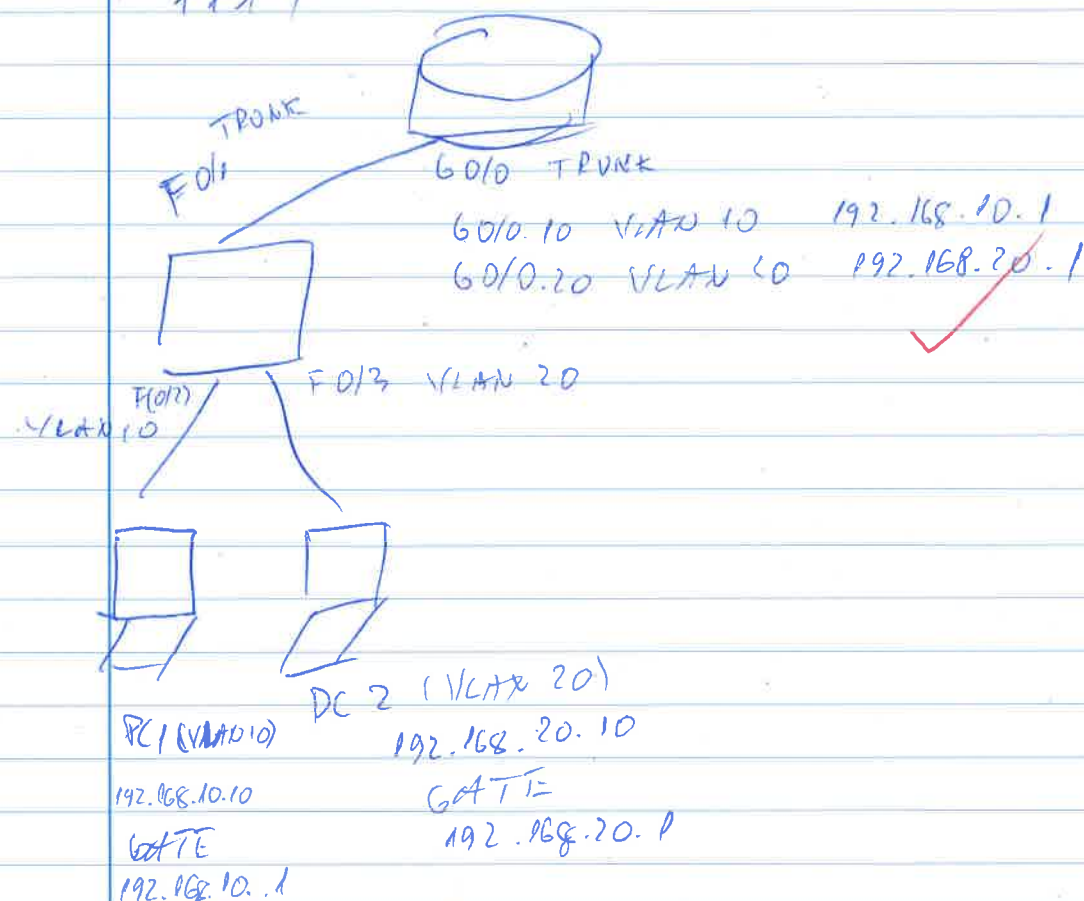
- MANAGEMENT VLAN

VLAN SET BY ADMINISTRATOR TO ACCESS & SWITCH MANAGEABILITY. IF NOT PREVIOUS SETED, VLAN 1 IS MANAGEMENT VLAN ✓

DEFAULT VLAN IS THE VLAN WHERE ALL THE PORTS OF THE SWITCH ARE ASSIGNED AT INITIAL BOOTUP

VLAN 1 IS DEFAULT VLAN

iii)



ROUTER INTERFACE IS SET AS TRUNK ADJACENT SWITCH INTERFACE LINKED DIRECTLY WITH THE ROUTER TRUNKED AS WELL

ON ROUTER'S TRUNKED INTERFACE WE CREATE SUBINTERFACE AND WE ASSIGN THEM IP FROM THE VLAN. THEY REPRESENT

THE HOSTS FROM RESPECTIVE VLAN WILL SET GATEWAY THE IP OF THE SUBINTERFACE

THE ROUTER RECEIVES ON THE TRUNKED INTERFACE THE VLAN TAGGED TRAFFIC WILL ROUTE THE TRAFFIC BETWEEN SUBINTERFACES AND WILL RESPOND ON SAME INTERFACE THE TRAFFIC CAME ON.

iv | VLAN TRUNK

- A POINT TO POINT CONNECTION BETWEEN 2 TRUNKED PORTS OF 2 SWITCHES.

- THIS LINK WILL CARRY TAGGED DATA FROM MANY VLANS BUT UNTAGGED DATA THAT IS NOT FROM VLAN AS WELL.

- THE TRUNKED PORTS ARE NOT ASSIGNED TO ANY VLAN.

2) 61- PROCESS SWITCHING - IS A FORWARDING METHOD FOR WHICH, THE SWITCH USES SOFTWARE TO ROUTE AND REWRITE DATA

- FAST SWITCHING - THE SWITCH USES SOFTWARE ONLY FOR THE FIRST PACKET OF A FLOW AND THE SUBSEQUENT ARE ROUTED AND REWRITTEN USING HARDWARE (MEMORY CACHE THAT STORES NEXT HOP INFORMATION)

- CISCO EXPRESS FORWARDING - ROUTE AND REWRITE USING HARDWARE ADDRESSING TABLE. THE PROCESSOR CAN FOCUS ON OTHER TASKS

2) - CREATE A PATH BETWEEN TWO DEVICES
 - SET BY ADMINISTRATOR TO GUIDE THE TRAFFIC
 - SHOWS THE ROUTER WHERE TO SEND SPECIFIC TRAFFIC

3) ~~IP ROUTE 0.0.0.0 0~~

THE COMMANDS SET THE DEFAULT STATIC ROUTE AND ALL THE TRAFFIC, IF ANOTHER STATIC ROUTE IS NOT AVAILABLE FOR IT, WILL BE SENT TO 192.168.1.1

i) ~~INSIDE~~ LOCAL ADDRESS
 - A PRIVATE ADDRESS THAT NEEDS TRANSLATION ~~IN ORDER~~ TO ACCESS INTERNET

ii) OUTSIDE LOCAL ADDRESS
 THE PUBLIC IP USED BY THE ROUTER TO TRANSLATE THE INSIDE LOCAL ADDRESS

iv) OUTSIDE GLOBAL ADDRESS
 THE PUBLIC IP USED BY THE ROUTER TO TRANSLATE THE INSIDE GLOBAL ADDRESS

[illegible]

Rhif y Cwestiwn	Arholwyr yn unig
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Arholwyr yn unig



SURNAME: SEARLE

FORENAME(S): GEORGE PAUL

12 Pages

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Prifysgol Cymru
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Llyfr Atebion Arholiadau

12 Tüdalen

Cyfarwyddiadau i Ymgeiswyr

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8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.

(See the other side for English version)

7	Nifer y Llyfrau Atebion a gyflwynwyd	
6	Rhif Sedd	
5	Lleoliad yr Arholiad	
4	Dyddiad ac Amser yr Archoliad	
3	Cod y Modwl	
2	Teitl y Papur Arholiad	
1	Rhif Myfyrwr	

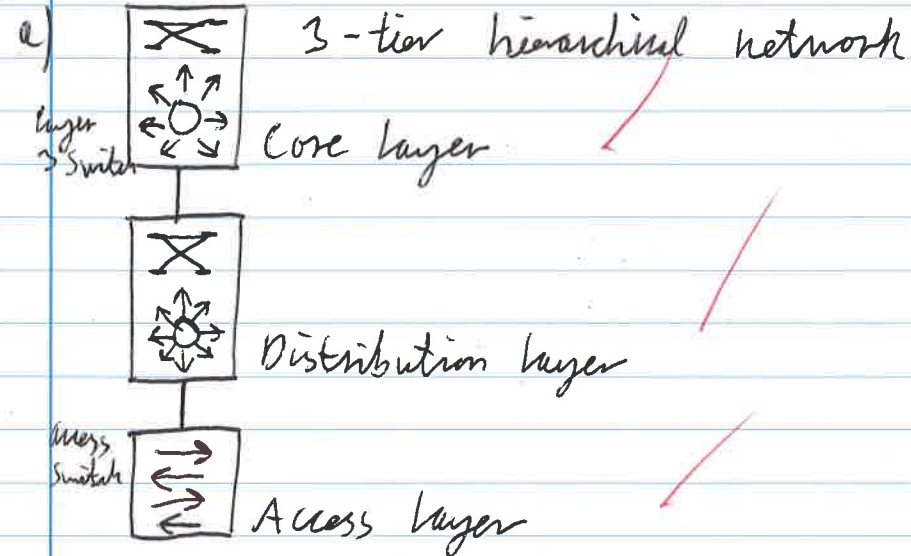
Rhestrwch ffau'r cwestiynau a ymgeisiwyd gennyh	
At Ddibenion y Swyddfa	

Llenwch, plygwrch a seliwrch
(gweler nodyn 2 isod)

CYFENN:

ENW(AU) CYNTAF:

1.



• Core layer - Provides a fast switching backbone to the network. It is the aggregatory of other layers (campus blocks). It reduces ~~fast~~ ^{split} domains and can be combined with the distribution layer for a collapsed design.

• Distribution layer - Interfaces with the backbone and provides intelligent routing, switching and security access control ~~from~~ ^{forward} junctions. Allows traffic to flow on equal cost switching paths to the backbone. Features ~~redundant~~ ^{redundant} redundant components. Provides differentiated ~~service~~ ^{services} Services to various classes of applicant at the network edge. Supports layer 2 broadcast domains and layer 3 routing boundaries.