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IKBN Jitra Network Upgrade
Report Period of 26/04/2022 - 31/05/2022

Date	Description
26/04/2022	Being informed about project award by turnkey. Proceed with hardware sourcing/acquisition.
27/04/2022	Supplier returned back and informed about world-wide shortage on the item being earlier quoted. Finally sourced for TP-Link that have same capacity of deliverables: - Core Switch TL-SX3016F - Management Switch TL-SG3428X
29/04/2022	Retrieve a site/floor HPE switch (model JE068A - A5120-24G) from project site (Bengkel Automotif) for the purpose of sampling upgrading workflow: - to reset current configuration - to configure interfaces and VLAN - to save configuration as template
30/04/2022	Learned that the floor/site switch that was brought back is faulty. Some of the cooling fans (there're 4 of them) working intermittently. Informed site owner about it. Sourced for replacement fan. Specs of the following: - Size: 40x40x20mm - Connector: 3 Pin - Power: 12V 0.15A - Rate: 8200RPM
01/05/2022	Contacted Mr Azmi from GiTN in order to retrieve the delegated subnet from their network. - Network Number 10.140.128.0 - Subnet Mask 255.255.248.0 - GiTN Router IP Address 10.140.128.6/27 - IKBN Router IP Address 10.140.128.2/27
03/05/2022	Prepare a small server for the purpose of installing and configuring the following: - Ubiquiti Controller - TP-Link Omada Controller
08/05/2022	Came up with a high level network diagram to finally determine the following: - Specs of connectors - SFP/SFP+ - Specs of Switches - Final VLAN configurations with concerning subnets

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09/05/2022	The following is the determined design as of date:
	10.140.129.0/25 - Admin - VLAN 11
	10.140.129.128/25 - HEP - VLAN 12
	10.140.130.0/26 - Elektrikal - VLAN 13
	10.140.130.64/26 - Automotif - VLAN 14
	10.140.130.128/26 - Mekanikal - VLAN 15
	10.140.130.192/27 - Tekstil - VLAN 16
	10.140.130.224/27 - Lukisan - VLAN 17
	10.140.132.0/25 - Lab HEP - VLAN 21
	10.140.131.0/24 - Lab Lukisan - VLAN 22
	10.140.132.128/25 - Lab Elektrikal - VLAN 23
	10.140.133.0/25 - Lab Mekanikal - VLAN 24
	10.140.133.128/25 - Lab Auto - VLAN 25
	10.140.134.0/25 - Lab Tekstil - VLAN 26
	172.16.125.0/24 - WIFI Tetamu - VLAN 31
	172.16.132.0/22 - WIFI Staff - VLAN 32
	172.16.128.0/22 - WIFI Pelajar - VLAN 33
10/05/2022	Brought the following to project site:
	- Controller Server
	- HPE5120-24G for workflow samping
	- Firewall
	Did not manage to do anything since maintenance is attending air-conditioning problem. Visit again day after.
11/05/2022	Reset HPE switches at Mechanical Department.
	- IKBN-MEKANIKAL-01
	- IKBN-MEKANIKAL-02
	- IKBN-MEKANIKAL-03
	- IKBN-MEKANIKAL-04
	Reset Cisco switch and leave it be as default as the uplink port being untagged VLAN 23 (Lab Elektrikal).
	Whilst at the deparment, found a pair of Ubiquiti US-8-150W and UAC-AP-HD. Reset both switch the AP and and configured to join the network. Can find the configured devices at Ubiquiti configured https://172.16.126.2:8443
12/05/2022	Reset HPE switches at the rest of any other departments:
	- IKBN-ELEKTRIKAL-01
	- IKBN-ELEKTRIKAL-02
	- IKBN-ELEKTRIKAL-03

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13/05/2022	Reset HPE switches at the rest of any other departments: - IKBN-HEP-01 - IKBN-HEP-02 - IKBN-HEP-03 (Cisco reset as default, uplink port being untagged VLAN 12) - IKBN-HEP-04 - IKBN-HEP-05 - IKBN-AUTOMOTIF-01 - IKBN-MOTOR-01 - IKBN-JAHITAN-01 Whilst at Automotive department, found Ubiquiti UAC-AP-PRO. Reset the AP and and configured to join the network.
14/05/2022	Reset HPE switches at the rest of any other departments: - IKBN-ASRAMA-01 - IKBN-TEKSTIL-01 - IKBN-MOTOR-01 Whilst at the hostel and Textile department, found a pair of Ubiquiti US-8-150W and UAC-AP-HD each at both locations. Reset both switch the AP and and configured to join the network. Can find the configured devices at Ubiquiti configured https://172.16.126.2:8443
15/05/2022	Revisit Mechanical Department - reconfigure WIFI bridge from Mechanical Department to Dewan Baru - reconfigure Ubiquiti UAP-AC-HD to join the network. Device discoverable in Ubiquiti Controller at https://172.16.126.2:8443

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Date	Description
19/05/2022	Credentials as follows:

TM UNIFI

username: ikbnjitra@unifibiz
password: xX7qFNzpsg6FW

Firewall

host: 172.16.126.1
username: admin
password: @adminIKBN123

Ubiquiti Controller

host: 172.16.126.2:8443
username: admin
password: admin123

Omada Controller

host: 172.16.126.2:8443
username: admin
password: admin123

HPE Switches:

host: respective IPs / port 80 (please refer to diagram)
username: admin
password: ikbn1234

WIFI

SSID: IKBN-Staff
password: Staff@IKBNJitra

SSID: IKBN-Pelajar
password: none

SSID: IKBN-Tetamu
password: none / voucher access