



## 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: <ul style="list-style-type: none"> <li>- Core Switch TL-SX3016F</li> <li>- Management Switch TL-SG3428X</li> </ul>
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: <ul style="list-style-type: none"> <li>- to reset current configuration</li> <li>- to configure interfaces and VLAN</li> <li>- to save configuration as template</li> </ul>
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: <ul style="list-style-type: none"> <li>- Size: 40x40x20mm</li> <li>- Connector: 3 Pin</li> <li>- Power: 12V 0.15A</li> <li>- Rate: 8200RPM</li> </ul>
01/05/2022	Contacted Mr Azmi from GiTN in order to retrieve the delegated subnet from their network. <ul style="list-style-type: none"> <li>- Network Number 10.140.128.0</li> <li>- Subnet Mask 255.255.248.0</li> <li>- GiTN Router IP Address 10.140.128.6/27</li> <li>- IKBN Router IP Address 10.140.128.2/27</li> </ul>



Date	Description
03/05/2022	<p>Prepare a small server for the purpose of installing and configuring the following:</p> <ul style="list-style-type: none"> <li>- Ubiquiti Controller</li> <li>- TP-Link Omada Controller</li> </ul>
08/05/2022	<p>Came up with a high level network diagram to finally determine the following:</p> <ul style="list-style-type: none"> <li>- Specs of connectors - SFP/SFP+</li> <li>- Specs of Switches</li> <li>- Final VLAN configurations with concerning subnets</li> </ul>
09/05/2022	<p>The following is the determined design as of date:</p> <ul style="list-style-type: none"> <li>10.140.129.0/25 - Admin - VLAN 11</li> <li>10.140.129.128/25 - HEP - VLAN 12</li> <li>10.140.130.0/26 - Elektrikal - VLAN 13</li> <li>10.140.130.64/26 - Automotif - VLAN 14</li> <li>10.140.130.128/26 - Mekanikal - VLAN 15</li> <li>10.140.130.192/27 - Tekstil - VLAN 16</li> <li>10.140.130.224/27 - Lukisan - VLAN 17</li> <li>10.140.132.0/25 - Lab HEP - VLAN 21</li> <li>10.140.131.0/24 - Lab Lukisan - VLAN 22</li> <li>10.140.132.128/25 - Lab Elektrikal - VLAN 23</li> <li>10.140.133.0/25 - Lab Mekanikal - VLAN 24</li> <li>10.140.133.128/25 - Lab Auto - VLAN 25</li> <li>10.140.134.0/25 - Lab Tekstil - VLAN 26</li> <li>172.16.125.0/24 - WIFI Tetamu - VLAN 31</li> <li>172.16.132.0/22 - WIFI Staff - VLAN 32</li> <li>172.16.128.0/22 - WIFI Pelajar - VLAN 33</li> </ul>



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10/05/2022	<p>Brought the following to project site:</p> <ul style="list-style-type: none"><li>- Controller Server</li><li>- HPE5120-24G for workflow sampling</li><li>- Firewall</li></ul> <p>Did not manage to do anything since maintenance is attending air-conditioning problem. Visit again day after.</p>
11/05/2022	<p>Reset HPE switches at Mechanical Department.</p> <ul style="list-style-type: none"><li>- IKBN-MEKANIKAL-01</li><li>- IKBN-MEKANIKAL-02</li><li>- IKBN-MEKANIKAL-03</li><li>- IKBN-MEKANIKAL-04</li></ul> <p>Reset Cisco switch and leave it be as default as the uplink port being untagged VLAN 23 (Lab Elektrikal).</p> <p>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 <a href="https://172.16.126.2:8443">https://172.16.126.2:8443</a></p>
12/05/2022	<p>Reset HPE switches at the rest of any other departments:</p> <ul style="list-style-type: none"><li>- IKBN-ELEKTRIKAL-01</li><li>- IKBN-ELEKTRIKAL-02</li><li>- IKBN-ELEKTRIKAL-03</li></ul>



Date	Description
13/05/2022	<p>Reset HPE switches at the rest of any other departments:</p> <ul style="list-style-type: none"><li>- IKBN-HEP-01</li><li>- IKBN-HEP-02</li><li>- IKBN-HEP-03 (Cisco reset as default, uplink port being untagged VLAN 12)</li><li>- IKBN-HEP-04</li><li>- IKBN-HEP-05</li><li>- IKBN-AUTOMOTIF-01</li><li>- IKBN-MOTOR-01</li><li>- IKBN-JAHITAN-01</li></ul> <p>Whilst at Automotive department, found Ubiquiti UAC-AP-PRO. Reset the AP and and configured to join the network.</p>
14/05/2022	<p>Reset HPE switches at the rest of any other departments:</p> <ul style="list-style-type: none"><li>- IKBN-ASRAMA-01</li><li>- IKBN-TEKSTIL-01</li><li>- IKBN-MOTOR-01</li></ul> <p>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 <a href="https://172.16.126.2:8443">https://172.16.126.2:8443</a></p>
15/05/2022	<p>Revisit Mechanical Department</p> <ul style="list-style-type: none"><li>- reconfigure WIFI bridge from Mechanical Department to Dewan Baru</li><li>- reconfigure Ubiquiti UAP-AC-HD to join the network. Device discoverable in Ubiquiti Controller at <a href="https://172.16.126.2:8443">https://172.16.126.2:8443</a></li></ul>
19/05/2022	<p>Credentials as follows:</p> <p>TM UNIFI</p>



## Date

## Description

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



**Date**

**Description**  
SSID: IKBN-Staff

password: Staff@IKBNJitra

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SSID: IKBN-Pelajar

password: none

SSID: IKBN-Tetamu

password: none / voucher access

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