**Appendix 2 – IP Address Assignment**

The purpose of this section is to provide a detailed description of Internet Protocol (IP) Addressing Plan used in Communication Systems solution for the Jakarta LRT Project. The proposed equipment supports both IPv4 and IPv6 addressing scheme. However in this network, IPv4 addressing scheme will be adopted.

**Private addresses**

RFC 1918 designates the following as private addresses.

a) Class A range: 10.0.0.0 through 10.255.255.255.

b) Class B range: 172.16.0.0 through 172.31.255.255.

c) Class C range: 192.168.0.0 through 192.168.255.255.

Private addresses may be used by any organization, without any requirement for registration. Because private addresses are ambiguous - can’t tell where they’re coming from or going to because anyone can use them – private addresses are not permitted to be routed across the Internet.

### IP Address Allocation (Sub-systems)

Legend of IP addressing for all sub-systems:

**A . B . C . D**

A = 10 for Jakarta LRT Line Velodrome-Kelapa Gading Mall

B = By Sub-systems

C = By Location

D = Hosts

Subnet Mask: /24 = 255.255.255.0

**Sub-systems number**

| **System** | **Number** |
| --- | --- |
| Signaling | 201 |
| SCADA | 202 |
| Master Clock | 203 |
| PSD | 204 |
| CCTV | 205 |
| Access Management | 206 |
| Public Address (PA) | 207 |
| PIS |
| PHP |
| VOIP |
| TETRA | 211 |
| WAP | 212 |
| BMS | 213 |
| AFC | 214 |
| Office IT | 215 |
| Backbone System | 200 |

**Location Number**

| **Location (Station/OCC/Rolling Stock)** | **Number** |
| --- | --- |
| OCC | 91 |
| BCC | 92 |
| Depot (MF) | 93 |
| St. Depot | 11 |
| St. Mall Kelapa Gading | 12 |
| St. Kelapa Gading Boulevard | 13 |
| St. Pulo Mas | 14 |
| St. Pacuan Kuda | 15 |
| St. Velodrome | 16 |
| Rolllng Stock 1 | 101 |
| Rolling Stock 2 | 102 |
| Rolling Stock 3 | 103 |
| Rolling Stock 4 | 104 |
| Rolling Stock 5 | 105 |
| Rolling Stock 6 | 106 |
| Rolling Stock 7 | 107 |
| Rolling Stock 8 | 108 |

Table below defines the IP address ranges which are used for the respective systems, as defined in the legend mentioned above.

| **Systems** | **IP Address Range (Sub-system)** | | | | **Mask** | **Gateway** |
| --- | --- | --- | --- | --- | --- | --- |
|  | **A** | **B** | **C** | **D** |  |  |
| Signaling | 10 | 201 | C | 4-254 | /24 | 10.201.C.1 |
| SCADA | 10 | 202 | C | 4-254 | /24 | 10.202.C.1 |
| Master Clock | 10 | 203 | C | 4-254 | /24 | 10.203.C.1 |
| PSD | 10 | 204 | C | 4-254 | /24 | 10.204.C.1 |
| CCTV | 10 | 205 | C | 4-254 | /24 | 10.205.C.2 |
| Access Management | 10 | 206 | C | 4-254 | /24 | 10.206.C.1 |
| Public Address (PA) | 10 | 207 | C | 4-254 | /24 | 10.207.C.1 |
| PIS |
| PHP |
| VOIP |
| TETRA | 10 | 211 | C | 4-254 | /24 | 10.211.C.1 |
| WAP | 10 | 212 | C | 4-254 | /24 | 10.212.C.1 |
| BMS | 10 | 213 | C | 4-254 | /24 | 10.214.C.1 |
| AFC | 10 | 214 | C | 4-254 | /24 | 10.215.C.1 |
| Office IT | 192 | 168 | C | 4-254 | /24 | 192.168.C.1 |
| Backbone System | 10 | 200 | C | 1-254 | /24 | - |