Module 5.2 Assignment:

Value Stream Mapping (VSM)

Bringing New Hardware into Production



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| --- | --- | --- |
| Estimated Average Flow Time | | |
| Task | Time | Time in days |
| Spec Hardware | 1 week | 7 |
| Order Hardware | 3 months | 90 |
| receive and add to inventory | 1 day | 1 |
| check out of inventory | 1 day | 1 |
| Request the Data Center team to rack and power hardware in the configuration room | 3 days | 3 |
| Get terminal information from the Data Center team for hardware | 1 day | 1 |
| begin configuring hardware | 3 hrs. | 0.375 |
| request the Data Center team insert a USB drive into the hardware with firmware files on it | 1 day | 1 |
| Install approved firmware on the hardware | 1 hr | 0.125 |
| Get IP addresses required for hardware and all connections needed | 1 hr | 0.125 |
| Request DNS entries for all IP addresses added | 3 days | 3 |
| configure the hardware for the desired role | 4 hr | 0.5 |
| request the Data Center team to ship hardware to the final destination | 3 days | 3 |
| Order intake request for data center where hardware will be installed | 14 days | 14 |
| Have planned meeting with the intake team | 1 hr | 0.125 |
| Wait for the hardware to be installed | 14 days | 14 |
| Get new terminal connections from the data center team | 1 day | 1 |
| verify console connectivity | 1 hr | 0.125 |
| verify SSH access to hardware through the management interface | 1 hr | 0.125 |
| plan change to bring the device up into routing protocols | 2 days | 2 |
| get Change Advisory board approval for change | 2 days | 2 |
| Do maintenance for change to bring into routing and live status | 1day | 1 |
| Add devices to monitoring | 4 hr | 0.5 |
|  |  |  |
| Estimated Cycle Time = 146 Days (1,168 work Hrs.) |  | 146 |

Optimizing hardware installation:

Most of the time, the estimate is dictated by other teams’ SLA (Service Level Agreement), constraining much of the schedule. Some of the work is not linear and can be done in parallel. However, these tasks are not time-intensive and would not affect the overall timeline significantly.