**Reneal 2022A Box and Project Notes**

**Version 1**

Miscellaneous Notes

1. Whenever you are moving the boxes in a vehicle or storing the boxes, please try to place the boxes so that the “THIS SIDE UP” label is on top facing up.
2. Please save the boxes that we sent laptop adapters and mice in them – we will take them back to the US and reuse them. If you cut the tape, you can fold the boxes so they are flat and easy to store.
3. Please save 5 of the big boxes that contain the servers. We will take them back to the US and reuse them. Please also save enough of the plastic bubbles and wrapping to fill the boxes – we can use that again too.
4. Please collect any laptops, laptop adapters, or other equipment donated by Apto that has failed and put in a box at the RO, and Neal and I will take it back to the US for recycling.
5. Mwandet O-level usage was very poor in 2021, so we will not be giving them the new server that was sent in December of 2021. That server will be given instead to a new 2022A school (Nkoarusambu SS).

Summary of Box Contents

1. There is a box of Team supplies in Box Y. There is a bag for each Team member with Sharpie pens and some tools. The box also includes RJ45s and zip ties for the ten new schools. There are more security stickers to put on all of the laptops that are already in the schools. Please finish putting labels on all of the laptops.
2. Here is the basic organization of the boxes:
   1. Boxes A-T have laptops, adapters, mice, a keyboard, and the sys admin manual for each of the 10 schools. The sys admin manual is in the box with the mice, and the donation letters for each school are inside the sys admin manual. There are ten laptops in each box, and there are two boxes per schools (total of 20 boxes). For Olemedeye, their network switch is in Box M.
   2. Boxes U, V, W, and Y have spare laptops and adapters, and mice. Box X has replacement laptops for two Handeni schools (Handeni SS-1 and Komnyang’anyo-4) and spare MacBooks.
   3. Boxes AA, BB, CC, and DD have the servers and server power cables for seven of the new schools and a new server and power cable for Einoti. There are also network switches for eight of the new schools.
   4. Box EE has 8 monitor screens and Box FF contains 8 monitor stands, VGA cables, and power cables. These are for 8 of the new schools.
   5. There are some magazines for the Mlangarini SS library in Box Y.
3. Seven of the servers in the shipment are for new schools. One of the servers in the shipment is for Einoti (it is more powerful than the original Einoti server). The other three new schools will use servers that are already in Tanzania. Please note that Neal will need to configure those three servers (Olemedeye, Nkoarusambu, and Poli) before they can be installed in the schools. Here is the deployment for servers:

| **School** | **Server** |
| --- | --- |
| Bagara | Box AA |
| Nakwa | Box AA |
| Nangara | Box BB |
| Komoto | Box BB |
| Kwaraa | Box CC |
| Babati Day | Box CC |
| Ula | Box DD |
| Olemedeye | Old Einoti server |
| Nkoarusambu | New Mwandet O-level server sent in December 2021 |
| Poli | From Longido O-level |
| Einoti | Box DD |

Please note that the two stolen disks must be replaced by Longido SS before Neal and I arrive, so that server can be used at Poli!

1. Eight of the monitors in the shipment are for new schools. The other two new schools will use monitors that are already in Tanzania. Here is the deployment for monitors:

|  |  |
| --- | --- |
| **School** | **Monitor** |
| Bagara | Box EE/FF, Monitor A |
| Nakwa | Box EE/FF, Monitor B |
| Nangara | Box EE/FF, Monitor C |
| Komoto | Box EE/FF, Monitor D |
| Kwaraa | Box EE/FF, Monitor E |
| Babati Day | Box EE/FF, Monitor F |
| Ula | Box EE/FF, Monitor G |
| Olemedeye | Box EE/FF, Monitor H |
| Nkoarusambu | Monitor sent in Dec 2021 for new Mwandet O-level server *[Needs DVI]*  Monitor screen – 2021A Box GG, Monitor C  Monitor stand (2 pieces) – 2021A Box HH, Monitor C  DVI cable – 2021A Box GG  Power cable – 2021A Box HH |
| Poli | From Longido O-level |

1. Nine network switches are in the shipment for the new schools. The tenth new school will use the network switch from Longido O-level. Here is the deployment for network switches:

|  |  |
| --- | --- |
| **School** | **Network Switch** |
| Bagara | Box AA |
| Nakwa | Box AA |
| Nangara | Box BB |
| Komoto | Box BB |
| Kwaraa | Box CC |
| Babati Day | Box CC |
| Ula | Box DD |
| Nkoarusambu | Box DD |
| Olemedeye | Box M |
| Poli | From Longido O-level |

1. The following boxes have all of the equipment for the ten new schools: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, AA, BB, CC, DD, EE, FF.
   1. Bagara Secondary School: A, B, part of AA, part of EE, part of FF
   2. Nakwa Secondary School: C, D, part of AA, part of EE, part of FF
   3. Nangara Secondary School: E, F, part of BB, part of EE, part of FF
   4. Komoto Secondary School: G, H, part of BB, part of EE, part of FF
   5. Kwaraa Secondary School: I, J, part of CC, part of EE, part of FF
   6. Babati Day Secondary School: K, L, part of CC, part of EE, part of FF
   7. Olemedeye Secondary School: M, N, part of EE, part of FF [plus old Einoti server]
   8. Ula Secondary School: O, P, part DD, part of EE, part of FF
   9. Nkoarusambu Secondary School: Q, R, part of DD [plus Dec 2021 Mwandet O-level server and monitor]
   10. Poli Secondary School: S, T [plus server, monitor, and network switch from Longido O-level]

1. Here is a list of what you will need at each new school being installed: server, power cord for server, donation letters, keyboard, monitor screen, monitor stand (2 pieces), VGA cable (except for Nkoarusambu, which needs DVI), power cord for monitor, network switch and power cord, 20 laptops, 20 laptop adapters, 21 mice, UPS, voltage stabilizer, 5 extensions, 1 multiplug, Cat6 cable, RJ45 connectors, zip ties, tape, pens, cable clips, screws for mounting the switch, SysAdmin manual, hammer and drill. Please also take the power meter. Before you plug anything in, please check the voltage with the power meter to make sure it is around 220 volts and stable.
2. Boxes U, V, W, X, and Y have spare equipment for Arusha Region plus replacements for dead equipment at some of the schools.
   1. Box U, V, W: replacement laptops, adapters, and mice for very old laptops deployed in 2014-2015 (for example, Mringa) or schools with dead units. We will work together with the Team in August to decide where those units will go, when Neal and I are in Tanzania.
   2. Box X: replacement laptops and adapters for Handeni dead units (1-Handeni SS, 4-Komnyang’anyo)
   3. Box X: spare Apple MacBook workstations for Mlangarini and Enyoito
   4. Box Y: spare monitor
   5. Box Y: 8 spare Dell laptop adapters
3. The Mwandet O-Level server will need to have the new main disk installed (the new main disk was shipped in December 2021, 2021C Box DD). Neal will do that when we are there in August.
4. Box Y has some used magazines – please give to Mlangarini SS for their library so the students can enjoy them.
5. The Team supplies box (in Box Y) has more security stickers. Please continue putting stickers on every laptop deployed in the schools, on the back of the laptop. (Note that MacBooks already have a security sticker, so they will not need one of these new stickers). Neal is also putting stickers on the covers of the server, so you and the Super Users can see immediately if someone has been inside. If you need to open up a server case, please put on a new security sticker when you are finished.

Arusha Purchases

|  |  |  |
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| **Item** | **To Buy** | **Destination** |
| Uninterruptible power supply (UPS) | 9\* | All schools |
| Voltage stabilizer, 500VA | 9\* | All schools |
| Power universal extensions (5 outlets) | 50 | 5 each for all schools |
| Multiplug (so 3 things can be plugged into UPS) | 9\* | All schools |

\* The remaining UPS, voltage stabilizer, and multiplug should be taken from Longido O-level.

PLEASE NOTE: We will plan to buy 4 boxes of UTP cable from Fatma’s shop. Please let me know if we need another box.

PLEASE NOTE: UPS should be charged for 12 hours before it is used the first time.

Installation Notes

1. Please use Erick’s checklist during installation to make sure all steps are completed and you gather all the needed information about the new school.
2. Before you plug anything in, check the computer room voltage with the power meter to make sure it is around 220 volts and stable.
3. Neal turned off the power supply switch on each server, so you will need to turn it on before you start the server.
4. Since Neal has put stickers on the server, do not open it unless you experience problems.

If the server does not start properly, take off the cover and check the power connectors to the motherboard, the hard disk and DVD connections, make sure the RAM is inserted fully, and check the network cards to make sure they are inserted completely.

1. The multi-plug should plug into the UPS. The server, network switch, and monitor will plug into the multi-plug.
2. I have the specifications for all of the units in a spreadsheet. Please leave the blue tape with the number on the laptop, for identification. “AS” with a number means the laptop/adapter was donated by Apto Solutions.
3. There are donation letters for all 10 new schools – these are included with the sys admin manual, in the box with the mice. There are 2 copies of the donation letter for each school. Have each school head and main super user sign them. Please give them a copy, keep a copy for David, and post one at the Reneal github site.

Laptop Notes

Laptops for nine of the ten new schools are Dell. All of the Dell adapters should work with any Dell laptop, so the adapters are not labeled with a number. The tenth school (Olemedeye) has a mix of Lenovos and Dells.

I changed a lot of CMOS batteries, but you may see some additional CMOS battery failures. For most of the models, it is very easy to replace the CMOS battery using a CR2032 battery, copper tape, and electrical tape. However there are some laptops, the Dell E6220 and Dell E6230, that had dead CMOS batteries but are very difficult to replace. So the Super User should just do “F1” on boot, and do not try to change those CMOS batteries.

I will bring a lot of CMOS batteries when we come in August.

For some Dell laptops, you may see a message about the power adapter not providing enough power to charge the battery, or that it can’t identify the power adapter. Please just hit F3, which will disable future warnings. Then hit F1 to continue the boot.

The spare laptops in Boxes U and V are in good condition. Some of the spare laptops in Box W have minor defects (screen damage, touchpad doesn’t work, etc.) but are still usable.

There are two laptops in Box Y that are MacBook computers but have a CD in them so they boot as LTSP clients. They should only be given to an LTSP lab.

There is one laptop in Box X that is a Dell but has a hard disk with the MacBook workstation software. It should only be given to a MacBook lab (there is no LAN connector to do an LTSP network boot).

Some of the MacBooks do not have batteries, and some do not have adapters. For some of the MacBooks with a battery, the teachers will have to share an adapter between laptops with batteries to charge them.

Olemedeye: Laptop H012 is a Lenovo T510 and needs a DisplayPort “headless ghost” dongle. The dongle is taped to the computer. Please attach it with super glue, so students cannot remove it.

Olemedeye: Three of the Lenovo laptops need a hard disk installed, even though the disks are empty. Please do not remove the hard disks. [X240-2 and T440s-1]

Olemedeye: One of the laptops needs an external keyboard. The keyboard is included in Box N.

**Complete List of Box Contents (sorted by school)**

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| **Box** | **Item** | **Quantity** | **Destination** |
| K | Laptop | 10 | Babati Day |
| K | Laptop adapter | 10 | Babati Day |
| K | Mouse | 10 | Babati Day |
| K | Reneal manual | 1 | Babati Day |
| L | Laptop | 10 | Babati Day |
| L | Laptop adapter | 10 | Babati Day |
| L | Mouse | 11 | Babati Day |
| L | Keyboard | 1 | Babati Day |
| CC | Desktop computer | 1 | Babati Day |
| CC | Network switch, 24-port | 1 | Babati Day |
| EE | Monitor screen | 1 | Monitor F |
| FF | Monitor stand | 1 | Monitor F |
| FF | Monitor base | 1 | Monitor F |
| FF | VGA/power cords | 1 | Monitor F |
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| **Box** | **Item** | **Quantity** | **Destination** |
| A | Laptop | 10 | Bagara |
| A | Laptop adapter | 10 | Bagara |
| A | Mouse | 10 | Bagara |
| A | Reneal manual | 1 | Bagara |
| B | Laptop | 10 | Bagara |
| B | Laptop adapter | 10 | Bagara |
| B | Mouse | 11 | Bagara |
| B | Keyboard | 1 | Bagara |
| AA | Desktop computer | 1 | Bagara |
| AA | Network switch, 24-port | 1 | Bagara |
| EE | Monitor screen | 1 | Monitor A |
| FF | Monitor stand | 1 | Monitor A |
| FF | Monitor base | 1 | Monitor A |
| FF | VGA/power cords | 1 | Monitor A |
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| **Box** | **Item** | **Quantity** | **Destination** |
| G | Laptop | 10 | Komoto |
| G | Laptop adapter | 10 | Komoto |
| G | Mouse | 10 | Komoto |
| G | Reneal manual | 1 | Komoto |
| H | Laptop | 10 | Komoto |
| H | Laptop adapter | 10 | Komoto |
| H | Mouse | 11 | Komoto |
| H | Keyboard | 1 | Komoto |
| BB | Desktop computer | 1 | Komoto |
| BB | Network switch, 24-port | 1 | Komoto |
| EE | Monitor screen | 1 | Monitor D |
| FF | Monitor stand | 1 | Monitor D |
| FF | Monitor base | 1 | Monitor D |
| FF | VGA/power cords | 1 | Monitor D |
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| **Box** | **Item** | **Quantity** | **Destination** |
| I | Laptop | 10 | Kwaraa |
| I | Laptop adapter | 10 | Kwaraa |
| I | Mouse | 10 | Kwaraa |
| I | Reneal manual | 1 | Kwaraa |
| J | Laptop | 10 | Kwaraa |
| J | Laptop adapter | 10 | Kwaraa |
| J | Mouse | 11 | Kwaraa |
| J | Keyboard | 1 | Kwaraa |
| CC | Desktop computer | 1 | Kwaraa |
| CC | Network switch, 24-port | 1 | Kwaraa |
| EE | Monitor screen | 1 | Monitor E |
| FF | Monitor stand | 1 | Monitor E |
| FF | Monitor base | 1 | Monitor E |
| FF | VGA/power cords | 1 | Monitor E |
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| **Box** | **Item** | **Quantity** | **Destination** |
| C | Laptop | 10 | Nakwa |
| C | Laptop adapter | 10 | Nakwa |
| C | Mouse | 10 | Nakwa |
| C | Reneal manual | 1 | Nakwa |
| D | Laptop | 10 | Nakwa |
| D | Laptop adapter | 10 | Nakwa |
| D | Mouse | 11 | Nakwa |
| D | Keyboard | 1 | Nakwa |
| AA | Desktop computer | 1 | Nakwa |
| AA | Network switch, 24-port | 1 | Nakwa |
| EE | Monitor screen | 1 | Monitor B |
| FF | Monitor stand | 1 | Monitor B |
| FF | Monitor base | 1 | Monitor B |
| FF | VGA/power cords | 1 | Monitor B |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| E | Laptop | 10 | Nangara |
| E | Laptop adapter | 10 | Nangara |
| E | Mouse | 10 | Nangara |
| E | Reneal manual | 1 | Nangara |
| F | Laptop | 10 | Nangara |
| F | Laptop adapter | 10 | Nangara |
| F | Mouse | 11 | Nangara |
| F | Keyboard | 1 | Nangara |
| BB | Desktop computer | 1 | Nangara |
| BB | Network switch, 24-port | 1 | Nangara |
| EE | Monitor screen | 1 | Monitor C |
| FF | Monitor stand | 1 | Monitor C |
| FF | Monitor base | 1 | Monitor C |
| FF | VGA/power cords | 1 | Monitor C |
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| **Box** | **Item** | **Quantity** | **Destination** |
| Q | Laptop | 10 | Nkoarusambu |
| Q | Laptop adapter | 10 | Nkoarusambu |
| Q | Mouse | 11 | Nkoarusambu |
| Q | Reneal manual | 1 | Nkoarusambu |
| R | Laptop | 10 | Nkoarusambu |
| R | Laptop adapter | 10 | Nkoarusambu |
| R | Mouse | 10 | Nkoarusambu |
| R | Keyboard | 1 | Nkoarusambu |
| DD | Network switch, 24-port | 1 | Nkoarusambu |
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| **Box** | **Item** | **Quantity** | **Destination** |
| M | Laptop | 10 | Olemedeye |
| M | Laptop adapter | 10 | Olemedeye |
| M | Mouse | 10 | Olemedeye |
| M | Reneal manual | 1 | Olemedeye |
| M | Network switch, 24-port | 1 | Olemedeye |
| N | Laptop | 10 | Olemedeye |
| N | Laptop adapter | 10 | Olemedeye |
| N | Mouse | 11 | Olemedeye |
| N | Keyboard | 2 | Olemedeye |
| EE | Monitor screen | 1 | Monitor H |
| FF | Monitor stand | 1 | Monitor H |
| FF | Monitor base | 1 | Monitor H |
| FF | VGA/power cords | 1 | Monitor H |
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| **Box** | **Item** | **Quantity** | **Destination** |
| S | Laptop | 10 | Poli |
| S | Laptop adapter | 10 | Poli |
| S | Mouse | 11 | Poli |
| S | Reneal manual | 1 | Poli |
| T | Laptop | 10 | Poli |
| T | Laptop adapter | 10 | Poli |
| T | Mouse | 10 | Poli |
| T | Keyboard | 1 | Poli |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| O | Laptop | 10 | Ula |
| O | Laptop adapter | 10 | Ula |
| O | Mouse | 10 | Ula |
| O | Reneal manual | 1 | Ula |
| P | Laptop | 10 | Ula |
| P | Laptop adapter | 10 | Ula |
| P | Mouse | 11 | Ula |
| P | Keyboard | 1 | Ula |
| DD | Desktop computer | 1 | Ula |
| DD | Network switch, 24-port | 1 | Ula |
| EE | Monitor screen | 1 | Monitor G |
| FF | Monitor stand | 1 | Monitor G |
| FF | Monitor base | 1 | Monitor G |
| FF | VGA/power cords | 1 | Monitor G |
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| **Box** | **Item** | **Quantity** | **Destination** |
| Y | Installation supplies | 1 box | Reneal Team |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| U | Laptop | 10 | Spares |
| U | Laptop adapter | 10 | Spares |
| U | Mice | 10 | Spares |
| V | Laptop | 10 | Spares |
| W | Laptop adapter | 10 | Spares |
| V | Mice | 6 | Spares |
| W | Laptop | 10 | Spares |
| W | Laptop adapter | 10 | Spares |
| W | Mice | 10 | Spares |
| Y | Laptop | 4 | Spares |
| Y | Laptop adapter | 4 | Spares |
| Y | Laptop adapters (Dell) | 8 | Spares |
| Y | Monitor/VGA/power cords | 1 | Spares |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| DD | Desktop computer | 1 | Einoti |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| X | Laptop | 9 | Handeni/Komnyang'anyo/Spares |
| X | Laptop adapter | 8 | Handeni/Komnyang'anyo/Spares |
| X | Keyboard | 1 | Handeni/Komnyang'anyo/Spares |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| Y | Magazines | 12 | Mlangarini |