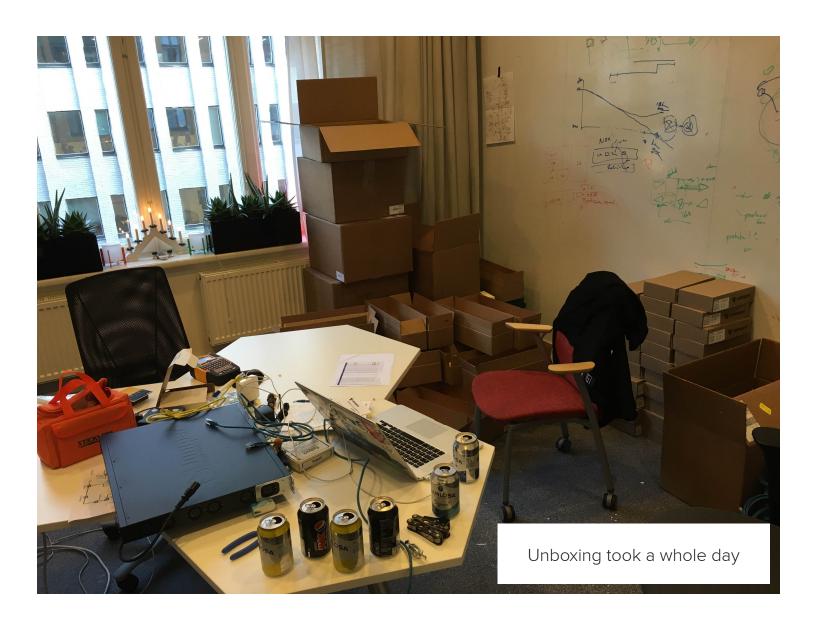# FIRST PRODUCTION EQUIPMENT HAS ARRIVED!

Christmas and the holidays is finally over and now is time to actually start building this new network we have been hyping up so much. Both optical equipment and IP-related equipment will arriving in Sweden starting from early February and then arriving all through the spring.
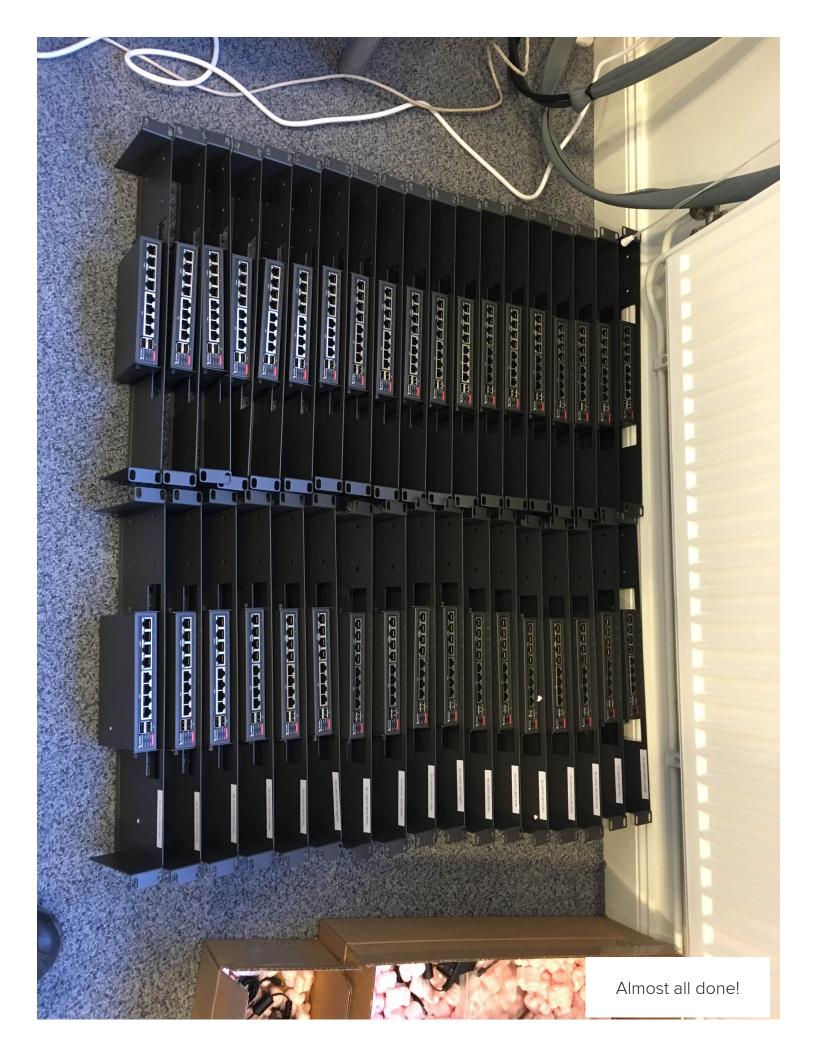
We want to get the equipment out to its appropriate sites as quick as possible and naturally we want to light up the fibre as early as we can. Due to the size and weight of all equipment its quite impractical to have all equipment shipped to the SUNET office, unpack it, configure it, repack and then send it away. Instead we will have the equipment sent out directly to wherever they need to be without any configuration or alterations made to them. At every site with active equipment we will place a Opengear ACM5504-5-LR-I Console router which will be connected to SUNET with 4G. The 4G-SIM which we use will not be a usual off-the-shelf card but a specific for SUNET that will place the connected device into a L3VPN which will then be handed off to SUNET from the Mobile carrier (TELE2) into our management-network, so these devices will never "touch" the Internet per se.

So when the local technician that will do the physical installation is done with racking the equipment, he just needs to make sure that the serial-cables is connected at the correct positions in the IP and Optical equipment and that they are turned on and fiber is connected correctly, and after that we can take all the turn-up and configuration from the Office without involving external technicians into the equipment, or learn them how to login into our equipment.

Having this small little box at all our sites will also enable us to have Out-Of-Bands connectivity to the sites. If we lose connectivity to a network element or if fibers break, we still have a backdoor in to make sure that SUNET's equipment is fully functioning and that we troubleshoot the right thing. We will also have much more extensive troubleshooting capabilities with direct access to the serial console on all sites, enabling us to gather low-level logging and crash-information.

Unboxing took a whole day

Almost all done!

The plan is to have all these console-routers being sent out to the sites already in week2 and then have engineers install and verify connectivity and plug in external antennas in week 3 to 5 so whenever the first piece of equipment starts to arrive we will be ready to configure them in week 6 and onward.

Next week we will start to do the absolute final test of all equipment with Juniper.

Skriven av

FREDRIK "HUGGE" KORSBÄCK

Network architect and chaosmonkey for AS1653 and AS2603. Fluent in BGP hugge@nordu.net