

Country Club Lanes, Sacramento, CA

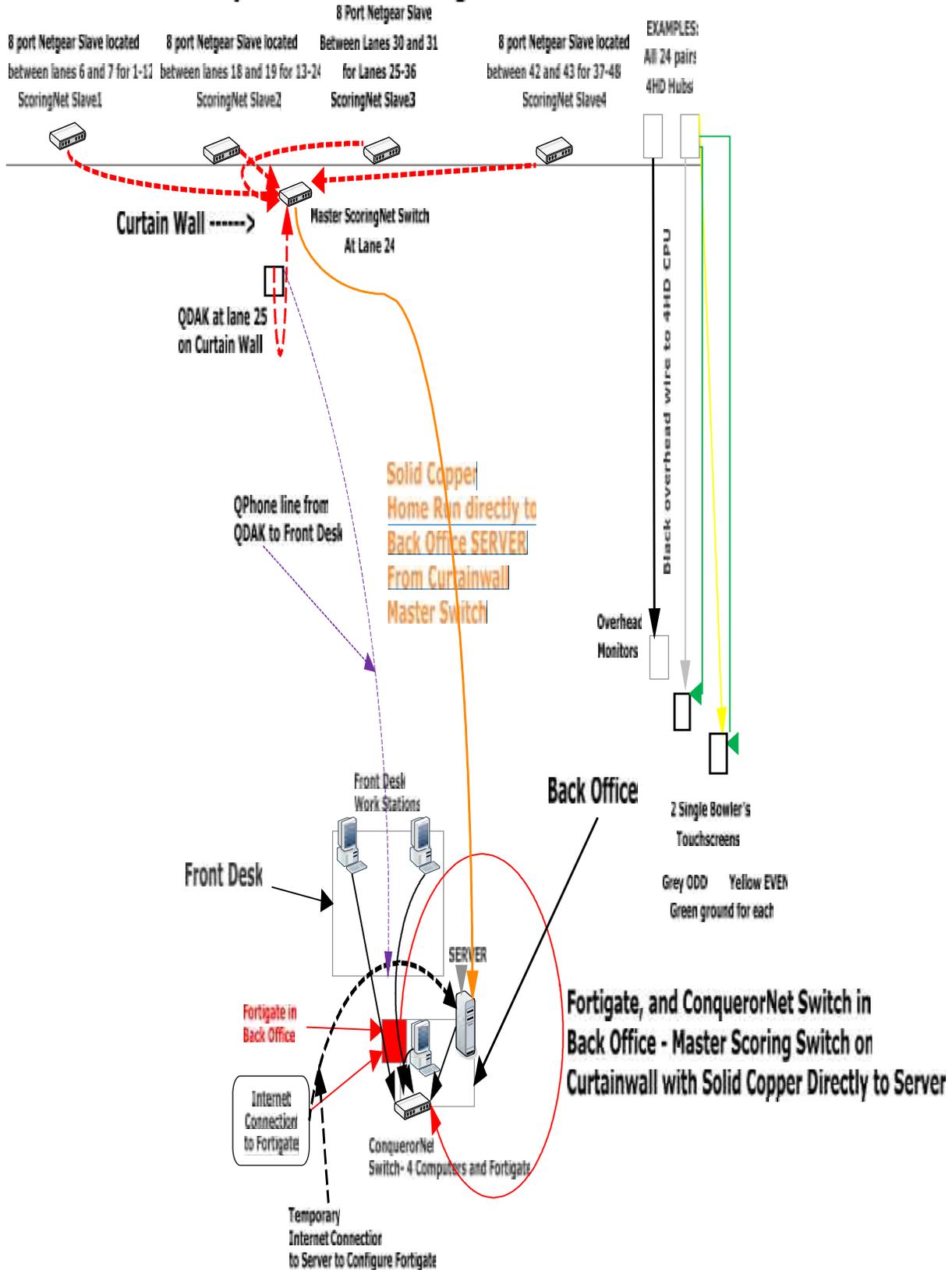
Remove Bowland and install BES-X

48 Lanes – 16 String and 32 82-30 Pinspotters

Day 1 – Monday, November 16, 2015 – We arrived and unpacked tools to the space provided by the Center. Met with Center management yesterday to discuss working hours and projected installation milestones. The ceiling here has no access whatsoever from the curtain wall, all the way to the approach area. We bought the needed equipment to shoot a pull string for the continuous 90' needed to install overhead monitor wire. The conduit through the concrete from the start of the approach to the Touchscreen pedestal locations is very small, but we think that we can pull the two Cat5 cables + the 2 Grounds through it without having to cut off the cable ends and installing new RJ-45's.

We worked out our proposed Network Setup:

Country Club Network Diagram



We got word that the Equipment was delayed by ice and snow on the way here to Sacramento and will not arrive until at least tomorrow. Daily Hours: 8 (me) + 24 (skilled) = 32. Job Hours: 8 + 24 = 32.

Day 2 – Tuesday, November 17, 2015 – We waited for the equipment which finally arrived and we unloaded. The center was full so we could do nothing. Daily hours: 8 + 24 = 32. Job Hours: 16 + 48 = 64.

Day 3 – Wednesday, November 18, 2015 – We arrived early to begin the new schedule of coming in at about 4:00 AM so we can be finished by about Noon (this center is VERY busy). We got a lot done today. We installed the Server in the back office including Fortigate, and ConquerorNet Switch as shown in diagram above. We installed QDAK on Curtainwall @ Lane 25, as shown. We installed 4 Slave Network switches and Master on curtainwall as shown on diagram above. The ceiling here is impossible. There are concrete firewalls everywhere. Access to the ceiling is very limited in many areas. However, we successfully ran ALL wire from Curtainwall to Back Office/Front Desk (Solid Copper Home Run, and QPhone Line from curtainwall QDAK), and from Back Office to Front Desk (Two Cat5s from Back office to front desk work station computers) as illustrated above in Network Diagram. We wired the entire Curtainwall neatly (out of harm's way but not final wire-dress which will happen as we come along the line on the actual installation of BES-X Pairs) with Master Switch wires (Cat 5 from Master to all 4 Slaves), and all wires for the 4 Slave Switches (Cat5 from each slave to the locations of all 24 4HD Hubs – Six 4HD Hubs per Slave). We wired, secured, and tested the Solid Copper home run wire from the Master Switch to the Back Office, then tested all slave wires to the Master Switch, and all wires from 4HD Hub positions to the Slaves. All Good. We installed 18 lanes of overhead Monitor CPU cables (we must shoot with a Fishing Bow – 100' through wires and pipes, over inaccessible 100' of ceiling, then reel-in the arrow's string while drawing in a pull string. Luckily, one of my Guys (Dave) is a great Bow Hunter from Wyoming!!



Josh Recovering Dave's Perfect Shot From 100'

We installed CPU mounting plates and CPU's on 1/3 of the center. We are ready to install BES-X and then just "plug-and-play" – and stay ahead of each current-day's install lanes, during the time that we are waiting for the long Upload process. We should be able to "prep" for future days' work each day, and move as quickly as possible. Daily Hours: $8 + 24 = 32$. Job Hours: $24 + 72 = 96$.

Day 4 – Thursday, November 19, 2015 – We got on the phone with Mike Randesi in Richmond, and he configured the two front desk computers to be one for Bowland-X and one for BES-X. We rebooted the Bowland system and ET Host and all Bowland came up fine on the front desk computer dedicated to Bowland, and all came up fine on the BES-X computer. We removed Bowland-X and installed BES-X on lanes 43-48 (String Machines). The pipe in the concrete between the approach and the Bowler's Terminal locations in only $\frac{1}{2}$ ". Note: We had to cut off all ends of the Cat5 cables from the 4HD Hubs and put on new ends on all lanes. All came up fine. We bowled on the BES-X lanes and checked all functions. All good. We cleaned-up completely. Daily Hours: $8 + 24 = 32$. Job Hours: $32 + 96 = 128$.

Center had a HUGE closed party for Intel today and we didn't want to take a chance of having lanes down for installation reasons for this party for 600 people. We took Friday off.

Day 5 – Saturday, November 21, 2015 – We came in at 3 AM and removed Bowland and installed BES-X on eight lanes – Lanes 35-42. All came up perfectly. We tested all for all functions and all worked perfectly. We prepped tomorrow's lanes, pulling overhead wire and installing CPU's, and cleaned-up completely. Daily hours: $7 + 21 = 28$. Job Hours: $39 + 117 = 156$.

Day 6 – Sunday, November 22, 2015 – We came in at 3 AM and removed Bowland from 33-34, and 1-6. We installed BES-X on those 8 lanes. We had two bad 4HD Hubs that wouldn't boot. We tried on lanes that were working perfectly from previous day's work and still wouldn't boot. We ordered replacements for NDA delivery. Once we sorted out the 4HD Hub situation all 8 lanes that we swapped-out today (33-34 – the last of the TMS String Machines, and 1-6 – the first of our 82-30 lanes to swap out) (BTW- center was wired on ET Host: begin 33, terminate resistor 48, begin 16, terminate resistor 1, and begin 32, terminate resistor 17... so we had to change direction of the install to keep their Bowland-X system working) came up fine and all functions worked fine. Daily Hours: $8 + 24 = 32$. Job Hours: $47 + 141 = 188$.

Day 7 – Monday, November 23, 2015 – We removed Bowland and installed BES-X on 8 more lanes – Lanes 7-14. We have been collecting VDB Units to ship back (as well as Six-Boxes, and T-Vision Cameras). The center doesn't seem to have the Six-Boxes and T-Vision Cameras from the 16 Lane TMS install.



All 8 lanes for today came up perfectly and we bowled on all lanes and checked all functions. All worked perfectly.



We have installed 30 of the 48 lanes. Conqueror is still timing-out every 15 minutes since an issue still exists with the License Key. I informed Richmond today, as Greg Dow had informed Richmond over the weekend. Daily hours: $7 + 21 = 28$. Job Hours: $54 + 162 = 216$.

Day 8 – Tuesday, November 24, 2015 – We removed Bowland and installed BES-X on 8 more lanes – Lanes 14-22. All came up fine and tested fine. 38 lanes of the 48 are installed and working well. Daily Hours: $7 + 21 = 28$. Job Hours: $61 + 183 = 244$.

Day 9 – Wednesday, November 25, 2015 – We installed 6 more lanes – Lanes 23-28. Four more to go. Daily hours: $5 + 15 = 20$. Job Hours: $66 + 198 = 264$.

Thanksgiving Day Off.

Day 10 – Friday, November 27, 2015 – We finished the last two pairs. The CPU on 31-32 - #5803 would not power-up. Replaced with spare and came up fine. All lanes tested fine. Tech Support was trying to configure Front Desk 1 (the "server" for the Bowland lanes) out of Bowland and into BES-X to become their second Front Desk for BES-X. I networked this computer onto the Conqueror Network along with the old back office computer. They were still trying to do the switch-over when we left for the day. We boxed-up all of the old Hardware to send back to Richmond. We cleaned-up completely – disposing of all trash. We connected all Infra-red controllers except the 4 that the center hasn't swapped-out yet. We are sending a remote control (along with instructions on which buttons on the remote control Inputs and Power) for these TV monitors to Richmond so they can configure for Conqueror to turn on and off from the front desk instead of having to walk across the center with a remote to turn off. Daily Hours: $7 + 21 = 28$. Job Hours: $73 + 219 = 292$.

We went in on Saturday to check all lanes, get sign-off, and pack tools. Tech Support configured Front Desk 1 (formerly the Bowland-X Main Computer) to reside on BES-X Conqueror Network just fine. We changed all 82-30 lanes (1-32) from 82-30 + Qvision + Fbox (in Lane setup) to 82-30 + Qvision + Six box on the advice of Martin Vera, since the F-boxes are wired like a Six, and some functions might cause errors if configured for f-Box in Conqueror.