



Direct Cabling Guide

Direct Cabling: two words to connect devices differently in your Comms rooms :

- Wire for less
- Wire faster
- And more safely

This « guide » is intended to introduce you to the possibilities of direct cabling, computer equipment to computer equipment, especially in the Comms rooms.

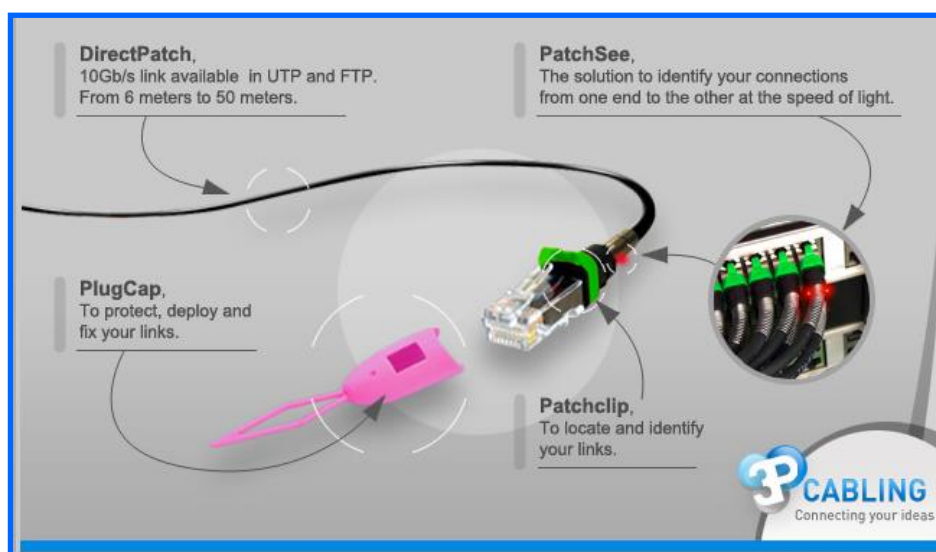
You will find the advantages of this method, and the 3P Cabling components for the implementation of direct cabling infrastructure.

ORIGIN

Wiring servers to the network access layer, can quickly become a nightmare for the administrators: proliferation of cables, associated costs, air flow disrupted by cables that are crammed into the false floor, the risk of failure when handling cables, difficulty of change, etc ...

One of the recurring demands of network administrators is to have Cabling solutions that reduce costs of infrastructure investment: less equipment and faster deployments.

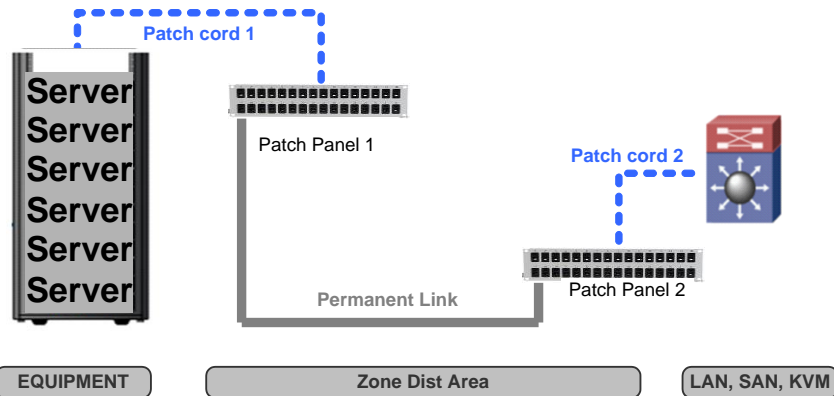
What if you changed the way you saw the cabling in your Comms rooms?



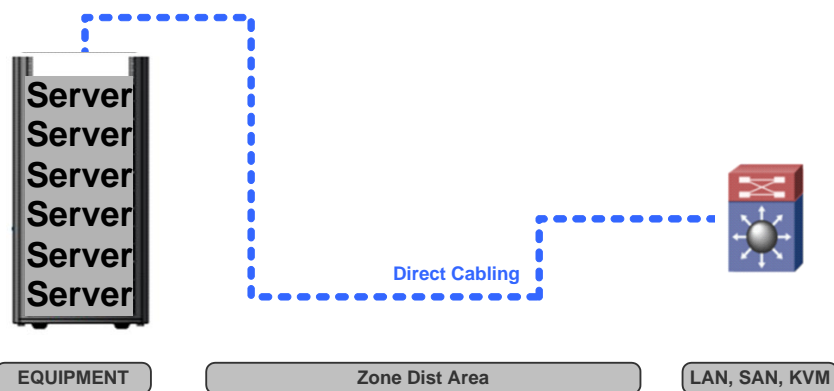
Other Cabling Manufacturer's announcement:

- Belden : "Direct cost savings were also achieved by reducing the overall average length of the horizontal cable run. This was achieved due to the increased number of smaller telecom rooms"
- Siemon : « Cable Sharing in Commercial Building Environments: Reducing Cost, Simplifying Cable Management, and Converging Applications onto Twisted-Pair Media»
- Amp Netconnect : "trunk cables of predetermined lengths can be ordered in advance and stored until needed to enable cost-effective installation in phases and easy upgrades with minimal downtime"

Conventional Architecture



Direct Cabling Architecture



WHEN TO USE DIRECT CABLING ?

To connect your devices directly in some configurations:

- Connect servers with the main central switches
- Connect the KVM
- Connect the remote devices such as telecommunication equipment (Routers - Firewall - PDU - Webcam - various sensors etc)
- "Mirror" connection to separate certain types of equipment (separation between Comms rooms hosting active equipment and Comms rooms hosting passive equipment)

WHY ?

You remove all the intermediate patching connections:

- You can optimize the space in your racks. Space is more and more expensive.
- You reduce your cabling infrastructure costs by eliminating a whole range of hardware (patch panel, permanent link, RJ45 patch cords) - It's cost-effective.
- Save time for deployments, installations and during testing and commissioning
- You save time on the availability of equipment thanks to the stock of pre-terminated cables
- You locate all your connections to the speed of light thanks to the PatchSee "Intelligent Patch Cord" technology
- You can increase performance thanks to factory tested cables and reduce the number of intermediate break points. You minimize the risk whilst "troubleshooting" as well as reducing insertion loss

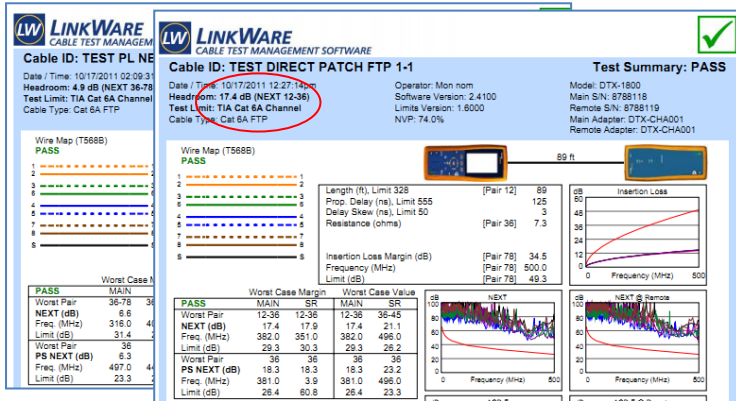
QUESTIONS AND ANSWERS

With RJ45 cables, do you get the same technical performance than with a traditional cabling infrastructure?

- Yes, for distances below 50 meters, the use of stranded cables meet all the requirements of the standard (ISO or EIA / TIA). The insertion loss related to the type of cable is compensated by an enhanced RL (Return Loss), less impedance disruption and also a better crosstalk: NEXT

Conventional Cabling

Direct Cabling



I will lose the flexibility of operations by removing the RJ45 patch panels?

- Not with the identification of each link, thanks to the PatchSee technology, you can trace all your cables without any disturbance, even over a long distance, so it is not necessary to centralize your links via the intermediate patch panels.
- In addition to this with the ring provided by PLUGCAP you can easily fix and locate the cables that have been put on hold in your cabinets, and so you avoid pre-wiring the cables that are not used on these RJ45 patch panels.

Why is it cheaper?

- By removing hardware surplus I save straight away on the capital and installation cost
 - o Less racks, less hardware
 - o Less patch panels and less RJ45 ports
 - o Less RJ45 patch cords
- To which is added savings on the cost of deployment
 - o All the RJ45 cables are already patched in, so there's a reduction in the workforce on site
 - o The cables are factory tested thus optimising the testing workforce on site

THE COMPONENTS OF DIRECT CABLING, by 3P Cabling

DIRECTPATCH :

8 lengths available as standard from 6 to 30 meters

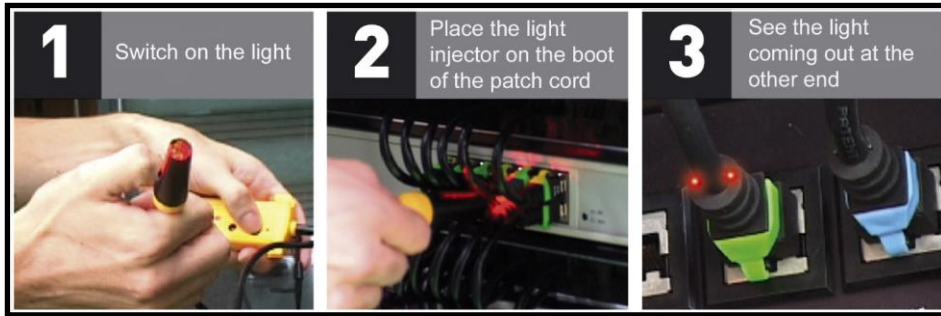
Feet	20	26	32	40	50	66	82	100
m	6.1	7.9	9.7	12.2	15.2	20	25	30

30m – 40m and 50 meters in stock and available in U/FTP

- Complies to the Standards EIA/TIA 568-B2.2-1 & ISO 11801 category 6A,
- Tested on 10 Gigabit/s "CHANNEL" as per the drafts of - TIA Cat. 6A & ISO Class Ea 25N1255,
- Available in U/UTP (crossweb, PVC sheath) and U/FTP (shielded pairs, LSZH sheath) 100 Ohms
- Stainless steel fitted spring to protect the bending radius
- Compatible with all IT equipment
- Part Number and length printed on each boot

PATCHSEE :

All pre-terminated cables are equipped with this solution



- Trace the patch cords from end to end instantly thanks to the light tracking system
- No need to disconnect the cables to make a diagnostic
- Anyone can perform the identification on their own
- The network link are always identified correctly removing all possibilities of handling errors by disconnecting / connecting the wrong server and avoiding downtime
- Trace the right cable before troubleshooting or disconnecting a server or any other device.

PLUGCAP :

All the pre-terminated cables are equipped with PLUGCAP at each end:



pulling out cables for passage in false ceiling or cable tray

- Protection of the RJ45 connector whilst installing cables
- Simultaneous pulling of several cables thanks to its ring
- Identification of the cables on hold thanks to its unmissable colour
- Fix the cables on hold thanks to its ring
- External diameter of **PLUGCAP** : 16 mm, fits in an ICT sheath of 25mm

PATCHCLIP :

Removable clips to easily and quickly change the colour coding system on your cables



- 16 colours available for a clear and comprehensive identification of your network applications, live areas etc...
- First level of visual identification : simple, practical and cost-effective
- Protect the tab on the RJ45 connector
- Facilitate access of the RJ45 cables in high density patching environments (just press the tab)

www.patchsee.com / www.plugcap.com / www.patchclip.com / www.idscratch.com / www.deskpatch.com

For Australian Pricing you can utilise our downloadable Excel spreadsheet based "PatchSee Quoting Tool": <http://www.helec.com.au/Products/PatchSee/DefaultPatchSee.htm> (Tool link near bottom of page).