Survivability Yes, What About the Links?

PRINT

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Links from the IP-PBX to the LAN are few and keeping them open, connected, and without congestion is essential.

Each IP-PBX is different in where the links are found.

Each IP-PBX is different in how many links are provided.

Each IP-PBX is different in how the links are connected- by copper or fiber?

Fiber connectivity is my choice but it seems copper dictates. When **Nortel** redesigned the Norstar ICS (Modular) using fiber connections back in the 1990's, it was notable.

It's important once again to take inventory of where the links are physically and where they are connected (which LAN Switch).

Does the IP-PBX have only one Ethernet connection to the LAN? This is the single point of failure (SPOF) that would love to have a secondary link. For example, in our old **3Com** NBX 100, we have the primary link connected to our LAN switch. When, (not if) the controller or other component in our primary Ethernet connection on the IP-PBX fails there is no dial tone for anyone. Since we have a hub card residing in the chassis we could easily move the patch cable from the primary connection to the hub card and restore dial tone to users. I have stacked up RMAs (Return Material Authorization) forms to prove what happens to any link (card or interface) when it's not electrically protected from the copper LAN. For those in doubt, it's not an if, it's a when. My choice of protectors is **ITW/Linx** and they have protectors for almost everything including the invisbile fence companies.

The ideal IP-PBX will have two Ethernet connections for the basic system. The primary connects to LAN switch 1 and the secondary connects to LAN switch 2 via patch cables and software in the IP-PBX detects a failure of the primary link. This is ideal and not likely. But hold that thought.

Gateways residing onboard or in-skin of the IP-PBX also connect to a LAN switch- hopefully, not to the same LAN switch as the primary connection and again in the ideal world, two connections would be provided.

Call Center appliances and other gear residing in the IP-PBX also connect to the LAN switch and again in the ideal world there would be two connections for each and each would connect to different switches.

The best links wouldn't be copper and they would be fiber. The IP-PBX backplanes are going to be noisy and most will be interfaced to copper networks- thus more noise. In a wired world, the links as singular unit's operating by themselves should scare anyone. Being copper they should add even more concern. Dual copper links with embedded software making diverse automatic route decisions may add comfort and unnecessary overhead and costs. Perhaps splitting fiber pairs would be a better solution to deliver traffic to and from the copper side of the house to and from the IP-PBX in better form and without the negative effects lurking on the copper side.

For the users- my intention is to give light to knowing your inventory and where the wares are connected and what the heck- why not connect the IP-PBX to LAN switch 1, the Gateway to LAN switch 2, etc...? If one switch fails and it happens to be the gateway connection- all is not lost.

For the factories- my question is "where's the fiber?"

For everyone else- just make sure those link lights stay on, uncongested and operable and don't forget to protect them.

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