

Moving from a Twinax Environment to Thin Clients?

Here is a short list of things to consider...filtered from a list of 50!*

If you have Twinax cabling and devices and are thinking of moving to a LAN environment, you have a lot to worry about. Will your trusty IPDS printers continue to perform? Will your data entry personnel continue to be productive? Will your network be as reliable? In most cases, the answer will be no. That is why you should consider the e-Twin@x Controller alternative.

The e-Twin@x Controller allows you to leverage your Twinax investment while providing you with a pure TCP/IP alternative to the traditional remote controller methods. It even supports e-Mail on dumb terminals! You can retain your Twinax equipment, improve throughput at your remote locations, and employ state-of-the-art Web-based management for all of your remote devices. For more about the e-Twin@x Controller, visit the Web site: <http://www.e-twinaxcontroller.com/>. In the meantime, here are a few issues for you to consider:

Going With What You Know

A rumor has been circulating the past few years that Twinax is obsolete. However, to think nobody is putting in new Twinax **equipment** is simply not true. While people are not putting in Twinax **cable**, the use of twisted pair and baluns is very commonplace in places that are already wired with Twinax or twisted pair network. You know Twinax - the investment in equipment and cabling has already been made, it's reliable, the company employees know how to operate the devices, and you know how to maintain them! Don't ignore the importance of this investment and accrued knowledge...

Price IS an Issue

The table below demonstrates the effect of various customer operational requirements on the price calculation. Prices quoted are "street price", i.e. Dumb Ethernet terminals are priced at \$550 each and Thin Clients are \$650 each. If you are running a single session over each and every terminal, the difference in cost is downright outrageous, when compared to the e-Twin@x Controller model supporting the same number of devices. However, even in environments when 3 or more sessions are running on a single terminal, the e-Twin@x Controller still affords you a much better price:

Sessions per Terminal	# Terminals Required	e-Twin@x Controller	Dumb Ethernet	Thin Client
1	112	\$9,761	\$61,600	\$72,800
2	56	\$9,761	\$30,800	\$36,400
3	37	\$9,761	\$20,350	\$24,050
4	28	\$9,761	\$15,400	\$18,200

Thin Clients, of course, often have additional costs, such as the Fat Servers required to run them.

Implementation

Did you know that the e-Twin@x Controller can be installed in five minutes, while changing terminals takes about 30 minutes each (at least)? Thin Clients take much more time (due to the implementation of the Citrix Server). This is another reason why the bigger the deal, the more cost-effective the Controller solution.

Cost of Ownership

Twinax is a notoriously stable and reliable infrastructure, especially compared to Ethernet. All Terminal replacements will require an IP address each, and a connection to a network switch. Large switched networks often have banks of switches, which need to be managed. There are a whole slew of tasks that need to be performed: VLAN's, VLAN trunking (connecting two switches together), configuring VTP (VLAN Trunking Protocol), spanning tree protocol for preventing loops, VLAN routing, etc.

In addition, managing a larger network will require new skills, maybe even additional personnel. The larger networks are less common on remote sites of AS/400 companies at present, however it remains true that the more IP addresses you use, the more planning and management the system requires. Most remote locations do not have a dedicated network administrator, which probably means a real logistics nightmare, not to mention a costly endeavor, when installing and maintaining the new network equipment. Did you know that the e-Twin@x Controller has only one IP address, and it supports simple, remote HTTP management, which any AS/400 person can easily understand?

Appendix

Following are 50 things to consider when calculating the costs of moving away from Twinax:

1. New Terminal \$550
2. Re-record Terminal Macros 10mins-30mins
3. DHCP server requirement
4. IP planning
5. Citrix?
6. Fat Servers?
7. Boot up time (Windows takes minutes)
8. Software license and maintenance costs
9. Re cable?
10. Disposal of existing equipment
11. Unpacking of new equipment
12. Program changes for new infrastructure (Ethernet Terminal printer emulation does not support out queue naming, writers always autostart)
13. Changing from 'Keyboard only' to mouse and smaller keyboard
14. Learning curve for employees
15. New keyboard objections (any change is cause for complaint)
16. Downtime

17. Network planning
18. Increased complexity of existing PC Network
19. Potential IP addressing mistakes
20. New skills required
21. Cost of ownership
22. Virus protection?
23. Loss of productivity due to increase in new features to play with
24. Reliability of Windows-based servers for DHCP etc.
25. On going management
26. Increased bandwidth requirements?
27. Loss of central control
28. Terminal life cycle costs (nobody knows how long a Thin Client will stay current, Dumb Terminals have not changed substantially for over 10 years)
29. Software changes brought on by IBM, how will you keep up to date?
30. Second user market full of inexpensive Twinax product (low cost replacements, no value in existing equipment for trade in purposes)
31. Why throw the baby out with the bath water? (i.e. what do you want to achieve, there may be a better way (e-Twin@x, e-mail, performance, no SNA, etc.)
32. Cable distances?
33. Noise issues
34. Dot matrix to Laser printer
35. Bar code reading
36. Security (device naming can be changed on intelligent devices, printing can be stored and copied)
37. Download times for Browser based devices
38. Screen size, Windows based emulators have less viewing area due to menu bars and status bars.
39. Configuration for multiple AS/400
40. Cut and paste (will it work the same?)
41. Split screen (will it be the same?)
42. Different font (is it what you like?)
43. Hot keys (are they the same i.e. Alt PgUp switch session, etc.?)
44. More configuration options, more chance for problems (Color mapping, background changes etc.)
45. Dial back up issues for new network
46. Disaster recovery (will it work with the new device?)

47. Traffic flow issues for new network infrastructure
48. New tools required for problem determination
49. 100Mhz Ethernet will not speed up your dumb terminal!
50. MTBF, IBM made 100's of thousands of Twinax Terminals, how many thin clients have been installed so far? The latest ones are Linux-based, what about last year's models? (i.e. this stage in the market is still emerging, why be on the bleeding edge...?)