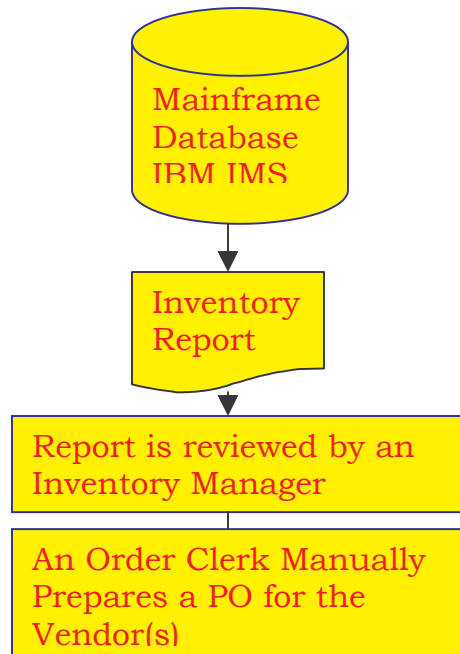


An Evolution: From Sneaker net to the Internet

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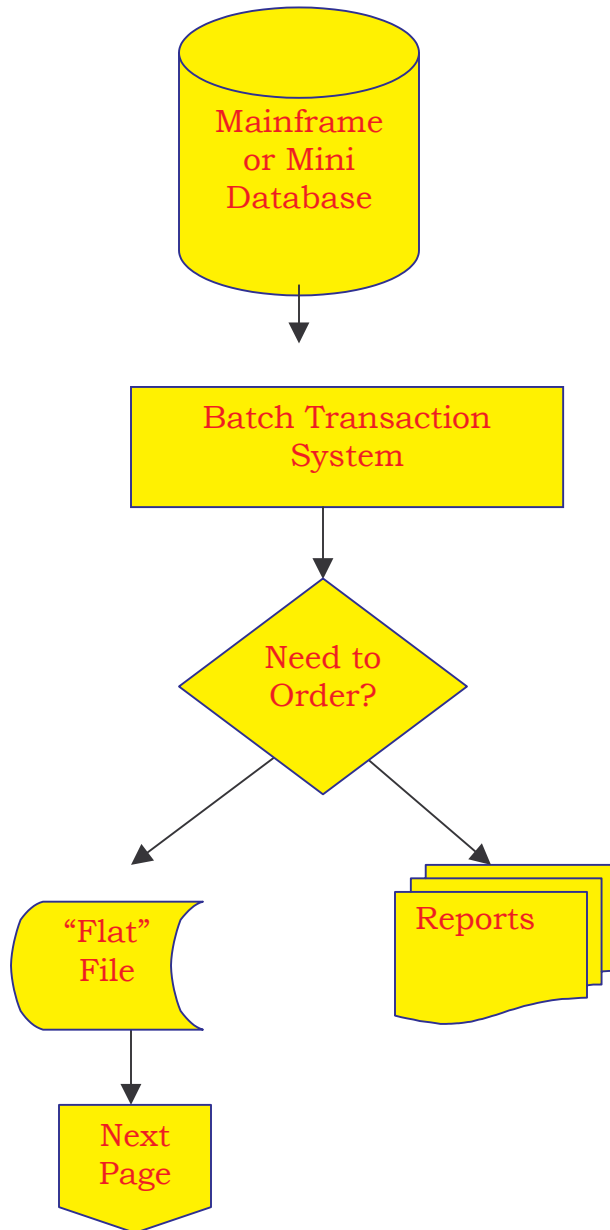
60's / 70's



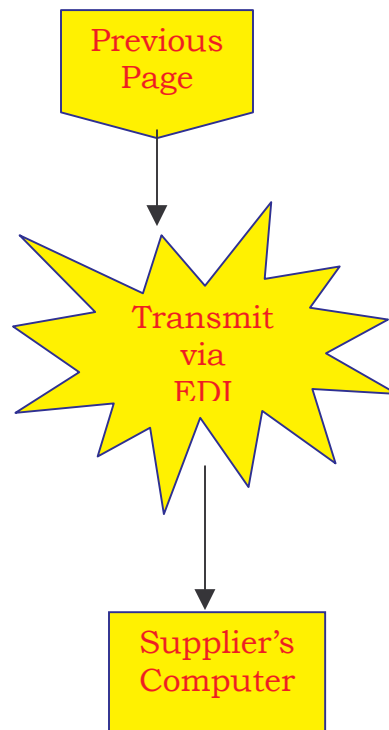
- Note the large amount of human involvement
- Tens of thousands of lines of programming code prone to “bugs”
- Hardware and operating systems prone to frequent failure
- As an example of how tedious these systems were to maintain, database capacities had to be monitored manually

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80's / Present?



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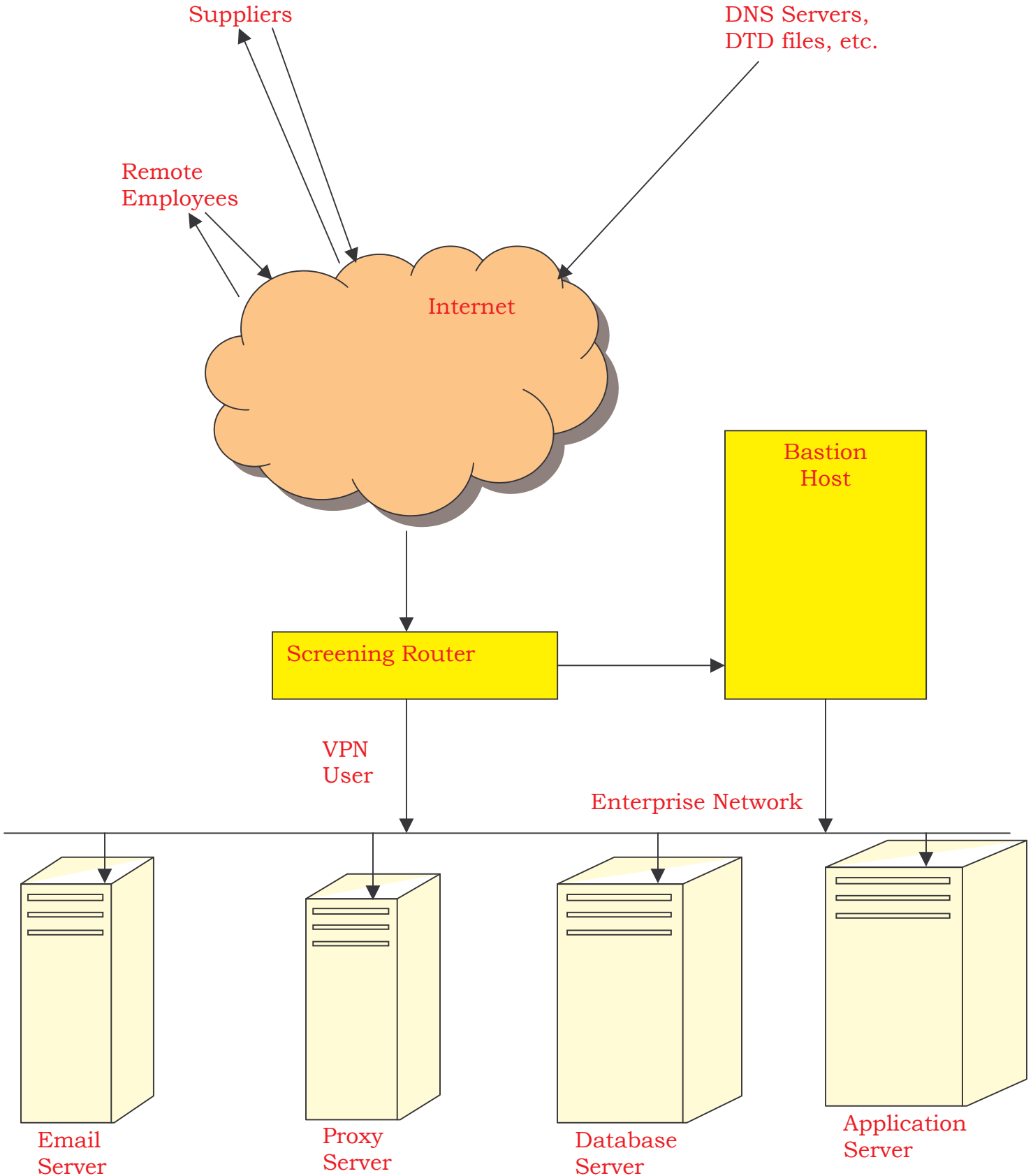


Not as much human involvement, but

- Other problems carry forward
- EDI link prone to drops
- Expensive: leased lines or long distance charges
- Only cost-effective with large number of transactions
- “antiquated, complex” per *Computerworld* article (1)

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Today



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- 1) An XML transaction can be generated automatically by a database trigger when an item reaches its order point
- 2) XML transaction sent to supplier via TCP/IP

AND/OR

- 1) Supplier has login to Extranet, with restrictive access; possibly through the VPN, see below
- 2) Executes SQL query against Inventory levels, creates orders as needed; notification of appropriate parties via email and/or reports

Note:

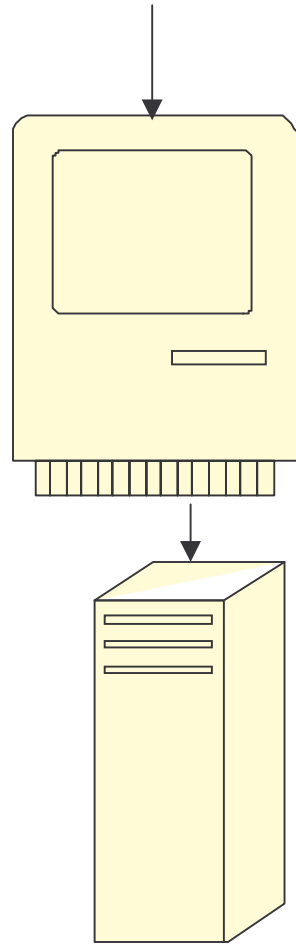
- TCP/IP much more reliable than EDI links
- With XML, can be set up with NO human involvement
- Modern DBMS “self-heal.” That is, the DBMS monitors and adjusts capacities except in the most extreme circumstances
- Current network and system reliability are quantum leaps ahead of what was available even 10 years ago; with online backup, RAID, etc. downtime has been reduced to almost zero.
- “30 – 50% savings” over EDI per *Computerworld* article (1)

Virtual Private Network (VPN)

The suppliers and remote employees, such as sales people, could sign on through a VPN. The advantage is security. The data is encrypted and the keys are usually changed every 24 hours, depending on the provider.



Remote user dials into VPN



Data is encrypted, sent through “tunnels” to the corporate network

The data is decrypted and delivered to the recipient, or the remote user is granted network access

See reference (2) below for a brief “QuickStudy.”

You may also be interested in this article, which makes a case for EDI:
“Why EDI Won’t Die,” Ian Mount, *Business 2.0*, August 2003
<http://www.business2.com> (subscription required)

References:

<http://www.computerworld.com/developmenttopics/development/xml/story/0,10801,81193,00.html> “Auto industry group to upgrade supply chain with XML,” Todd R. Weiss, *Computerworld*, May 13, 2003

<http://www.computerworld.com/securitytopics/security/story/0,10801,43551,00.html> “Virtual Private Networks,” Bob Wallace, *Computerworld*, February 2, 1998

About the author:

Gregory S. Diehl has almost 35 years experience in applying technology to solve business problems and expand opportunities. He has worked as a systems analyst, programmer, technical writer, Web developer and numerous other roles. A Master CIW Designer, he is currently starting a Web design and development firm in Las Vegas.
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