



Connect.
Transact.
Collaborate.
Differentiate.

New York City - Metro EC/EDI user group EDIINT

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Who is QRS?

- Provides market-leading collaborative commerce solutions for the extended supply chain
- Since 1988, QRS has delivered real-time, reliable and scalable solutions that enable the largest retail trading community
- Manages the retail industry's largest database of product content with over 88 million current and unique items
- Empowers more than 8,000* retail industry customers to realize competitive advantage

"QRS has consistently created and delivered the solutions that streamline our supply chain, improve sales, and strengthen trading partnerships."

- Nordstrom Inc.

*Based on total, unique QRS corporate customers that have purchased or licensed QRS products and services between April 2001 and May 2002.

EDIINT – How did it start?

- Premenos Corporation – Templar
 - Released around 1995
 - Touted as the ‘VAN Killer’
 - Didn’t go over well with the VANs
 - Provided acknowledgments of sent and received messages
 - Non-Repudiation of Origin (NRO)
 - Non-Repudiation of Receipt (NRR)
 - Was not proprietary
 - However there were no other products on the market
 - A number of other products released in the following year

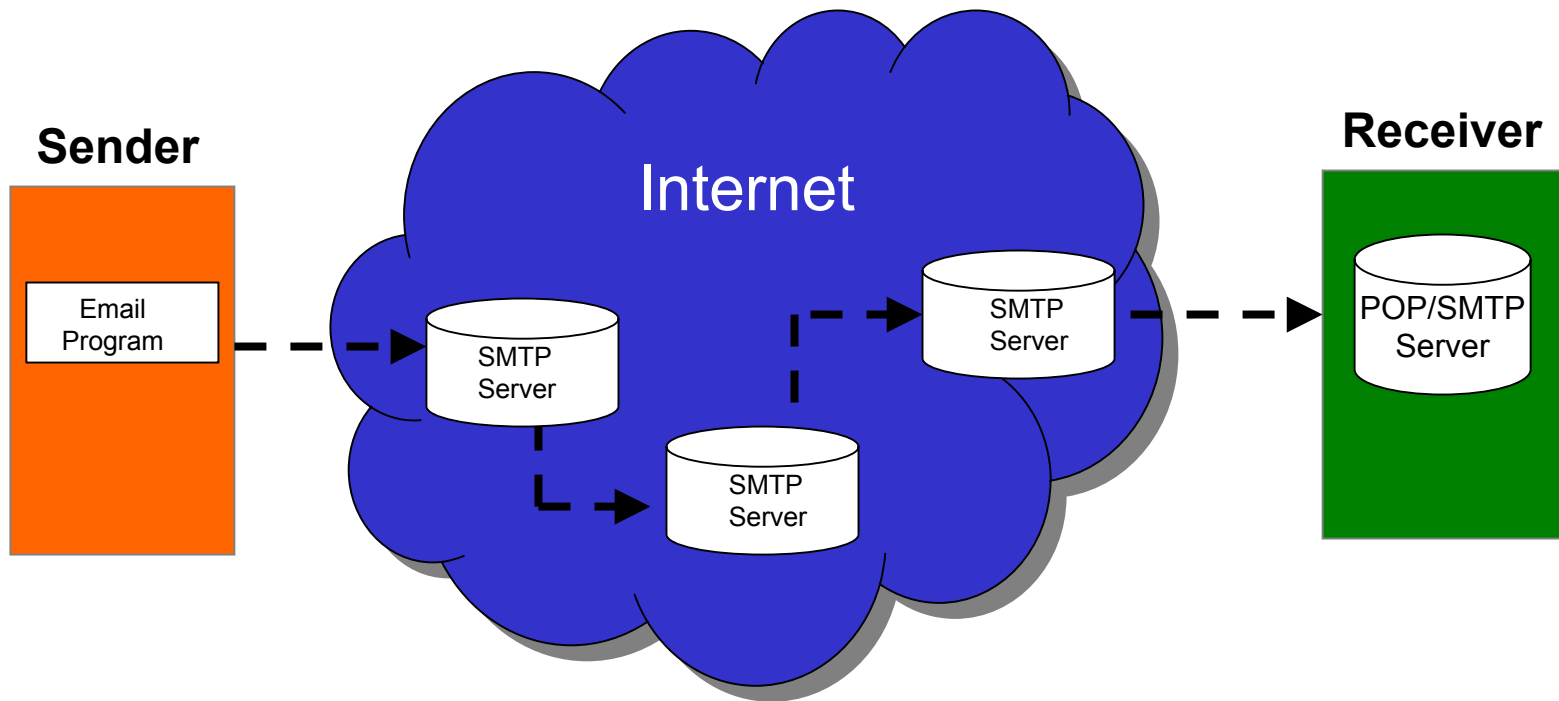
What is EDIINT?

- EDI over the internet (EDIINT) is a Working Group of the "Internet Engineering Task Force" (IETF).
- Formed in 1996
- Chartered to create a set of secure standards for sending EDI data over the internet.
- Data Independent
- AS1 and AS2

EDIINT – AS1

- AS1 (Applicability Statement 1)
 - Uses SMTP (e-mail) as the transport
 - Only data is encrypted
 - Store and Forward
 - Not real-time
 - Possible file size limits
 - Easy setup
 - New e-mail account
 - Asynchronous Acknowledgements

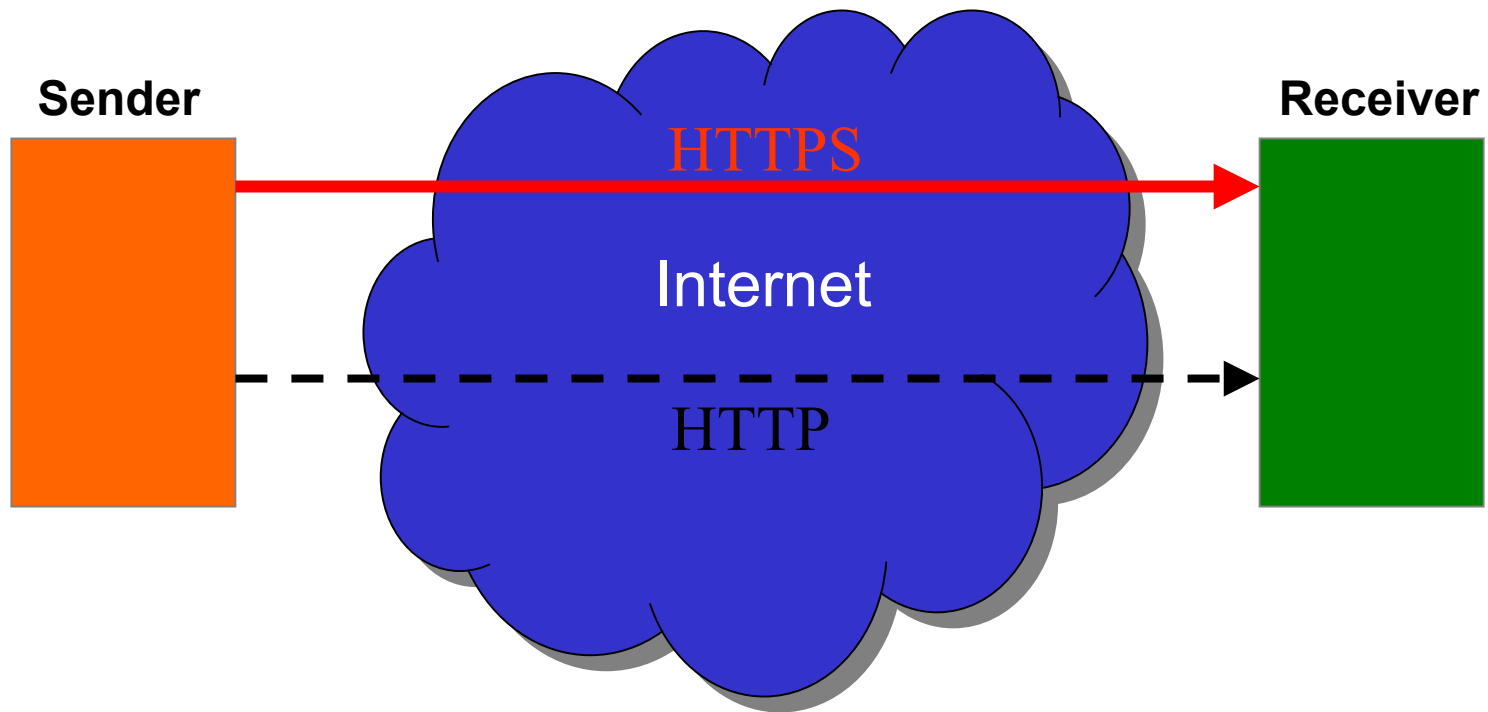
AS1 Transport (SMTP)



EDIINT – AS2

- AS2 (Applicability Statement 2)
 - Uses HTTP or HTTPS as the transport
 - Encryption
 - Document (HTTP/HTTPS)
 - Connection/Session (HTTPS)
 - Real-time
 - Persistent Connection
 - Firewall navigation requirements
 - Synchronous Acknowledgements
 - Asynchronous Acknowledgements possible (not true AS2)

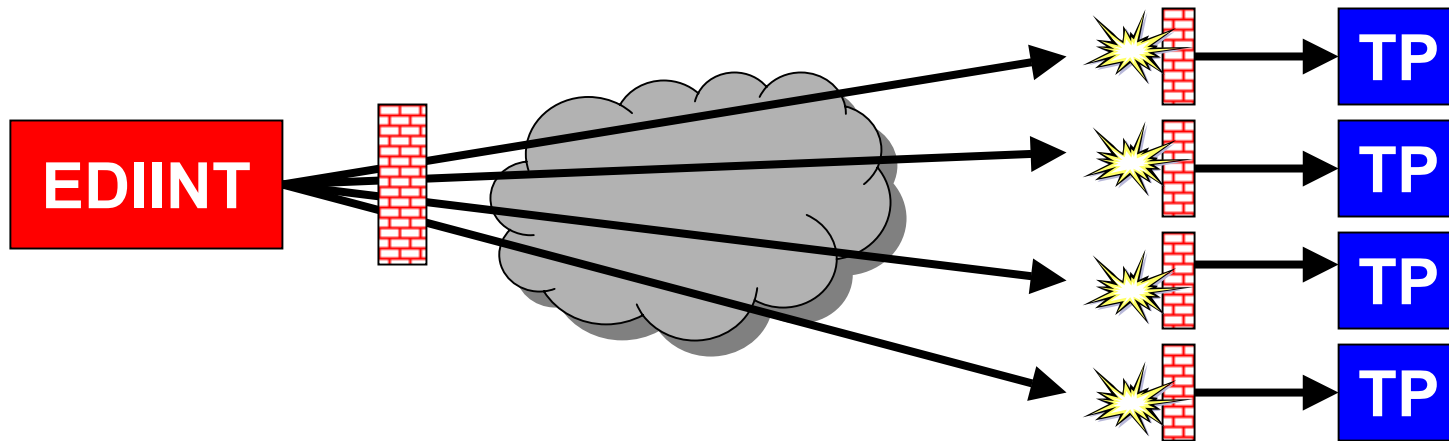
AS2 Transport (HTTP/HTTPS)



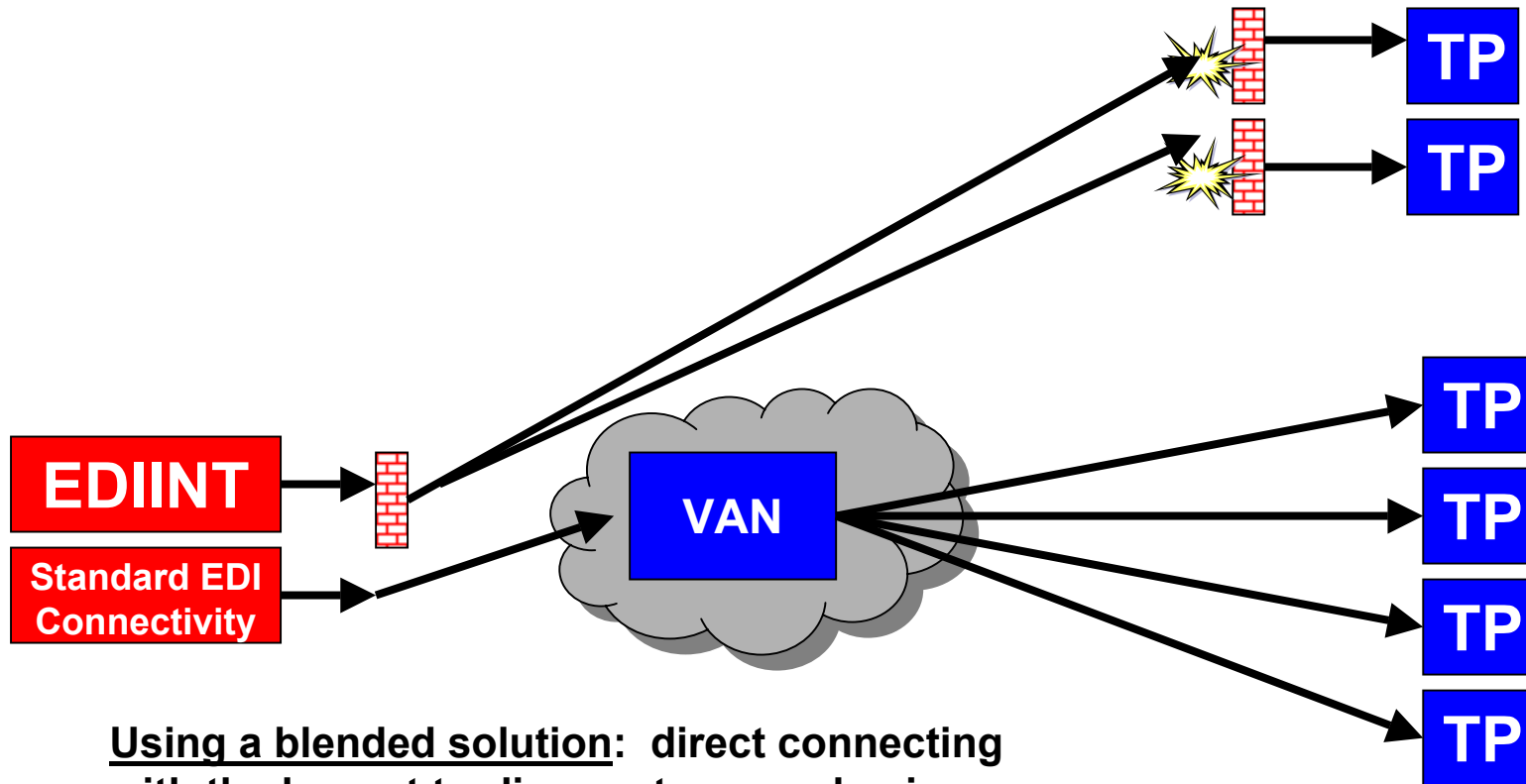
Deployment Alternatives

- Direct Connections
 - AS1
 - AS2
- VANs/Networks
 - EDIINT Network / Gateway
- Blended Solution

Community Options - Direct Connections

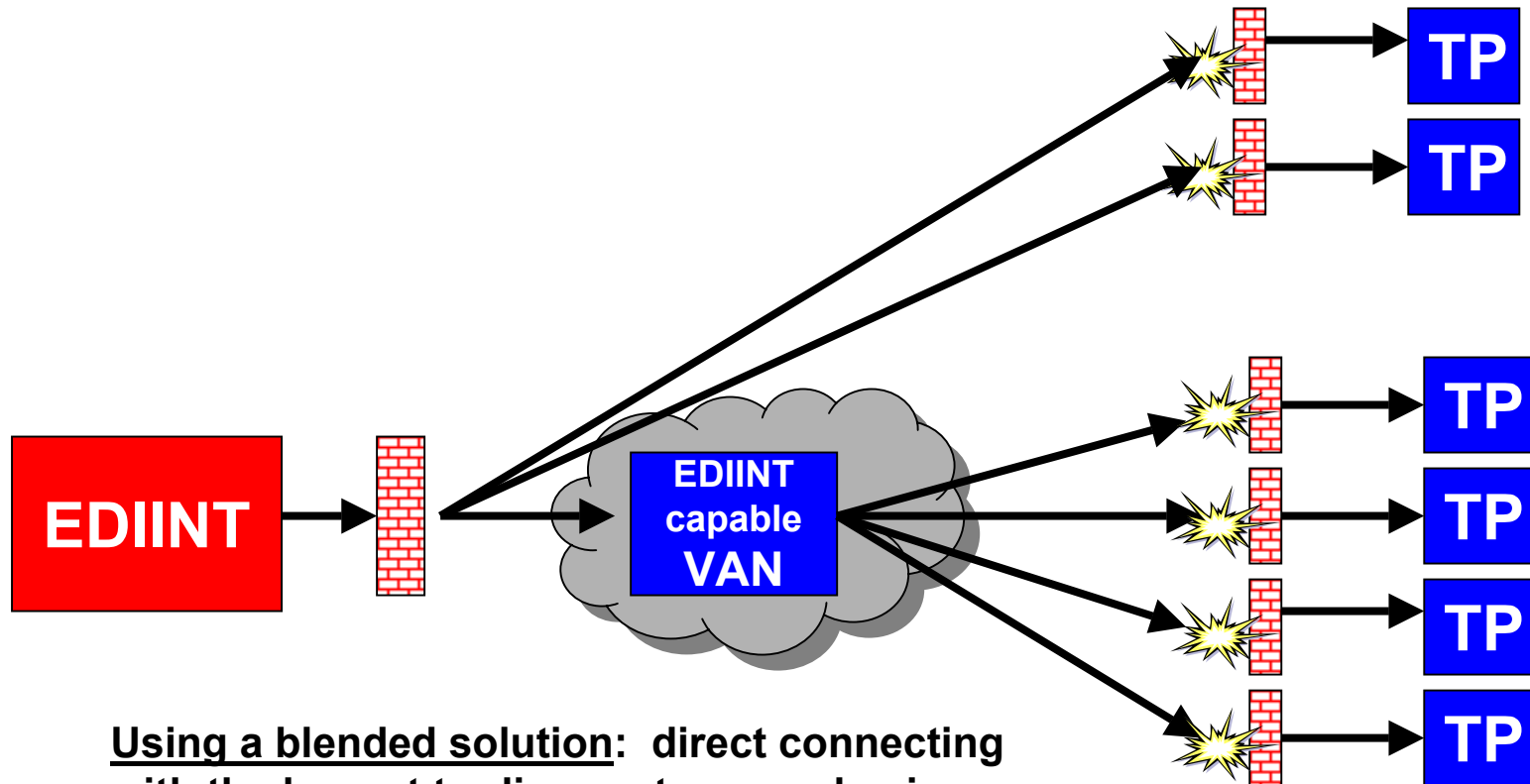


Community Options - Blended Solution (1)



Using a blended solution: direct connecting with the largest trading partners and using a traditional VAN store and retrieve connection for all other trading partners

Community Options - Blended Solution (2)



Using a blended solution: direct connecting with the largest trading partners and using an IP-based managed network for other trading partners.

Adoption of IP-based communication technologies

■ Retail Trends for AS2

- Grocery
 - Strong adoption
 - Replacement of legacy technology (i.e. leased lines, modems)
- Mass Merchants
 - Growing adoption
 - Similar but smaller migration of CPG vendors
 - Leverage adoption to GMA side
- Department Stores
 - Interest but no apparent adoption in the short-term
 - Demand may likely stem from vendor base

Major Retailer Internet Programs

Retailer	Internet Program
Meijer	EDIINT (AS1 or AS2) Direct via Internet Vendor on managed network – pay both sides of EDI charges
Food Lion	EDIINT (AS1 or AS2) or vendor pay all
Lowe's	EDIINT (AS1 or AS2) or vendor pay all
Kohl's	EDIINT option
Wal-Mart	EDIINT AS2 only with VAN backup
Winn Dixie	EDIINT option

AS2 Roll Out Models

■ Wal-Mart

- “Strict” mandate for AS2 software
- Usage of VANs/networks for contingency only (IBM/QRS and Sterling)
- Migration from internal legacy network
- Requires Synchronous Acknowledgements

■ Meijer

- “Flexible” mandate for AS2 software
- VAN/network usage allowed at 100% vendor pay
- More realistic model of future roll outs

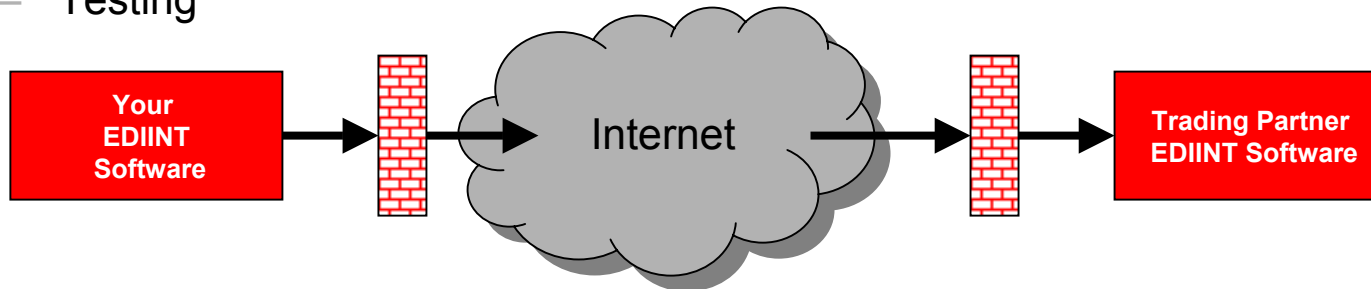
Implementing Direct Internet Partnerships

■ Start up

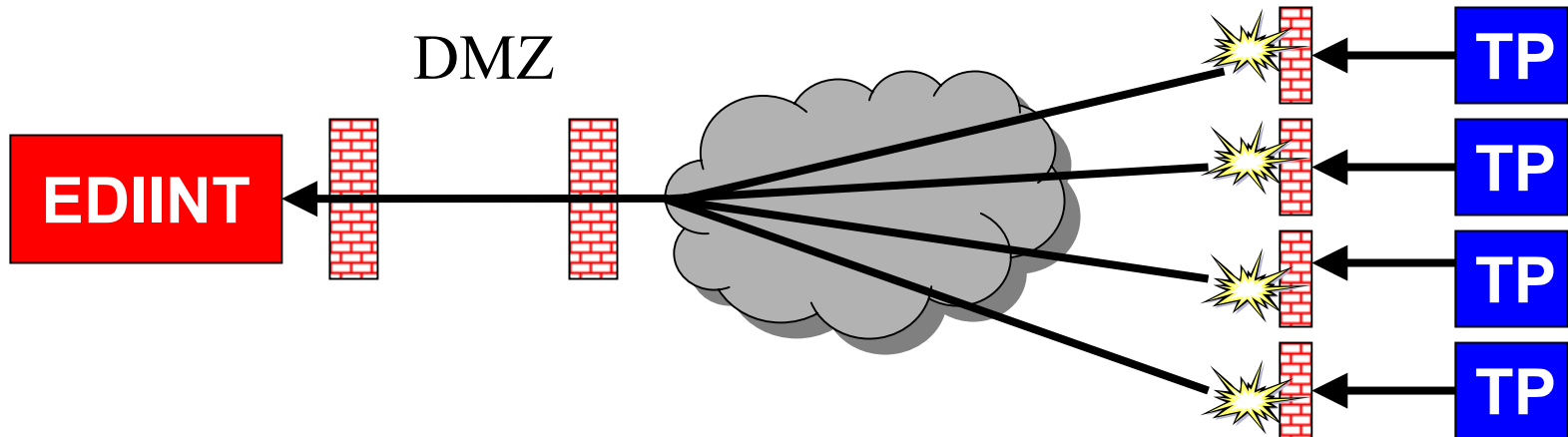
- Trading partner protocol
- Trading partner software/release
- Security requirements
- Compression requirements
- Certificate information (public key)
- Partner addressing
- Firewall navigation
- Testing

■ Ongoing

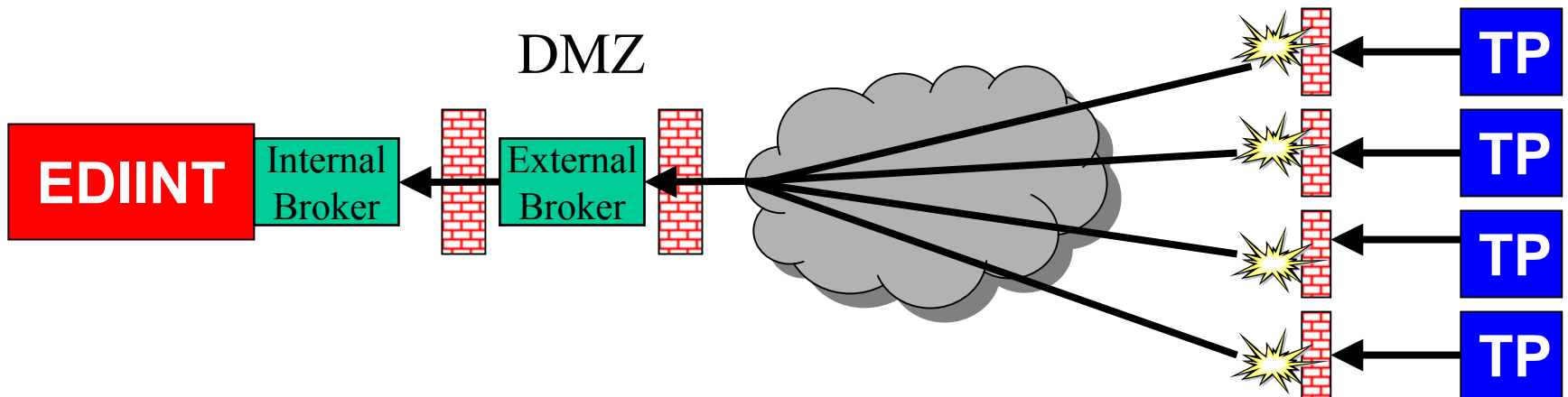
- Firewall issues/changes
- ISP issue (outage, slowdown denial of service)
- Server/database issue
- Certificate expiration
- Retesting
- 24 hour operation / Constant connection



Inbound Firewall Navigation – AS2



Inbound Firewall Navigation – AS2 Broker



EDIINT – Internet Connectivity

■ Internet connection

- AS1 can support dial-up
 - Messages are stored in mail server, and retrieved when connected
- AS2 requires a constant connection to the Internet
 - If the AS2 server is not connected or running, no documents can be received

■ Firewalls

- AS1 usually has no firewall issues
- AS2 may require firewall administration

EDIINT Software Considerations

Understand the following before choosing a software provider:

- Software company's track record in the EDIINT software industry
- Ability for the software solution to meet your strategic, long term needs
 - number of trading partners
 - cost to upgrade for additional trading partners
 - protocol(s) needed
- Ability and/or cost for the company to support its products
- Financial viability

EDIINT - Links

■ The Drummond Group

- <http://www.drummondgroup.com/>

■ List of certified products

- AS1: <http://www.ebusinessready.org/as1.html>
- AS2: <http://www.ebusinessready.org/as2.html>

■ Internet Engineering Task Force (IETF)

- <http://www.ietf.org/html.charters/ediint-charter.html>

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