



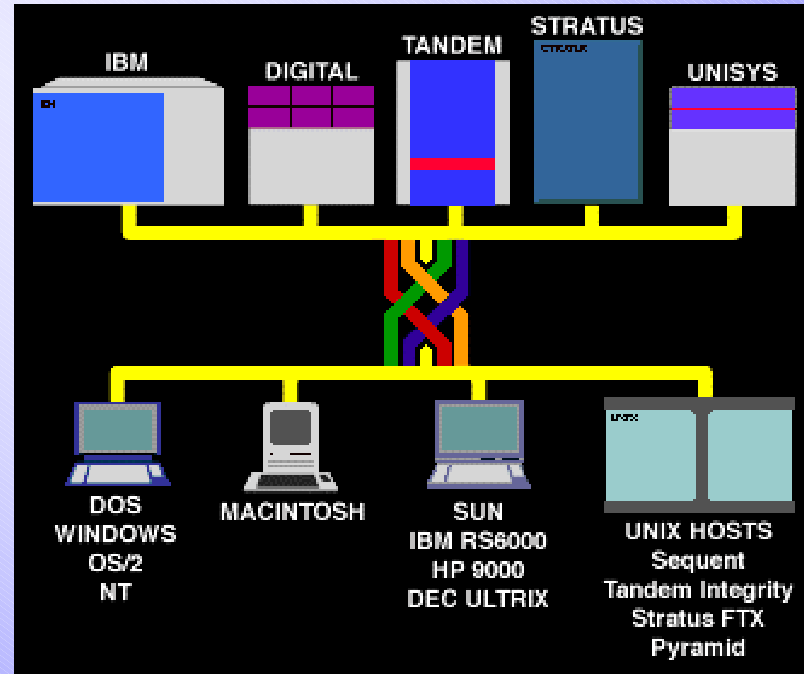
**NetWeave
Integrated
Solutions Inc.**

Opening The Enterprise To The World
NetWeave
evolve
XML Tools for E-Commerce Business



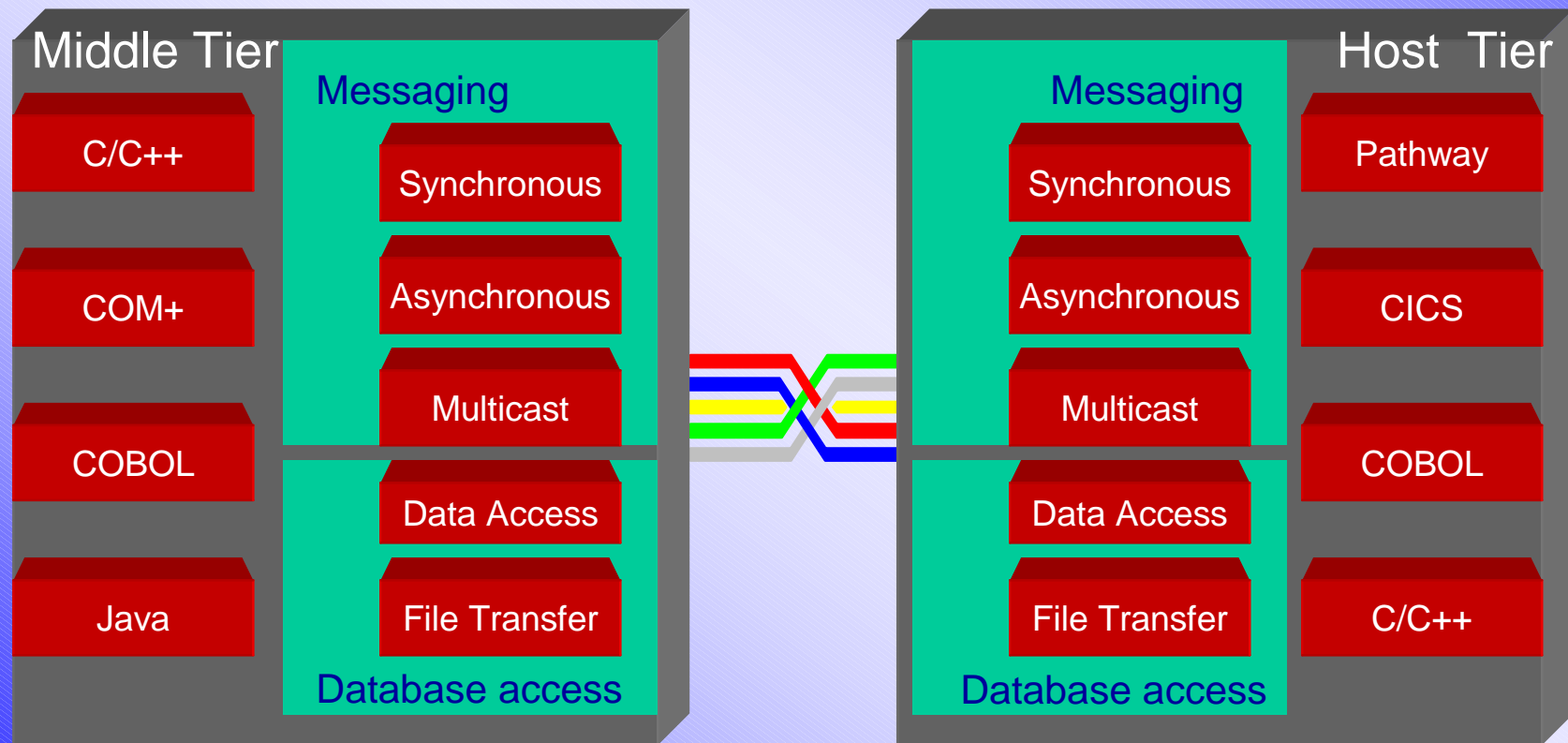
EAI Technologies

NetWeave Middleware



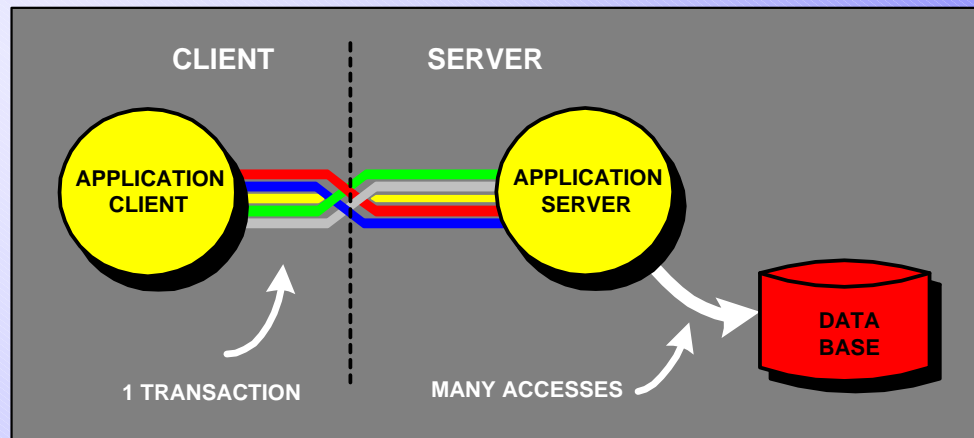
**Enabling distributed application deployment
across the enterprise.**

**Robust, performance-oriented middleware focused on
On-line transaction processing**



- ◆ **True Peer-to-Peer operation.**
 - ◆ Any application on any platform can be a server or client to another application on another platform
- ◆ **Features a variety of messaging and file system connectivity capabilities**
- ◆ **Available on a wide range of hardware platforms.**
- ◆ **Simple, robust API available for use in blocking, non-blocking, and multi-threaded modes.**
 - ◆ Choose between simplicity and performance.

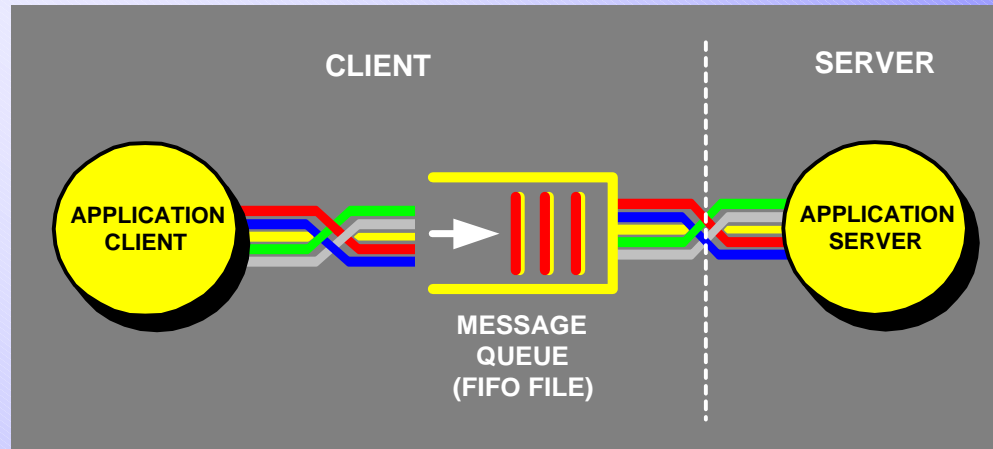
Peer-to-Peer Messaging



NETWEAVE CLIENT/TRANSACTION SERVICES

- ◆ Also known as interactive, or synchronous messaging
- ◆ High efficiency, OLTP-style communication paradigm
- ◆ Client typically waits for response (i.e. hour-glass)
- ◆ No response or broken link means error to user.
- ◆ Client and Server are closely integrated.

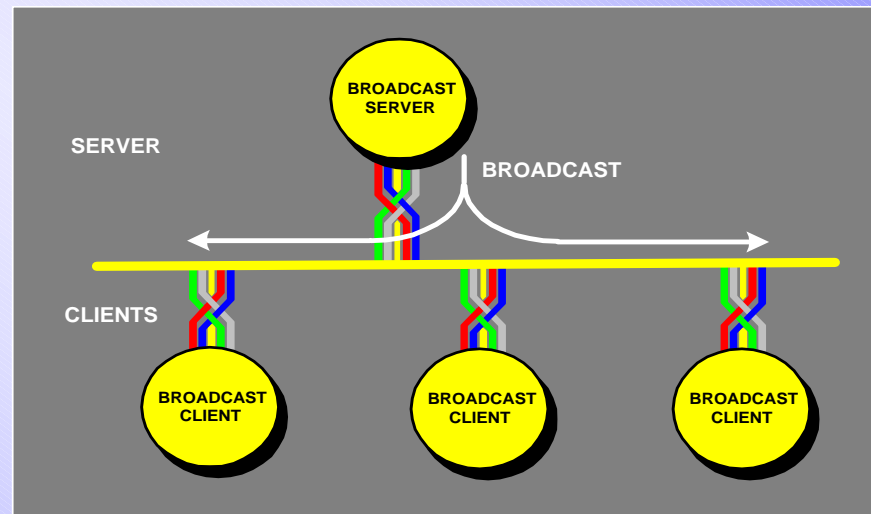
Message Queuing



NETWEAVE MESSAGE QUEUING SERVICES

- ◆ **Guaranteed, or asynchronous messaging**
- ◆ **Messages are safely stored on disk, for delivery “later”.**
- ◆ **Peer applications are much less closely integrated**
- ◆ **Sending application is not concerned with immediate results, only that it will get there reliably.**
- ◆ **Applications are not concerned with network issues.**

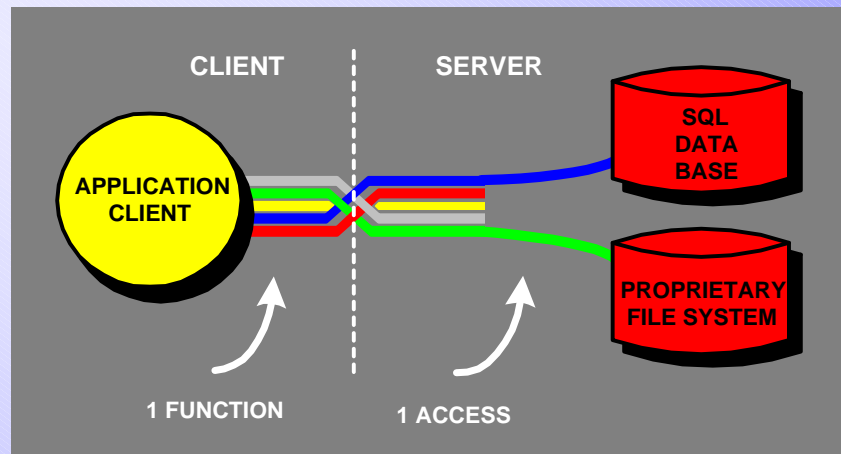
Message Broadcasting



NETWEAVE BROADCAST SERVICES

- ◆ Also known as multicasting, or “push” messaging.
- ◆ Sender has no direct knowledge of recipients.
- ◆ Reliable broadcasting layer guarantees message delivery and sequence.
- ◆ Sending application can send on individual “channels”, which can be individually selected by the recipient base.

Client/Database Services



NETWEAVE CLIENT/DATABASE SERVICES

- ◆ Client accesses remote data through NetWeave Agent on remote platform.
- ◆ Application code written only on client platform. Time to market is reduced.
- ◆ Depending on application, performance may be better using messaging infrastructure.
- ◆ Support for both SQL and legacy file systems.

- ◆ File transfer facility, incorporating performance and recoverability.
- ◆ On-the-fly compression yields significantly better performance, particularly over slow links.
- ◆ File transfers are recoverable from source, target, or network failure.
- ◆ Particularly useful for wide area (trans-atlantic) transfers of large files.

- ◆ **Security services**
 - ◆ includes platform dependent login/password authentication, along with challenge/response sequence, under application control
- ◆ **Encryption services**
 - ◆ includes DES, 3DES, and proprietary private-key algorithm.
- ◆ **Dynamic Configuration**
 - ◆ NetWeave reconfiguration without restarting applications.
- ◆ **Multi-threaded interface**
 - ◆ Threads support on NT and UNIX platforms.
- ◆ **Microsoft COM+ interface**
 - ◆ Operates within the Microsoft transactional processing environment.

- ◆ **1st Tier platforms**

- ◆ WinNT, Solaris, Compaq NSK, Linux

- ◆ **2nd Tier**

- ◆ HP-UX, AIX, Compaq Tru64, Compaq OpenVMS, Win 9x, IBM OS390/CICS

- ◆ **3rd Tier**

- ◆ Stratus, Unisys A-series

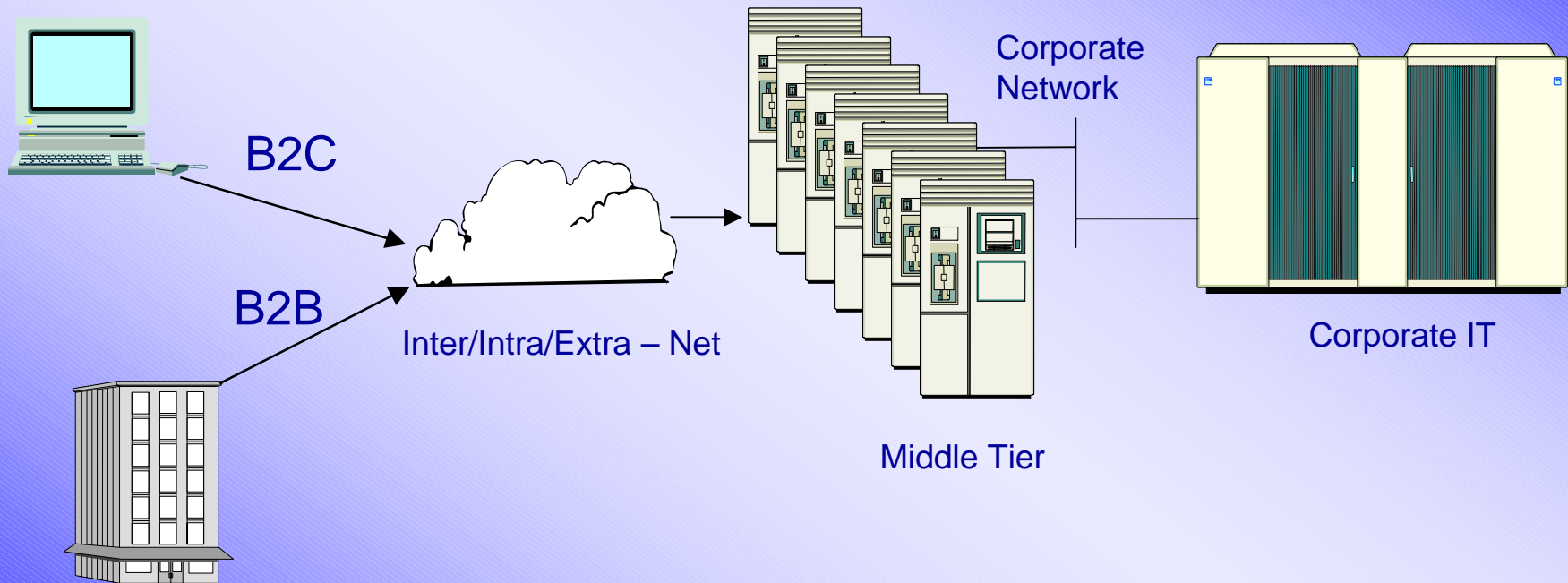
- ◆ **Environment support**

- ◆ COM+, Enterprise Java Beans

Opening The Enterprise To The World

NetWeave
evolve

XML Tools for E-Commerce Business



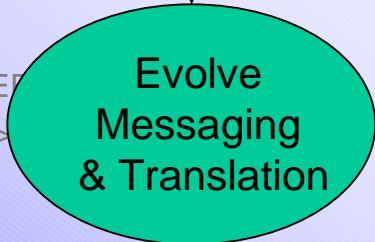
Introducing ***evolve***: an XML interface for integrating electronic commerce applications in enterprise architectures.

◆ **Next generation middleware**

- ◆ Provides data-level connectivity between disparate application systems
- ◆ Uses XML as the lingua franca of data integration.
- ◆ Operates over existing MOM products; NetWeave (of course), MQ-Series, and more in the near future.
- ◆ Translates XML documents to native message format for legacy applications

```
<?xml version='1.0'?>  
<RESERVE_REQUEST SYSTEM  
  <REQ_STRUCT>  
    <CODE>4998</CODE>  
    <PRODUCT_ID>45</PRODUCT_ID>  
    <SMALL_SIZE>  
      <RED>2</RED>  
      <GREEN>0</GREEN>  
      <BLUE>0</BLUE>  
    </SMALL_SIZE>  
  </REQ_STRUCT>  
</RESERVE_REQUEST>
```

Web
application



Enables Web applications (xxScript, ASP/JSP,Java) to encode message simply in XML.

Eliminates complex and fragile message-encoding issues.

Evolve benefits

```
<?xml version='1.0'?>  
<RESERVE_REQUEST SYSTEM  
  <REQ_STRUCT>  
    <CODE>4998</CODE>  
    <PRODUCT_ID>45</PRODUCT_ID>  
    <SMALL_SIZE>  
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      <GREEN>0</GREEN>  
      <BLUE>0</BLUE>  
    </SMALL_SIZE>  
  </REQ_STRUCT>  
</RESERVE_REQUEST>
```

Web
application



Runs over existing middleware.

Preserves middleware investment where possible.

Evolve benefits

```
<?xml version='1.0'?>
```

```
<RESERVE_REQUEST SYSTEM
```

Web application

```
<RESERVE_REQUEST>
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<REQ_STRUCT>
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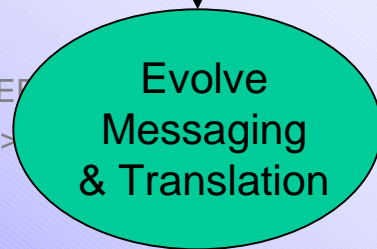
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<GREEN>0</GREEN>
```

```
<BLUE>0</BLUE>
```

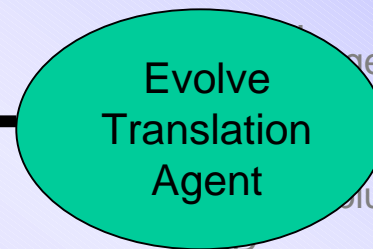
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</SMALL_SIZE>
```

```
</REQ_STRUCT>
```

```
</RESERVE_REQUEST>
```



Netweave
MQ-Series
(RSC
Tibco)



```
DEF ADJUST-REQUEST.
```

```
10 rp-code PIC 9(9) COMP
```

```
10 sku PIC S9(8) COMP.
```

IT application

```
PIC S9(8) COMP.  
PIC S9(8) COMP.  
PIC S9(8) COMP.
```

Existing host applications receive messages in expected format, using existing messaging interface.

Reduces/eliminates host modifications.

Evolve benefits

<?xml version='1.0'?>

<RESERVE_REQUEST SYSTEM

**Web
application**

<RESERVE_REQUEST>

<REQ_STRUCT>

<CODE>4998</CODE>

<PRODUCT_ID>45</PRODUCT_ID>

<SMALL_SIZE>

<RED>2</RED>

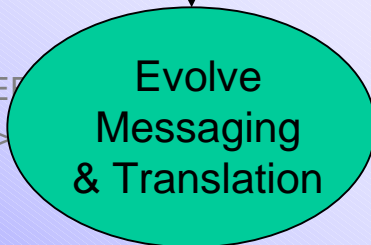
<GREEN>0</GREEN>

<BLUE>0</BLUE>

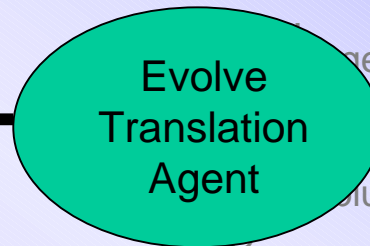
</SMALL_SIZE>

</REQ_STRUCT>

</RESERVE_REQUEST>



Netweave
MQ-Series
(RSC
Tibco)



DEF ADJUST-REQUEST.

10 rp-code PIC 9(9) COMP

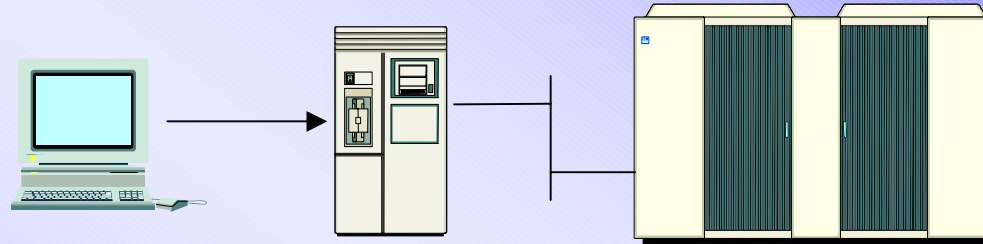
10 sku PIC S9(8) COMP.

IT application

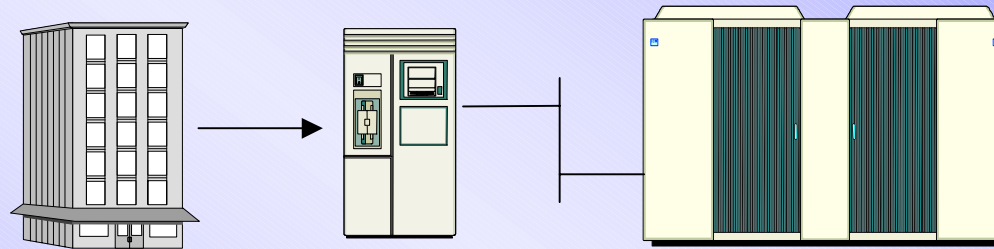
PIC S9(8) COMP.
PIC S9(8) COMP.
PIC S9(8) COMP.

Overall

Reduces time & cost of web to IT integration tasks.



- ◆ **Evolve allows presentation-oriented applications to focus on the user experience and not the encoding of data.**
- ◆ **Support for both ASP and JSP-based implementation models through Servlet and ActiveX interfaces**



- ◆ **Evolve enables companies to participate in XML-based B2B integration by extending the reach of IT infrastructure.**
- ◆ **Support for both OAG and CommerceOne CBL XML business documents.**

Evolve is available for a variety of implementation architectures

- ◆ **Servlet interface (Tomcat, Jrun)**
 - ◆ Lightweight, simple use/implementation
- ◆ **EJB (Websphere, Weblogic)**
 - ◆ Industrial-strength, scaleable
- ◆ **COM+**
 - ◆ Active-X, MTS integration
- ◆ **Native middleware**
 - ◆ Hub configuration: Messages arrive and are distributed over MOM

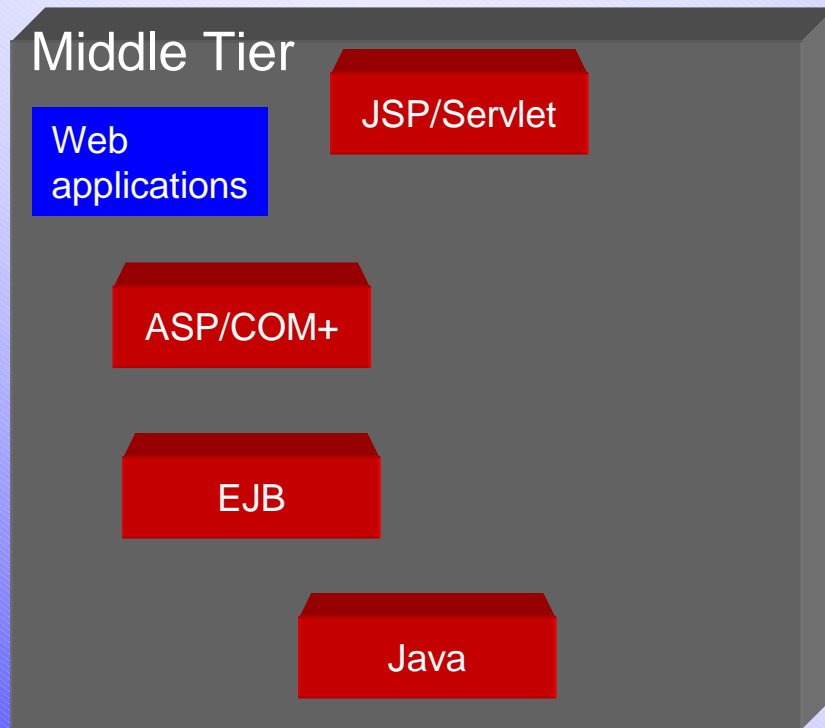
Evolve components

Middle Tier

Web
applications

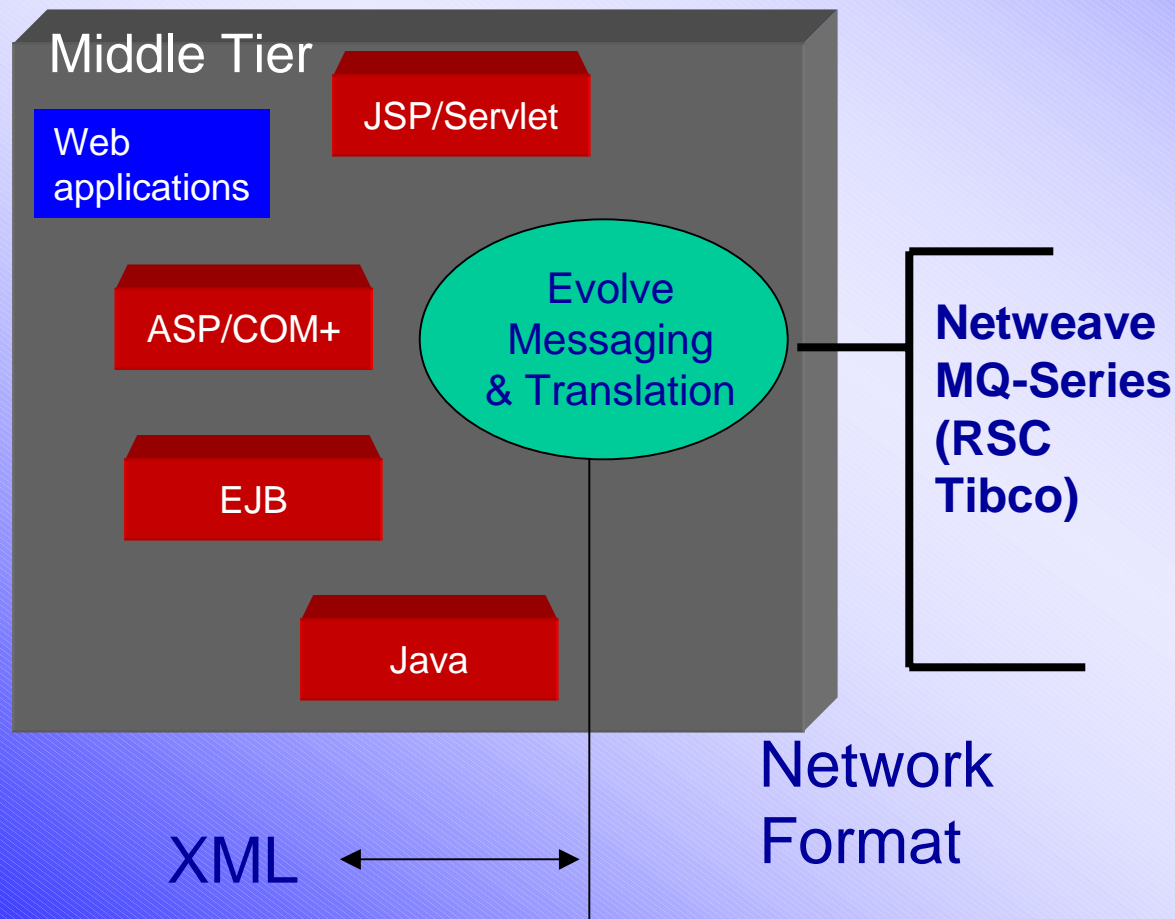
Applications that use evolve may be Java or Java script, Visual Basic, or VBScript, or C++ based.

Evolve components : interfaces



*Evolve provides
Servlet, COM+ and
EJB interfaces for the
delivery of XML
messages*

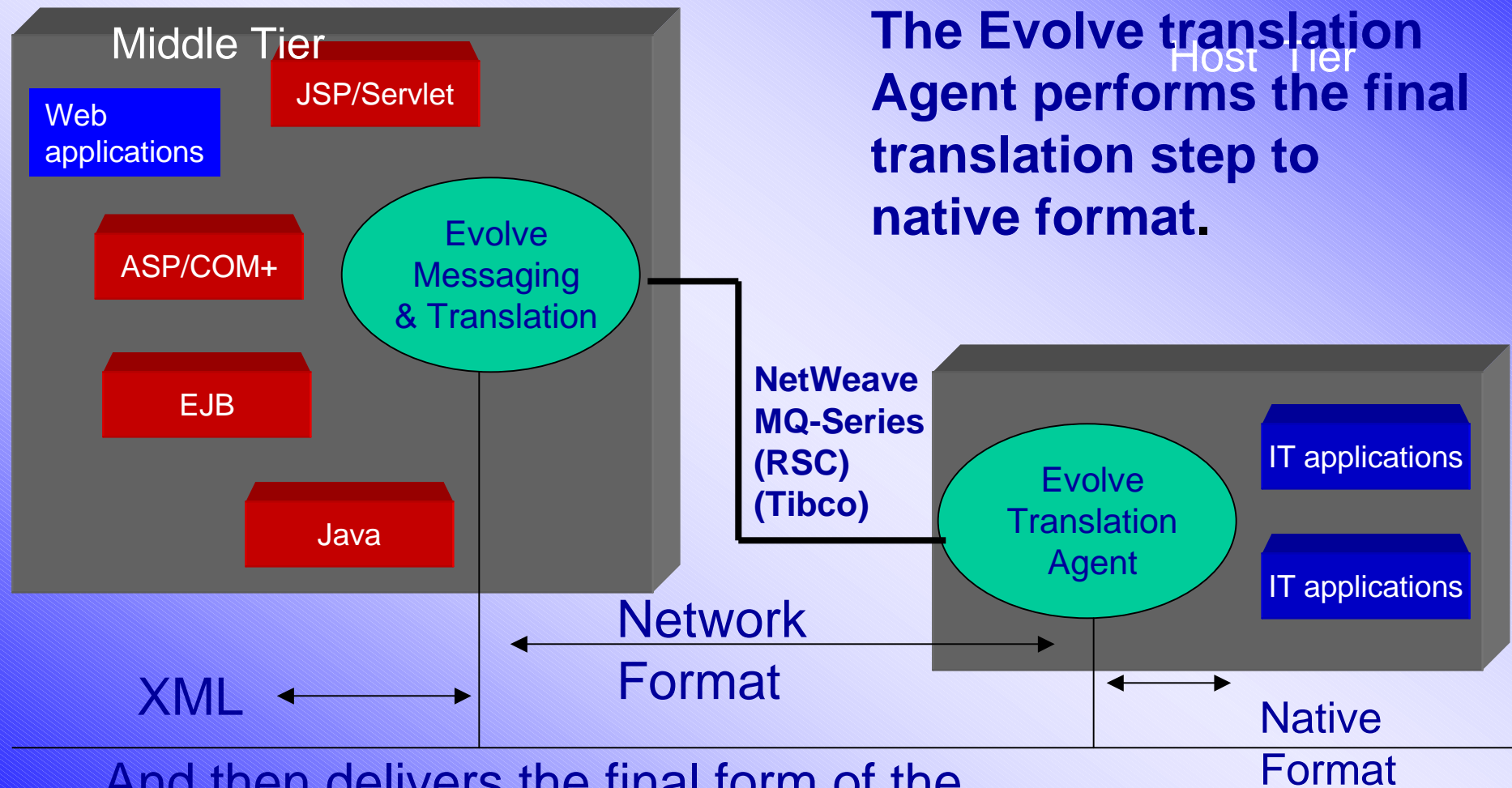
Evolve diagram



The evolve classes provide methods for the translation of XML to Network form

As well as the Transport class for delivery over a variety of middleware products.

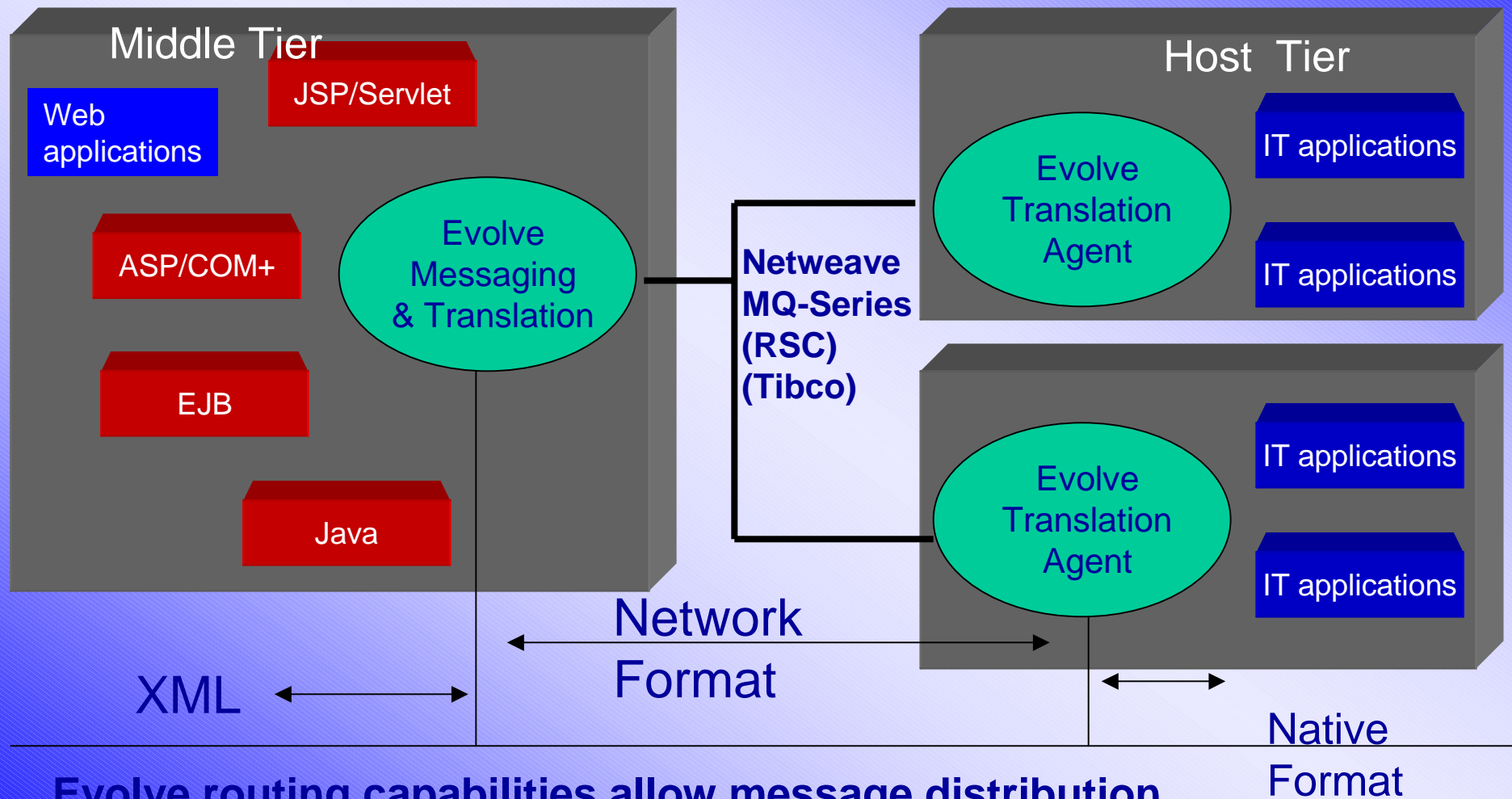
Evolve diagram



The Evolve translation Agent performs the final translation step to native format.

And then delivers the final form of the message to the host application

Evolve diagram



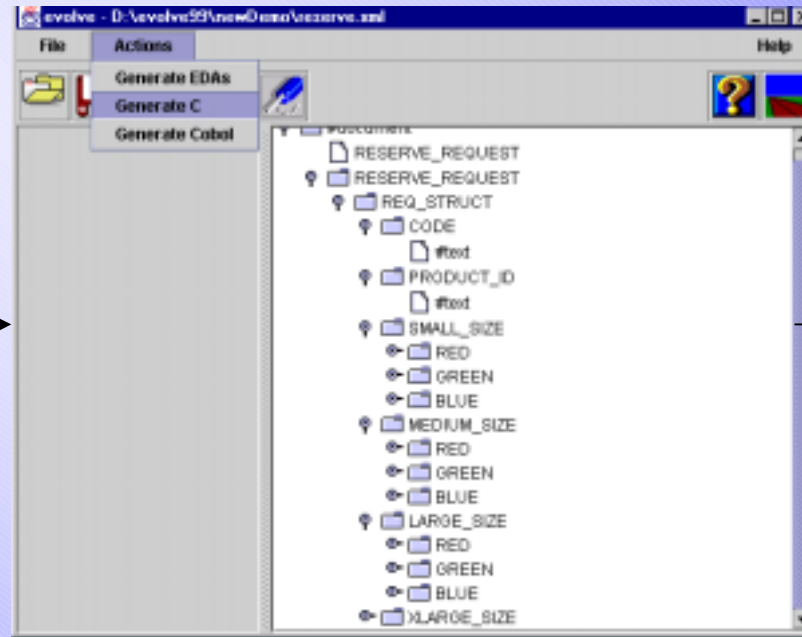
Evolve routing capabilities allow message distribution based on configuration or message contents

Evolve Message Manager

XML Message
import

Host Data
definition (i.e.
DDL) import

User-validated
data typing
information



Reference
Information for run-
time translations

Generated
translation code and
data structures

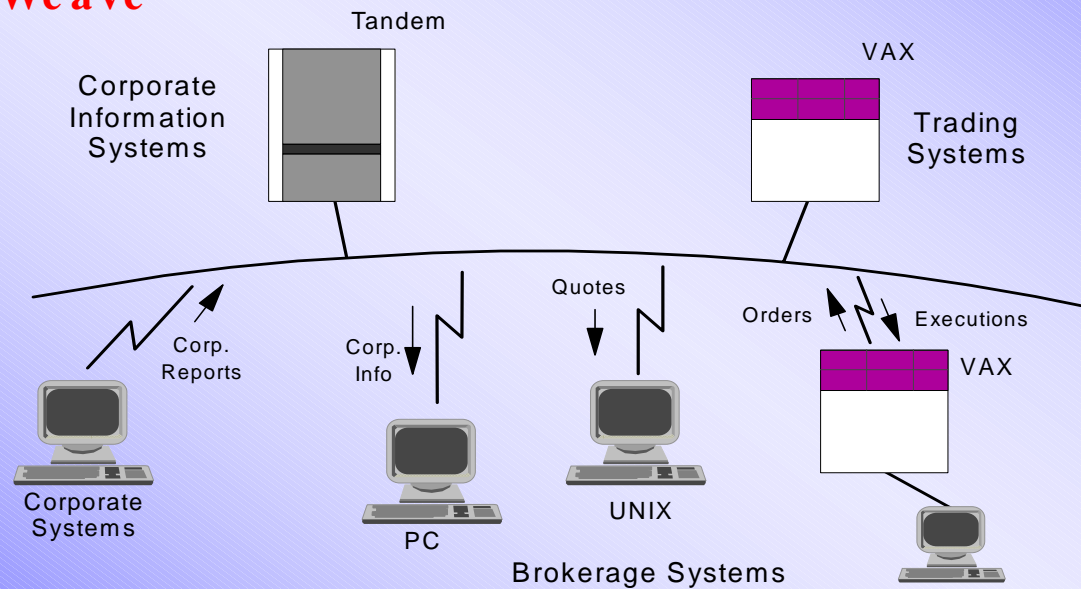
The Evolve MM organizes and deploys the resources for implementing evolve translation on a set of messages.

-
- ◆ **XML Technology (W3C)**
 - ◆ DOM 2.0, Namespaces, XML Schemas, XSLT
 - ◆ **Transports**
 - ◆ Tibco Rendezvous
 - ◆ Compaq OpenVMS/RTR
 - ◆ **Technology**
 - ◆ XML/EDI
 - ◆ Transformations, Content-based routing
 - ◆ JNDI/LDAP Directory service

How some notable Companies use our products

New Zealand Stock Exchange

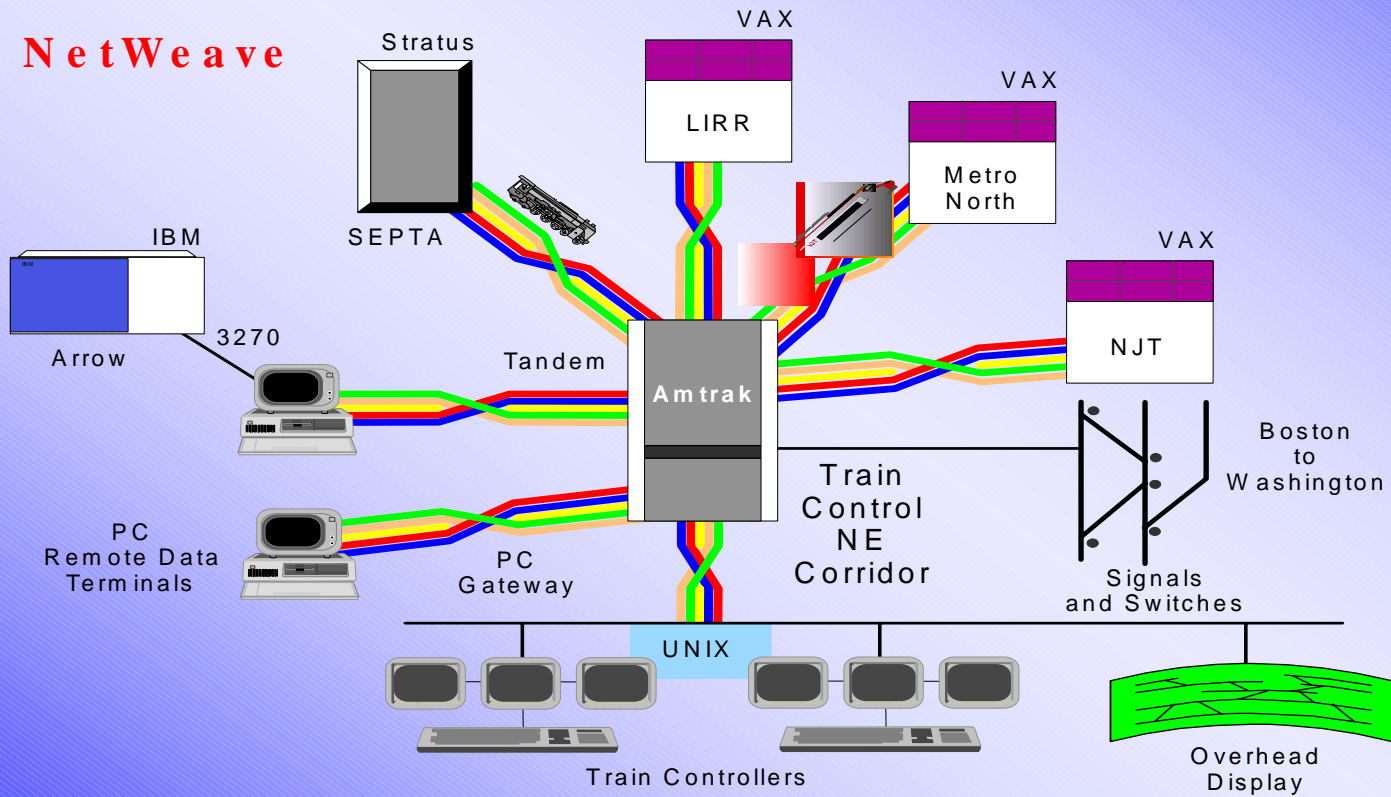
NetWeave



New Zealand Stock Exchange Goes Electronic with NetWeave

- ◆ **Nationwide stock ticker distribution**
- ◆ **Distributed to 30-40 Brokerages using Broadcast messaging.**
- ◆ **NetWeave is part of the NZSE interface for receiving trades, and entering orders.**
- ◆ **Platforms include Tandem, NT and UNIX.**

NetWeave



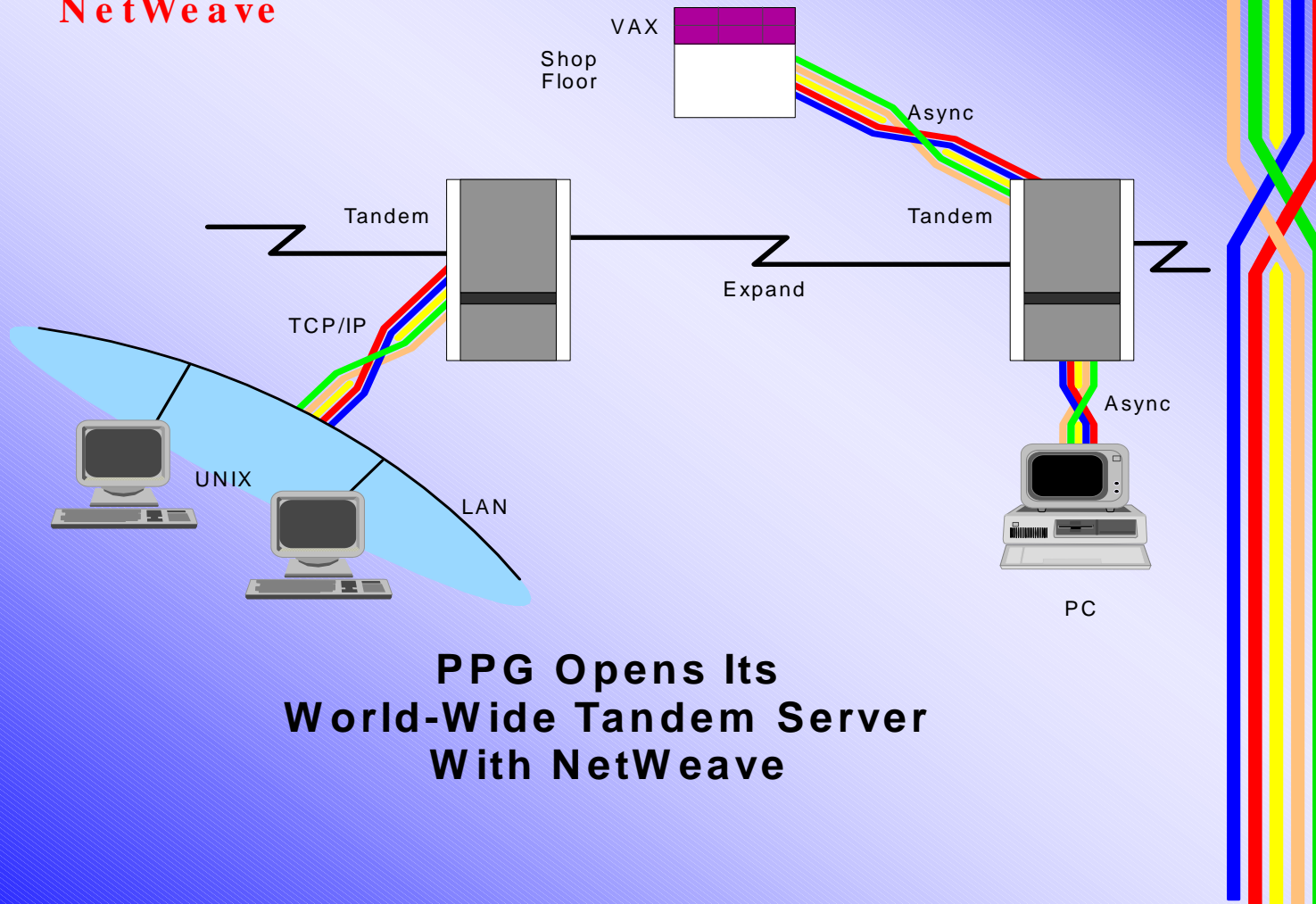
**Amtrak Northeast Corridor Train Control
Links Systems With NetWeave**



-
- ◆ **Amtrak is the nationwide rail service in the US.**
 - ◆ **The Northeast corridor between Washington and Boston is the busiest section.**
 - ◆ **The “track model” is maintained on a Tandem, and distributed to Sun workstations via broadcast messaging.**
 - ◆ **Do I ride the train ? Absolutely !**

-
- ◆ **Initial application: Integration of Vax and Tandem manufacturing systems in Ireland.**
 - ◆ **Order File Global Repository extracted order information worldwide in Texas.**
 - ◆ **Integration of Web site e-commerce facility to Tandem Order Management system has been part of explosive online growth**

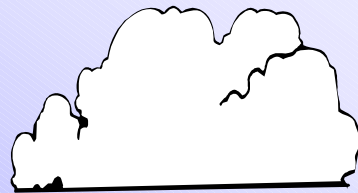
NetWeave



**PPG Opens Its
World-Wide Tandem Server
With NetWeave**

-
- ◆ **Worldwide chemical manufacturer, predominantly in glass and paints.**
 - ◆ **NetWeave is used to integrate Tandem & VAX manufacturing applications with Oracle decision support data.**
 - ◆ **PPG uses NetWeave on Tandem and Sun platforms, as well as on 500 PC workstations running Win95 and WinNT**

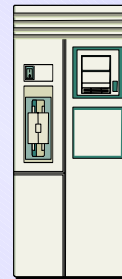
**Browser
Application**
(25K WinPC's in
branch locations)



**RaboBank
private
intranet**



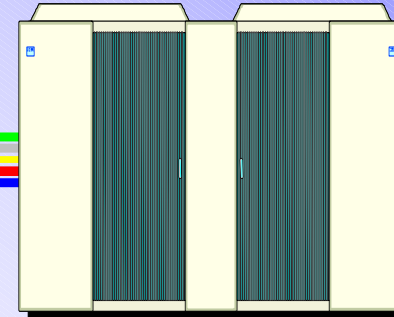
**Tandem Web
Server
Platform**



NetWeave



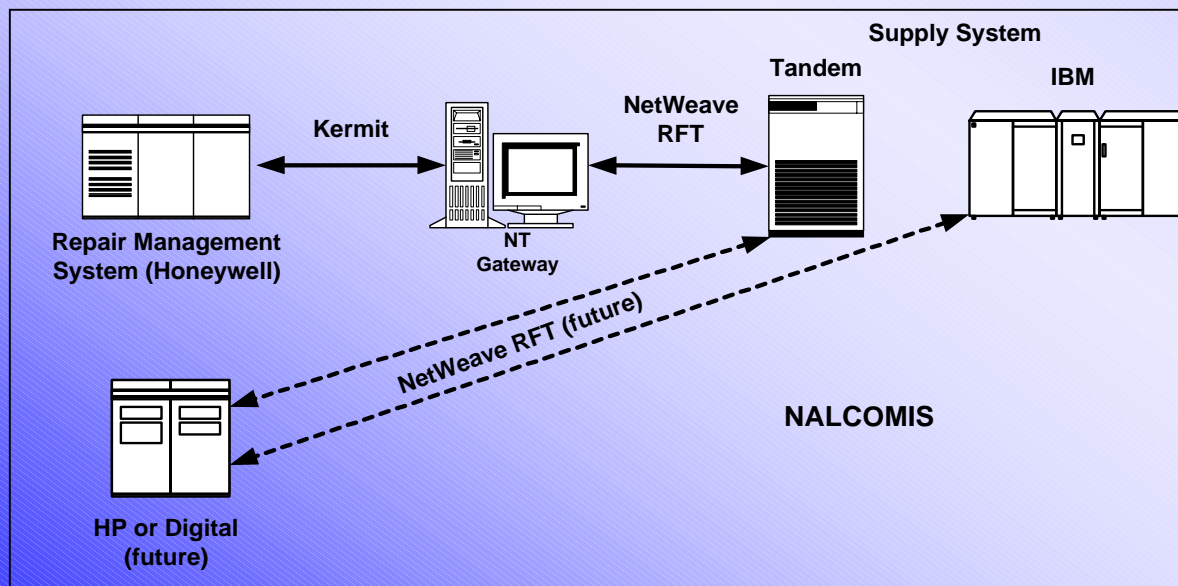
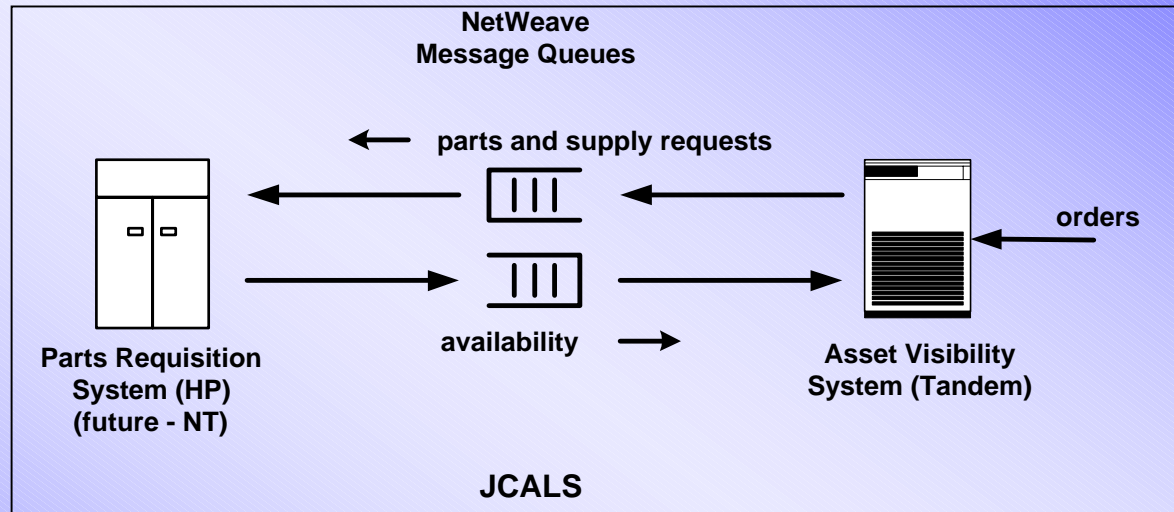
**IBM
MVS/CICS**



**Corporate
Backbone
Network**

-
- ◆ **Three tiered browser based application deployed in branch offices (presently).**
 - ◆ **Tandem platform used as Web server and customer database platform.**
 - ◆ **Accounts information maintained in IBM MVS/CICS environment.**
 - ◆ **25,000 branch office PC's generate 20 msgs/sec average traffic rate to IBM over NetWeave.**

US Navy projects



-
- ◆ The Navy deployed NetWeave in two applications, JCALS and NALCOMIS.
 - ◆ JCALS is a parts requisition system supported by CSC which needed access to the Navy Asset Visibility (NAVTA V) system.
 - ◆ CSC and the Navy used NetWeave to bridge the two systems in 2 weeks.

- ◆ The Navy also implemented NetWeave's Reliable File transfer to implement worldwide repair manual distribution.
- ◆ When a piece of equipment needs repair, a local NT server requests a download of the document from the Navy site in Pennsylvania.
- ◆ Sites in Italy, Iceland, the Philippines, as well as throughout the US.