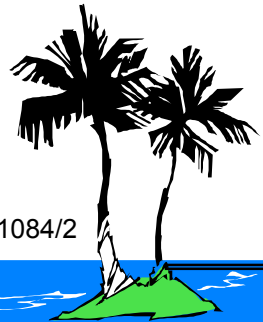
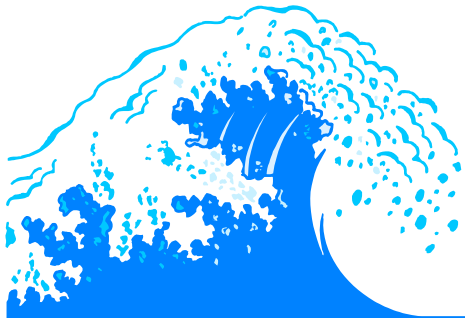


# 1998 DI USERS GROUP

## Can We Talk ????????

### The Ultimate DI Implementation

Bud Blankenship  
U.S. Customs Service



DI 1084/2

**DI/EDI RIDE THE WAVE!**

# U.S. Customs Service

▲ Who is This Guy?

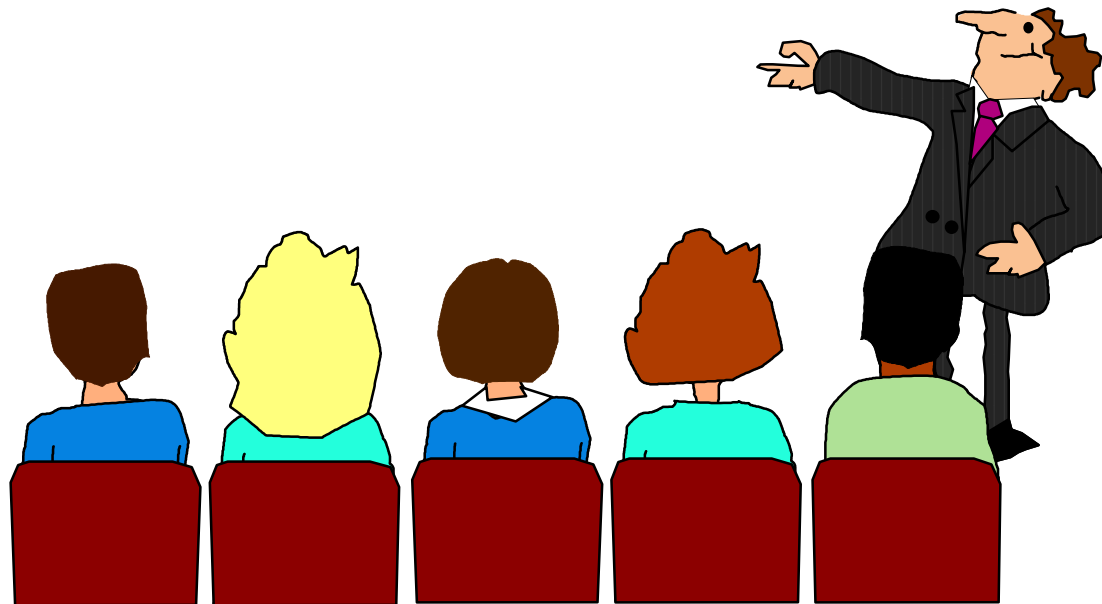
▲ Customs' mega-DI Implementation

▲ *The Ultimate!*

Can it work for You?

▲ Q & A

▲ Trivia !



# U.S. Customs Service

▲ **Mission encompasses a wide range of law enforcement activities and responsibilities, in co-operation with over 40 external agencies. These activities include;**

- ✦ **Assessment and collection of duties**
- ✦ **Enforcement of import and export statutes, quotas**
- ✦ **Seizure of contraband, including drugs and narcotics**
- ✦ **Detection and apprehension of persons engaged in criminal activity**
- ✦ **Processing of arriving and departing persons, baggage, cargo, and mail**



# U.S. Customs Service

- ▲ **BATCH:** 114 Thousand Jobs/day
- ▲ **CICS:** 8 Million Transactions/day
- ▲ **Regions:** 150+
- ▲ **DATABASE:** 1+ Billion Requests/day
- ▲ **DASD:** 9 Terabytes
- ▲ **Database:** 6.7 Terabytes
- ▲ **4 Mainframes:** (IBM, Hitachi)
- ▲ **1247 MIPS**



# U.S. Customs Service

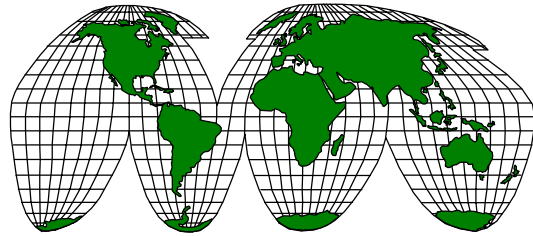
## ▲ EDI Program

- ✦ **Import / Export Control** - Ocean, Air, Rail, Truck
- ✦ **Enforcement** - Passenger
- ✦ **Quotas** - Textiles / Commodities
- ✦ **Tariff Collections**

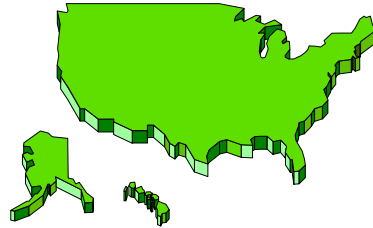
\$28 Billion in Revenue



# U.S. Customs Service

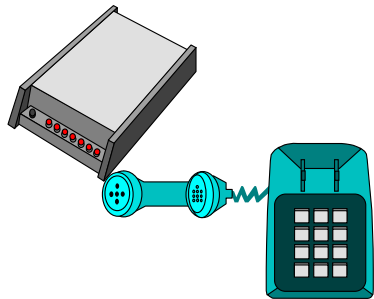


**350+ AIR/LAND/SEA Ports**

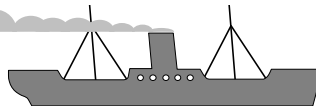


**13 Federal Agencies**

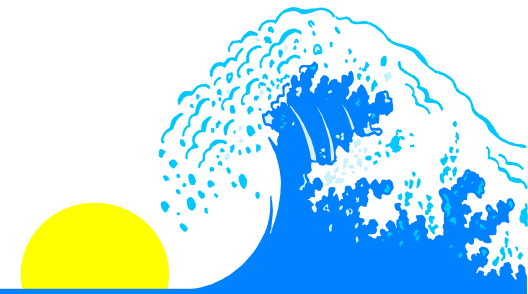
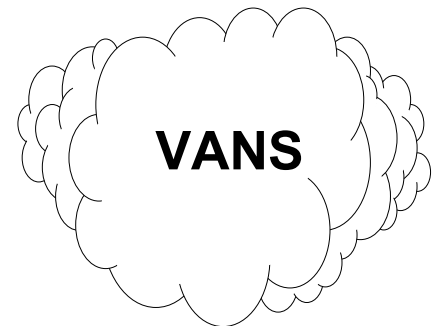
**State Dept  
20 Embassies**



**3500+ Dial-Ups  
200+ Dedicated**

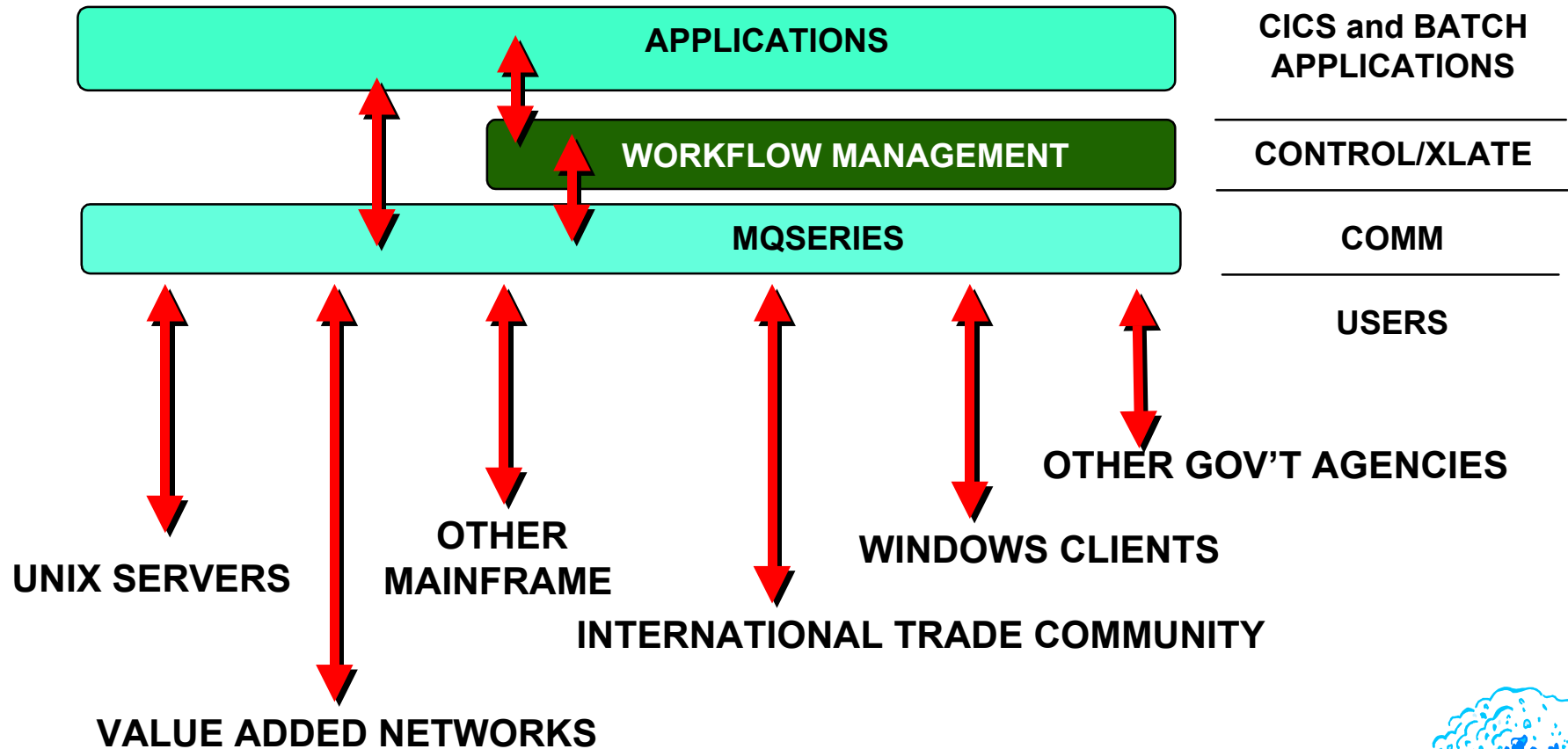


**NEWINGTON, VA**



# U.S. Customs Service

## Roll of IBM MQS



# U.S. Customs Service

## EDI / DI Processing Environment

▲ DI 2.1 "Hot DI" VSAM

▲ CICS 4.1

▲ IBM MQSeries 1.2

▲ Expedite CICS 4.3

▲ Tools - Control, Monitoring and Maintenance

times 16!!





# U.S. Customs Service

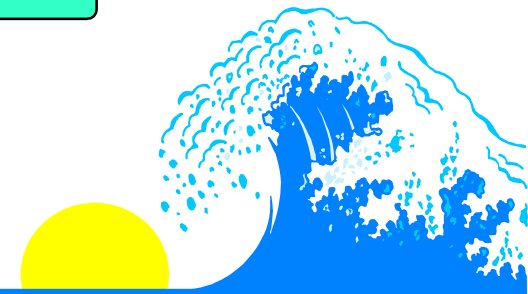
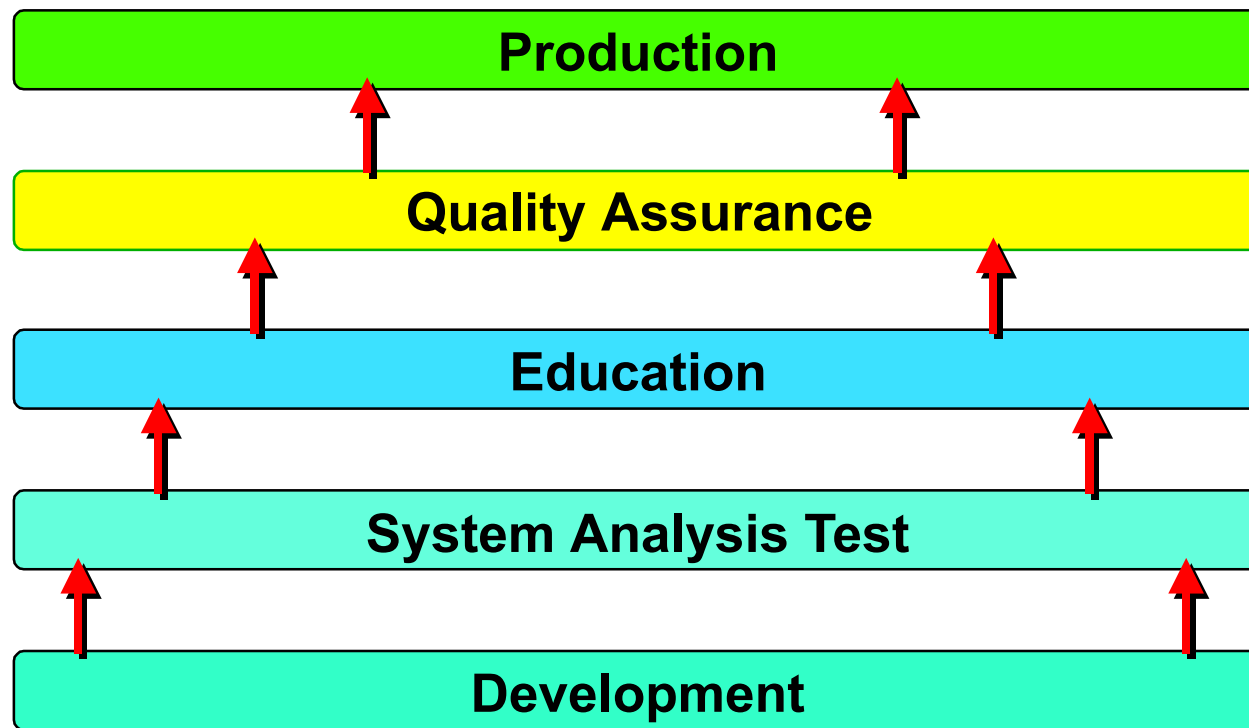
## DI Specifics

- ▲ DI since 1992
- ▲ 200+ Trading Partners
- ▲ 35 Trading Partner Transactions
- ▲ Fixed to Fixed Translation
- ▲ X12 - Ver/Rel 3020 thru 4010
- ▲ Edifact - Ver/Rel 902 thru 97A
- ▲ 2 Proprietary Formats

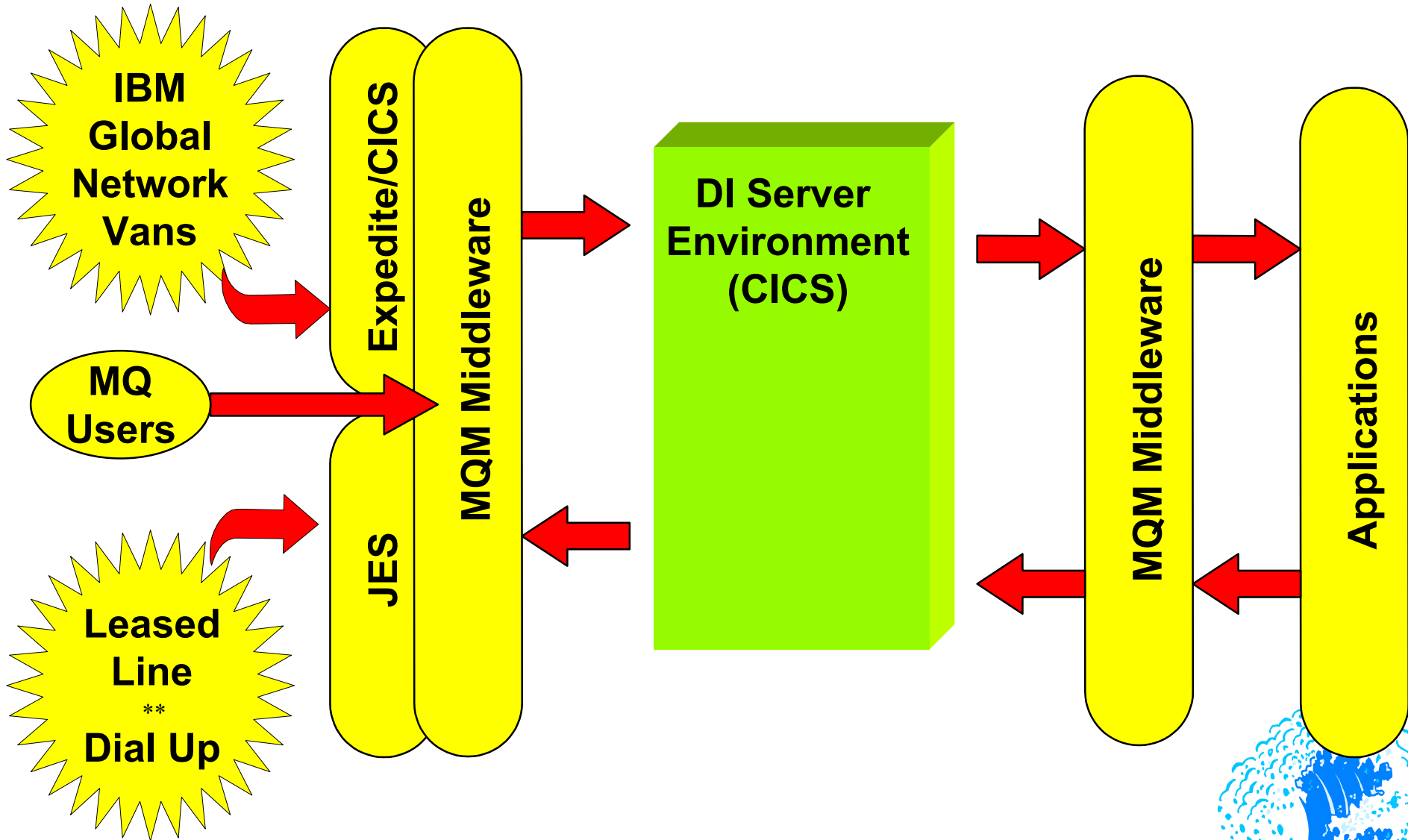


# U.S. Customs Service

## DI / EDI Application Platforms

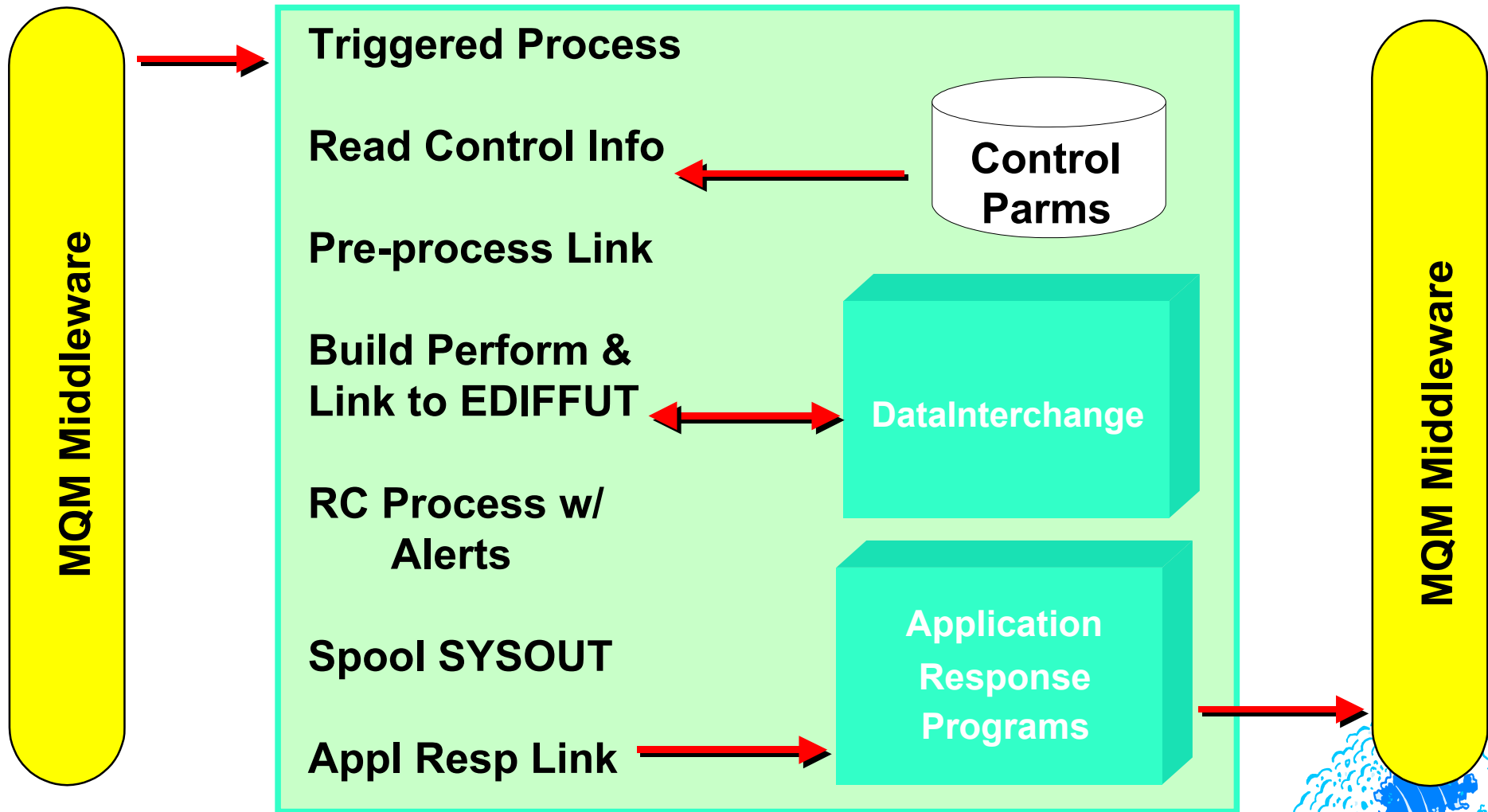


# U.S. Customs Service



# U.S. Customs Service

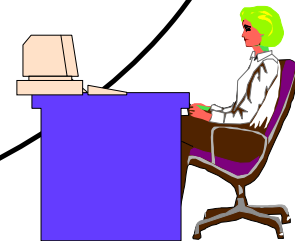
## DI Server



# 1998 DI Users Group



## *The Ultimate Real-Time Implementation*



# 1998 DI Users Group

## The “Ultimate” Components

- ▲ **Solid Business / EDI Processing Requirements**
- ▲ **CICS EDI “Server” Architecture**
- ▲ **DI “Right Stuff” Implementation**
- ▲ **EDI Management**



# 1998 DI Users Group

## Business / EDI Process Requirements

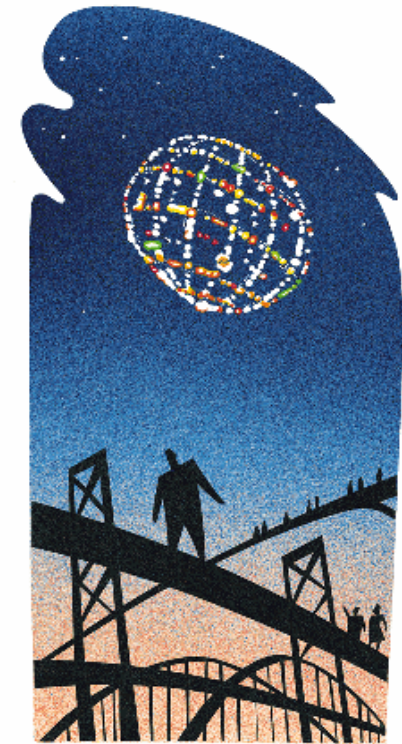
- △ Understand Business “Mission”
- △ Service Level Agreements
- △ Transaction Volumes / TP Base
- △ Trading Partner EDI Cycles
- △ FA Requirements
- △ EDI Message Grouping
- △ Application vs. EDI Syntax edits
- △ Multiple Vers/Rel support
- △ Message Recovery / Restart / Retrans
- △ Message Archiving



# 1998 DI Users Group

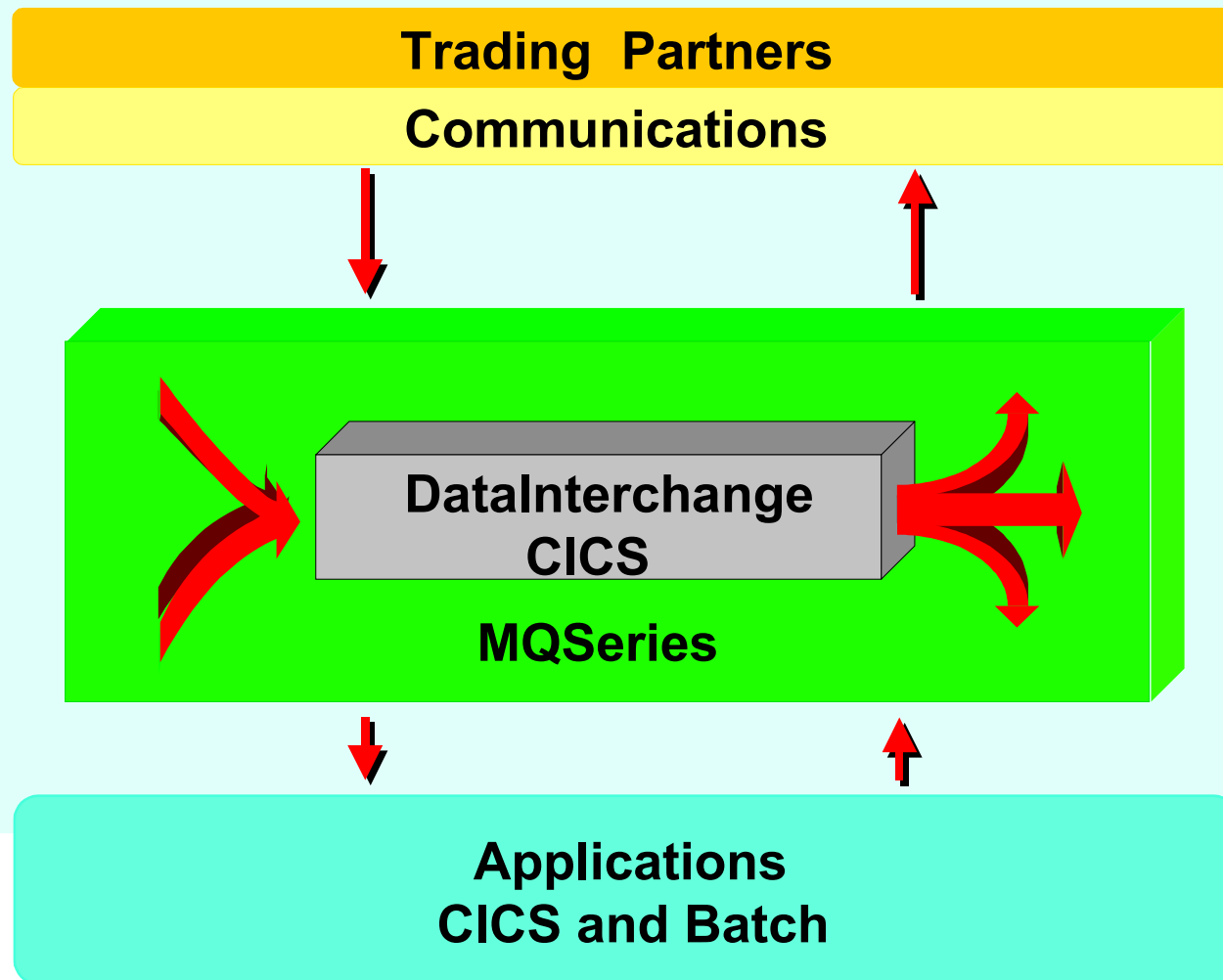
## EDI “Server” Architecture

- ▲ **Manageability**
- ▲ **Message Delivery Component**
- ▲ **Process Control via MQM Triggers**
- ▲ **Standardized Interface**
- ▲ **Point to Point Process**
  - ✦ **Single Point Communications interface**
  - ✦ **Single Point Applications interface**





# 1998 DI Users Group



# 1998 DI Users Group

## The “Right Stuff” Implementation - *System Design* -

- △ Dedicated DI CICS Environments
- △ Run “Hot”
- △ Run Concurrent DI’s
- △ Control UOW (Scrutinize ARP’s)
- △ Secure EDIA Transaction Access



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## The “Right Stuff” Implementation - *System Design* -

- △ Engineer Message Restart/Resend
- △ Implement Automated Alert Process
- △ Develop Tools to:
  - ✦ Control & monitor EDI processing
  - ✦ Effect object migration
  - ✦ Restart messages
  - ✦ Purge and archive



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## The “Right Stuff” Implementation

### - *System Maintenance* -

- △ Regularly Purge / Archive / Reorg Files
- △ Regularly Reorg VSAM / DB2 Resources
- △ Manage DASD Utilization / Allocation
- △ Benchmark System Performance



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## The “Right Stuff” Implementation

- DI -

- △ Use Generic Receive Usages
- △ Log Application Data = ‘N’
- △ TSF Off
- △ Exploit use of APPDEFS
- △ Log EDI images to Event Log(s)
- △ Apply Error Filtering Techniques
- △ Use C&D Records for O/B proc
- △ Apply Unique I/B - O/B TPProfs



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## The “Right Stuff” Implementation

- DI -

- △ **Outbound TPProf per Txn**
- △ **Control Numbers = ‘V’**
- △ **Set I/B Validation to 2 with &DIVALTYPE DT, TM**
- △ **Set O/B Validation to 0 (zero)**
- △ **Generate Envelope Standards**
- △ **Standardize and Associate Object Names**
- △ **Establish one-to-one ADF/TPTxn relationship**



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## The “Right Stuff” Implementation - DI -

- △ Avoid “Muddy” Mapping
- △ Map to Single Structure
- △ Test Maps Off-line
- △ Avoid Fixed-to-Fixed
- △ Housekeeping



# 1998 DI Users Group

## EDI Infrastructure Management

△ **Define / Refine Role of EDI Service and Support Effort**

△ **Clearly Define EDI Infrastructure Support Roles**

✦ **Mapping**

✦ **Middleware / Software Support**

✦ **CICS**

✦ **Help Desk**

✦ **Customer Liaison**





# 1998 DI Users Group

## EDI Management

- △ Assist in identifying internal data requirements (ADF)
- △ Assist in EDI message development
- △ Document EDI Processes
- △ Facilitate EDI Education
  - ✦ Internal
  - ✦ External
  - ✦ Help Desk
  - ✦ Field Support Reps



# 1998 DI Users Group

## EDI Management

- △ Identify Goals
- △ Promote EDI Program - Maturation
- △ Develop and Publicize Strategic Plan
- △ “Sell” & Get Buy In
- △ Pursue Management Level Representation for your EDI Group
- △ Attend the DI Conference!



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Q U E S T I O N S

