

HEWLETT-PACKARD GENERAL SYSTEMS USERS GROUP

FEBRUARY, 1980 MEETING

DISTRIBUTED PROCESSING SERIES

PERSONNEL CONSIDERATIONS IN DISTRIBUTED DATA PROCESSING (DDP)

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Personnel Considerations in Distributed Data Processing (DDP)

Outline of Presentation

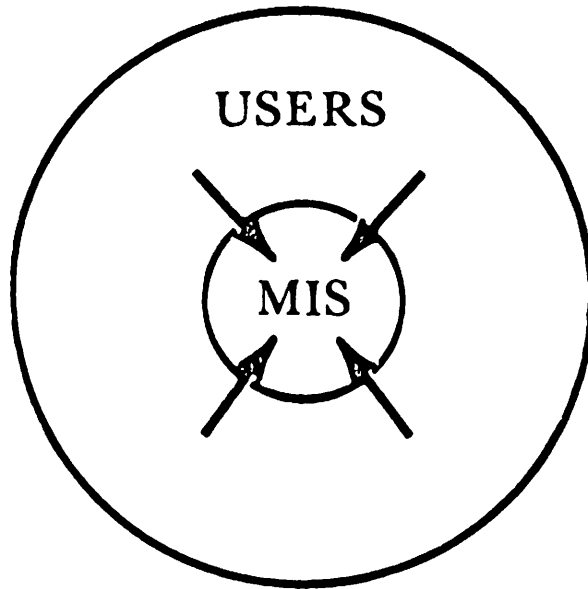
1. Introduction
2. Forces that create a DDP environment
3. Definition of organization for the discussion of DDP
4. Managing in a DDP environment
 - Active vs. Reactive styles
 - Planning
 - Organizing
 - Leading
 - Controlling
 - Selecting and developing
5. Comparisons between a centralized and a distributed environment in managing
6. Role of a system integrator
7. Organization for distributed processing
8. Summary

PERSONNEL CONSIDERATIONS IN DISTRIBUTED DATA PROCESSING

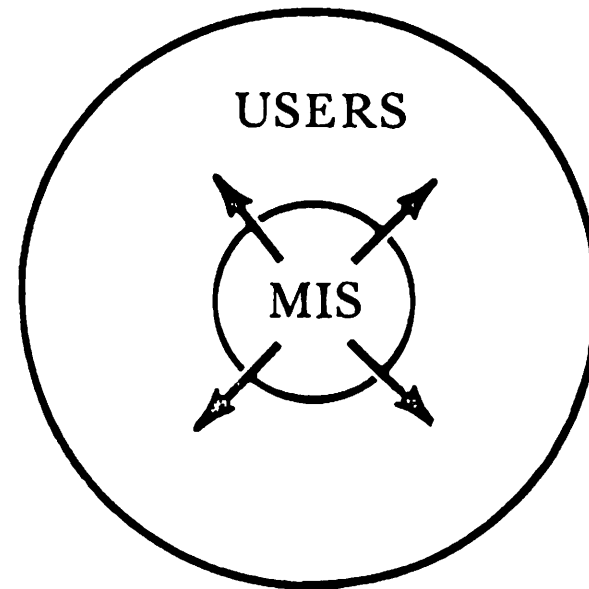
Section 5-3



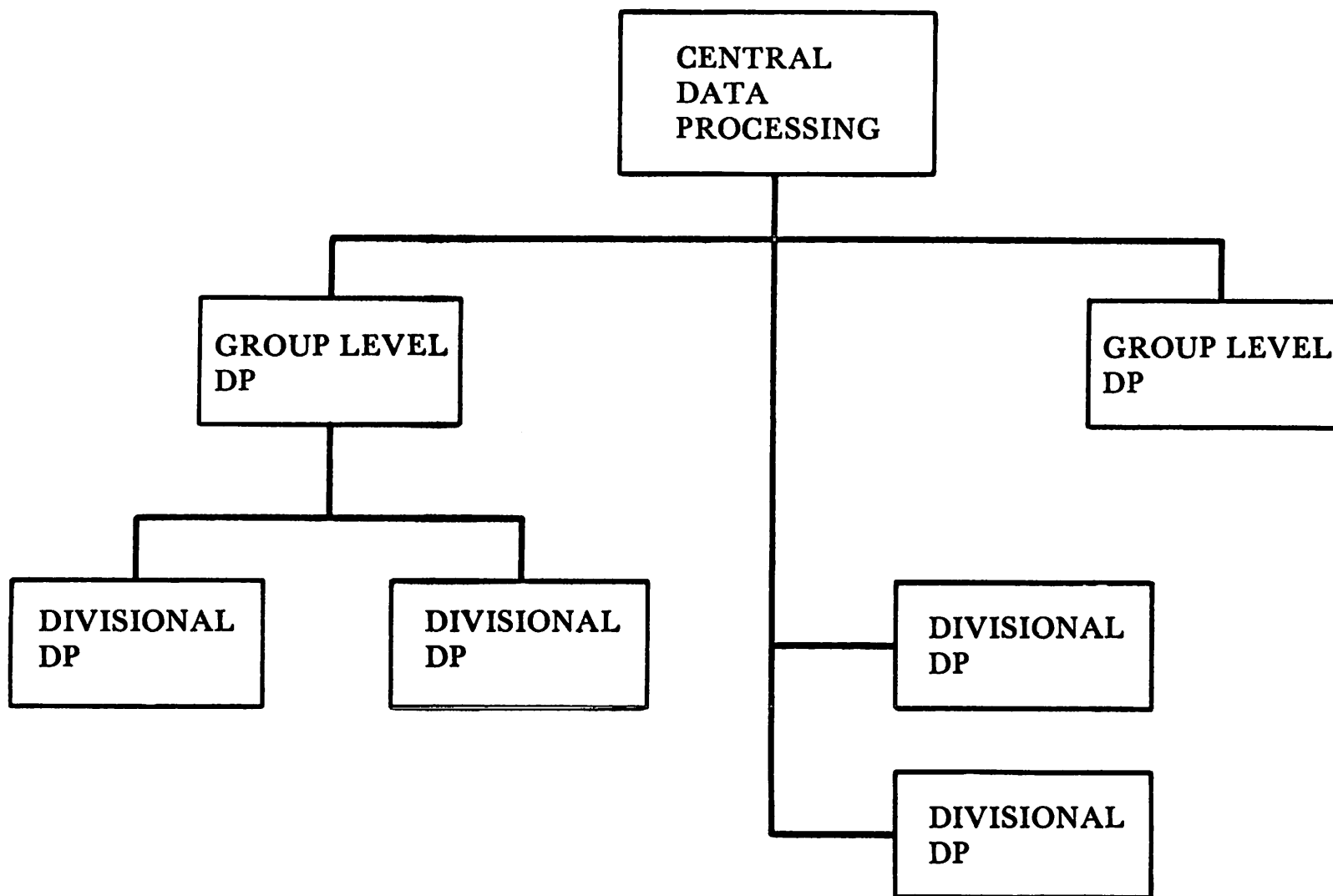
FUSION PROCESS



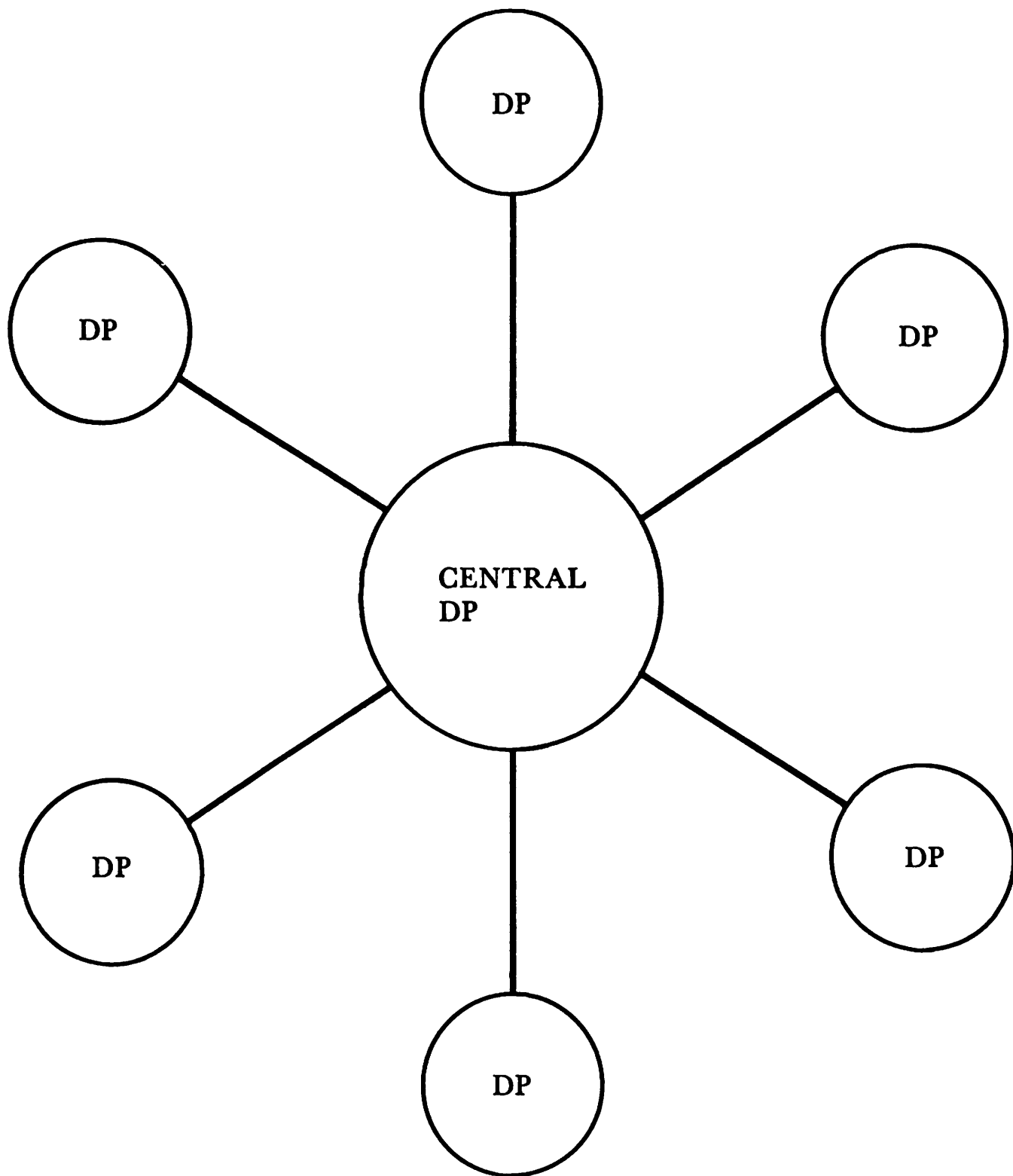
FISSION PROCESS



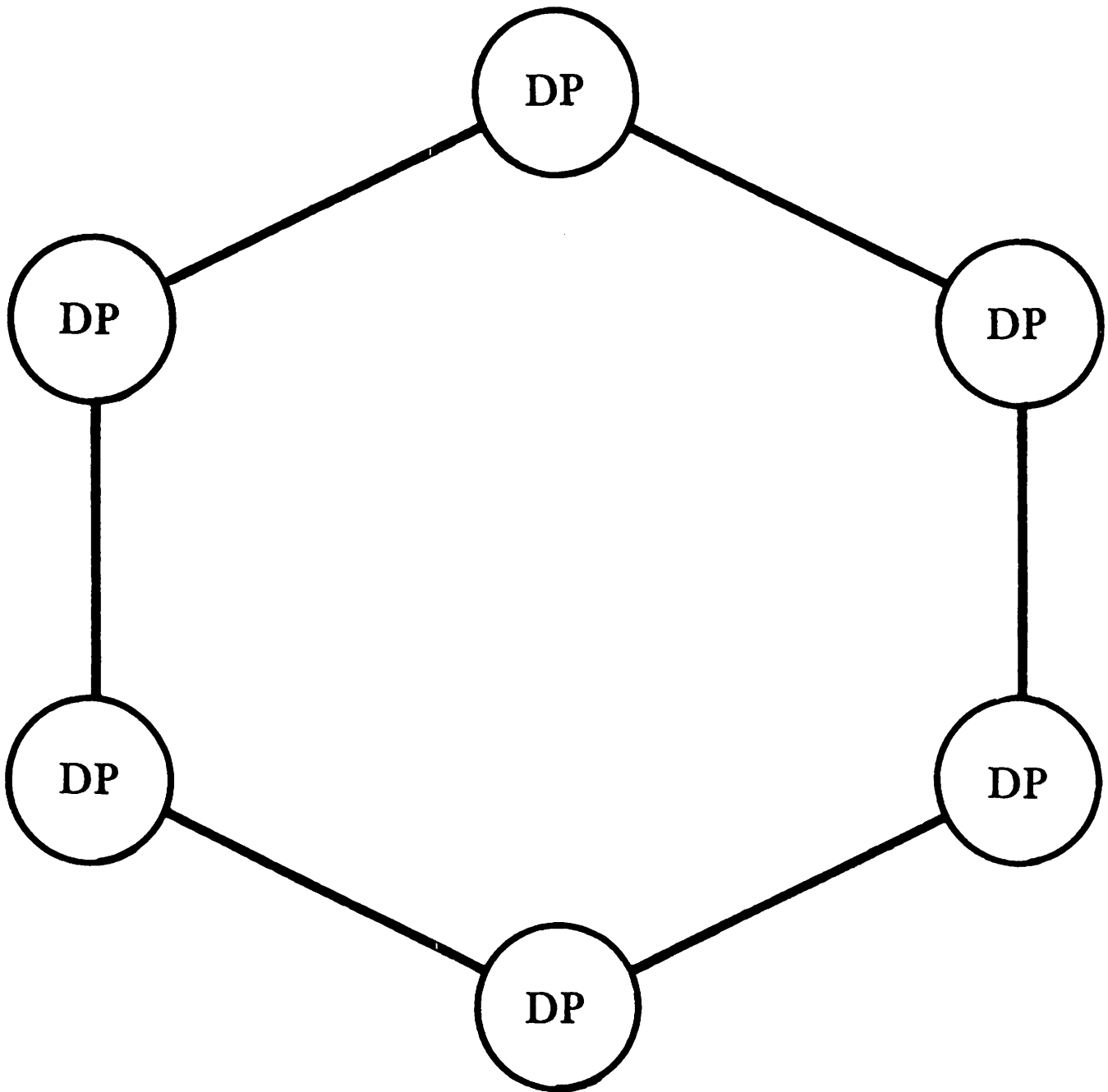
FORCES THAT MAY CREATE A DDP ENVIRONMENT HAS AN IMPACT ON THE DESIGN AND STRUCTURE OF DDP. THIS PROCESS MAY OR MAY NOT HAVE BEEN VIOLENT.



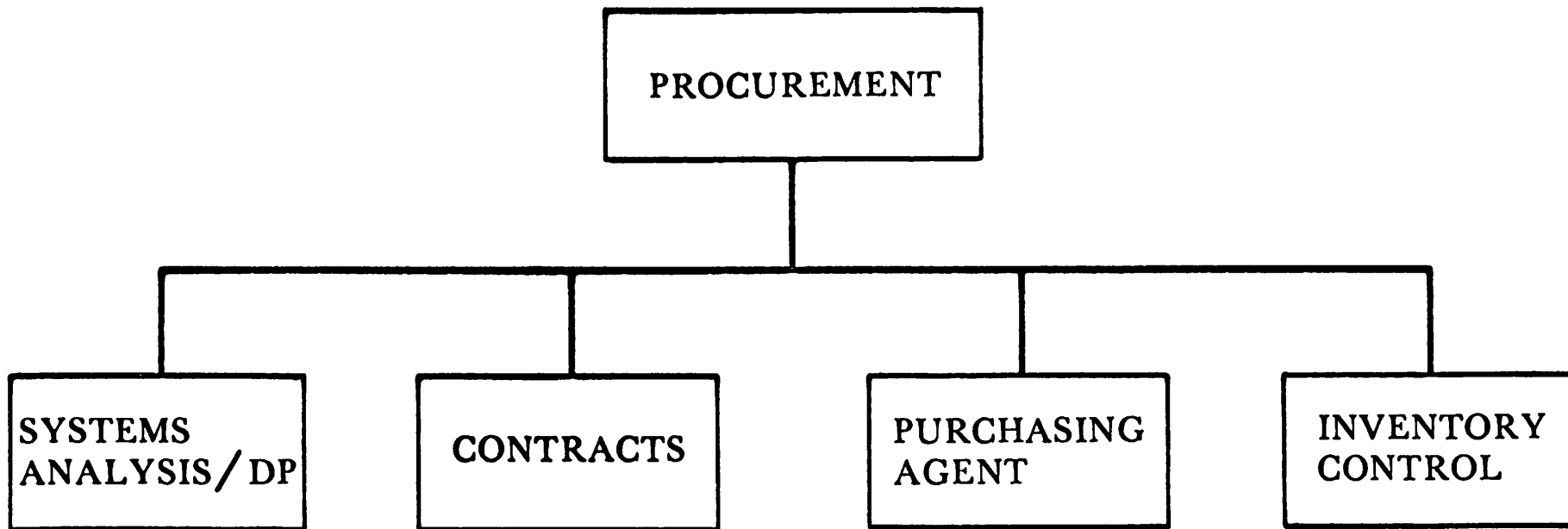
**PYRAMID OR HIERARCHICAL
DISTRIBUTED
DATA PROCESSING**



**RING TYPE
DISTRIBUTED
DATA PROCESSING**



**STAR TYPE
DISTRIBUTED DATA
PROCESSING**



THREE PERSPECTIVES IN PERSONNEL CONSIDERATIONS FOR DISTRIBUTED DATA PROCESSING

- MANAGER : manages functional organization and DP**
- DATA PROCESSOR : includes all necessary functions of DP**
- USER : non-managerial organization**

MANAGEMENT STYLES

REACTIVE

VS.

ACTIVE

Successful DDP requires active management style

MANAGER'S JOB IS TO:

PLAN

ORGANIZE

LEAD

CONTROL

SELECT AND DEVELOP

PLANNING

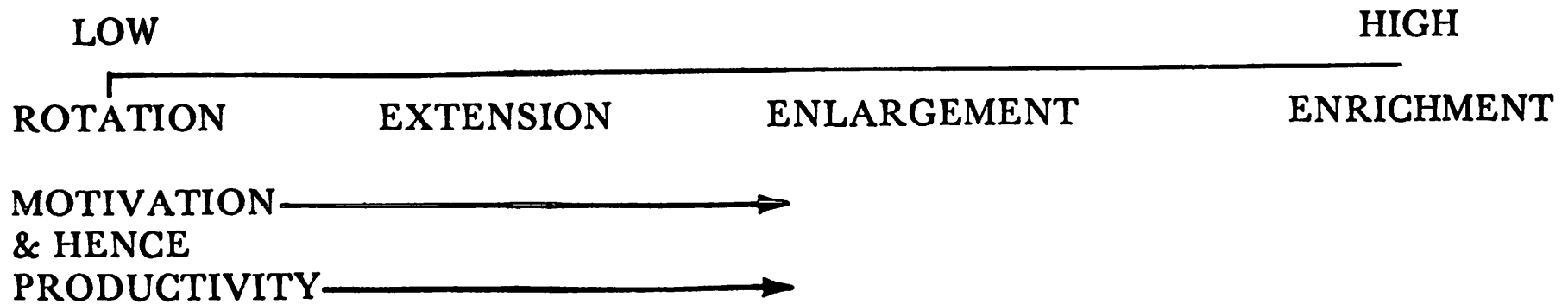
CENTRALIZED DP

- MORE COMPLICATED
- PRIORITIZING IS A PROBLEM

DISTRIBUTED DP

- SIMPLIFIED
- PRIORITIZING IS NOT A PROBLEM

HERZBERG'S DEFINITION OF JOB VARIETY, RESPONSIBILITY AND GROWTH



ORGANIZING

CENTRALIZED DATA PROCESSING

- ORGANIZATION STRUCTURE EASIER TO DEFINE
- BACK-UP/TURNOVER HAS LITTLE IMPACT
- EASIER TO CREATE PROJECT TEAMS
- CREATES SPECIALISTS
- STRONG PEER GROUP FORMATION

DISTRIBUTED DATA PROCESSING

- ORGANIZATION STRUCTURE INTRODUCES STRAIN
- BACK-UP/TURNOVER PLANNING IS HARDER
- PROJECT TEAMS HARDER TO CREATE
- CREATES GENERALISTS
- PEER GROUP RELATIONSHIP IS WEAK

ORGANIZING (CONT'D)

CENTRALIZED DATA PROCESSING

- EASIER TO
CHANGE JOB
DESIGNS
- MORE STRUC-
TURED TRAINING
AND DEVELOPMENT

DISTRIBUTED DATA PROCESSING

- JOB DESIGNS ARE
MORE RIGID
- UNSTRUCTURED
TRAINING AND
DEVELOPMENT

**“MOTIVATION” IS OUR SPECULATION ABOUT
SOMEONE ELSE’S PURPOSE AND WE USUALLY
EXPECT TO FIND THAT PURPOSE AND SOME
IMMEDIATE AND OBVIOUS GOALS**

- **MOTIVATIONAL FACTORS**
- **MAINTENANCE FACTORS**

MOTIVATIONAL FACTORS

- ACHIEVEMENT
- RECOGNITION
- ADVANCEMENT
- WORK (ITSELF)
- POSSIBILITY OF GROWTH
- RESPONSIBILITY

MAINTENANCE FACTORS

- COMPANY POLICY AND ADMINISTRATION
- TECHNICAL SUPERVISION
- INTERPERSONAL RELATIONS — SUPERVISOR
- SALARY
- INTERPERSONAL RELATIONS — PEERS
- JOB SECURITY
- PERSONAL LIFE (QUALITY)
- WORKING CONDITIONS
- INTERPERSONAL RELATIONS — SUBORDINATE
- STATUS

CONTROLLING

PERFORMANCE REVIEWS AND EVALUATION

CENTRALIZED DATA PROCESSING

- **MORE STRUCTURED BUT LESS DEFINITIVE**
- **MBO HARDER TO IMPLEMENT**

DISTRIBUTED DATA PROCESSING

- **LESS STRUCTURED BUT MORE DEFINITIVE**
- **MBO EASIER TO IMPLEMENT**

SELECTING AND DEVELOPING

CENTRALIZED DATA PROCESSING

- EASIER TO HIRE
GOOD PEOPLE
- MORE OPPOR-
TUNITY FOR
CAREER PLANNING

DISTRIBUTED DATA PROCESSING

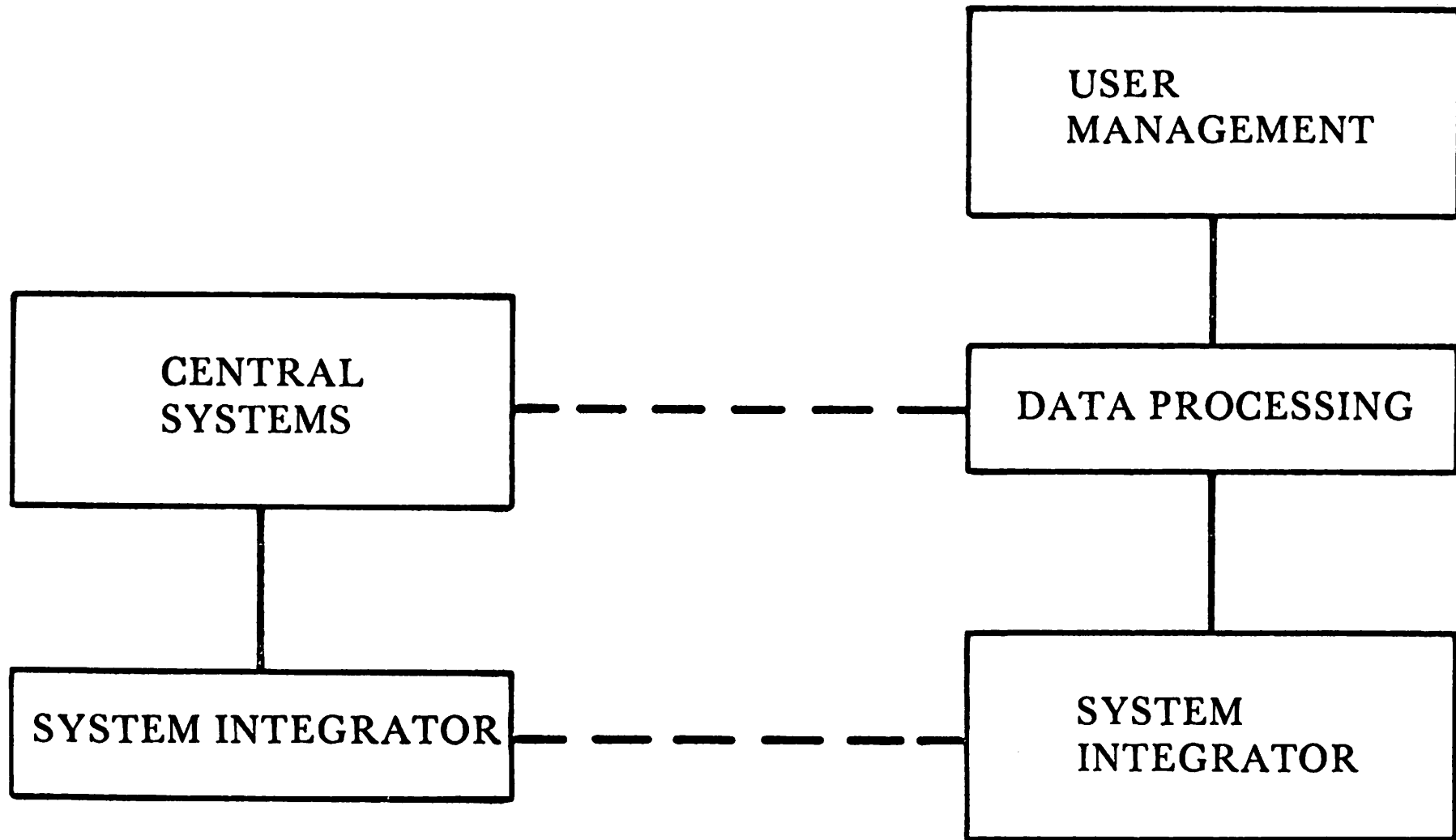
- DIFFICULT TO
HIRE GOOD PEOPLE
- DIFFICULT TO
PROVIDE CAREER
PLANNING

SKILLS FOR DATA PROCESSOR IN DDP

- **SKILLS REQUIRED ARE THOSE OF A STAFF
FUNCTION**
- **GREATER COMMUNICATION SKILLS
REQUIRED**
- **ABILITY TO BEAR GREATER
RESPONSIBILITY**
- **MORE OF A BUSINESSMAN THAN A
TECHNOCRAT**
- **IT IS A “HOT” SEAT.**

ROLE OF SYSTEM INTEGRATOR

- **DEFINES THE NEEDS AND CHARACTERISTICS OF COMMON SYSTEMS**
- **DEFINES PROCEDURES FOR COMMON SYSTEMS**
- **DEFINES STANDARDS FOR COMMON SYSTEMS**
- **PROVIDES FOR COMMUNICATION FOR COMMON SYSTEMS**



RECOMMENDATIONS

- **THINK THROUGH THE ENTIRE DDP PROCESS BEFORE IMPLEMENTING**
- **CREATE A PILOT PROJECT**
- **IDENTIFY, MONITOR AND UTILIZE STRESS SIGNALS, CHECK POINTS, PERFORMANCE INDEXES**
- **TRAIN ALL INVOLVED IN DDP. ESPECIALLY THE MANAGEMENT**
- **BE AWARE OF HUMAN RELATIONS PRINCIPLES**
- **BE CAREFUL AND DELIBERATE. IT COULD BE A DISRUPTIVE PROCESS**