# ABC's of System Management: The management Side of Transitions

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**HP WORLD 2003**
Solutions and Technology Conference & Expo

# Management of Transitions

- Look at the reasons **why** we transitioned
- Review **what** we changed from and to
- Identify **when** we changed
- Examine our **management issues** in changing
- Identify **how** we changed
- Discuss how we **managed** our changes
- Review our **accomplishments**
- Future for **HP3000** based applications

# Management of Transitions

- The 'Why's of transitions at HNS
  - Year 2000 was coming – HNS started journey in late 1995
  - Existing enterprise applications spread out
  - Multi-platform business systems
  - Multi-platform engineering systems
  - Customer service improvements needed
  - Need to consolidate business practices between various HNS business groups

# Management of Transitions

- The 'Why's of transitions at HNS
  - Business to business improvements
  - Developing international manufacturing facilities
  - Increasing government regulations
  - All of the above presented an opportunity to justify changes and re-vitalize HNS applications and infrastructure to senior management

# Management of Transitions

- **What we transitioned at HNS**
  - MM3000 was the original enterprise manufacturing app
  - MANMAN replace MM3000 initially in 1991 with final module on-line in 1994
  - MANMAN was customized to 4 different manufacturing groups
  - CYBORG human resource systems on a 3000

# Management of Transitions

- **What we have not yet transitioned at HNS**
  - Product bar-coding
  - Engineering Document Control
  - Installer Management systems
  - Selected MANMAN functions

# Management of Transitions

- When we did we transition at HNS
  - Asset management analysis started in 1995
  - Business requirements analysis began in 1995 and are still evolving
  - Corporate management involvement started in 1996
  - Decision to go with 'canned' application to standardize business practices and processes
  - Reviewed three vendor products

# Management of Transitions

- What we did we transition to at HNS
  - SAP/R3 on ORACLE database running on HP-UX servers

# Management of Transitions

- Upper Management Issues

  - Funding a multi-year project
  - Business process improvements
  - Improved design to production efficiencies
  - Increasing user productivity
  - Increasing communications with business partners
  - Eliminate time consuming processes
  - Find and implement a complete package before Y2K

# Management of Transitions

- IT Management Issues

  - **Funding a multi-year project**
  - **Infra-structure changes**
  - **Software changes, operating system and application**
  - **IT training**
  - **Leveraging existing IT assets**
  - **Staffing**

# Management of Transitions

- IT Management Issues

    - **Storage**

    - **High Availability and Disaster Recovery**

    - **Find and implement a complete package before Y2K**

# Management of Transitions

- IT Management Issues – Infra-structure

    – Increase the capacity of internal networks
    – Develop and implement high speed external networks
    – Develop and implement new firewalls
    – Improve network management and security
    – End user hardware requirements based on selected application
        - **Terminals**
        - **PC's**
        - **Network devices**
        - **Printers**

# Management of Transitions

- IT Management Issues – Software and OS

  - Implement SAP
  - Server sizing
  - How many servers
    - Database
    - Application
    - Development
    - Test
    - Knowledge
    - 'Sandbox'

# Management of Transitions

- IT Management Issues – Software and OS

  - How to train customers
    - Identifying which customers to train
    - Scheduling customer time
  - Data migration,  IMAGE to ORACLE
  - Transfer all data or P-I-T transition?
  - Consultants? How to choose and retain?
  - Printing,  soft, hard, or both
  - Data transfer between new apps and old

# Management of Transitions

- IT Management Issues – Software and OS

  - Availability of data to customers
  - Data presentation to customers
  - Data synchronization
  - Data back-ups
  - Data retention
  - Data recovery
  - Data storage

# Management of Transitions

- IT Management Issues – Training

  - New SAP programming language
  - ORACLE database management
  - MPE/iX to HP-UX system administration
  - Data back-up
  - Data recovery
  - Data storage

# Management of Transitions

- **IT Management Issues – Leveraging of assets**

  - Server upgrade or new servers?
  - Lease versus buy
  - What to do with existing MPE/iX environment with leased systems
  - What to do with archived data?
  - Personnel

# Management of Transitions

- IT Management Issues – Staffing

  - Selecting staff for SAP, internal or external
  - Selecting staff for maintenance functions
  - Network administration
  - System Administration
  - ORACLE database administration
  - BASIS administration
  - Customer liaisons
  - Upper management team liaisons

# Management of Transitions

- IT Management Issues – Storage

  - HP or other ?
  - HNS selected EMC based on initial SAP studies
  - EMC Capacity Management, expandability and flexibility
  - EMC capabilities, supported MPE/iX and HP-UX systems
  - EMC also supported HNS's SUN, NT and LOTUS Notes environments
  - Data protection

# Management of Transitions

- IT Management Issues – High Availability and Disaster Recovery
  - Identify cost to company if systems down
  - What works with SAP, ORACLE and HP-UX
  - HOT site versus COLD site
  - Where is the data and is it accessible
  - Network availability
  - IT staffing in a disaster
  - MC/ServiceGuard and EMC
  - Backups

# Management of Transitions

- IT Management Issues – All this before Y2K

  - In a word, YES

# Management of Transitions

- **How did we transition at HNS**
  - Cautiously at first
  - IT applications personnel review existing applications and processes and begins development of Enterprise Business Requirements Analysis in 1995
  - The requirements continue to evolve as we implement SAP
  - Consultants identifying asset strengths and weaknesses against the business requirements documentation were engaged
  - Business requirements analysis presented to Corporate management involvement starting in 1996

# Management of Transitions

- How did we transition at HNS
  - Decision on SAP in Q3 1996
  - Initial implementation starting with HNS fiscal year 1999

# Management of Transitions

- **What is Business Requirements Analysis?**
  - Documenting how you do business
  - Identifying how your business processes interact
  - Exploring and revealing what are the strengths and weaknesses of existing applications
  - It's a document roadmap and summary of where you want to end up at
  - Defines schedules and plans to accomplish the journey

# Management of Transitions

- Implementation Schedule
  - Reviewed against business requirements analysis
  - Corporate funding
  - Impact to business processes
  - Customer and IT personnel training issues
  - **Y2K**
  - Network enhancements
  - HR first
  - Mfg and related activities to follow

# Management of Transitions

- **Reviewing Business Requirements**
  - **Web enable applications**
  - WEB equals speed
  - Speed means enhanced network capacity and availability
  - Impact to business processes

# Management of Transitions

- **Installation and Testing**
  - Upgraded 3 servers
  - Leased 6 servers
  - 100BT lan based systems
  - 1 database server
  - 1 development server
  - 4 application servers
  - 1 test server
  - 1 knowledge base server
  - 1 'Sandbox'

# Management of Transitions

- **Human Resources first**
  - Database loading
  - Parallel processing
  - W2 processing between systems
  - Electronic timekeeping
  - Live in January 1999
  - Pause for Y2K focus after implementation was intentional

# Management of Transitions

- Y2K and full speed ahead
  - Back to Business Requirements
  - Manufacturing and finance in Phase 2
  - Planned increase in database server, network, and storage
  - Each SAP module had unique staffing and training requirements for customers
  - Continuous customer meetings and management team meetings
  - Issues database developed to share information

# Management of Transitions

- Y2K and full speed ahead
  - ServiceGuard implemented with aid of consultants
  - EMC storage add-ons as database growth exceeds projections
  - Extensive parallel processing to verify results
  - Developed and enhanced interfaces to remaining applications
  - Web development in conjunction with SAP
  - Trained over 500 employees on east coast
  - Trained over 100 employees on west coast and Mexico
  - August 2001 schedule for implementation was met

# Management of Transitions

- **2001 and full speed ahead**
  - Procurement and additional HR functionality was up next
  - EMC storage add-ons as database growth again exceeded projections
  - Extensive parallel processing to verify results
  - Developed and enhanced interfaces to remaining applications
  - Web development in conjunction with SAP
  - Trained over 200 employees on east coast
  - Trained over 50 employees on west coast and Mexico
  - April 2002 was scheduled as the completion date for this phase

# Management of Transitions

- **2001 and full speed ahead**
    - Server upgrades for memory and I/O enhancement
    - EMC storage moved into SAN environment
    - Backups becoming issue
    - Full implementation of EMC's Business Continuity Volumes for backups
    - April 2002 schedule for this phase was met

# Management of Transitions

- **HNS Accomplishments**
  - Met Y2K requirements
  - Transitioned to SAP from MANMAN
  - Improved Human Resource functionality
  - Improved timekeeping and payroll processing
  - 2002 unscheduled downtime limited to 28 minutes for SAP
  - Improved procurement time and effectiveness
  - SAP enabled consolidation of business practices and processes between groups
  - Accounting prepared for Sarbanes Act

# Management of Transitions

- **HNS Accomplishments**
  - Overall process copied for PeopleSoft HelpDesk implementation
  - ServiceGuard implemented for PeopleSoft and HNS's other HP-UX applications domestic and international
  - Trained over 900 employees for SAP
  - Trained over 30 programmers for SAP alone
  - Increased ORACLE support staff
  - Increased network support staff
  - Cross-trained two MPE/iX engineers for HP-UX
  - Improved Disaster Recovery capabilities

# Management of Transitions

- HP3000 Future at HNS
  - Several key applications remain on the 3000 in 'frozen' state
  - Financial data not moved forward as P-I-T was implemented

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