Dennis Adams
a s s o c i a t e s

*hp*UG
The Independent
HP User Group

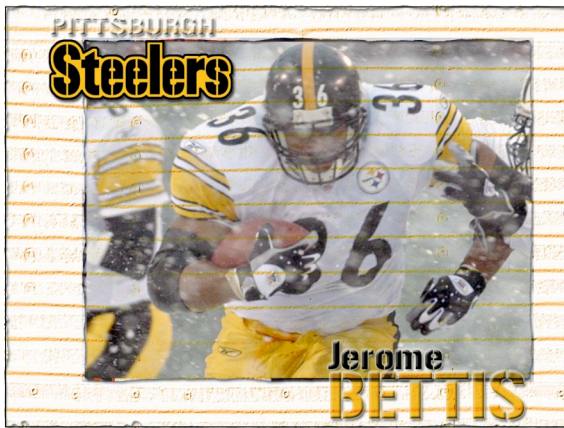The HP User Group
in partnership with
Dennis Adams Associates Ltd.

"Managing Production Systems: Fire-Fighting and MOPS"

January 2006

PITTSBURGH
Steelers
Jerome
BETTIS

Agenda	
09:30	Registration
09:55	Welcome – HPUG chairman
10:00	The challenges of managing IT Production then & now. The "MOPS" strategic approach.
11:00	Refreshment Break
11:15	Metrics and Operational Tools
12:30	Lunch
13:15	Processes, Procedures and Standards
14:15	Refreshment Break
14:30	Bringing it together – creating and implementing a Production Strategy.
15:30	Open Forum.
16:00	Seminar Ends

Agenda

09:30	Registration
09:55	Welcome – HPUG chairman
10:00	The challenges of managing IT Production then & now. The "MOPS" strategic approach.
11:00	Refreshment Break
11:15	Metrics and Operational Tools
12:30	Lunch
13:15	Processes, Procedures and Standards
14:15	Refreshment Break
14:30	Bringing it together – creating and implementing a Production Strategy.
15:30	Open Forum.
16:00	Seminar Ends

Dennis Adams
a s s o c i a t e s

*hp*UG
The Independent
HP User Group

**"Managing Production Systems:
Fire-Fighting and MOPS"**

The Challenges of Managing IT Production then and now.

But First….some Technology

- VAX 11/780, VMS Cluster
- MicroVAX 2000
- VAXMate development tools
- VAX 6000 Sales Management system
- OSF-1 / TRU64 Database Servers
- Compaq Proliant NT4 Servers
- Compaq Deskpro NT4 Desktop
- HP-UX Database Servers
- Evaluation of HP "SuperDome" and Compaq "Galaxy"
- Comparison of HP-UX and Linux for multi-threading DBMS
- HP Pavilion Workstation
- HP p3440 software tools platform
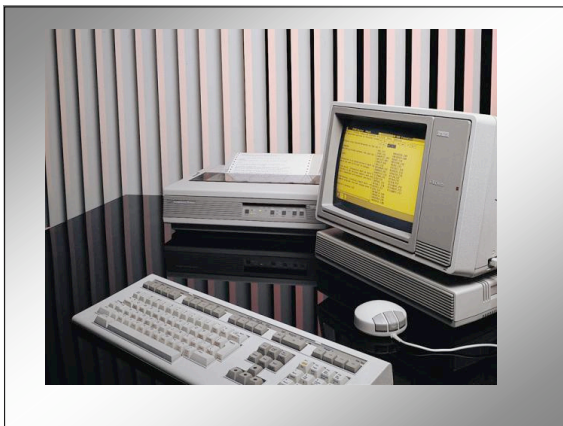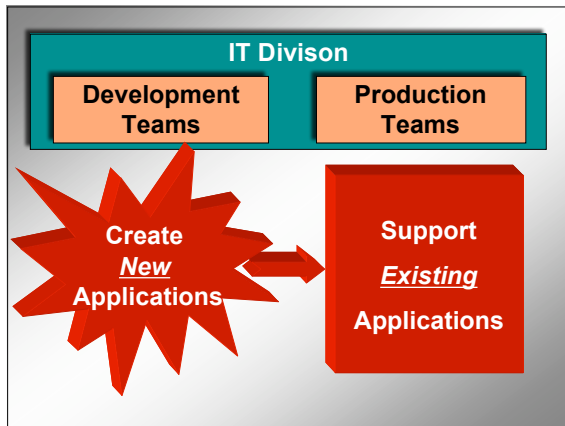- Proliant Windows 2003 Servers

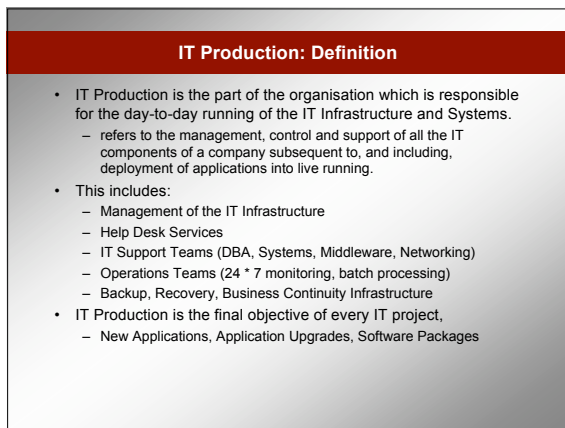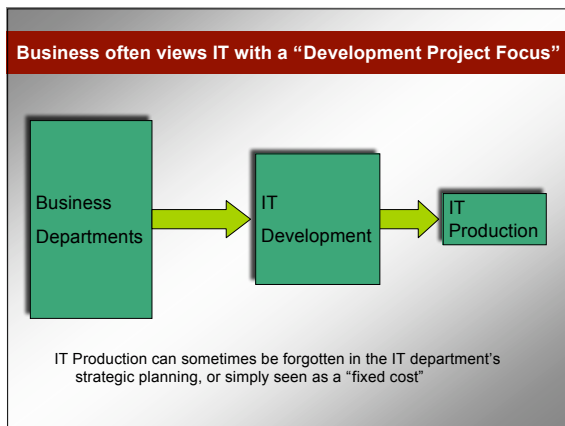**The Evolution of the Species**

• One man and his teletype

• Computer Section (part of the Finance Department)

• Computer Department
• Specialization into Development and Operational Tasks
• Evolving needs

• IT Group dedicated to different business units
• IT Division with separate P & L and Client Contracts
  – Development Department(s) or Groups
  – Production Department

• Outsourced IT Company ?

IT Divison

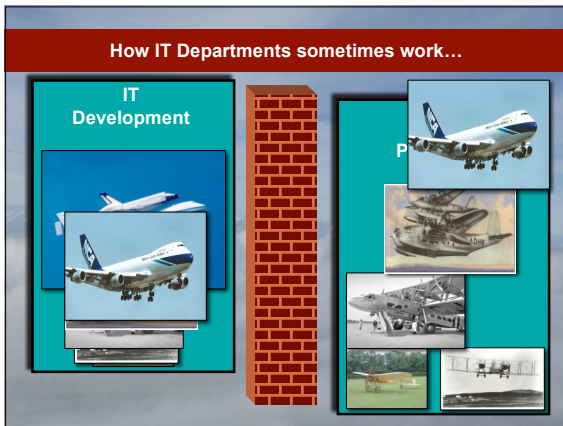**Development Teams**

Production Teams

Create New Applications

Support Existing Applications

IT Production: Definition

- IT Production is the part of the organisation which is responsible for the day-to-day running of the IT Infrastructure and Systems.
  - refers to the management, control and support of all the IT components of a company subsequent to, and including, deployment of applications into live running.
- This includes:
  - Management of the IT Infrastructure
  - Help Desk Services
  - IT Support Teams (DBA, Systems, Middleware, Networking)
  - Operations Teams (24 * 7 monitoring, batch processing)
  - Backup, Recovery, Business Continuity Infrastructure
- IT Production is the final objective of every IT project,
  - New Applications, Application Upgrades, Software Packages

---

Business often views IT with a "Development Project Focus"

Business Departments → IT Development → IT Production

IT Production can sometimes be forgotten in the IT department's strategic planning, or simply seen as a "fixed cost"

IT Development	IT Production
• Business Functionality	• Reliability, Resilience
• Speed of Delivery	• Stability, Scalability
• Cost of Development	• Cost of Support & Maintenance
• Development Projects may take months	• Production Support may be required over many years.
• Creating Competitive Advantage and ROI for the Business	• Delivering Day-to-Day Competitive Advantage and ROI for the Business

IT Development and IT Production think and act differently. They are different worlds. Both are needed in order to deliver the competitive advantage to the business

How IT Departments sometimes work…

IT Development

IT PRODUCTION: Life After Go-Live

Investment? Out of Disk / Table Space ?
Oracle Upgrades
Application Failures Support Calls Next
Planned Maintenance Project…
Data Copies
Hardware Upgrades
Backup Processes
Extra Users = Extra Power & Storage

Challenges Facing IT Production

- A study by HP in 2004 showed that, in some organizations, as much as 80% of the IT Budget is required to Support and Maintain the Existing Infrastructure.
- The majority of this cost is manpower-related.
- An increasing percentage of the Total IT Budget is required to support and maintain the existing Infrastructure.
- Ongoing Infrastructure upgrades (OS versions, patches etc.) must be managed.
- At the same time, the number of Applications going Live increases year on year.
- Continuous pressure to ensure that systems remain up and running.
- Urgent Support Issues.

THE COST of Poor Application Performance

Top 2,000 European businesses spending more than three million working hours every year trying to get to the root of poor applications performance (equates to €250m).
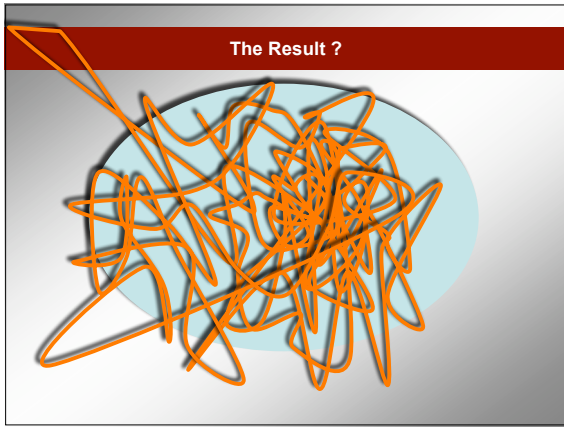
25 per cent of ICT directors and managers admit they do not know all of the ways in which their corporate networks are being used.
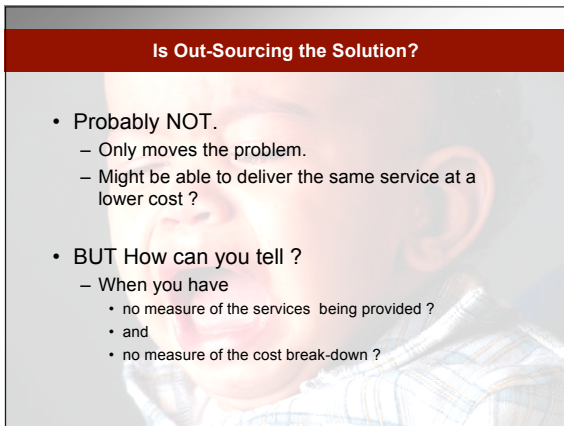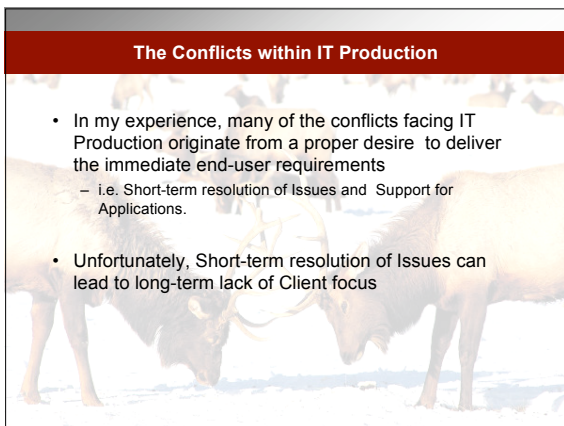
Coleman Parkes research January 2004

Is this familiar ?

- Tactical Reactions !
- Concentrate on solving Urgent Support Issues.
  - Neglect "unimportant" Activity Reporting
- Adopt a short-term viewpoint
  - Become less Client-Focused
- Support Culture can be Reactive
  - Forward Planning ??
- The team gets blamed when things go wrong.
- Without a Client-Focused approach, neither IT Development or Business Sponsors are aware of Production Costs & Activities
- IF Costs and Activities are not visible to Sponsors, it becomes difficult to justify further Investment Infrastructure or Headcount
- Without Visibility of the true Nature, Activity or Costs of IT Production, some Businesses see Outsourcing as a solution.

The Result ?

Is Out-Sourcing the Solution?

- Probably NOT.
  - Only moves the problem.
  - Might be able to deliver the same service at a lower cost ?

- BUT How can you tell ?
  - When you have
    - no measure of the services being provided ?
    - and
    - no measure of the cost break-down ?

The Conflicts within IT Production

- In my experience, many of the conflicts facing IT Production originate from a proper desire to deliver the immediate end-user requirements
  - i.e. Short-term resolution of Issues and Support for Applications.

- Unfortunately, Short-term resolution of Issues can lead to long-term lack of Client focus

WHERE do we WANT to be ?

- **Visibility of Activity** to identify the "problem applications" that take a disproportionate percentage of support effort.
  - This enables the Business as a whole to understand the true lifecycle costs of all Applications.

- **Predictable Cost growth** (such as headcount), and Infrastructure costs (such as CPU, memory, disk storage etc.)
  - so that resources and infrastructure can be purchased in good time, with appropriate cost savings.

- **Clear Infrastructure Standards and Service Levels**
  - So that IT Development can understand what technologies can be supported by IT Production, and at what costs.

THE DREAM of Strategic IT Production

- **Smooth deployment of Projects**, as a result of clear handover procedures to IT Production, and IT Production's involvement with Projects at Initiation side, to ensure that Support is viable.
- **Justify the IT Production Budgets** against clearly agreed Performance Metrics.
- **Engage with the Business** sponsors, and successfully argue the case for increasing IT Infrastructure Investment, rather than fighting up-hill budget reduction policies that don't take into account Infrastructure needs.
- Function as a "**Managed Team**", rather than just event-driven "fix-it ".

Using a Strategic Approach, IT Production Managers can make their teams more Pro-Active more Client-focused, and be in a better position to justify IT Infrastructure Investment

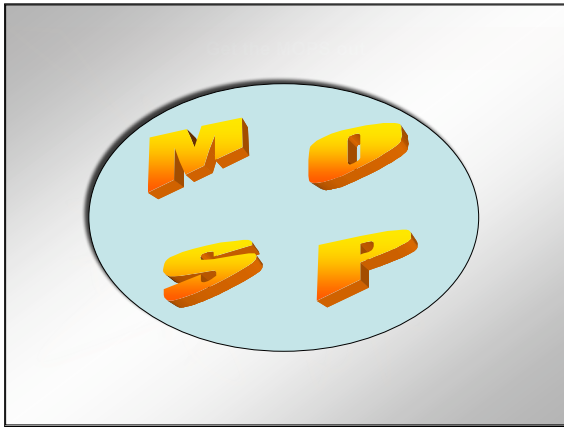## WHERE do we START ?

"Life is not a malfunction."

JOHNNY -FIVE.COM

A fan-made website dedicated to the loveable robot, Johnny Five— Star of the movies "Short Circuit" and "Short Circuit 2"
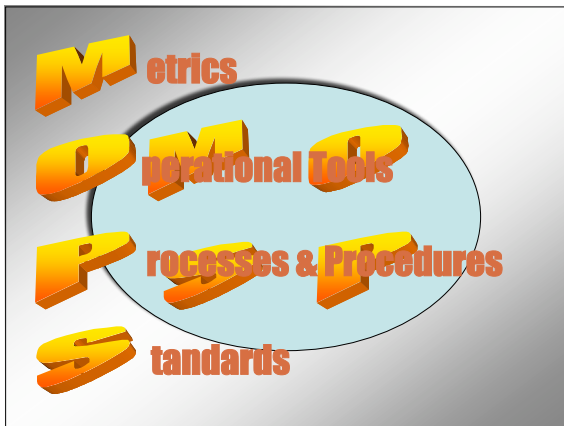
No 5:   *"Plan…"*

Girl: *"Great ! …*

                …what about it?"

No 5:   *"…need One"*

M O S P

Metrics
Operational Tools
Processes & Procedures
Standards

A Word from our Sponsor:

Work with IT Production Managers to
Audit the current environment and help them
Define and Deliver an IT Production Strategy
based on the key components:-

Metrics

Operational Tools

Processes & Procedures

Standards

Dennis Adams
a s s o c i a t e s

hp UG
The Independent
HP User Group

"Managing Production Systems:
Fire-Fighting and MOPS"

The "MOPS"
Strategic Approach

Is there a "magic solution?"

- No !
- But we can approach this one way, based on applying:
- some experience ("got the Tee-Shirt")
- other published methods, approaches (and war-stories!)
- common sense and pragmatism
- … we can put a professional Strategy in place for IT Production.

Basics

- The 4 basic elements contribute to a pro-active IT Production department.
- Audit the current management environment, based around these four key elements, all of which need to be in place if an IT Production team is to succeed.
- These elements are known by the acronym "MOPS" since they consist of the following headings
- Metrics
- Operational Tools
- Processes and Procedures
- Standards

Metrics

- What methods are in place for collecting and publishing key performance indicators (including man-hours) and technical metrics (such as CPU, disk utilisation etc.) ?

- These are essential in order to explain to the Business what the IT Production Team is doing, to justify expenditure, to identify "problem applications", and for future planning.

- Identify and collect some key statistics to understand
  - what is happening to your systems Technically (CPU etc.), and
  - where your support Activity is going (time spent).

- Incorporate these into a pragmatic capacity planning function.

Metrics

- ACTIVITY
  - Support Man-days according to Application Name
  - Help desk calls
  - Callouts / Incidents (repeat and non-repeat)

- TECHNICAL
  - CPU, Disk Utilisation
  - Backup activity
  - Uptime, planned / unplanned outages

- ORGANISATIONAL
  - Asset Register of servers, purpose, configuration, user access

Operational Tools

- This includes tools for collecting the metrics, above, and also for delivering the Support function.
- In addition, we look at the extent to which tools are integrated
  - Help Desk fed from Asset Management, into Time Tracking etc.
- Tools should have historical analysis
  - e.g. help-desk should include problem resolution, so that subsequent callouts are not duplicated.
- Tools are required to report current investment utilisation by user department or Application team, to capture man-days, and activity tracking within the team
  - to ensure that activity is aligned with the IT Production strategy.
- Review what tools you have for collecting technical and activity metrics.
- Define a single referential for all data.
- Automate, Integrate and Summarise.

Operational Tools

- METRIC COLLECTION TOOLS
  - Activity Tracking, Help Desk, Incident Management, Asset Management, Change Control

- TECHNICAL SUPPORT TOOLS
  - HP OpenView, alerting console
  - Specialised monitoring of Networks, Databases, J2EE
  - Backup / Recovery, Business Continuity

Processes and Procedures

- How do the existing processes and procedures facilitate the day-to-day running of IT Production, and it's relationship with the Business Sponsors and IT Development ?
- Processes should be in place to facilitate Deployment of Projects to live, upgrade, change controls processes etc.
- Also, processes to support the changes to Production Standards (hardware & O/S upgrades etc.) and procedures to ensure that IT Development work and Business Sponsorship is visible to the IT Production team.
- ITIL guidelines can be used to review this.
- Don't overload your teams with procedure, but use a pragmatic common-sense approach to deploy processes based on ITIL.
- Ensure you interface with Development Projects at the earliest possible phase.

Processes and Procedures

- ITIL

- Project Deployment, handover,
  - Service Levels
- Standards and Configuration Management
- Incident / Change
  - Managed Upgrade policy for technology (OS versioning)

- Involvement with Production at Project Initiation, linked to Standards

- Sponsorship of R&D within the Production team

Standards

- Are there technical standards within IT Production against which developers should develop solutions?
- How are these Standards updated?
- What processes are in place for engaging with other technical teams to discuss emerging technologies?
- Create a "menu" of standard technologies that developers must adhere to.

- Implement "IT Production Assessment" function before deployment.

- Put in place a systematic policy of technology upgrade, to ensure that costly systems are decommissioned when new ones are deployed.

Standards

- Technology "menu" which is supported by IT Production
  - Documented, agreed and published.

- Template Service Levels

- Configuration Baselines

- What processes are in place for changing them ?

SUMMARY

- METRICS
  - ACTIVITY EFFORT
  - TECHNICAL BEHAVIOUR OF SYSTEMS
  - Justified IT Expenditure

- OPERATIONAL TOOLS
  - COLLECT ACTIVITY AND TECHNICAL METRICS
  - AUTOMATE AND SIMPLIFY
  - Managed Costs

- PROCESSES AND PROCEDURES
  - INTERFACE WITH IT DEVELOPMENT AND BUSINESS
  - Improved Efficiency

- STANDARDS
  - "PRODUCTION READY" MENU OF TECHNOLOGIES
  - Supportable Solutions for the future

Agenda	
09:30	Registration
09:55	Welcome – HPUG chairman
10:00	The challenges of managing IT Production then & now. The "MOPS" strategic approach.
11:00	Refreshment Break
11:15	Metrics and Operational Tools
12:30	Lunch
13:15	Processes, Procedures and Standards
14:15	Refreshment Break
14:30	Bringing it together – creating and implementing a Production Strategy.
15:30	Open Forum.
16:00	Seminar Ends

Dennis Adams
a s s o c i a t e s

hp UG

The Independent
HP User Group

The HP User Group
in partnership with
Dennis Adams Associates Ltd.

**"Managing Production Systems:
Fire-Fighting and MOPS"**

January 2006