Managing Change in the Mission Critical Environment

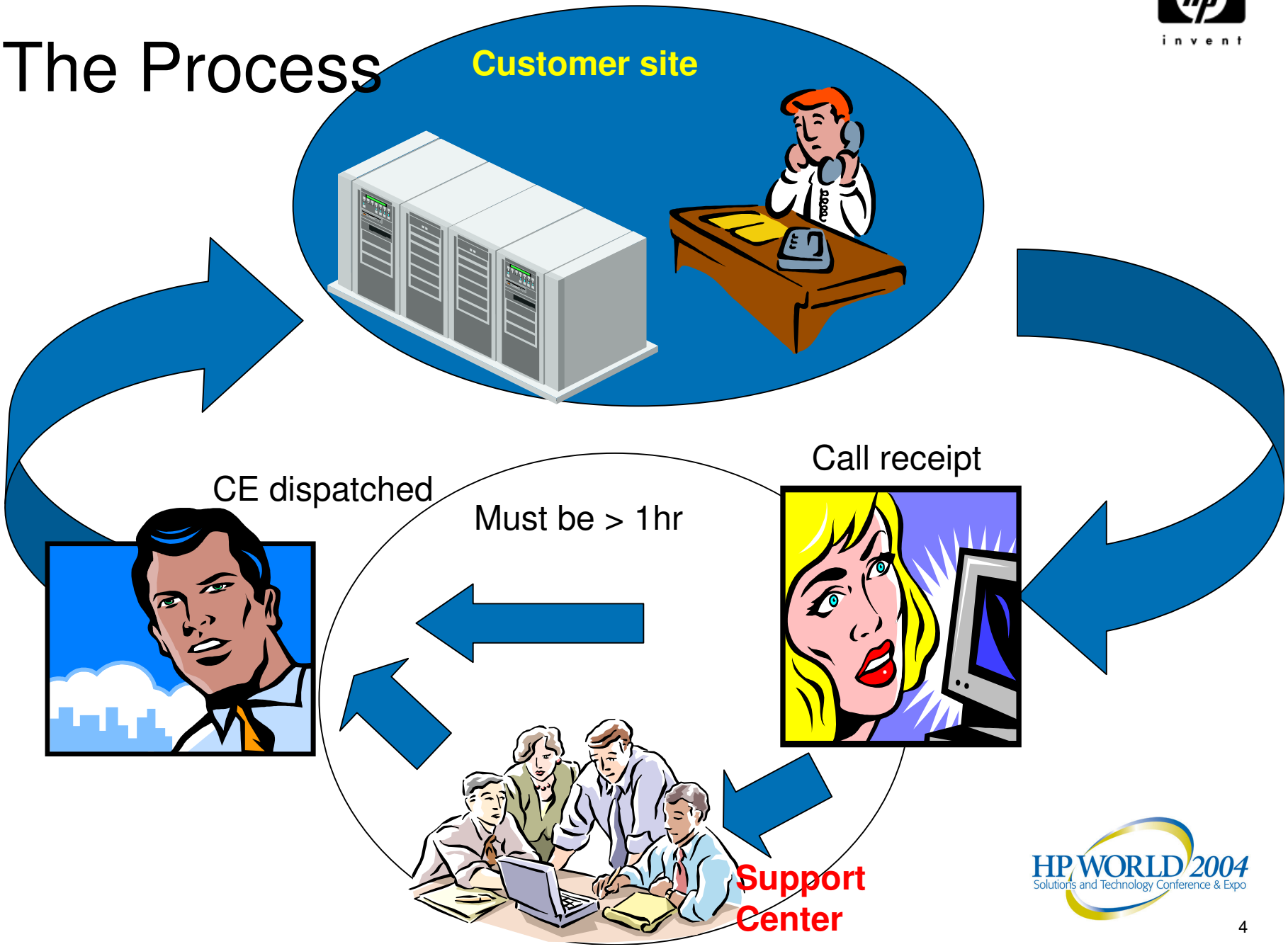
John Brimmer
Remote Support Account Advocate
Hewlett-Packard

Managing IT Change: “the early days”

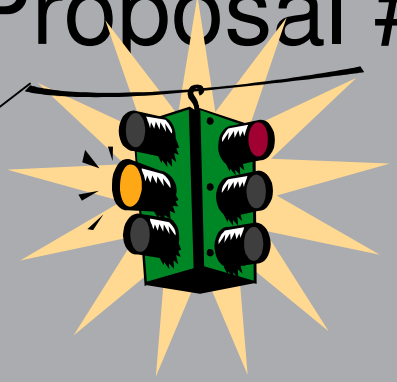
The Stoplight Problem

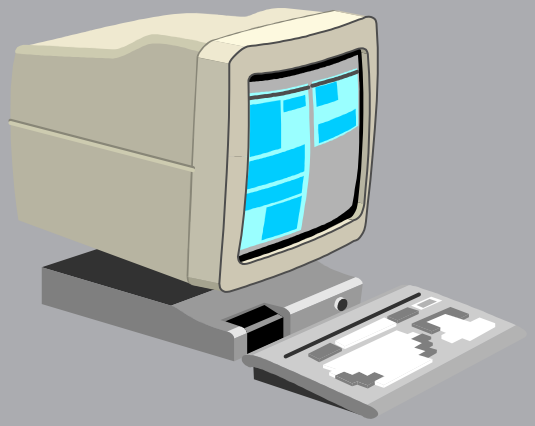
- Team of engineers taking calls on 4 different classes of products
- Customer calls were logged same call tracking system in one large queue
- Calls need to be routed out of the queue within an hour to the field

The Process

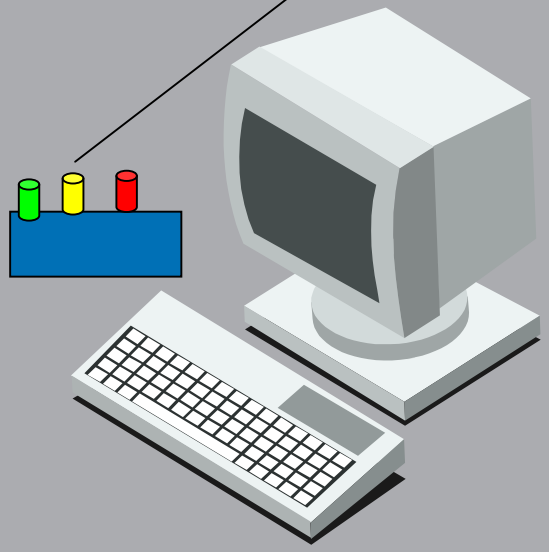

Customer site
Call receipt
Must be > 1hr
CE dispatched
Support Center

Two Proposals: Proposal #1





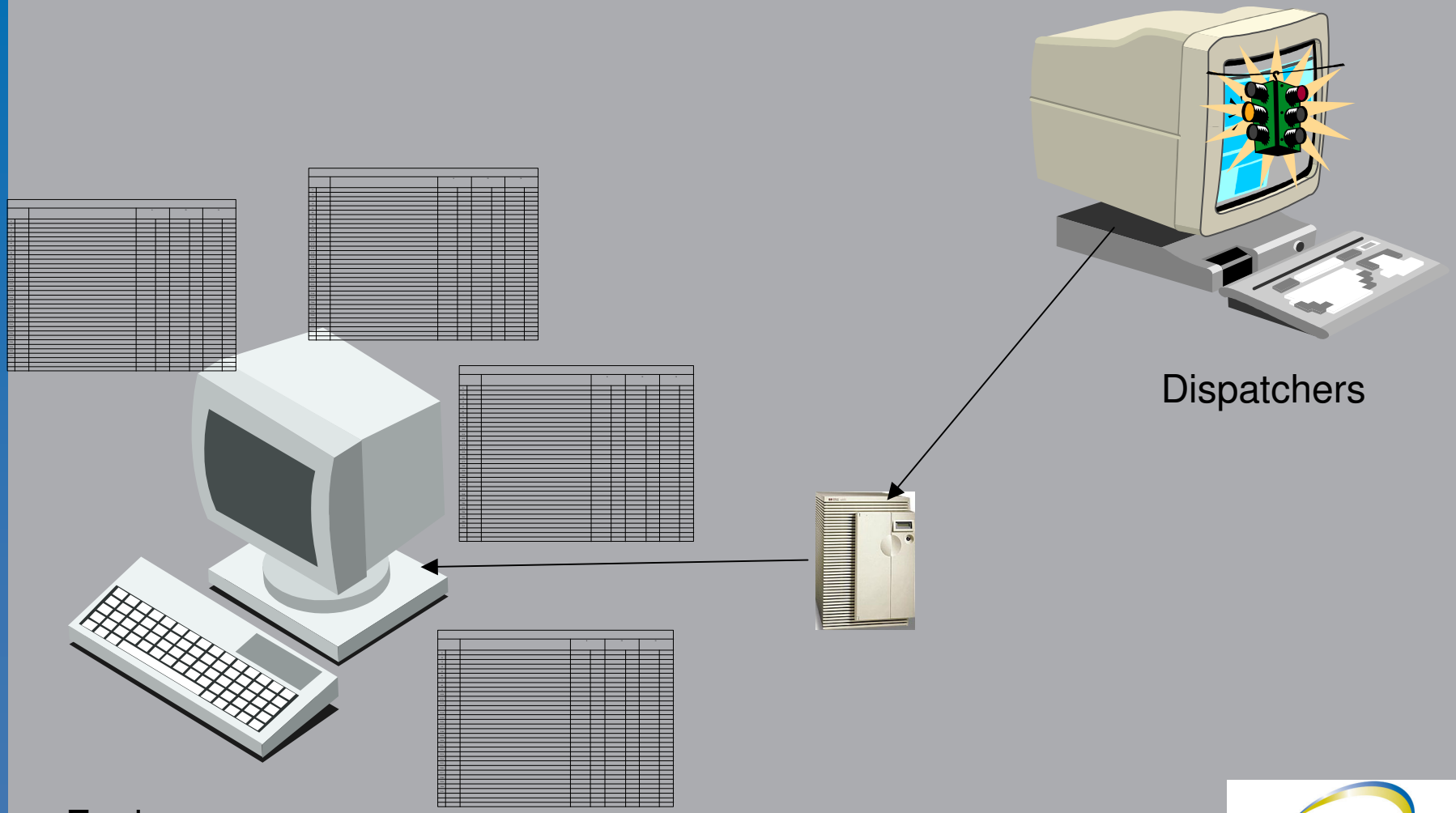
Dispatchers



Engineers

Customer Calls

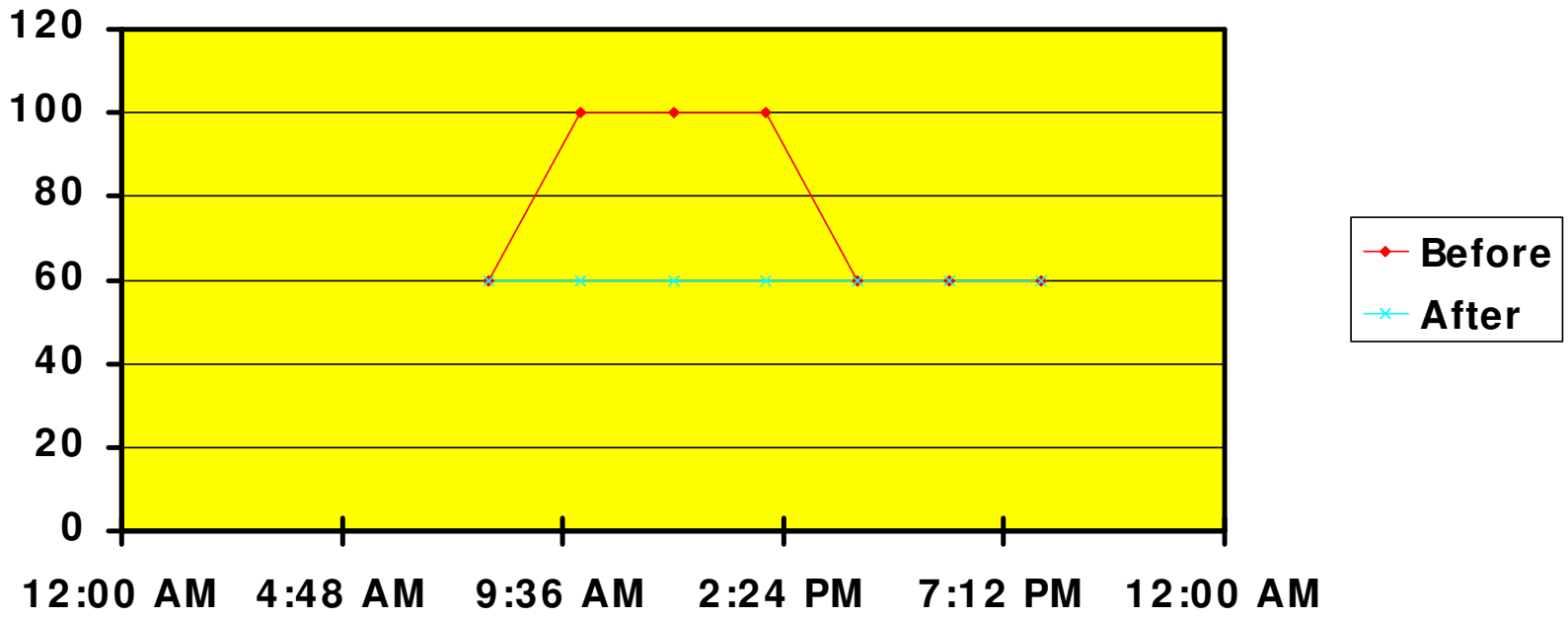
Two Proposals: Proposal #2



An IT Service is born!

- The Stoplight Service was born
- The team as a whole met the SLA of not holding a call more than 1 hour
- The sub-teams were no longer impacted by other sub-team call volumes
- We couldn't live with out it (Mission Critical)

The Value of the Change



Defining the Mission Critical Environment

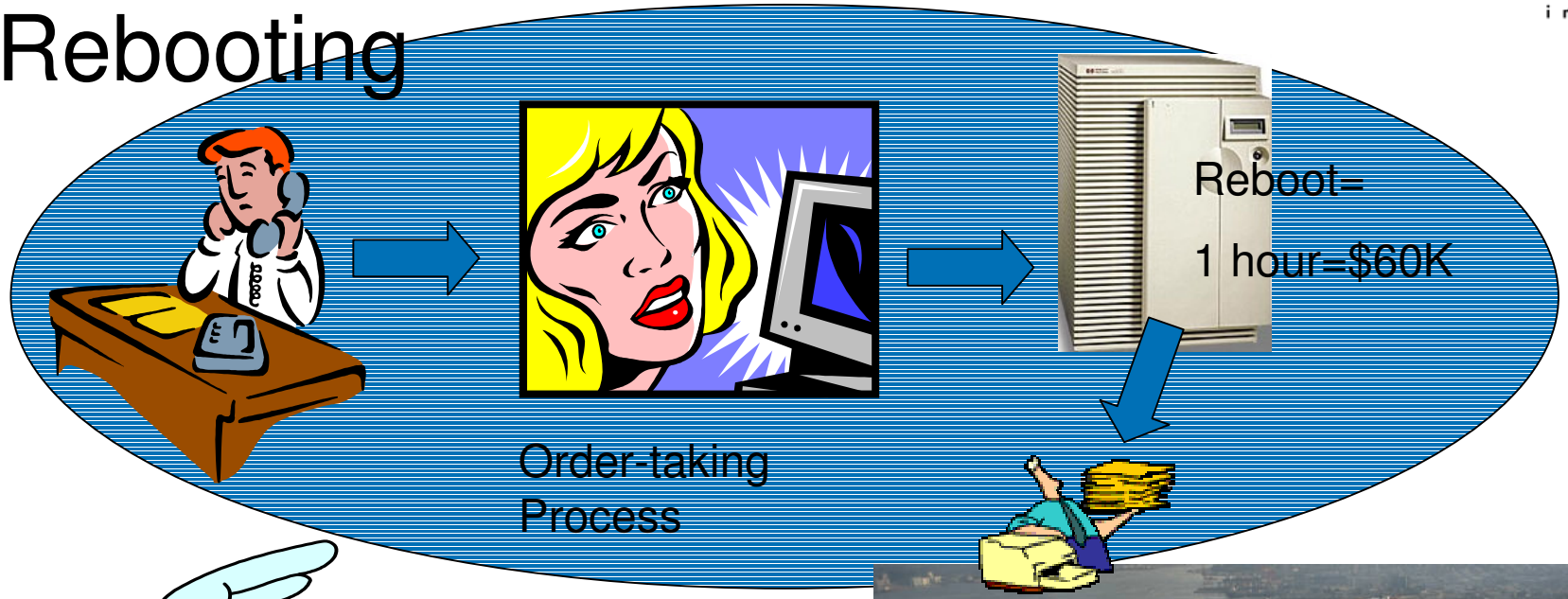
"What may be done at any time will be done at no time."

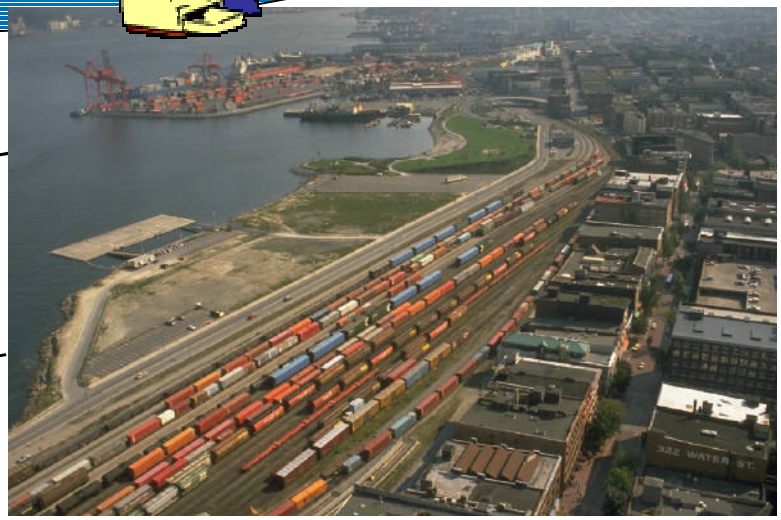
Scottish Proverb

Changing the oil in a running engine!

- **Rebooting - the value of time**
- **The window - the value of information**
- **Planning the Change - its all in the plan**
- **Supporting the Change - communications is the key**

Rebooting





The Window

Designing The Window

- Design the change
- Test the Change
- Design and Outline the window
- Design communication Plan

A Framework for Change

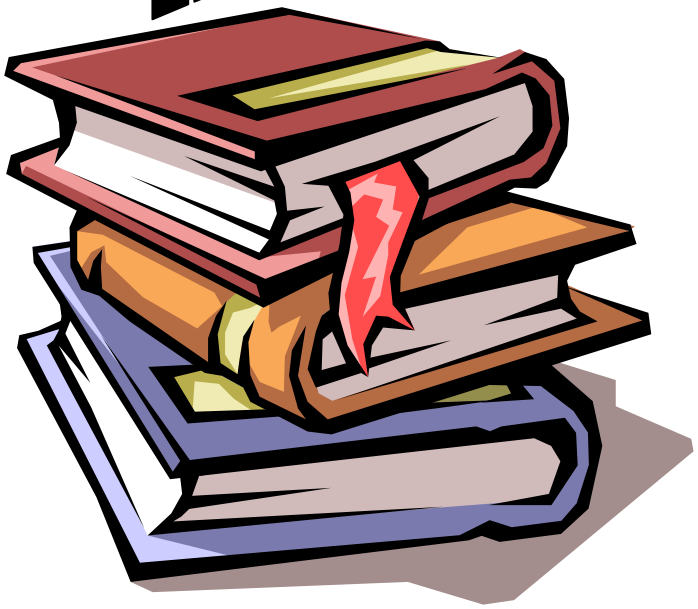
"The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function."

F. Scott Fitzgerald

(1896-1940)

ITIL and ITSM

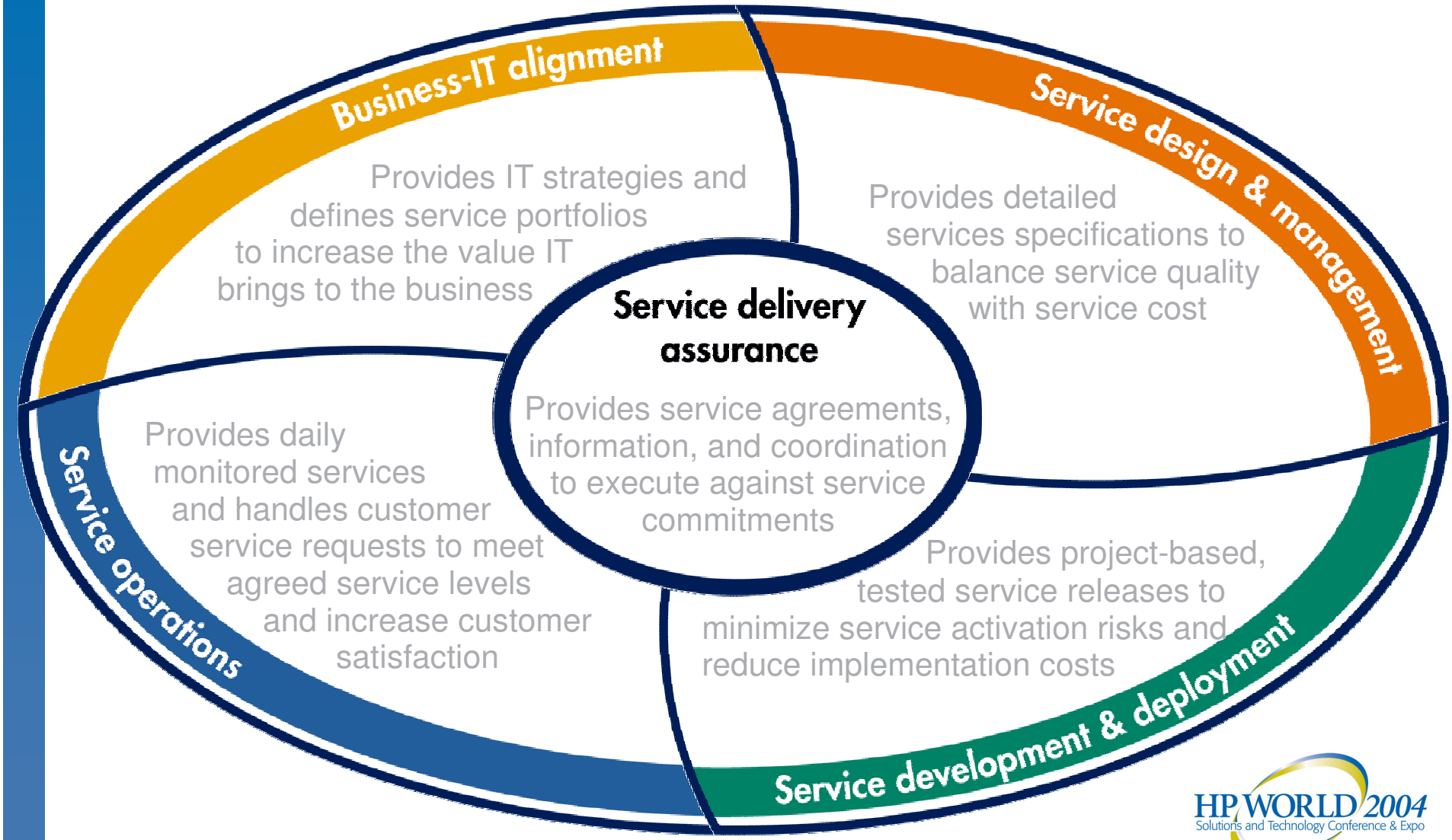
IT Infrastucture Library



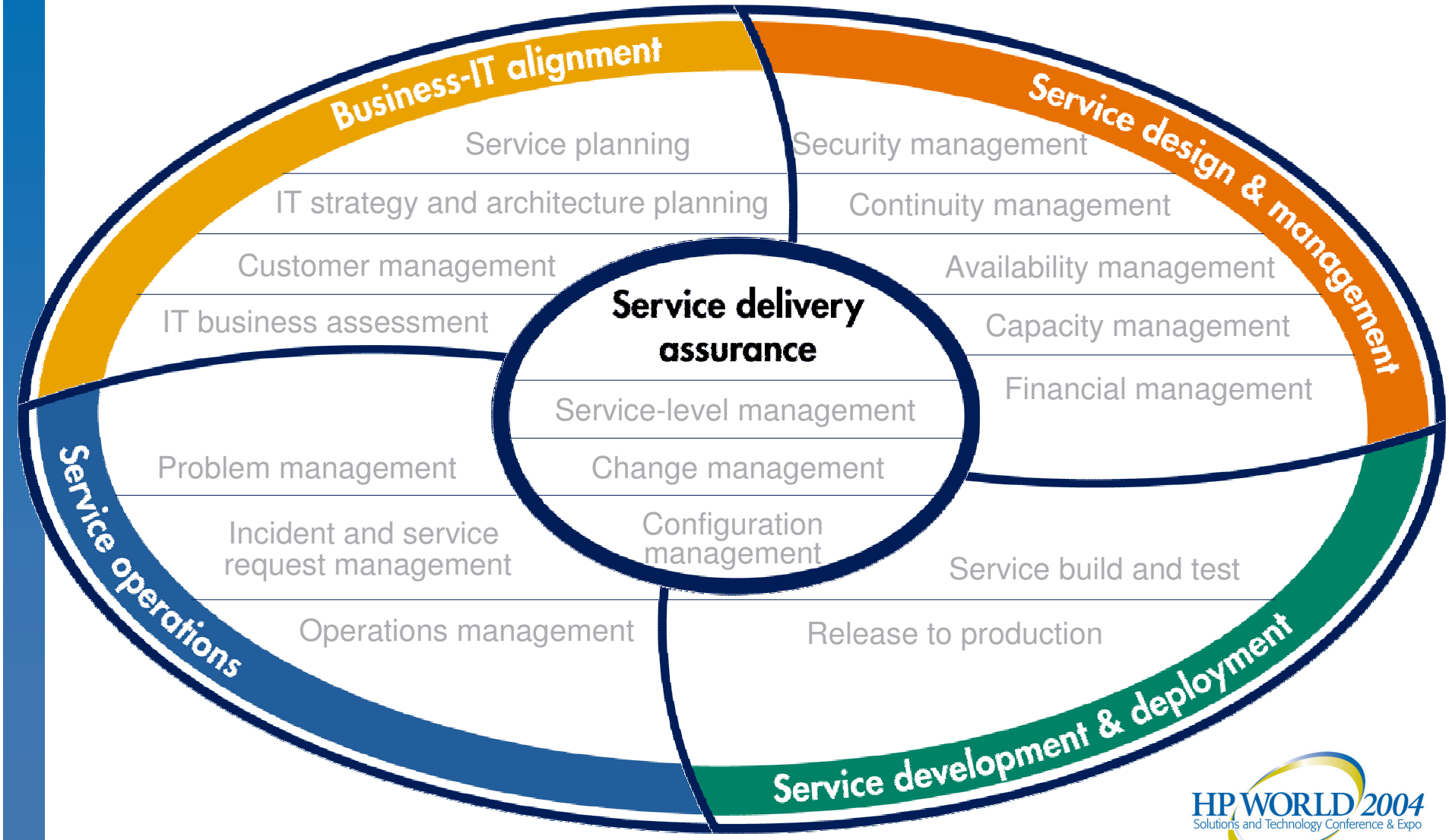
IT Service Management

HP IT Service Management Reference Model
Process map to manage the IT service lifecycle

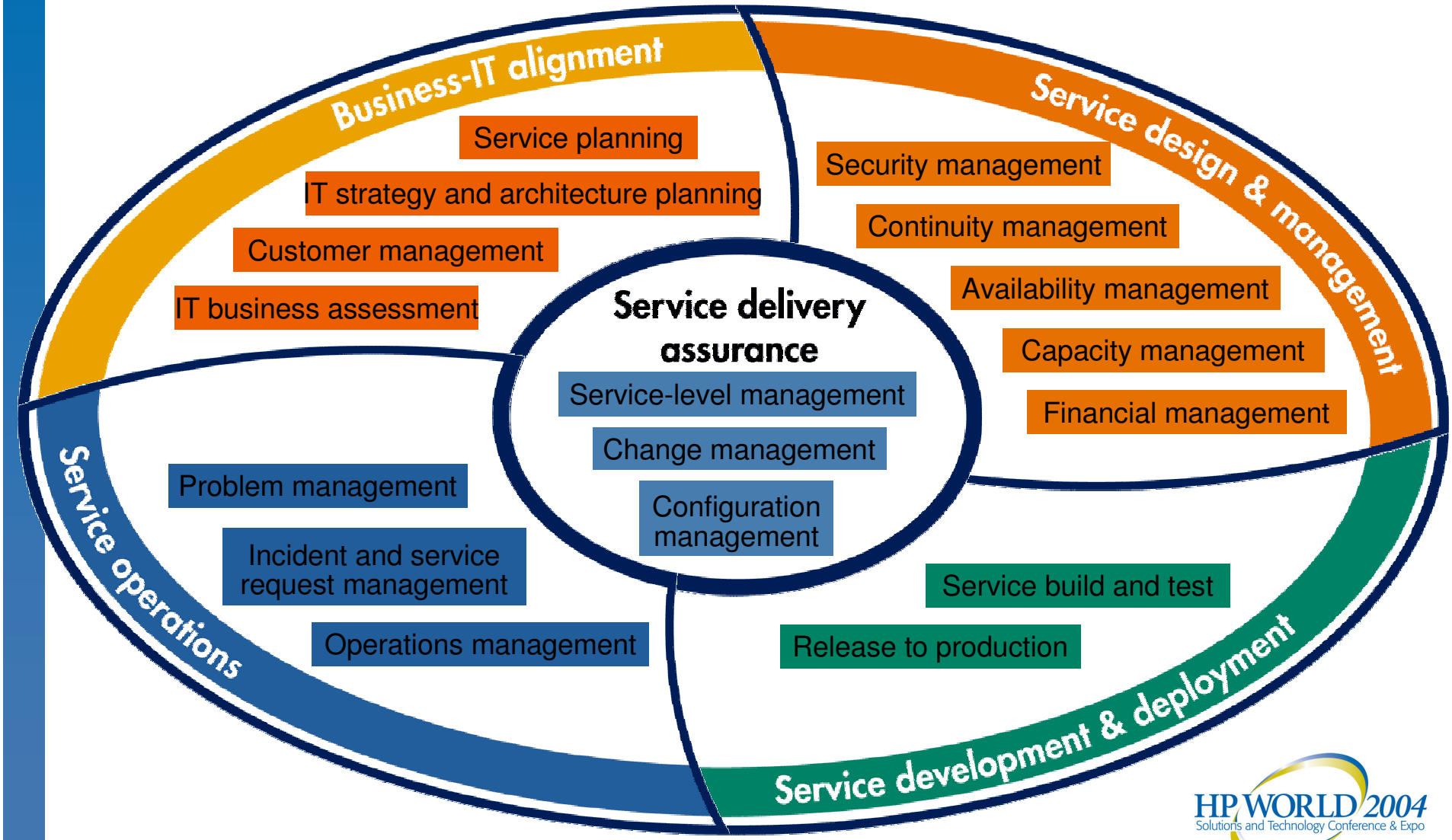
HP IT Service Management Reference Model Goals by process group



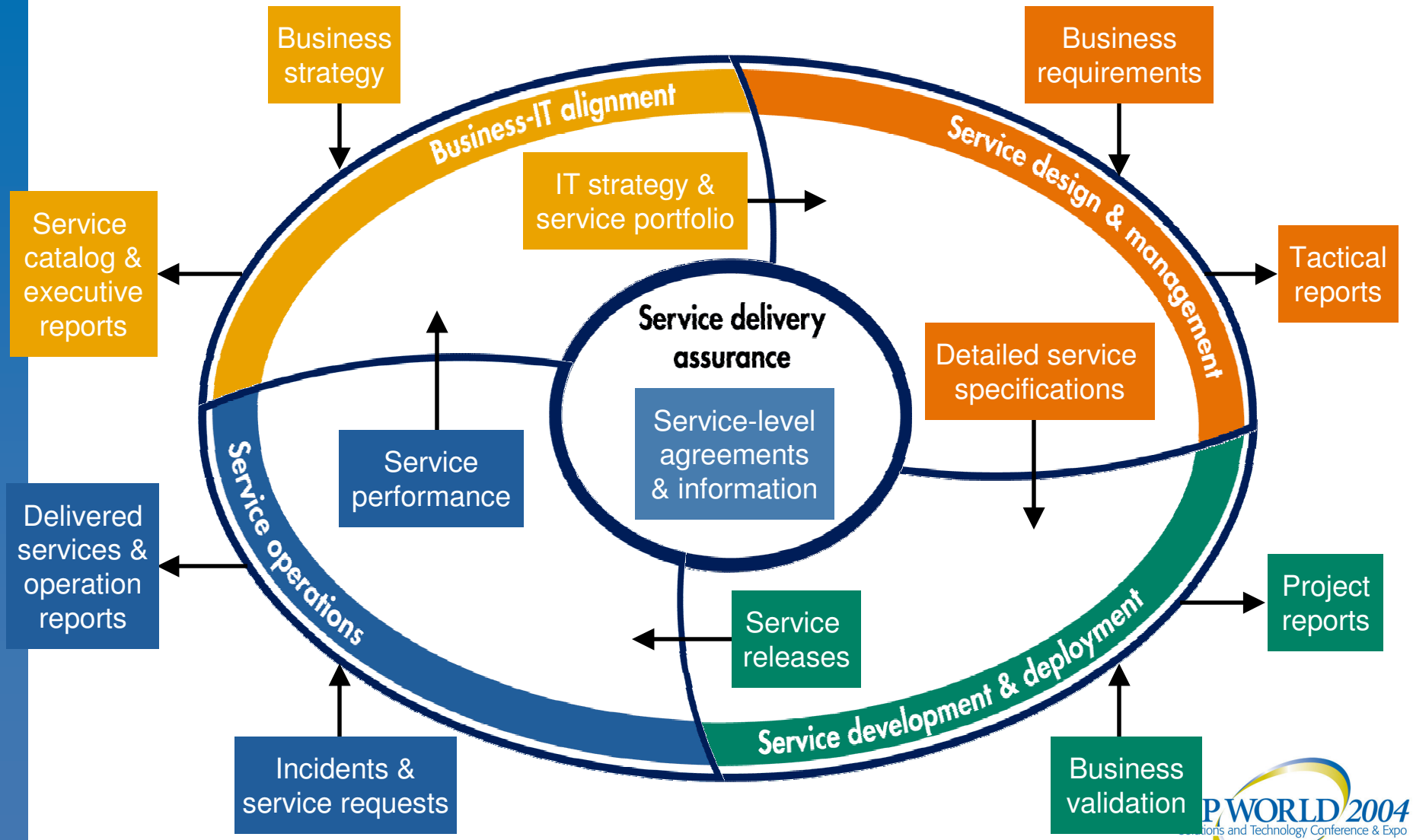
HP IT Service Management Reference Model
Process groups



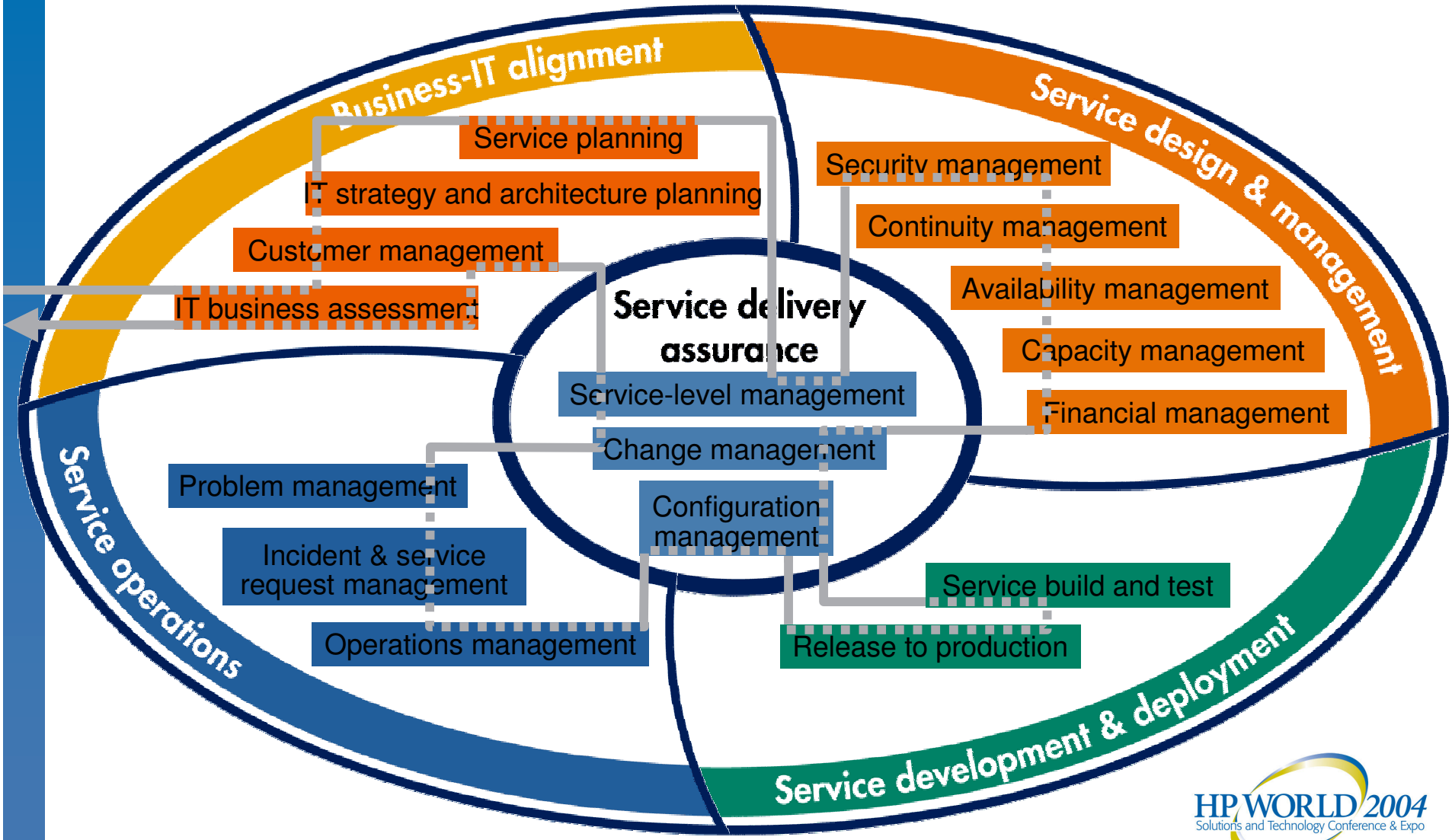
HP IT Service Management Reference Model
Process groups



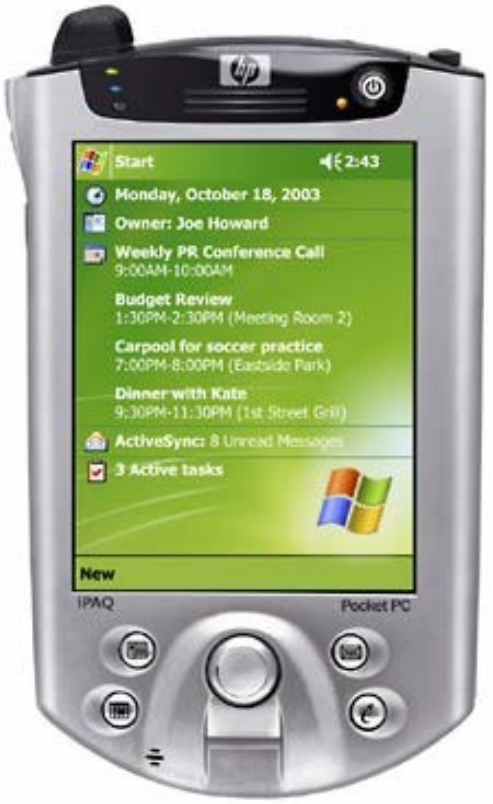
HP IT Service Management Reference Model
High-level information flow



HP IT Service Management Reference Model
High-level activity flow



Paradigm Shift: Changing the way it was always done!



a brief history of patching
the patching pendulum

purely reactive

“if it ain’t broke…”

purely proactive

all the latest & greatest patches

selective patching

change = risk

to change or not to change?

what could go wrong?

- system experiences a failure that is fixed by an existing patch
- apply a patch that causes a different problem
- apply lots of patches and leave the machine in an indeterminate state
- make inappropriate changes to a production system

to change or not to change?

- lost Customers
- lost opportunities
- lost capacity
- idle or unproductive labor
- cost of restoration
- penalties
- litigation
- bad publicity
- loss of life
- loss of stock valuation

what is mission critical software change management (mcscm)?

mcscm is an *improved cross-organizational* approach to how we recommend software change to our *mission critical Customers* based on evaluating customer's operation and *software change management* strategies.

increased systems availability:

- less planned downtime (fewer changes overall)
- minimize unplanned downtime
- greater control over environment
- more precise recommendations

software management:

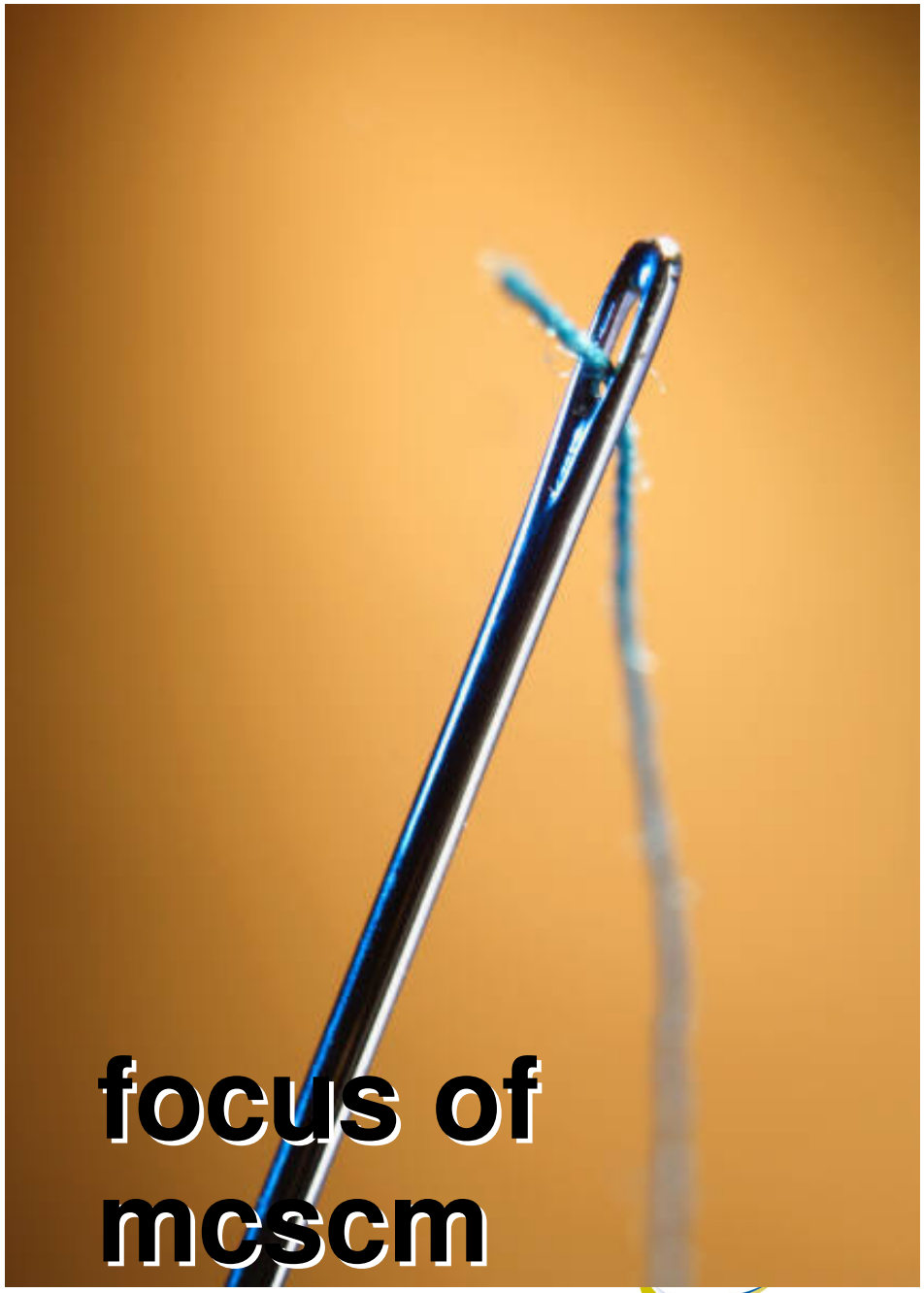
- not just patches
- change management is a cornerstone

better Customer understanding of S/W management:

- eliminate confusion about when to make changes
- practical recommendations on upgrades and patching
- reduce complexity of patch choices

risk management:

- change = risk
- manage change to manage your risk



Customer operations are identified by change strategies

restrictive

ex: telecomm, patient monitoring, .com's

- high uptime requirement
- low requirement for new features
- downtime = loss or risk of life, or business stoppage

conservative

ex: bank branch, inventory management

- high (but not life threatening) uptime requirement. Can switch to manual processing
- only new features that increase uptime or are business critical

innovative

ex: hardware or software development

- most tolerant of downtime
- needs latest features
- downtime is an accepted cost of doing business

Why just three change strategies?

- sufficient for practical recommendations.
- software change management strategy lends itself to broad groupings of operations.

change strategy recommendations

	O/S, Products, Applications	Proactive Patching	Reactive Patching	Software Change Management	Test Environment
Restrictive	Stable release Available for 1+ years	▪ Use only thoroughly-tested patches with the highest level of field experience	▪ Make fewest changes possible to restore function ▪ Perform full diagnostic analysis before attempting a solution	▪ Formal plan with explicit roles & responsibilities ▪ Documented back-out plan for changes, if necessary ▪ Documented DRP that is updated & tested at least yearly	▪ Dedicated equipment ▪ Matches production environment ▪ Testing includes simulated loads
Conservative	Stable release Available for 6+ months	▪ Use only thoroughly-tested patches with substantial field experience	▪ Make fewest changes possible to restore function ▪ Perform full diagnostic analysis before attempting a solution	▪ Formal plan with explicit roles & responsibilities ▪ Documented back-out plan for changes, if necessary	▪ Dedicated equipment that matches production environment
Innovative	Stable release Available for 2+ months	▪ Patches should be carefully reviewed for risks and benefits	▪ Focus on restoration of function ▪ Limit number of concurrent changes	▪ Established roles & responsibilities	Test on development equipment or off-hours on production environment

mission critical software change management (mcscm)

- ✓Customer operation categories based on software change management strategies (goals), driven by Customer business requirements

- ✓improved Customer operation availability by better assessing change
- ✓improved Customer loyalty by delivering solutions in line with Customer's change strategy
- ✓improved Customer knowledge across HP support teams

Customer mcscm benefits

Who is the target audience?

- our Customers

hp field support engineers:
ASE's
RASE's
HSS's

hp response center engineers:
RCE's (HW/SW)
BRS's

other key support partners:
WTEC
Crisis Management
Labs

Stop! - Think! - Act! revolution...

“providing what our mission critical Customers want and need from Hewlett-Packard!”

Stop! **- what does the Customer really need at this moment?**

Think! **- is what I am recommending (proactively or reactively) going to meet the Customer's change strategy goal?**

Act! **- take the most appropriate action that "Stopping and Thinking" have uncovered.**

Stop! - Think! - Act! revolution...

HP WORLD 2004
Solutions and Technology Conference & Expo

- ✓partner with our mission critical Customers and develop the *"rules of change"*
- ✓make the "rules of change" easily *accessible to all* support entities
- ✓*understand* our Customer's change strategy
- ✓offer *solutions that meet* their change strategy
- ✓*empower* the support entities *to discuss* the Customer's and HP's decision to drift away from the change strategy
- ✓ability to make the *Best Decision!!*

mcscm value statement

"we are committed to making changes in support of our mission critical Customers. the *mcscm* process will receive our focus and commitment to bringing our *STOP! THINK! ACT!* mindset forward, to ensure that we make the best decisions possible."

Customer + Hewlett-Packard = Committed Partnership

Factors Driving Change!

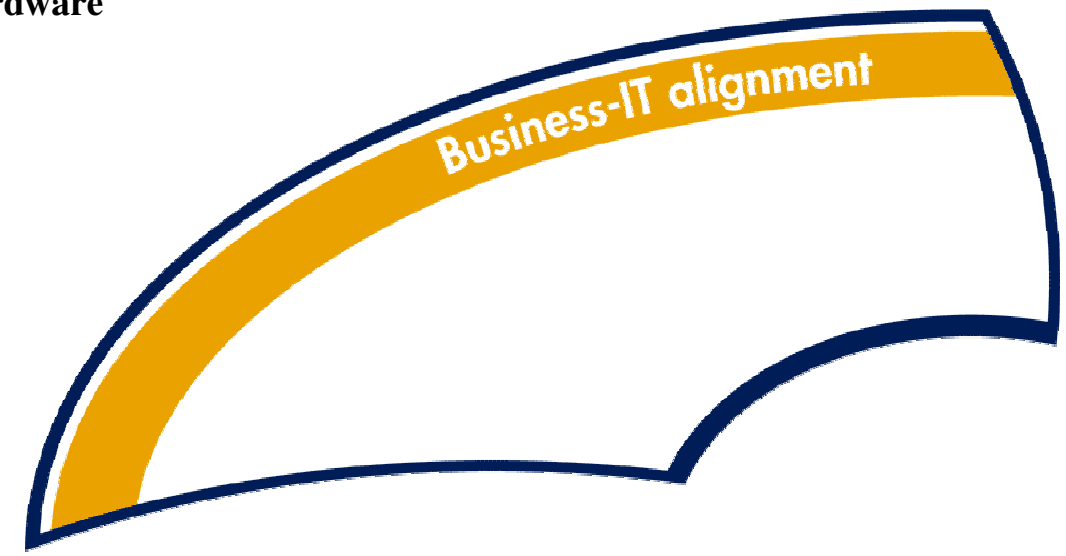
"Half our life is spent trying to find something to do with the time we have rushed through life trying to save."

Will Rogers

(1879-1935), **New York Times, Apr. 29, 1930**

IT evolutionary timeline

Hardware



- Service planning
- IT strategy and architecture planning
- Customer management
- IT business assessment

IT evolutionary timeline

Hardware

- **Service build and test**
- **Release to production**

Hardware/OS evolutionary timeline

Hardware

Patch services

Upgrade assistance

Change Management

Data Center services

HPUX

8.x **9.x** **10.x** **11.0** **11.i**

Support

PSS/PAS

PAS Down

BCS CSS

Mission Critical Support Center

Services/Hardware evolutionary timeline

Hardware

Break/fix

Proactively maintain operating system

Proactively maintain information, software, and hardware

Holistic support

Environmental approach, consultative, project mentality…

Support

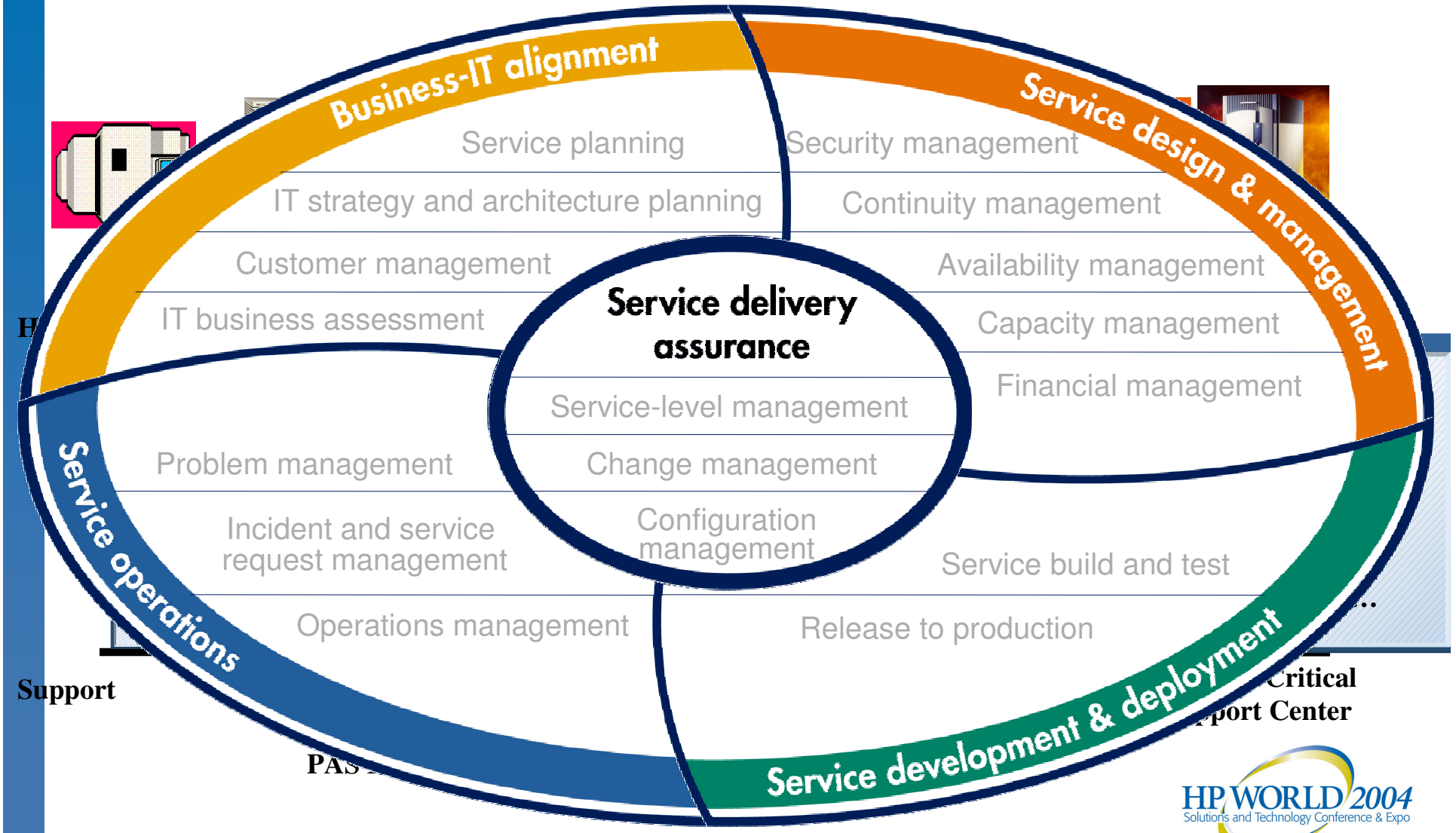
PSS/PAS

PAS Down

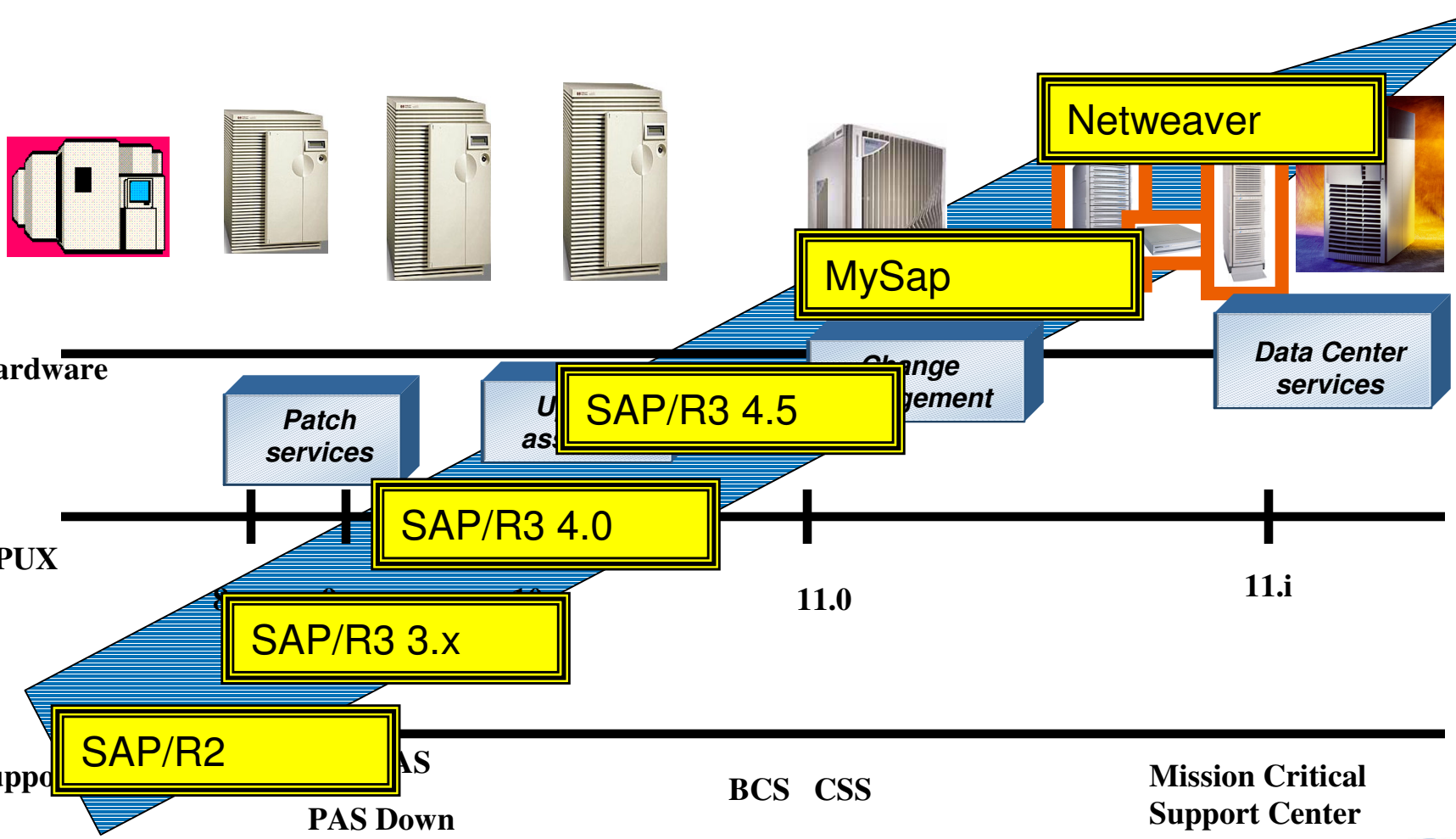
BCS CSS

Mission Critical Support Center

Services/Hardware evolutionary timeline

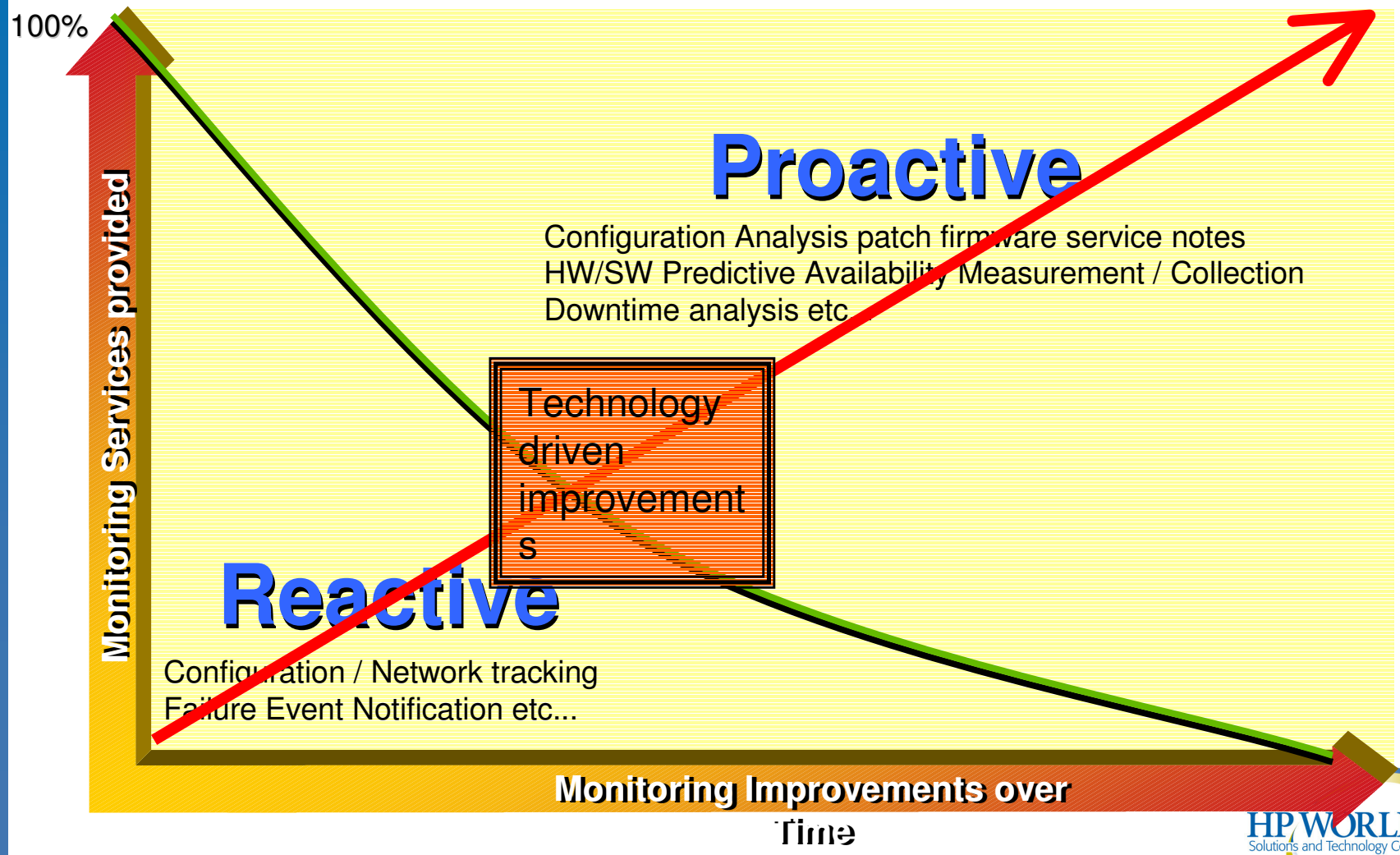


SAP/application evolutionary timeline



Remotely Monitoring IT Environments and Change

Monitoring the Customer's environment

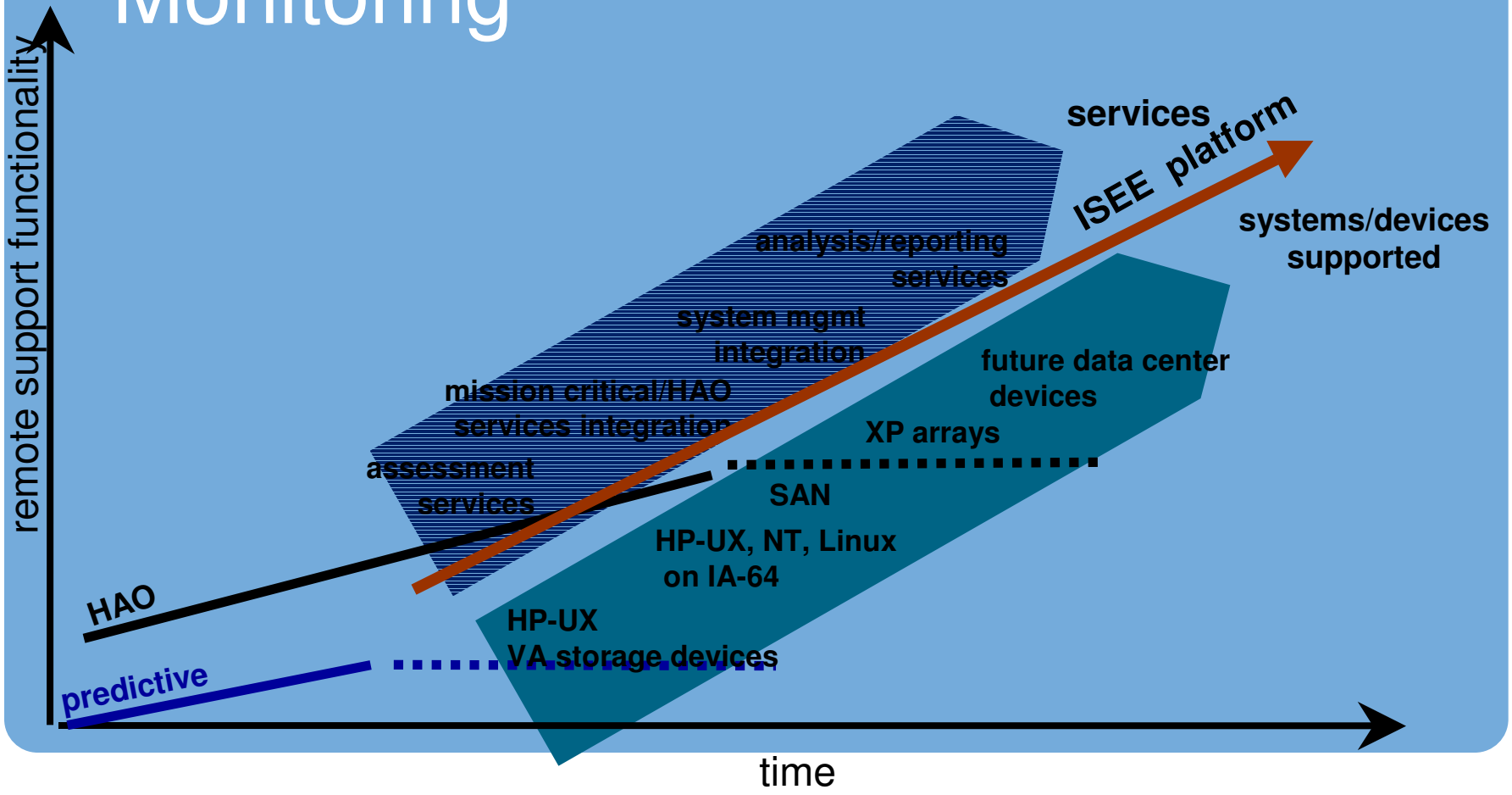


48

The next Generation:

ISEE- Instant Support Enterprise Edition

The Evolution of Monitoring



The Tech of Change

Enabling HPUX technologies for Change

- Software Distributor
- Ignite-UX
- Service Guard

Lessons for Managing Change in the Mission Critical Environment

The Stoplight Problem

- Recognizing Service Creation
- The Value Proposition
- Extending the Solution!

Mission Critical Change Management (minimizing patching risk)

- Risk management
- Implementing Change
- Partnering across the organization

Change and the evolution of IT

- Business-IT alignment
- Service design & Management
- Service Development and Deployment
- Service Operations
- Service Delivery Alignment


hp
invent

HP WORLD 2004

Solutions and Technology Conference & Expo

Co-produced by:

interex

shared knowledge • shared power

encompass

AN HP USER GROUP

RECOMMENDED TRAINING VENUE FOR THE

HP Certified Professional