

| A year of Challenge, Growth and Success

End to End Competent Procurement Solution

A wonder strategy to create competitive procurement advantage to your company



Prepared by: Daniel Chan, PCB Council Chairman
Date: Oct, 2006

Integrated Supply Chain





Content

- ✓ IBM, an on demand business solution company
- ✓ Exhibit of IBM PCB Council
- ✓ Why is an end to end procurement solution needed?
- ✓ Key attributes to create an end to end competent procurement Solution

IBM innovation and computing technologies provide choice

Core Products

- IBM eServer
- Mainframe Servers
- Unix Servers
- Midrange Servers
- Blade Servers
- Intel processor-based Servers
- AMD processor-based Servers
- Clusters
- TotalStorage
- Disk Storage
- Storage Networking
- Tape and Optical Systems
- Storage Software



Core Technologies

- Operating Systems
- Processors

Core on demand Technologies



POWER™ Architecture



Server & Storage Virtualization

Systems Consolidation

Capacity on Demand



Partitioning



Grid Computing



Autonomic Computing



Linux open standards

IBM @server Product Family



xSeries

- Affordable, Linux and NT-ready servers with mainframe-inspired reliability
- Blade and rack mount solutions



iSeries

- Most flexible, high performance integrated business servers
- Capacity upgrade on demand



pSeries

- Most powerful, technologically advanced UNIX servers
- Classic RAS (reliability, availability, serviceability / scalability)



zSeries

- Enterprise servers for e-business
- 99.999 % availability (<5 min/year)
- over 30 % MIPS growth annually



Storage

- "Shark" provides over 3.6 TBytes storage
- Local storage subsystem partitioning
- Metro/Global Mirroring options

Linux support across all platforms
Interlocked with Storage and Service Offerings



BusinessWeek online

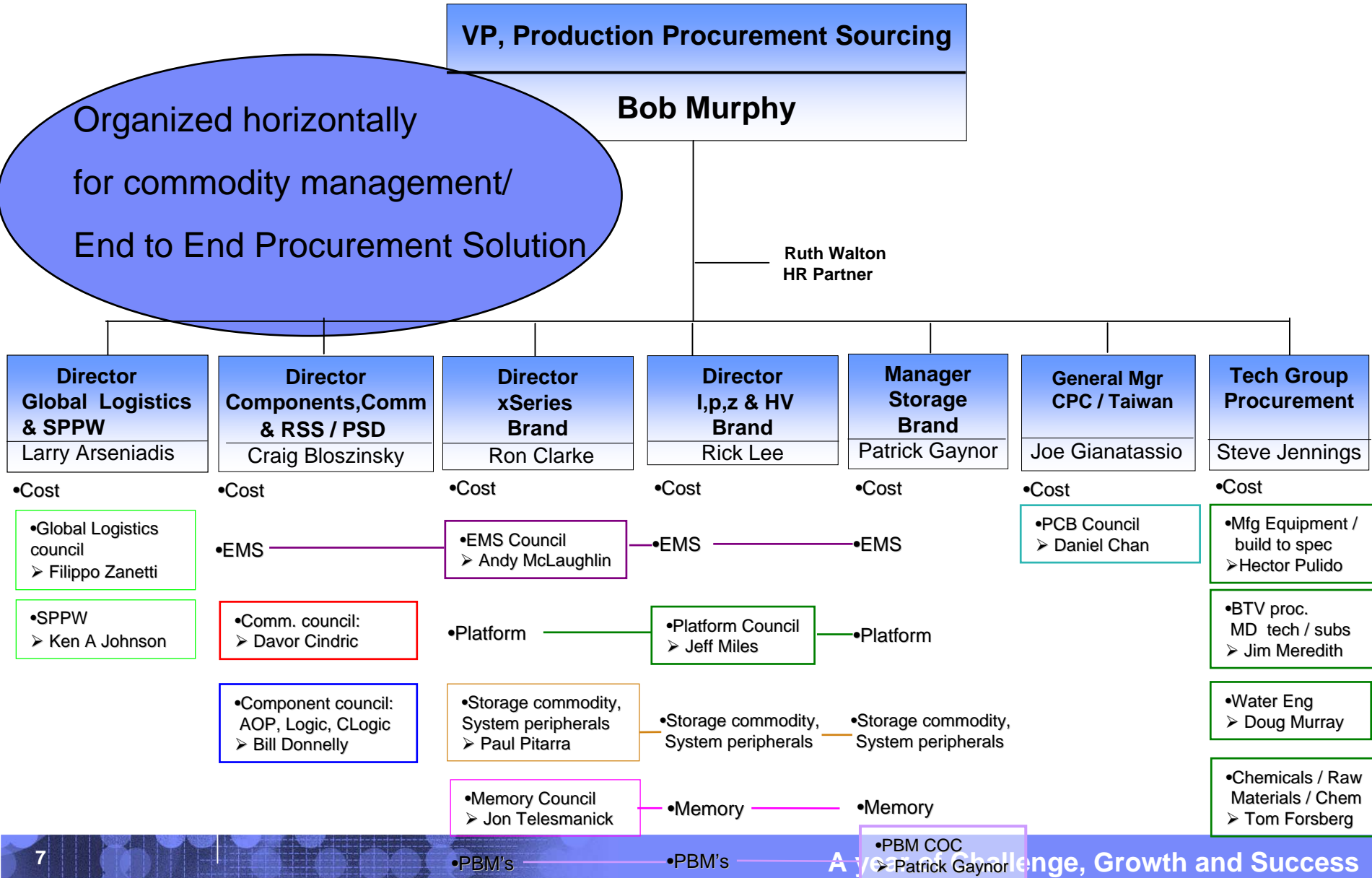
...two years ago **Palmisano** was talking business with A.G. Lafley, CEO of Procter & Gamble Co. (PG),...Lafley asked Palmisano to estimate how many of P&G's 100,000 employees it truly needed....Lafley stunned him by saying that P&G might be able to get by with only a quarter of its workforce. Specialized service companies might be able to handle everything else, from human resources to customer care. tech services...For IBM's new CEO, Lafley's idea delivered a strong jolt of the future. **"We saw it as an industry shift," he recalls.**

Over the past two years, **Palmisano has built these concepts into a strategy** that would be laughable -- if it weren't so serious. His goal is to free IBM from the confines of the \$1.2 trillion computer industry, which is growing at just 6% a year. Instead of merely selling and servicing technology, IBM is putting to use the immense resources it has in-house, from its software programmers to its 3,300 research scientists, **to help companies** like P&G **rethink, remake, and even run their businesses** -- everything from accounting and customer service to human resources and procurement. "We're giving our clients a transformational lift," says Palmisano.

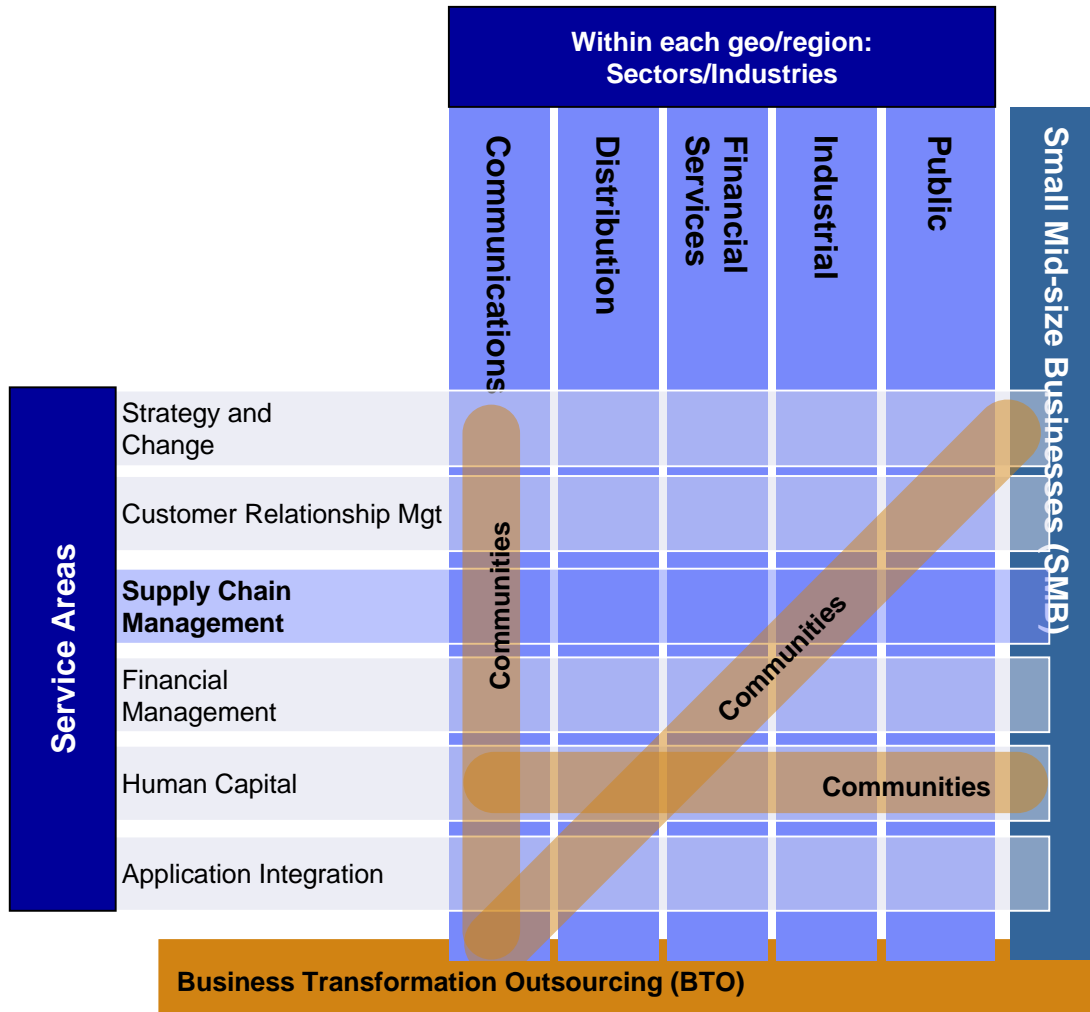
...getting there will be a slog...no sure bet...

**Source Business Week
April 18, 2005**

Council Responsibility by Direct Report



SCM is the largest of six service areas in the BCS matrix



Community Examples

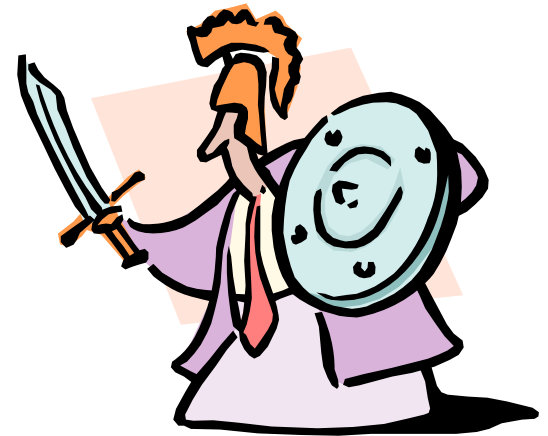
- SAP
- Siebel
- Oracle
- Dassault

- Business Intelligence
- Web Services
- Wireless/RFID
- On Demand Workplace
- Safety and Security
- Digital Media

Will use my managed PCB council as an example to share what I mean End to End Competent Procurement Solution

We differentiate with our competitors

- **Through ISC strategy**
 - Leader of end to end cost/flexibility of supply/best serviceability
- **Through Technology innovation**
 - Leader of technology, reliability and quality



Final goal is to become on demand premier PCB solution provider in global PCB Supply market

Mission Statement of IBM PCB Council

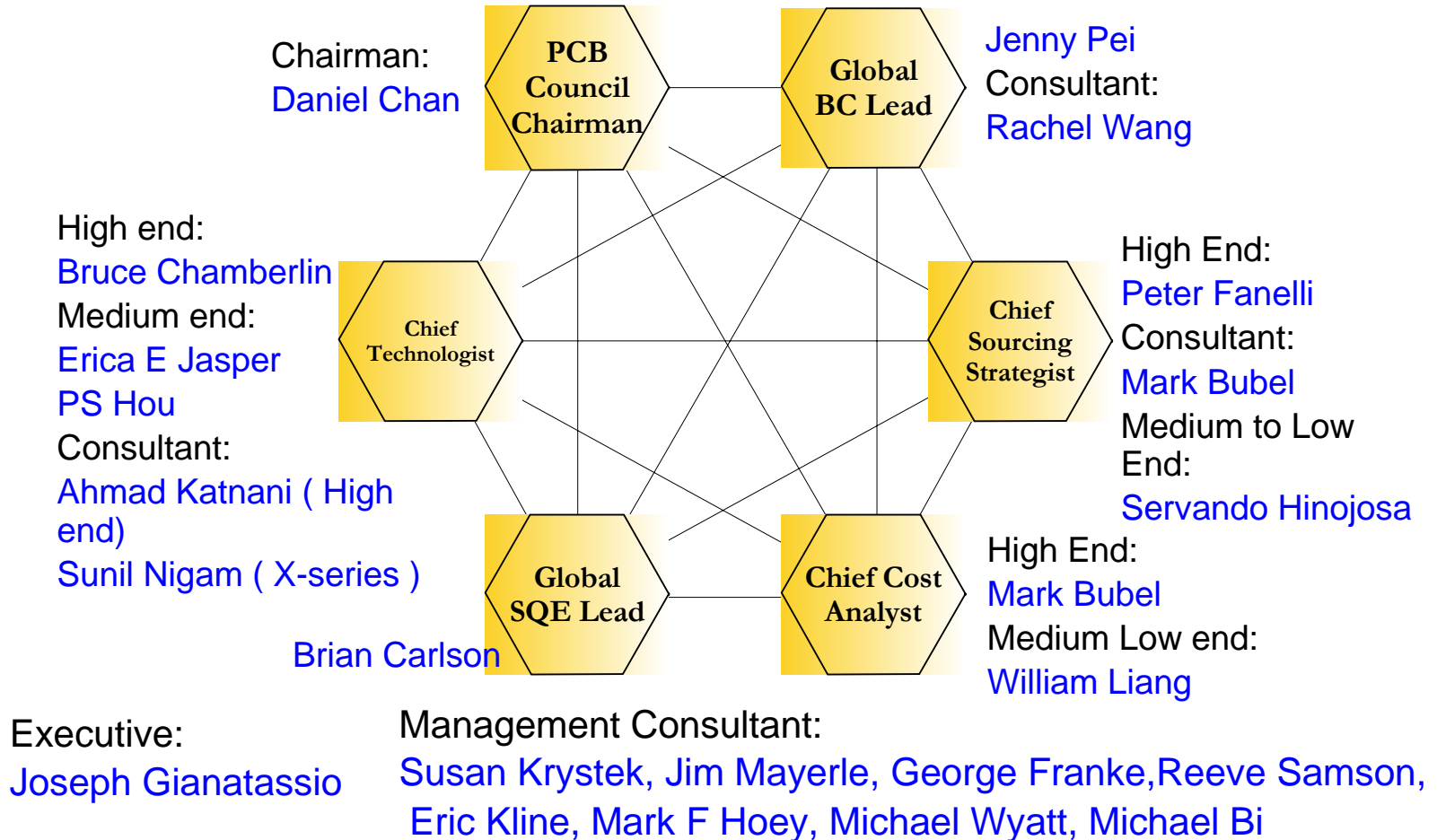
An intelligence based PCB solution provider to develop competitive procurement advantage to both internal and external client, their today and future challenge, with a goal to cultivate mutual success between IBM, the client & supplier, and target to achieve the below imperatives:

- a. Innovative PCB solution
- b. The minimum end to end cost
- c. Exceed client quality and reliability requirements
- d. Optimize flexibility of supply with min cost of liability
- e. Best global serviceability to our clients



IBM PCB Council Core Committee

Integrated Supply Chain-PP



PCB Council Global Process Owner, globally integrated

1. Environmental related stuff (PS hou)
2. PCMS/DCF (BC: James Su, Operation:William Walker)
3. SQMS for panel council/On line info of suppliers (Related PME)
4. Finance Risk assessment (William Liang)
5. Supply flexibility data base (William Liang)
6. SPQL : Low End (FE CM Suppliers): (Gause Hu)
High end (US & European CM) : (Brian : Overall, global Lead)
7. Bob PMD: (Jenny Pei)
8. RoHS PCB: (GCM: Mark Bubel, PME:Wayne Rothschild, PS Hou)
9. Global fact sheet data base (Related PME)
10. PCB Team room administrator (William Walker)
11. Corporate Development Council (Wayne Rothschild)
12. Enterprise relationship (Rachel Wang)
13. Report Card (Helen Mao)
14. Warranty Recovery (Helen Mao)
15. Market price matrix of medium to low end (William Liang)
16. VPA (Servando and Rachel)
17. Emerging PCB source project (Jenny Pei)
18. FE QTAT/Quick turn service project (James, Sunil & Rick)
19. Emptoris RFQ Web system (Rachel Wang)

End to end competent procurement solution, indispensable in today highly competitive commercial world....

- **Win bottom-line, market share & revenue with an excellent customer satisfaction**
 - Either complete or partial outsourcing solution
- **Enhance efficiency of the company operation**
 - Improve quality performance especially in manufacturing & operation sense
 - No line down/no system down time/no product re-call/etc.
 - Improve efficiency of operation such inventory turn, etc.
 - Normal Mfg inventory for PC: 120+ with VMI like IBM TP before
 - Strong support of technology or emerging solution development
 - Virtual R&D center, New Idea generation, etc.
- **Benchmarking competitive force from global market**
 - Drive overall company competitiveness Vs global market competitive force, assure Marginal benefit = Marginal Cost.

Key attributes to create successful end to end competent procurement solution

- Strong senior management support and help to push
 - CPO roles and influence in Senior management team
 - A strong hold of procurement authority
 - No by pass or at least minimize by pass
 - Procurement professional team, the final commercial case decision maker
 - Excellent career path of procurement professional
 - Not an administration, but a professional business career
 - Strong IT infra-structure
 - Integrated Supply Chain (ISC)
 - > IT driven demand and supply fulfillment process, like Dell
 - > Fulfillment Center concept

Key attributes creating successful end to end competent procurement solution

- Globally organized with best global procurement talent
 - Must be borderless, no geographic biases
 - Organic organization: matrix or networking organization
 - Strong commodity/service/etc professional knowledge and skill
 - End to end solution driven organization
 - Commodity driven organization Vs operation driven organization
- Global strategic sourcing approach: plan and execution
 - Volume and Supplier consolidation
 - Develop strategic supplier relationship
 - Market intelligence based sourcing strategy
 - Global supply market intelligence
 - Competitor move, how to buy better than competitors
 - Supplier move, how to capture the best opportunity
 - Political influence, tax, etc.

Key attributes creating successful end to end competent procurement solution

– Supplier development

- An investment approach especially in technology sense
- Strong technical team support
- Higher development hurdle, higher return

– Good commercial process

- Open and honest, market driven quoting process
 - first class sourcing decision process
 - Strong leadership in sourcing process
- End to end cost evaluation process of quote
 - Report card appraisal process
 - Business award according to performance overall
 - > cost, quality, technology and serviceability
- Reverse engineering/cost analytical model
- A proper business control process to assure the best practice
 - Monitoring of key measurements, but don't be too many

Key attributes creating successful end to end competent procurement solution

- External procurement solution provider if possible
 - Drive the best procurement solution to compete in free market
 - Marginal Cost = Marginal benefit
 - An excellent business opportunity for procurement professional
 - Enhance volume leverage power
 - Recognition of success by Senior management easier
- Supplier quality control
 - A MUST WIN area
 - Clear specification of requirement
 - Preventive, rather than fire fighting
 - Feed forward, a better approach than feedback mechanism
 - A key factor of business award to drive supplier quality