



**IM™ 2009**

June 1-5, 2009

Hofstra University

Long Island, NY, USA



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# Distinguished Experts Panel: Making Management Matters Matter

Distinguished Experts:

- **Larry Bernstein**
- **Alan Ganek**
- **Joseph Hellerstein**
- **George Pavlou**
- **John Strassner**

Moderator:

**Alexander Clemm**

June 4, 2009

# The state of the (management) art

- This year's IM theme: “Making management **scaleable, robust, cost-effective, revenue-generating**”
- Implies significant management limitations today
  - Technical: scale, number of devices, heterogeneity, etc
  - Business: too expensive, does not pay for itself
- Very popular beginning for NM research papers (“The heterogeneity and number of devices and services are exploding, hence mgmt is increasingly overwhelmed...”)

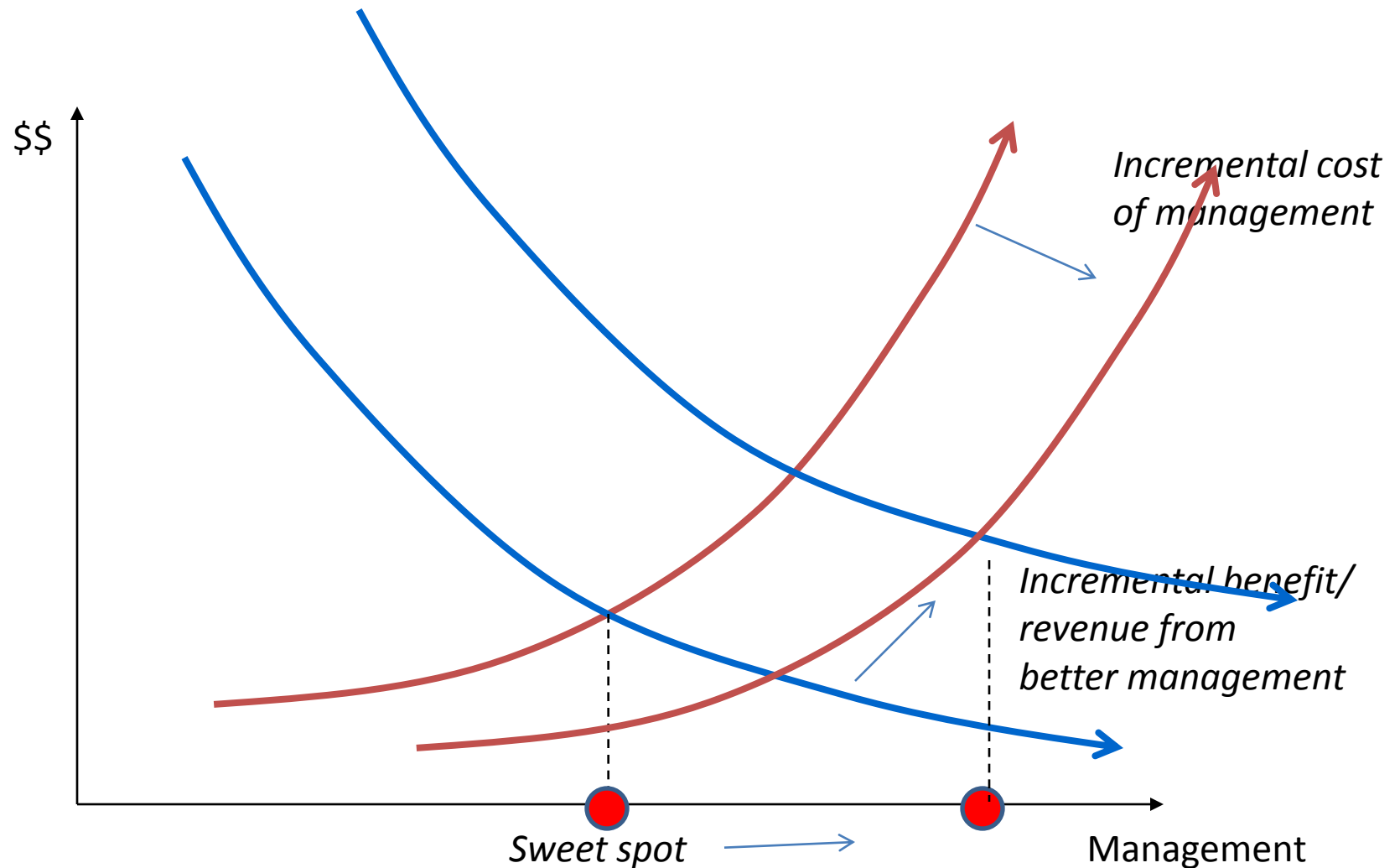
**But is it true?**

# Conventional wisdom why management matters

- Save cost (*“Scaleable, cost-effective”*)
  - Make services economically feasible
  - This is the easiest mgmt benefit to measure
- Increase value of managed services
  - Increase availability (*“robust”*)
  - Increase service levels
- Increase revenue (*“revenue-generating”*)
  - Faster service rollout
  - Management as a service  
(e.g. triple play, managed services)
  - Ability to provide service level guarantees commands higher price

Conventional wisdom says also that we need to get better at these

# Management cost/benefit analysis



# Current state of managed technology, ca. 2009

- Billions of cell phone users
- 1.5 billion users on the Internet
- Million (or getting close to) employees
- Data and video storage
- Large-scale video streaming (Netflix, Youtube, Hulu)
- Connected home appliances
- Cloud computing
- Software as a service (Google)
- Mobile workforces
- Video surveillance
- Web 2.0, Twitter, Facebook, location-aware services, ...
- ...

**All these happened with current  
management technology,  
despite its limitations**

**Very cheap (& getting cheaper)**

**Massive scale**

# So, what's the fuss all about?

- Is management already good enough?
  - Then let's pat ourselves on our backs
- Is management clearly insufficient?
  - What other services would become possible or economically feasible with progress in management?
  - And, where are the specific bottlenecks?
- Or does progress in management even matter, really?
  - In what ways?
  - What is the correlation between progress in management and managed technology?

# Related questions

- What are the problems and what will it take to solve them?
  - Most pressing issues?
  - Bottlenecks for further progress?
  - How can they be overcome?
- Do we really need to solve them and what happens if we don't?
  - Which services/technologies most affected?
  - Who stands to gain the most?
  - What progress in managed technologies would we see, or is it “just” about money?



# Management technology and managed technology





# Management technology and managed technology



# Our Distinguished Experts

## *“Management Provider” side*

- **John Strassner**

- Director, Autonomic Research, Waterford Inst of Technology & Visiting Prof at POSTECH, Korea
- Former VP of Autonomic Research at Motorola, Fellow at Motorola and Cisco
- Recipient of IEEE/IFIP Dan Stokesberry Award in 2005

- **Alan Ganek**

- CTO and VP of Strategy and Technology, Software Group, IBM
- Previously CTO of Tivoli

## *“Management User” side*

- **Joe Hellerstein**

- Member of Technical Staff at Google, formerly Microsoft and IBM
- Recipient of IEEE/IFIP Dan Stokesberry Award in 2007

- **Larry Bernstein**

- Professor of Software Engineering at Stevens Institute of Technology in Hoboken, NJ
- 35 year career at Bell Labs & AT&T, former CTO and Executive Director of Operations Systems BU

## *“Academic” side*

- **George Pavlou**

- Professor of Communication Networks at University College London
- Distinguished career in networking & network/service mgmt research at Surrey and UCL