

# Risk Management Strategies for I.T. Success

#### John Stenbeck

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## **Brief Introduction:**



### John Stenbeck, President, Pareto Principals, Inc.

Pareto Principals is a San Diego-based company that helps project-based organizations and project managers become super effective. Pareto's staff act as project leaders for current challenges, as well as high-caliber trainers developing client resources for future opportunities.



### John Stenbeck, Consultant, Trainer, & Author

A partial list of John's clients includes:

- \* Visa Smart Cards \* Oracle Corp.
- \* Guinness Bass UDV \* Simplex Solutions,
- \* Lucent Technologies \* U.S.D.A. National Finance Center
- \* Eldon a division of Newell Rubbermaid
- \* U.S. Army Space and Terrestrial Communications Directorate
- \* Booz Allen Hamilton Defense Information Technologies Group
- \* Interex The Int'l Assoc of Hewlett-Packard Computing Professionals
- \* OAUG the independent Oracle Applications User Group.

John has also recently completed a manuscript for a book on Project Management.



# Risk Management Strategies for I.T. Success



What Risk Management <u>Can Do</u>:

- Produce Better-informed Decisions
- Reduce Crises & Surprises
- Identify Cost-containment
   Opportunities

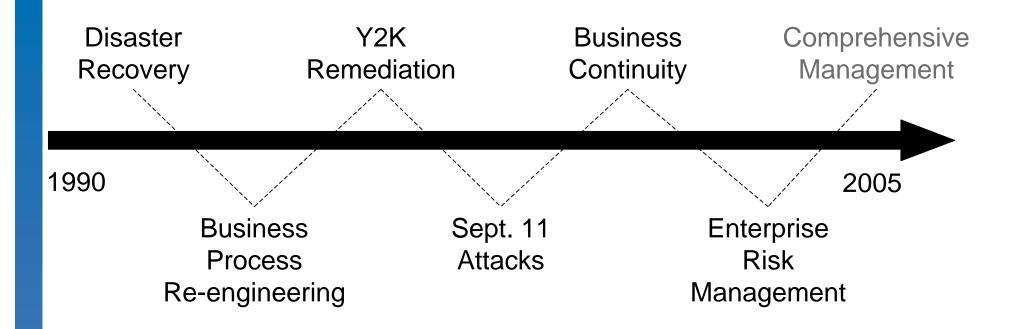
### What Risk Management <u>Can't Do</u>:

- Prophesy the Future
- Grant Guarantees
- Eradicate Threats



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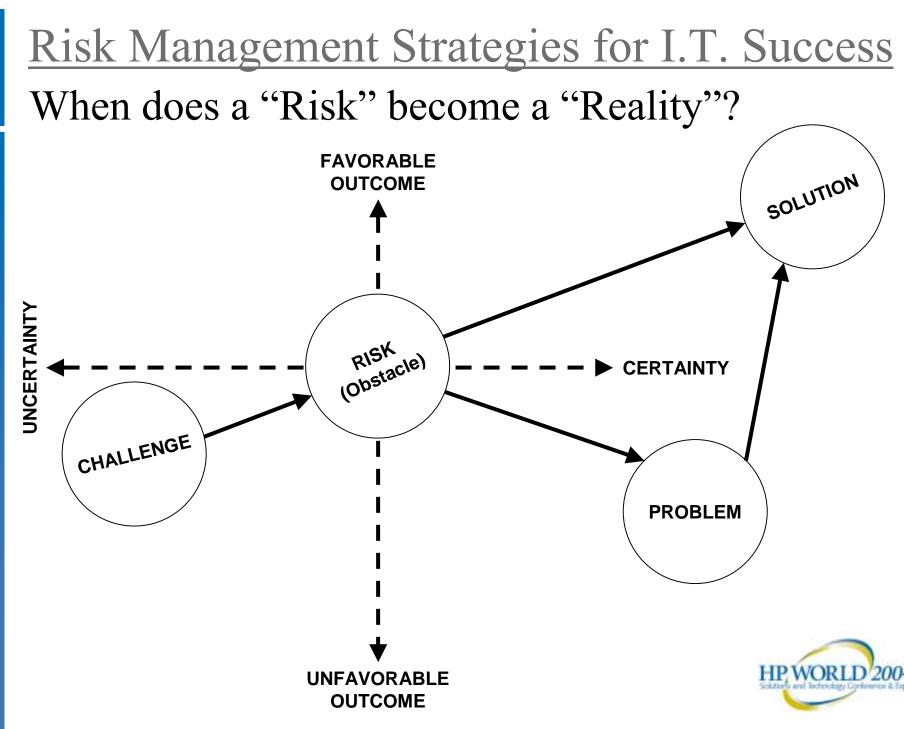
## What is Risk Management?



What is <u>driving</u> the evolution?

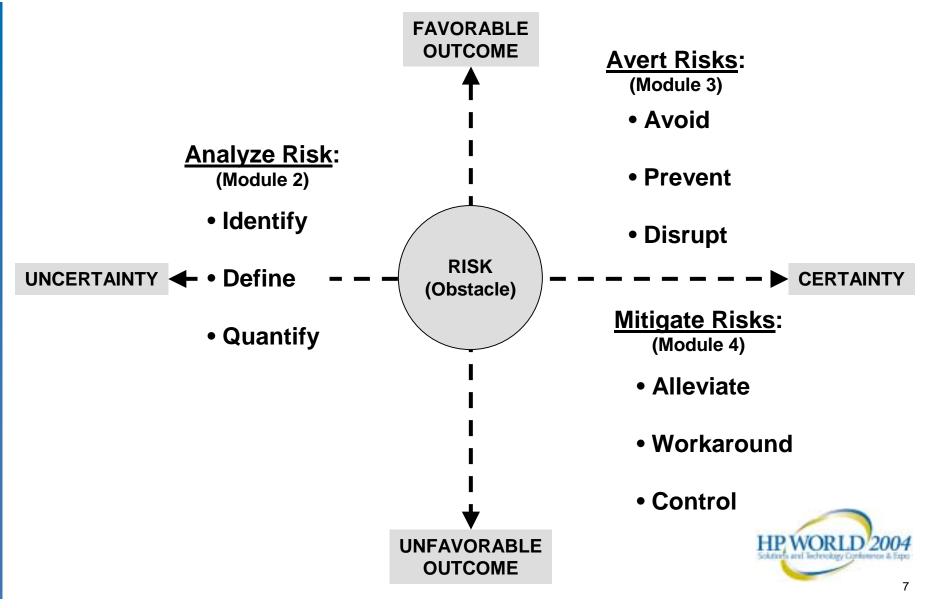






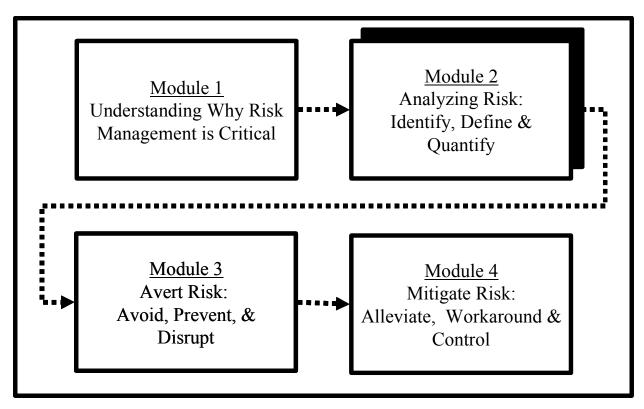
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Risk Management means "When" and "How"



### Course Outline:

## Risk Management Strategies for I.T. Success



For the balance of this <u>Introduction</u> we will focus on Module 2.

Any Questions?



Module 2: Analyze Risk – Identify, Define & Quantify **<u>Risk Analysis</u>** Process:

 The objective of the Risk Analysis Process is to prepare Options to be implemented should certain situations or threats – the Risk Profile – materialize.

• The Risk Profile facilitates the creation of a Risk Management Budget that includes criteria for releasing reserved funds, as unneeded, when events have passed.

 The Risk Profile, Options, and Risk Management Budget are recorded in the Risk Management Plan.



Module 2: Analyze Risk – Identify, Define & Quantify

**Risk Analysis Process:** 

 The Team must insure that responses are credible, cost-effective, and can be implemented timely.

 The Team must maintain an independent and objective perspective. Therefore it benefits from a cross-functional membership.

Sometimes a Consultant is mandatory.



Step 1 – Identify

- Types of Risk
- Sources of Risk
- Specific Risks

Step 2 – Define

- Environmental Actors
- Impact Zone Direct and Collateral
- Stakeholder Success Metrics

Step 3 – Quantify

- Occurrence Probability
- Expected Severity
- Stakeholder Priority



Step 1 – Identify <u>Types</u> of Risk

- Acts-of-God
- Regulatory
- Competitor-induced
- Customer-induced
- Organizational (i.e., Politics)
- Resource (i.e., Cashflow, Attrition, Prioritization)
- Technical (i.e., Ability & Availability; Legal & Physical)
- Timing
- Unknown

Knowing the types of risks helps identify the sources of risk.



### Step 1 – Identify Sources of Risk

- <u>Acts-of-God</u>: Implementing in Oklahoma during tornado season.
- <u>Regulatory</u>: AB1637 is pending on the floor of the House.
- <u>Competitor-Induced</u>: Microsoft just acquired our major competitor.
- <u>Customer-induced</u>: Suppliers need DCMAO certification.
- Organizational: The CFO opposes the project.
- <u>Resource</u>: Design Engineer must be IEEE with security clearance.
- Technical: Requires material that conducts heat in a vacuum.
- <u>Timing</u>: Network upgrade must be complete by Monday 3AM.
- Known Unknown: Competitor's product release plan is unclear.
- Unknown Unknown: It has never been done before.



Step 1 – Identify <u>Sources</u> of Risk

RESOURCES for identifying Unknown Unknown risks:

- Trade Groups and Research Institutes
- Standards Agencies and Universities
- Benchmarking Groups (i.e., IEEE, ASME)
- Analyst Groups (i.e., Gartner, Meta, IDC)
- Symbiotic Non-competitors (i.e., Biotechnology and Electronics)
- Coop-etition (i.e., SNIA)



### Step 1 – Identify <u>Specific</u> Risks

- Customer-induced: Suppliers need DCMAO certification. Current supplier not certified. Willing = Yes. Able = ? Cost recovery for certification unresolved.
- Resource: Design Engineer must be IEEE with security clearance. Zvi Wojciechowski is only qualified associate. Zvi is working on Mars Rover. Schedule availability unclear.
- Technical: Requires material that conducts heat in a vacuum.
  - No currently available graphite meets requirement. Basic research and product development needed. Probability of success and R&D time/cost unclear
- <u>Unknown</u>: It has never been done before. Competitor's product development status unclear.



#### Step 2 – Define Environmental Actors, Impact Zone & Stakeholder Success Metrics

#### **Environmental Actors:**

- What are the situational constraints?
- Who has choices to make?
- What conditions will "trigger" or "activate" the risk?

### Impact Zone:

Direct: Missed Product Launch? Cost Overrun? Schedule Slip?

Collateral: Lost Future Sales? **Regulatory Sanctions? Brand Depreciation?** 



<u>Module 2:</u> Analyze Risk – Identify, Define & Quantify <u>Risk Analysis Process: Creating the Risk Profile</u> Step 2 – Define Environmental Actors, Impact Zone & Stakeholder Success Metrics

#### Stakeholder Success Metrics:

	OBJECTIVES	
STAKEHOLDER	Recovery Point (RPO)	Recovery Time (RPO)
<ul> <li>Regulators</li> </ul>	<ul> <li>Stabilize reactor core.</li> </ul>	• < 15 minutes
<ul> <li>Customers</li> </ul>	<ul> <li>Notified proprietary data compromised.</li> </ul>	• 24 – 48 hours
<ul><li>CFO</li><li>V.P Engineering</li></ul>	<ul><li>No lost data.</li><li>One day's data loss.</li></ul>	<ul><li>Three days</li><li>Overnight</li></ul>



Why invest the time and effort to do a thorough Step 2? (i.e., Define Actors, Impact Zones & Stakeholder Success Metrics)

So we can do an <u>accurate</u> Step 3!!

Step 3 – Quantify

- Occurrence Probability
- Expected Severity
- Stakeholder Priority



Quantify: Occurrence Probability

The value of the probability is between 0 and 1

#### **Statistical "Smoozing"**

To estimate the Occurrence Probability and impress (silence) management use the formula:

$$E_e = (O_e + 4ML_e + P_e) \div 6$$

#### Where:

- $E_{e}$  = Event Probability Estimate.
- = Optimistic Estimate. O<sub>e</sub>
- $ML_e = Most Likely Estimate.$
- = Pessimistic Estimate. P



Quantify: Expected Severity

Estimate the expected negative financial impact.

Quantify: Stakeholder Priority

- Multiply the Probability times the Expected Severity to establish Expected Financial Value.
- Identify and describe non-financial impacts.
- Rank-order the risks



# "Thinking is the hardest work there is... that's why so few people do it."

#### **Henry Ford**

Founder, Ford Motor Company





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