Pay Me Now Or Pay Me a Lot More Later
How To Get the Budget You Need To Prevent Catastrophes, Not Clean Them Up
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Today’s Presentation

Moderator:
Josh Amos, IFMA Components Liaison

Presentation Title:
Pay Me Now Or Pay Me a Lot More Later
How To Get the Budget You Need To Prevent Catastrophes, Not Clean Them Up

Presenter: Jeremy Swanner, RLE Technologies
Pay Me Now Or Pay Me a Lot More Later:
How To Get the Budget You Need To Prevent Catastrophes, Not Clean Them Up

Jeremy Swanner
Executive Vice President
RLE Technologies
Presenter Bio

Critical facilities monitoring utilizes ever-evolving technology, and the field requires management that can adapt to an increased demand for resources and security. Like you, data center and critical facility expert Jeremy Swanner has adapted to - and predicted - the changes. With more than 25 years of in-the-trenches experience in the critical facilities space, Jeremy has intimate knowledge from a variety of perspectives, with a focus on how to better protect sensitive facilities from threats.

RLE Technologies is a leading global provider of critical facility environment oversight and notification. For more than 30 years, RLE has delivered reliable, cost-effective facility monitoring and leak detection technologies with the sole purpose of preventing disasters, providing peace of mind, and preserving its customer’s reputations. Thousands of businesses worldwide rely on RLE products to detect environmental threats, notify stakeholders, and mitigate risks to their critical sensitive facilities. RLE products are manufactured in the United States. www.RLETech.com
Learning Objectives

1. Recognize why making a case for comprehensive facility monitoring to the people holding the purse strings is so important.

2. Discuss the multiple ways that facility downtime impacts the performance of your business.

3. Understand how facility downtime impacts your reputation and job security.

4. Learn how to quantify and justify the needed budget and staffing to fully protect your facility.
To Reach Our Learning Objectives...

We will explore:

- Basic causes and costs of downtime in your facility
- Resulting costs from intangible concerns you may not have considered
- A three step, proven process for getting the environmental monitoring budget you need
- Review resources you can use to make your case
Why is Facilities Monitoring Important?

First, A Few Obvious Answers

Monitoring helps avoid:

- Damage to mission critical data and assets
- Interrupted organizational productivity
- The need to replacement or repair of equipment and other assets
- Clean up
Typical Causes of Downtime

Leading Causes of Business Downtime*

*Source: Contingency Planning Research, a division of Eagle Rock Alliance
Another Source for Causes of Downtime

Primary causes of datacenter downtime:
Source: David Chernicoff for ZDNet

- UPS battery failure (55 percent)
- Accidental / human error (48 percent)
- UPS capacity exceeded (46 percent)
- Cyber attack (34 percent)
- IT equipment failure (33 percent)
- Water incursion (32 percent)
- Weather related (30 percent)
- Heat related/CRAC failure (29 percent)
- UPS equipment failure (27 percent)
- PDU/circuit breaker failure (26 percent)

The actual cost of datacenter downtime

Summary: The cost of failure is high, and identifying the potential problems is the first step towards preventing them.


The most notable aspect of the report is that in three years between studies (the first was done in 2010), datacenters, on the whole, have become more reliable, with both the number of incidents and their duration going down. But with the nature of the cloud-based business model, both public and private, the reliability of your datacenter servers and the supporting infrastructure will become exponentially more important to the business bottom line.
“Little” Problems Can Cost You BIG

Example: 2013 Cost of Data Center Outages

- Average cost of outage: $7,900 per minute, up by 41% from 2010
- Average reported incident length: 86 minutes, equating to an average cost per incident of nearly $680,000
- Total data center outage statistics:
  - Average recovery time of 119 minutes
  - Cost of about $900,000

*Source: Ponemon Institute report “2013 Cost of Data Center Outages”*
And It Gets Worse

- Certain industries are even higher
  - Hospitality sector (129% increase)
  - Public sector (116%)
  - Transportation (108%)
  - Media organizations (104%)
  - Financial (no data but... OH BOY)
- Impact on reputation/loyalty and the loss of data

*Source: Ponemon Institute report “2013 Cost of Data Center Outages”*
2013 Downtime Costs by Industry

- Brokerage Operations: $6,480,000
- Energy: $2,817,846.00
- Media: $90,000.00
- Telecommunications: $2,066,245.00
- Manufacturing: $1,610,654.00
- Retail: $1,100,000.00
- Health Care: $90,000.00

*Source: IT Performance Engineering and Measurement Strategies*
2013 Downtime Costs by Industry

- Communications: $976,344
- Consumer products: $844,787
- Defense: $812,269
- eCommerce: $806,450
- Financial services: $773,286
- Industrial: $704,448
- Healthcare: $689,912
- Retail: $672,517
- Transportation: $672,474
- Technology & software: $666,394
- Co-location: $622,443
- Services: $618,078
- Media: $596,690
- Education: $592,152
- Public sector: $531,086
- Hospitality: $392,922

*Source: Emerson 2013 Study on Data Center outages

Do you know the COST of downtime for your firm? If not, that’s step one!
Slow Inflation? Not in Downtime Recovery

Change in cost of downtime by category

- Lost Revenue: $118,080 (2010), $183,724 (2013)

*Source: Ponemon Institute report “2013 Cost of Data Center Outages”*
Now For Some Not So Obvious Impacts

- Legal and regulatory impact
- Lost confidence and trust among key stakeholders
  - Shareholders
  - Customers
  - The management team
  - Your employees
- Diminishment of marketplace brand and reputation
The Intangible Costs

“Morale is seriously affected by system downtime, because IT lives in dread of failures.”
-Robert McFarlane, principal and data center design expert, Shen Milsom Wilke Inc.

“An outage can also erode a company’s competitive edge, like loss of business reputation within the industry and/or customer base.”
-Matt Stansberry, director of content and publications, Uptime Institute

“There are tangible and intangible costs of downtime. It can be expensive, but beyond the financial implications, there is also a loss of credibility and trust. When you are down, both of these erode fast and take much longer to rebuild.”
-Chuck Goolsbee, data center manager and SearchDataCenter.com blogger

All quotes from a SearchDataCenter.com article.
Participant Poll

Have You Calculated a Reliable Cost of Downtime For Your Business?

1. Yes, I am highly confident in our ability to quantify downtime costs
2. I have a rough idea but I would not bet the business on it
3. I have no idea what downtime costs the company
What’s Your Cost of Downtime?

Need a starting point? Download our Cost of Downtime Calculator at:

rletech.com/cost-of-doing-nothing-calculator/
And What about You… Personally

The resulting impact on a career can be significant:

- A surprising 1 in 5 companies fired an IT employee when a network downtime incident occurred
- The ratio was more dramatic for some industries
- 1 in 3 companies in the natural resources, utilities & telecoms sector sacked IT staff due to downtime

When downtime occurs, management is going to be looking at YOU

*March 2014 Avaya survey*
Making Your Case

Try using a Why, How, What case

Simon Sinek’s Golden Circle*

- People make decisions based on emotion
- Understand the core of WHY the company exists
- Present HOW a business disruption would impact the WHY
- Show HOW to avoid the disruption
- Detail WHAT will be needed to execute the HOW

*Simon Sinek’s Ted Talk located here http://www.youtube.com/watch?v=fMOIfsR7SMQ
Start With “Why”

- Far too many business cases start with WHAT needs to be done
- NOT why we need to implement monitoring:
  - Why does your company exist?
  - Look to the company mission statement for guidance
  - Consider the WHY from the perspective of the decision maker
- Get management passionate about monitoring’s impact on the company WHY

Consider these BEFORE making the case with facts and figures.
Once You Know “Why”, Move to “How”

- HOW would downtime caused by controllable environmental issues impact the WHY?
- HOW can the company mitigate the risk to the WHY?
- The answer typically includes:
  - Create and implement an action plan
  - Deploy monitoring equipment
  - Review procedures
Support the “How” with Facts

- Case studies
- Probabilities
- Impacts Metrics
- Cost of Doing Nothing Calculations
- ROI
HOW Can Be the Hardest Part

- Be prepared to challenge your boss
- Give them what they **need** and not just what they think they **want**
- You must help them think beyond the “Threat de jour”

“The worst culture you can ingrain within a business is an atmosphere of saying yes to everything. When you are debating a new idea, those who disagree are crucial to getting the right result in the end. Yes men will only ever get so far.”

Richard Branson, Founder of Virgin Group
“Top of Mind” ≠ “Good Priority”

It’s easy to get caught up in what just happened…

- Active shooter
- Hurricane
- Tornado
- Earthquake
“Top of Mind” ≠ “Good Priority”

But it’s the less dramatic threats that can cause the biggest problems:

- Water Leaks
- Chemical Leaks
- Overheating
- Power surges
- Air Quality (pressure, composition, etc.)
- Excessive humidity
- Vermin
Probability vs. Impact

Risk Map

Likelihood Rating | Impact Rating
--- | ---
Almost certain | Catastrophic
Likely | Critical
Moderate | Serious
Unlikely | Marginal
Improbable | Negligible

Credit: High Stakes Business: People, Property and Services Report
Finally, Provide the “WHAT”

- Build out a candid, honest proposal to execute the HOW
- Do your homework
- Present a comprehensive proposal protect the WHAT
An Example For Leak Detection

Leak Detection Checklist: System Design Worksheet

1) Choose the Right Fluid Sensing Cables
   - Run leak detection sensing cable anywhere along the length of an attached sensing cable. They are best for:
   - Smaller, open areas
   - Longer cable runs
   - Under raised floors & di
   - Out-of-sight monitoring

2) Choose a Controller: Zone or Distance-Read?
   - Controllers come in a variety of configurations and capabilities. Generally speaking, controllers:
   - Zone controllers sound the alarm when a leak is detected anywhere along the length of an attached sensing cable. They are best for:
   - Large, multi-room, or office
   - Long cable runs
   - Under raised floors & di
   - Out-of-sight monitoring

3) Choose Spot Detectors
   - Spot detectors are the best choice for small, isolated, or enclosed spaces. They are ideal for monitoring areas like:
   - HVAC drip pans
   - Floor drains
   - Very small, confined spaces
   - Under condensation outlets or other known emergency water outlets

How many spot detectors does this area need?

4) Materials List
   - To protect this area, here is the final tally of what is needed:
     - Item
     - Conductive fluid sensing cable
     - Corrosion-resistant cable
     - Amount of cable that needs to be rodent detering
     - Zone controller
     - Distance-read controller
     - Spot detectors
     - Accessories
       - Leader cable & EOL (ends the cable to the controller and complete the leak detection circuit)
       - Non-sensing cable (bridge over where sensing cable is necessary without needing a separate controller)
       - Reference map (provides a cross-reference of cable distance to民族决策部署 for quick location of repair)
       - Weighted cable connector (used with distance-read panel to provide distinct separation between sections of cable used between floor or room)
       - X-connector (proves the cable in 3 separate directions)
       - J-clips (prevent the cable from shifting, placed 3-6" apart - 2" test in front of CRAC units)
       - Caution tags (clearly mark and measure any exposed cable)

Notes: Rodent resistant applied to conductive fluid sensing cable only.

This worksheet is available for free download at http://rleitech.com/system-design-worksheet/
Case Study: University of Northern Colorado

Director of IT Services, Marcus McCutchen, identified vulnerabilities in the telephone and computing centers.
Step 1: WHY

Knowing UNC’s Vision statement provided the basis

The University of Northern Colorado strives to be a leading student-centered university that promotes effective teaching, lifelong learning, the advancement of knowledge, research, and a commitment to service.

This enabled Marcus to focus on the student experience in his argument for sufficient facilities monitoring.
Step 2: HOW

- HOW would an environmental disaster impact the student experience and ability to effectively learn?
  - Reduce student effectiveness
  - Impact student confidence in the university
  - Jeopardize student security
  - Calculated the cost of forecasted downtime, $92,000 conservatively

- HOW to limit the risk to the student experience?
  - Implement a disaster mitigation and recovery plan
  - Deploy leak detection equipment
  - Schedule annual reviews of the plan
Step 3: WHAT

- Marcus started with a mitigation plan and review process
- He then worked with RLE to design a leak detection system
  - Fluid sensing cable
  - Distance read controller
  - Spot detectors
  - Automated notifications of key personnel
- Presented a final proposal including
  - Cost of downtime
  - Cost of new system
  - ROI Calculation
Results

- The administration at University of Northern Colorado fast tracked the approval of the facilities monitoring plan
- Staff at UNC integrated a proactive, cost effective and user-friendly monitoring system in just six weeks
Epilogue

- Less than three months later, a “small” problem occurred
- Moisture in the telephone switch room was detected
- Upon inspection, moisture was found along a section of monitoring cable as well as a ceiling tile
- The problem was eventually traced one story higher to a cracked floor sink, which was located directly above a critical piece of telecommunication equipment.
- Had the leak gone undetected, tens of thousands of dollars in downtime would have resulted
“Prevent Catastrophes, Don’t Clean Them Up”

Q&A

Jeremy Swanner

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