

Is ITIL® All Theory and No Practice?

Carolyn M. Hennings
PMP, IT Service Manager

ITIL® is a Registered Trade Mark, and a Registered Community Trade Mark of the Office of Government Commerce, and is Registered in the U.S. Patent and Trademark Office



Virginia Tech vs. Nebraska

September 19, 2009

Final Score

- › Nebraska 15
- › Virginia Tech 16



Service

- Delivering value to customers
- By creating desired outcomes
- Without ownership of cost and risk

Customer or User?

Customer

- How much does it cost?
- Is it worth it?

User

- Does it work for me?
- Does it help me get something done?

Is it a Business Service?

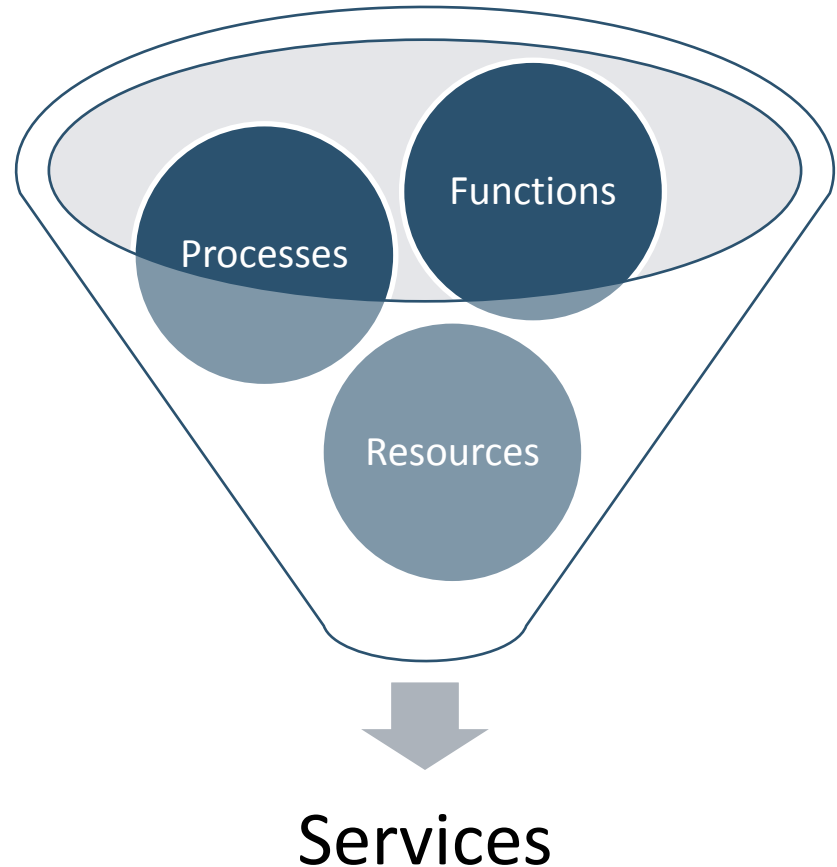
Does it provide ...	
Direct value to customers?	
Desired outcomes?	
Without ownership of cost and risk?	

Is it an IT Service?

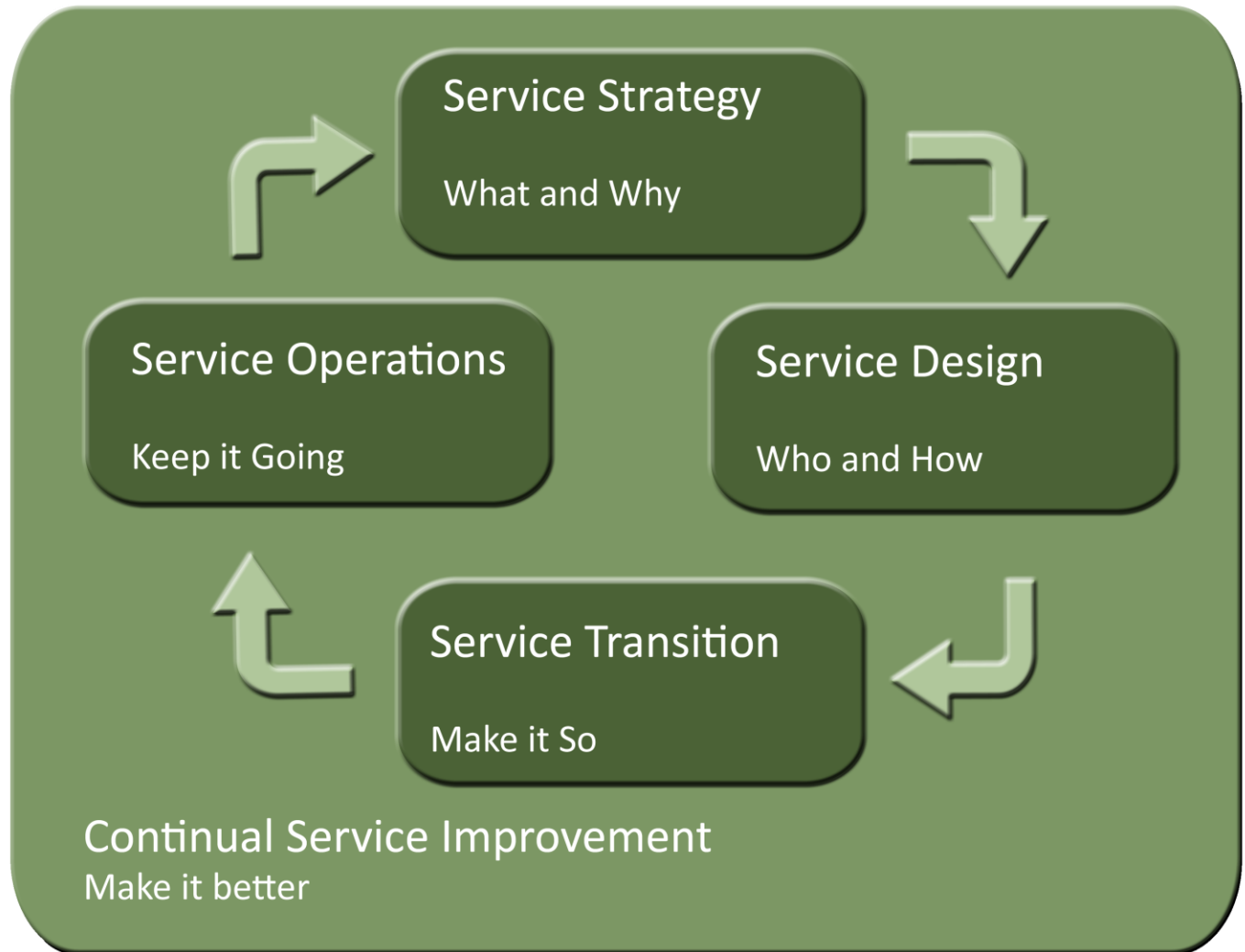
Does it provide ...	
Indirect value to customers?	
Desired outcomes?	
Without ownership of cost and risk?	

Service Management

- Organizational Capability
- Provide value to customers
- In the form of service



Lifecycle



Service Strategy

What and Why

What is our goal?



Service Strategy

- LISA '08 Invited Talk

**Inside DreamWorks
Animation Studios: A
Look at Past, Present,
and Future Challenges**
Sean Kamath and Mike
Cutler, PDI/DreamWorks

Two Key Words

our artistic roots. We'll explain what we've done to make **technology**—advanced and traditional—**invisible** in a workplace filled with scientists whose right brains are bigger than their left, and what it's like to run over 2,000 Linux desktops being used by artists on a full-

Strategy Generation

- Why buy these services?
- Why buy from us?
- What pricing/chargeback models?
- What are our strengths and weaknesses, priorities and risk?
- How to allocate our resources and capabilities?

Service Portfolio Management

- Service Portfolio
 - Describes services in terms of business value
- Includes
 - Planned Services
 - Active Services (Service Catalog)
 - Retired Services

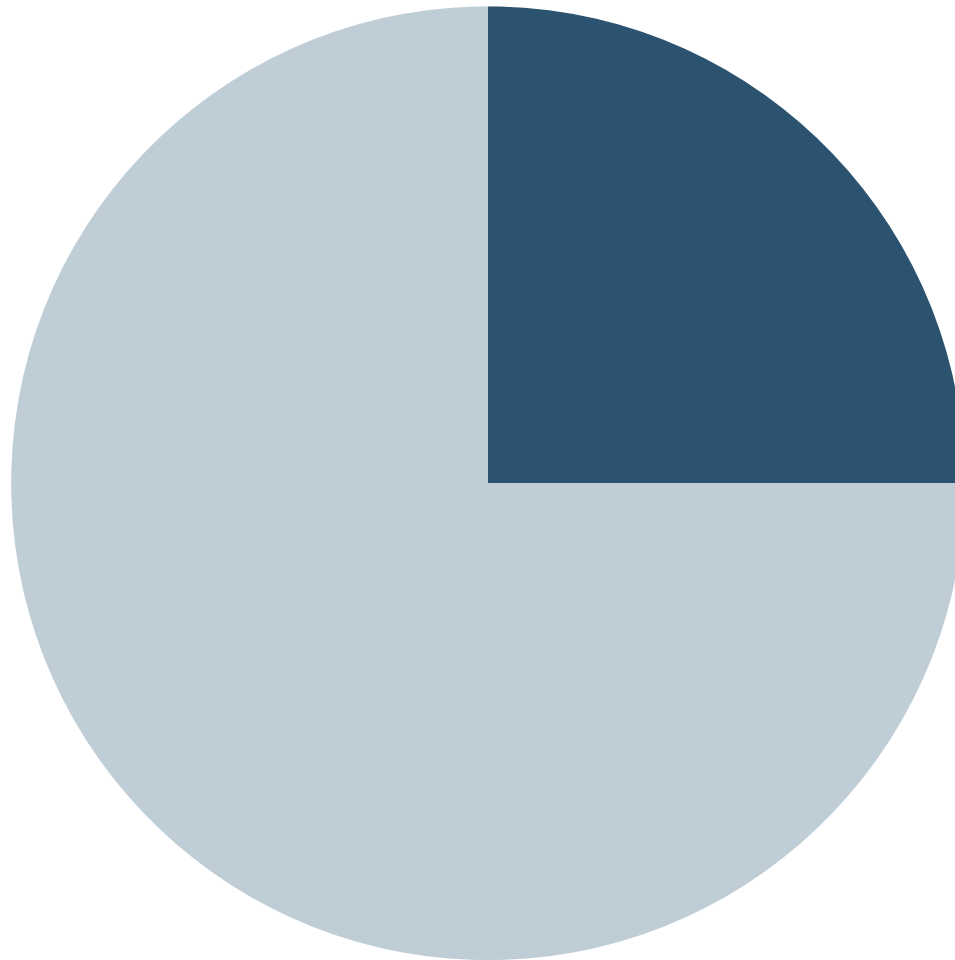
Demand Management

- Understand patterns of business activity
- Ensure capability of delivering service when needed by business
- Influencing the arrival of demand

Financial Management

- Quantifies
 - Value of IT Services
 - Value of assets need to provide the services

End of 1st Quarter



Service Design

Who and How

Build the Playbook



Service Catalog Management

- Single source
- Consistent information
- Agreed Services
- Available to appropriate people

Service Level Management

- Ensure operational services
- Ensure measurement of service performance
- Ensure services and reports meet the needs of the business and customers

Service Level Management

- LISA '08 General Session

The State of Electronic Voting, 2008
David Wagner, *University of California, Berkeley*

Service Level Management

- Trustworthy
- Reliability

As electronic voting has seen a surge in growth in the U.S. in recent years, a critical question arises: **Are they trustworthy? Can we rely upon them to count our votes?** In this report, we explore some of the most important developments and analyses of voting technology. The report is a review commissioned by California Secretary of State Debra Bowen, and provides an outlook for the future, and the role that technologists can play in

Availability Management

- Ensure level of service availability
- Matches or exceeds
- Current or future business needs
- Cost-effective manner

Availability Management

- LISA '09 Invited Talk

**Storage and Analysis Infrastructure
for Anton**

Mark Moraes, Head of Anton Software
Development and Systems Software,
D.E. Shaw Research

Availability Management

- Challenges
 - Networking
 - Storage
 - Computational

dramatic increase in simulation speed, each Anton machine is capable of producing terabytes of results ("trajectories") per day. Such large trajectories pose significant networking, storage, and computational challenges. This talk will describe how we tackled these challenges when creating scalable storage and analysis infrastructure for Anton.

Capacity Management

- Provide focus
- Capacity-related issues
- Performance-related issues
- Services and resources

Capacity Management

**Eucalyptus: An Open Source
Infrastructure for Cloud Computing**
Rich Wolski, Chief Technology Officer
and co-founder of Eucalyptus Systems
Inc. and Professor of Computer Science
at the University of California, Santa
Barbara

Capacity Management

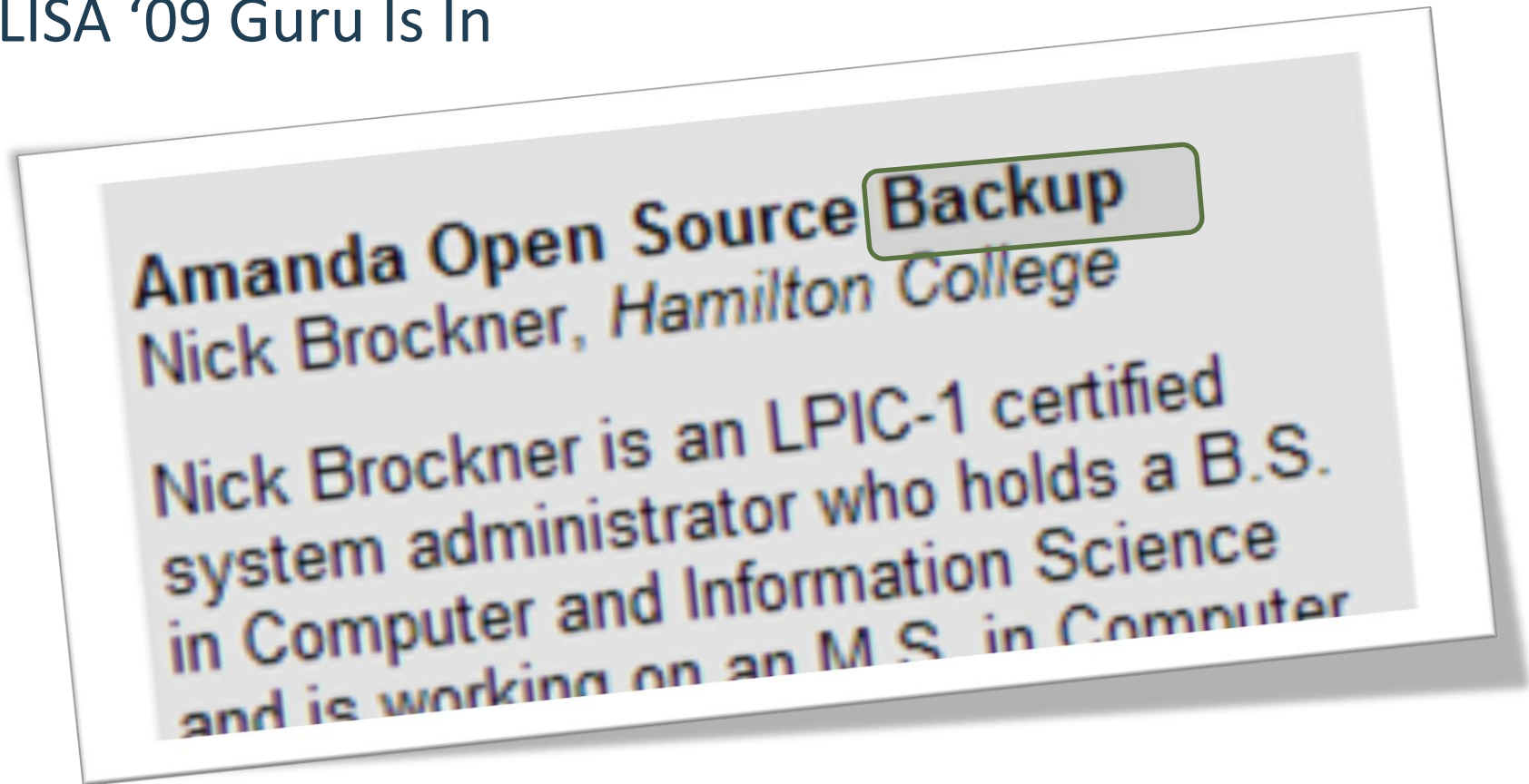
We will present Eucalyptus (Elastic Utility Computing Architecture for Linking Your Programs to Useful Systems), an open source software infrastructure that implements IaaS-style cloud computing. The goal of Eucalyptus is to allow sites with existing clusters and server infrastructure to host a cloud that is interface-compatible with Amazon's

IT Service Continuity Management

- Maintain ongoing recovery capability
- Within IT services and supporting components

IT Service Continuity Management

- LISA '09 Guru Is In



Information Security Management

- Align IT security with business security
- Ensure that information security is effectively managed in all service and service management activities

Information Security Management

- LISA '09 Invited Talk

The Advanced **Persistent** Threat
Michael K. Daly, Director of Enterprise
Security Services, Raytheon Company

Information Security Management

fraud or hacking, it is intellectual property theft and infrastructure corruption on a grand scale. This talk will discuss the ways operators of national critical infrastructure are working to combat these threats and the collaborative partnerships that have been formed to strengthen our collective defenses.

Supplier Management

- Obtain value for money from suppliers
- Ensure suppliers perform to agreed targets
- Conform to terms and conditions

Service Transition

Make it So

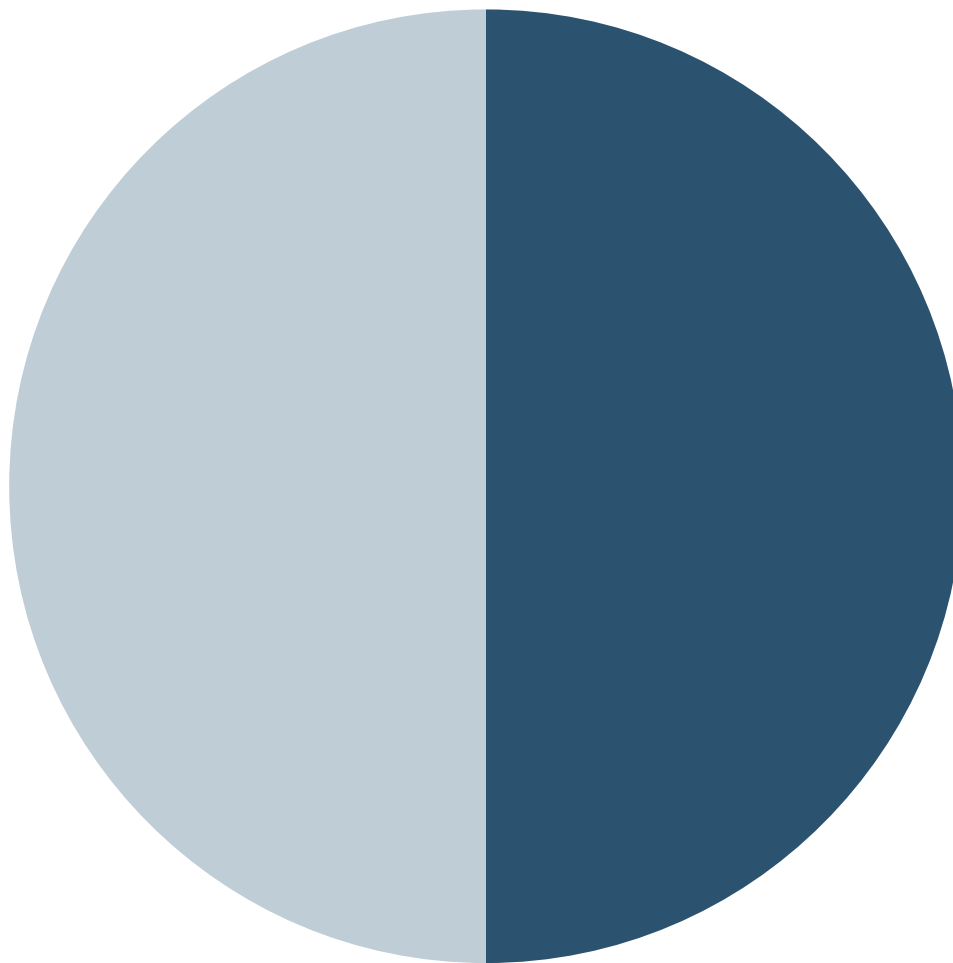
Practice



Change Management

- Ensure
 - Standard methods and procedures used for all changes
 - All changes recorded in Configuration Management System
 - Optimize business risk

Half-time



Service Asset and Configuration Management

- Service assets and configuration items:
 - Identify, control, record, report, audit, and verify
 - Account for and manage
 - Protect integrity
- Establish and maintain accurate and complete Configuration Management System

Service Asset and Configuration Management

- LISA '08 Invited Talk

**Spine: Automating Systems
Configuration and Management**
Rafi Khardalian, Ticketmaster

Service Asset and Configuration Management

MPS
Spine is Ticketmaster's in-house configuration management system, which was recently released to the community via GPL. Spine contributes significantly to our ability to manage 4,000+ globally distributed systems with a relatively small team of system administrators. This talk will focus on the tools and methods used to achieve this.

Many conventional systems provisioning tools involve the use of images and do not deal with sustained management. We however rely on

Release and Deployment Management

- Define and agree on plans
- Ensure compatibility of release package components
- Ensure accurate recording of components
- Track, install, test, verify, and/or back-out
- Record and manage deviations, risks and issues
- Ensure knowledge transfer

Release and Deployment Management

- LISA '09

**The Water Fountain vs. the Fire
Hose: An Examination and
Comparison of Two Large Enterprise
Mail Service Migrations**
Craig Stacey, Max Trefonides, Tim
Kendall, and Brian Finley, Argonne
National Laboratory

Release and Deployment Management

group approached the situation from a different direction, driven by forces; each ultimately achieved its goal, one more smoothly than the other. The first migration was a more measured "water fountain" approach, taking a high sense of urgency resulting in a "fire hose" approach, an en masse. Examining the processes, decisions, and tools used in each conversion that should prove useful to any systems administrators facing a similar situation. They must work.

Knowledge Management

- Ensure the right information
- Available in the right place
- Available at the right time
- Enable informed decision

Knowledge Management

- LISA '08 Keynote Address

*Keynote Address
Implementing Intellipedia Within a "Need to Know" Culture
Sean Dennehy, Chief of Intellipedia Development, Directorate of Intelligence, U.S. Central In*

Knowledge Management

Changes underway at the CIA involving the adoption of wikis, blogs, and social media. The CIA has published *The Wiki and The Blog: Toward a Complex Adaptive Intelligence*. A rapidly growing community has transformed how the CIA aggregates, processes, and disseminates information. These tools are being used to improve information sharing across the organization out of traditional channels.

Transition Planning and Support

- Plan for appropriate capacity and resources for
 - Packaging a release
 - Build,
 - Release
 - Test
 - Deploy
 - Establish
- New or changed service into production

Service Validation and Testing

- Provide objective evidence
- Support requirements
- Meet agreed service levels

Evaluation

- Performance testing
- Prior to release
- Actual performance measured against predicted performance

Service Operations

Keep it Going

Game Day



Service Operation

Processes

- Event Management
- Incident Management
- Problem Management
- Access Management
- Request Fulfillment

Functions

- Service Desk
- Technical Management
- IT Operations Management
- Application Management

Event Management

- Detect events
- Interpret events
- Determine appropriate action

Event Management

- LISA '08
Refereed Paper

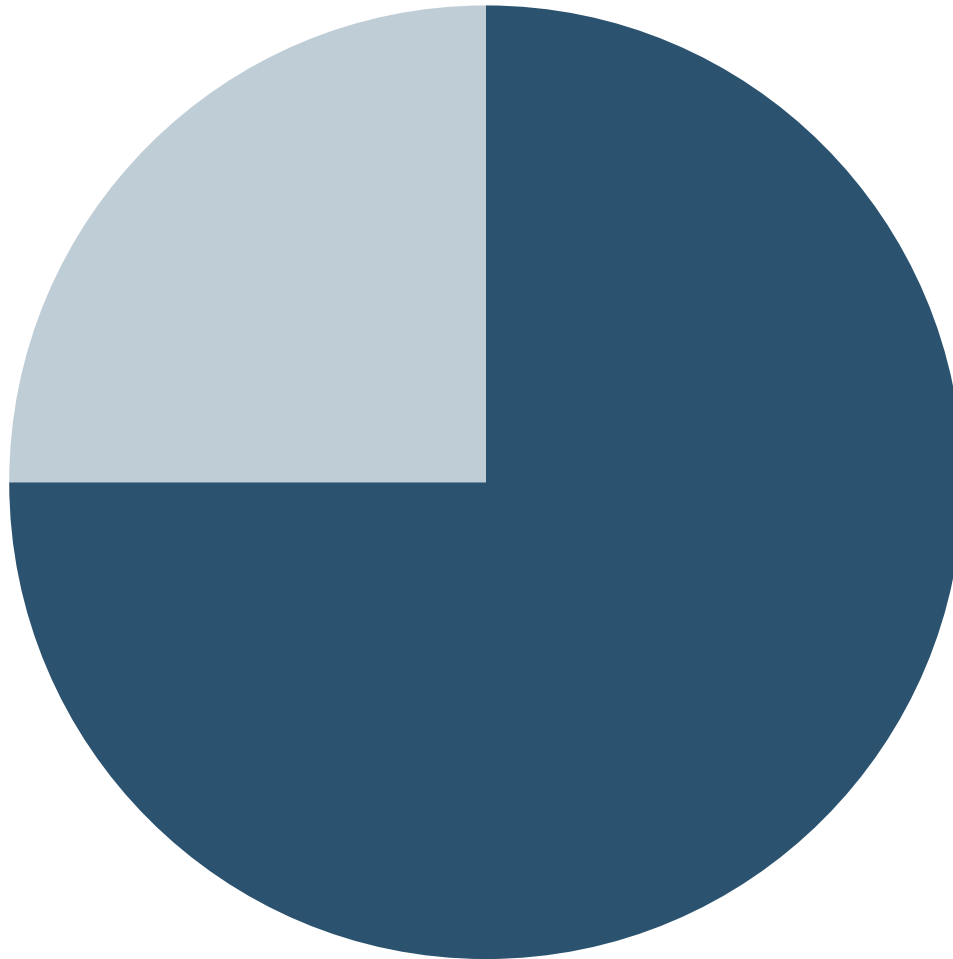
Automatic Software Fault Diagnosis by Exploiting Application Signatures

Xiaoning Ding, *The Ohio
State University*; Hai
Huang, Yaoping Ruan,
and Anees Shaikh, *IBM
T.J. Watson Research
Center*; Xiaodong Zhang,
*The Ohio State
University*

Event Management

In this paper, we propose a black-box approach that can automatically diagnose several classes of application faults using applications' runtime behaviors. These behaviors along with various system states are combined to create signatures that serve as a baseline of normal behavior. When an application fails, the faulty behavior is analyzed against the signature to identify deviations from expected behavior and likely cause.

End of 3rd Quarter



Incident Management

- Restore normal service
- Quickly as possible
- Minimize adverse impact
- Ensure service quality and availability

Incident Management

- LISA '08 Invited Talk

**How to Proceed When
1000 Call Agents Tell
You, "My Computer Is
Slow": Creating a User
Experience Monitoring
System**

Tobias Oetiker,

**OETIKER+PARTNER
AG**

Incident Management

Once users have figured out that their computers are slow, there is an uphill battle to improve the performance and at the same time lose that slowness image. In this talk I will report on the

Problem Management

- Manage the lifecycle of problems
- Prevent problems and resulting incidents
- Eliminate recurring incidents
- Minimize impact of incidents

Problem Management

- LISA '09
Refereed Paper

**Two-Person Control Administration:
Preventing Administration Faults
through Duplication**
Shaya Potter, Steven M. Bellovin, and
Jason Nieh, *Columbia University*

Problem Management

system administrators who install a backdoor or otherwise hide their actions. To prevent these types of system administration faults, we created ISE-T (I See Everything Twice), a system that applies the two-person control model to system administration. ISE-T requires two separate system administrators to perform each ad

Access Management

- Allow the right users
- Able to use a service or group of services
- Execution of Security and Availability policies

Access Management

- LISA '09
Refereed Paper

**Federated Access Control and
Workflow Enforcement in Systems
Configuration**
Bart Vanbrabant, Thomas Delaet, and
Wouter Joosen, K.U. Leuven, Belgium

Access Management

Every organization with more than a few system administrators has policies allowed to change what aspects of the configuration of a computer infrastructure tools are available for automating configuration changes in an infrastructure the policies dealing with access control and workflow of configuration changes. ACHEL makes it possible to integrate fine-grained access control into existing organization's configuration changes workflow. In addition, we prototype demonstrate its capabilities in two case studies.

Request Fulfillment

- Users request and receive standard services
- Provide information about standard services
- Deliver the standard service

Service Desk

- Functional Unit
- Dedicated staff
- Responsible for handling service events

Technical Management

- Groups providing
 - Technical expertise
 - Overall management of IT Infrastructure
- Maintains technical knowledge
- Provides resources to support the ITSM Lifecycle

IT Operations Management

- Groups performing day-to-day activities
- Ensure delivery of agreed IT service levels
 - Value is delivered
- Examples:
 - Ensuring a device or system is actually running
 - Plans turned into actions
 - Short-term activities repeated over a long period of time

IT Operations Management

- LISA '09
General Session

Towards Zero-Emission Datacenters Through Direct Reuse of Waste Heat
Bruno Michel, IBM Zurich Research Laboratory

IT Operations Management

High-performance liquid cooling allows datacenters to operate with cooler climates, eliminating the need for chillers and allowing the thermal energy demonstrated removal of 85% of the heat load from high-performance cold climate zone, and a datacenter with chiller mediated energy reuse. energy consumption by almost a factor of two compared to a current data footprint by an even larger factor.

Application Management

- Managing and supporting operational applications
- Involved with design, test, and improvement of applications
- Not the same as an applications development team

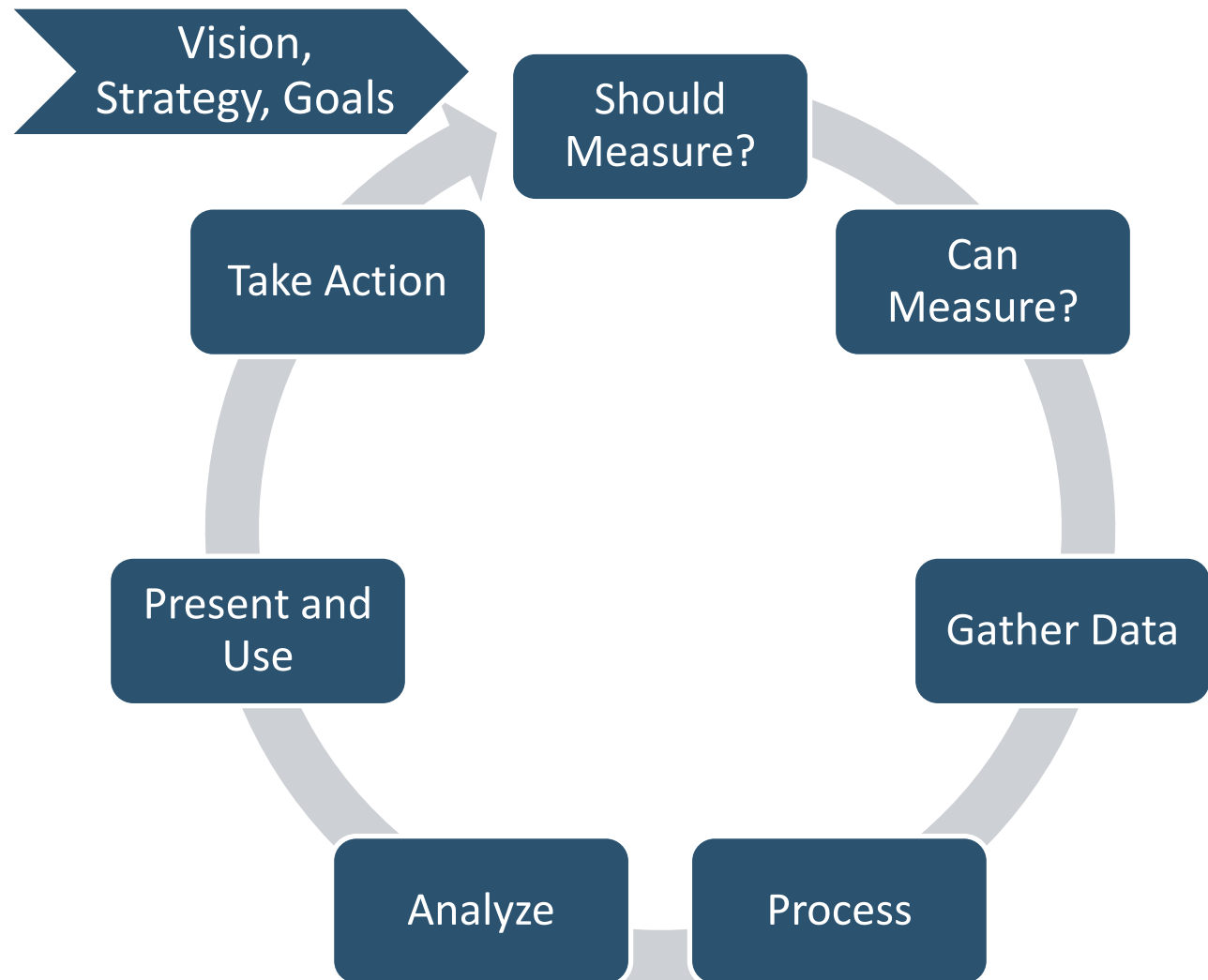
Continual Service Improvement

Make it better

Reviewing the tapes



7-Step Improvement Process



Gather Data, Analyze

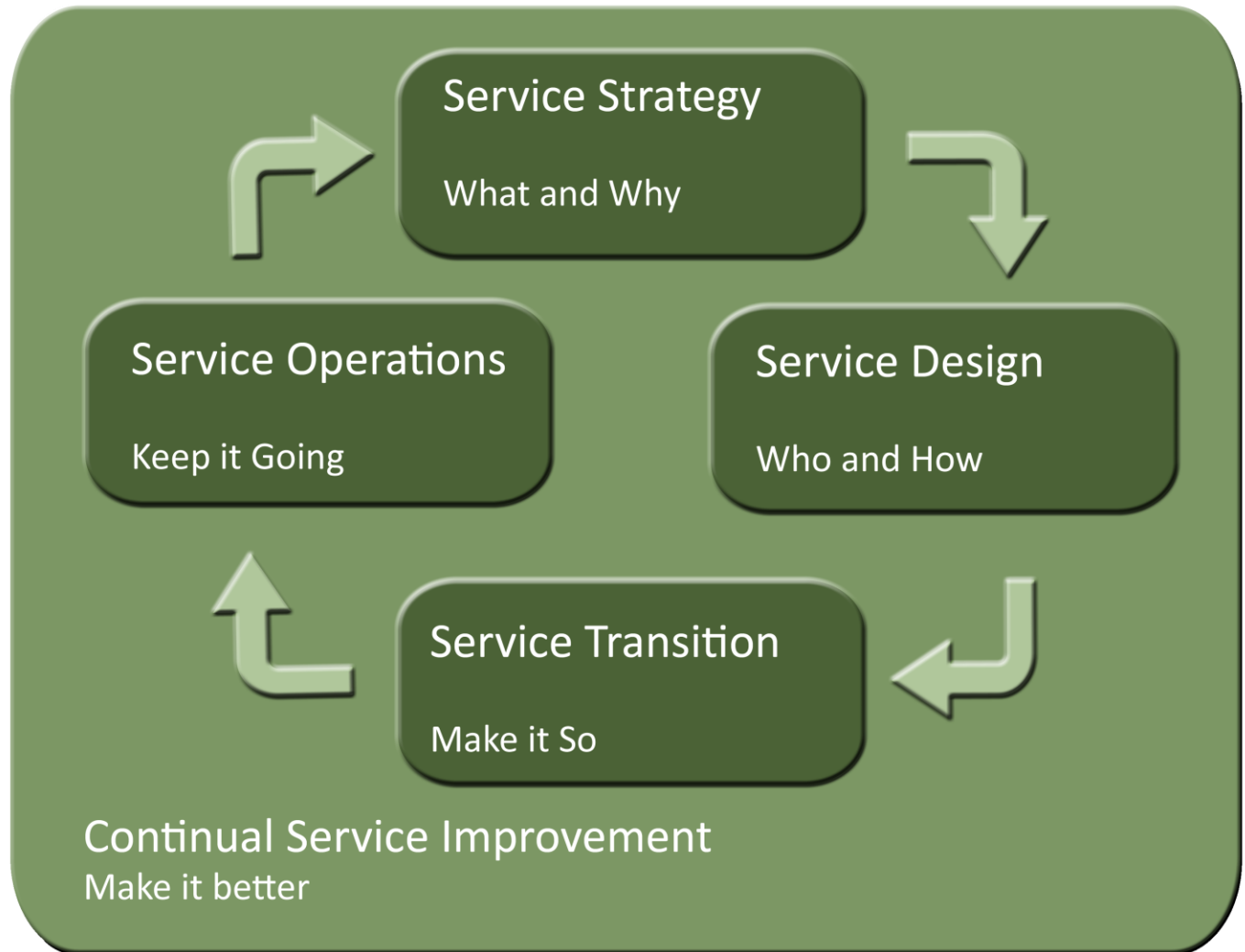
- LISA '09 Invited Talk

**Searching for Truth, or at Least
Data: How to Be an Empiricist
Skeptic**
Elizabeth D. Zwicky

Gather Data, Analyze

call it man from Missouri (the snow
Me state), call it data-driven, but
whatever you call it, it involves looking
beyond claims and guesses and trying
to figure out what the facts are. This talk
will provide you with tools and advice on

Lifecycle

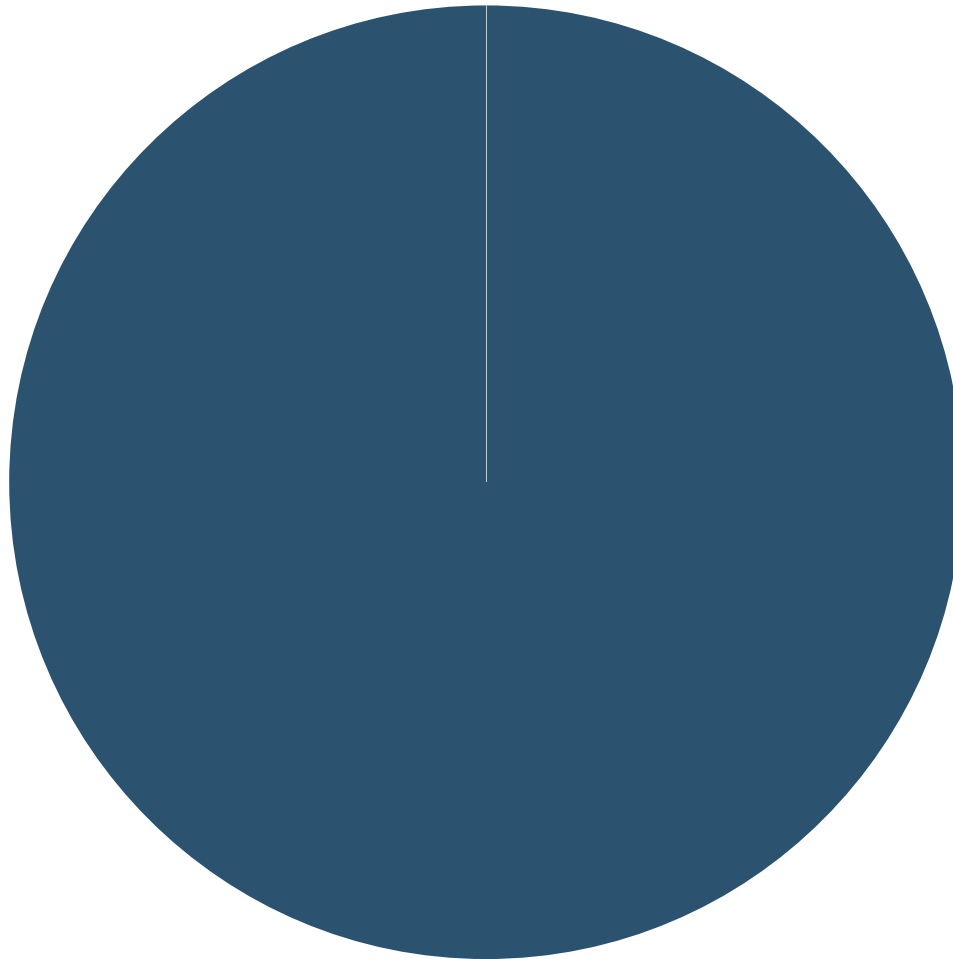


My Hypothesis ...

- Everything we do in IT can be mapped to something in the IT Infrastructure Library

- Yet to be proven or disproven

Game Over



Press Conference



Is ITIL® All Theory and No Practice?

- All opinions expressed are those of the presenter.
- Contact:
 - chennings@windwardits.com