

Network & System Management

A Practical Framework 

Practical Network and System Management

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Date: 03/18/05

© 2005 Engineered Networks

Rev: 1.0

Page: 1

Published Frameworks

- Telecommunications Management Network (TNM)
- IT Service Management (ITSM)
 - IT Infrastructure Library (ITIL)
- Microsoft Operations Framework (MOF)
- Open Systems Interconnection (OSI) Management Architecture
 - FCAPS

Practical Network and System Management

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Date: 03/18/05

© 2005 Engineered Networks

Rev: 1.0

Page: 2

Network & System Management

- OSI Management Architecture
 - Fault
 - Configuration
 - Accounting
 - Performance
 - Security

Practical Network and System Management

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Date: 03/18/05

© 2005 Engineered Networks

Rev: 1.0

Page: 3

Fault Management

- Problem identification
- Problem isolation
- Analysis procedures & tools
- Problem resolution
 - Resolution procedures in place?

Practical Network and System Management

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Date: 03/18/05

© 2005 Engineered Networks

Rev: 1.0

Page: 4

Configuration Management

- Asset tracking
- License management
- Release management
 - ITIL procedures excel
 - http://visibleops.tripwire.com/visible_ops.cfm
- Monitor, log and detect changes!

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 5

Accounting Management

- System usage
- License metering

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 6

Performance Management

- Traffic analysis
- Baseline performance
- Trending performance
- Capacity planning & system sizing
- Application Performance

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 7

Security Management

- Policy definition
- Policy enforcement
 - Authentication & authorization
 - Access control
- Detection of policy violation
- Response

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 8

Approaches

- Procedures, techniques & tools
- Tools
 - Isolated point systems
 - Integrated point systems
 - Management frameworks

Practical Network and System Management

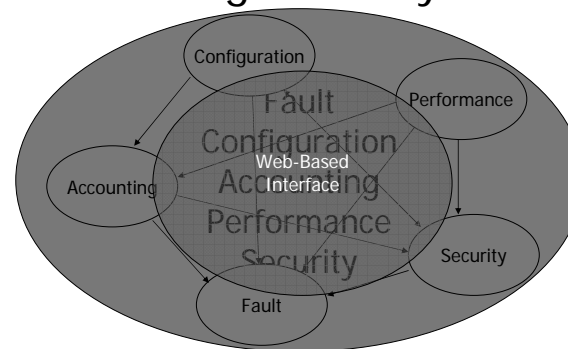
Date: 03/18/05
© 2005 Engineered Networks

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Rev: 1.0
Page: 9

Management System



Practical Network and System Management

Date: 03/18/05
© 2005 Engineered Networks

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Rev: 1.0
Page: 10

The Truths

- Management is more process than tools
- No one product does everything well
- Every environment is different
 - So the tools and procedures will be different

Practical Network and System Management

Date: 03/18/05
© 2005 Engineered Networks

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Rev: 1.0
Page: 11

Fill In The Gaps

- Assess what is missing
 - Do you have enough data to make an informed decision?
 - Do you have to look too many places for the information?
- Consolidated logging
- Consolidated statistical data
- Consolidated configuration information

Practical Network and System Management

Date: 03/18/05
© 2005 Engineered Networks

ENGINEERED NETWORKS

www.engineered-net.com
ssurdock@engineered-net.com

Rev: 1.0
Page: 12

Cover Your Bases

- Fault Management
- Configuration Management
- Accounting Management
- Performance Management
- Security Management
- **Crawl, Walk, Run**

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 17

The End

- Thank you for coming!
- The Presentation can be found at:
<http://www.engineered-net.com/Library>
- The winner is...

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 18

Operations Framework

- IT Infrastructure Library (ITIL)
 - **Service Delivery**
 - **Service Support**
 - Planning to Implement Service Management
 - ICT Infrastructure Management
 - Application Management
 - Security Management
 - Business Perspective

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 19

Problem Identification

- Know before your users
- Event console
 - Fed by other systems
- Identify severity & automate
- Create trouble ticket
- Changes feed configuration management system

Practical Network and System Management	Date: 03/18/05
ENGINEERED NETWORKS	© 2005 Engineered Networks
www.engineered-net.com	Rev: 1.0
ssurdock@engineered-net.com	Page: 20