META Group

Operations Excell...
Value Management
Infrastructure Development
Commerce Chain Management
Customer Relationship Management

SOCs and NOCs:
Future Command Centers
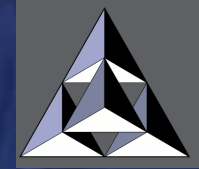
Glenn O'Donnell
Program Director
Service Management Strategies

glenn.o'donnell@metagroup.com

Corey Ferengul
Senior Program Director
Service Management Strategies

corey.ferengul@metagroup.com

# *The Business Case for Command Centers of Excellence*

- ▲ **Main value of IT operations is business continuity**

- ▲ **IT operations require effective monitoring and incident escalation to quickly resolve incidents**

- ▲ **Operational efficiency maximizes the value of IT operations**

- ▲ **Central, broadly applied command and control promotes IT efficiency**

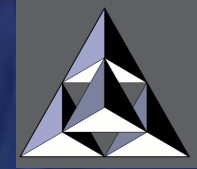*Capitalize on economic, technological, and market changes to enhance efficiency*

Critical Issues
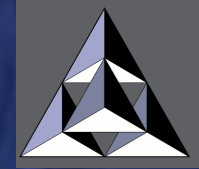
- ▲ **Establishing value through solid processes**

- ▲ **Automating processes with IAM technology**
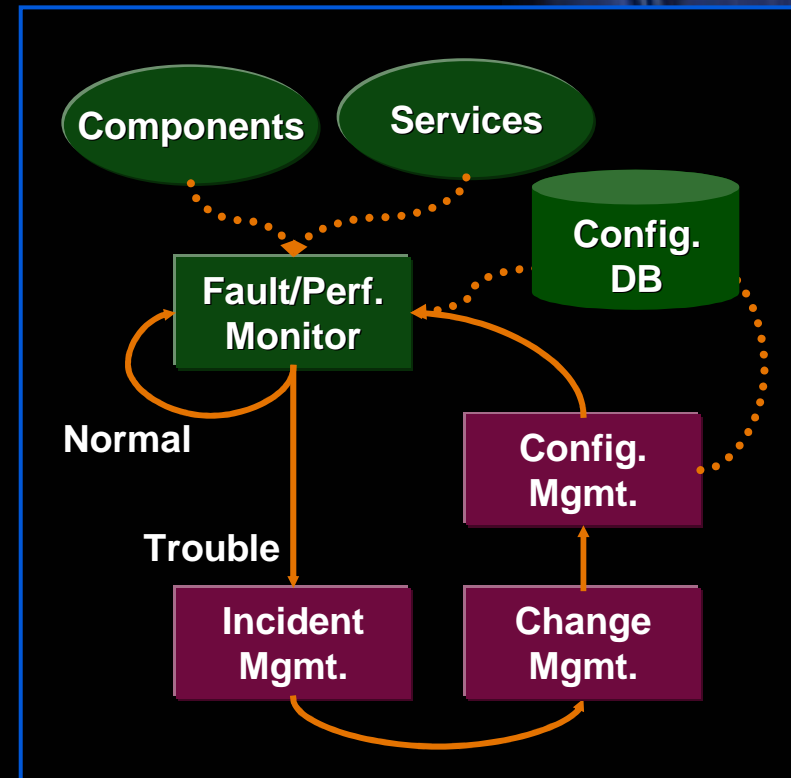
- ▲ **Evolving the command COE for the future**

Transforming in the Key of "E"
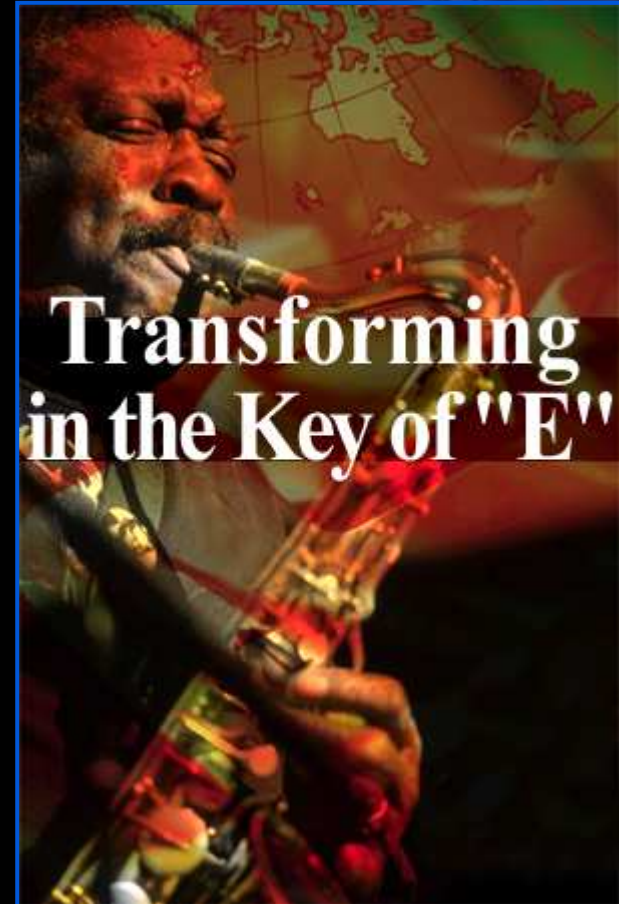
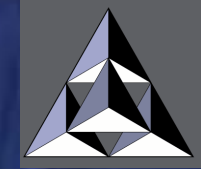# *Establishing Value Through Solid Processes*

- **Monitor & escalate**
  - ▸ **Fault and performance**
  - ▸ **Components and services**

- **Optimizing value through iterative efficiency**
  - ▸ **Continually reassess for efficiency improvement**

- **Logistical considerations**
  - ▸ **Centralized model is best**

Command COE Processes

Components | Services

Config. DB

Fault/Perf. Monitor

Normal

Config. Mgmt.

Trouble

Incident Mgmt. | Change Mgmt.

The monitoring process is the central function of the command COE

Monitor and Escalate

- **Collect appropriate metrics**
  - **Measure infrastructure and operational methods**

- **Avoid management silos**
  - **Networks/systems/apps**

- **Exploit the help desk**
  - **Enforces escalation and change mgmt. policies**

- **Track problems to measure effectiveness**

Operational Metric Examples

Staff Efficiency
Staff per 1,000 events
Staff per 100 devices

Successful Incident Triage
% Level 1 incident resolution
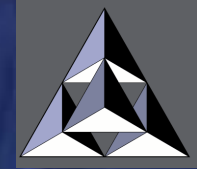**% automated resolution**

Cost Metrics
Cost per event handled
Cost per device monitored

Monitoring and other processes continue to evolve by constant assessment and improvement

Optimizing Value Through Iterative Efficiency

- **Continually reassess for efficiency improvement**
  - ▸ **Measure progress**
  - ▸ **Operational metrics drive quality improvements**

- **Tune processes**
  - ▸ **Adapt to changes in business and technology**

- **Applies kaizen discipline to the command center**

Endless Iterations

A culture of relentless obsession for improvement should be pervasive within the command COE
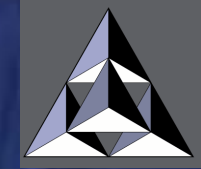
Logistical Considerations

- ▲ **Fault tolerance is essential**
  - ▶ **Power, security, HVAC**
  - ▶ **Management systems**

- ▲ **A centralized model is best**
  - ▶ **All systems and people are together**

- ▲ **Multiple centers make inefficient use of resources**
  - ▶ **Staff, systems, facilities**

Central Global Command COE
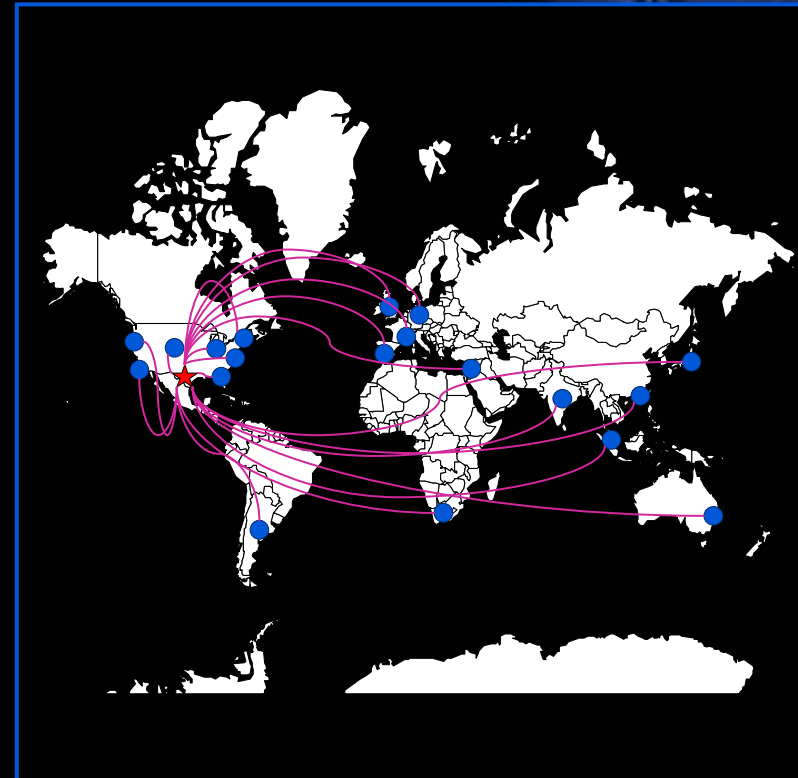
NOCs and SOCs evolve to command COEs through an emphasis on process and reassessment

Establish Value Through Solid Processes
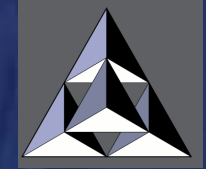
- **Optimize processes for comprehensive monitoring of infrastructure components**
  - ▸ **Capture all components and services**

- **Quickly escalate incidents to proper responders**
  - ▸ **Use a help desk for dispatching and tracking**

- **Constantly seek to improve efficiency**

- **Use one command COE, even in global situations**
 - ▸ **Resource utilization is more efficient**

Business Impact: Rapid identification and resolution of incidents minimize lost revenue from IT service and infrastructure failures
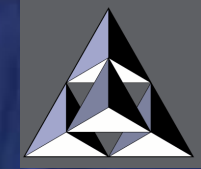
Automating Processes With IAM Technology
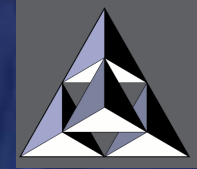
- **Automation serves process**
  - ▸ **Build technology around processes, not vice versa**

- **Custom integration is necessary**
  - ▸ **Primary skill set of the command COE staff**

- **Technology trends**
  - ▸ **Distributed processing promotes scalability**

Distributed Technology
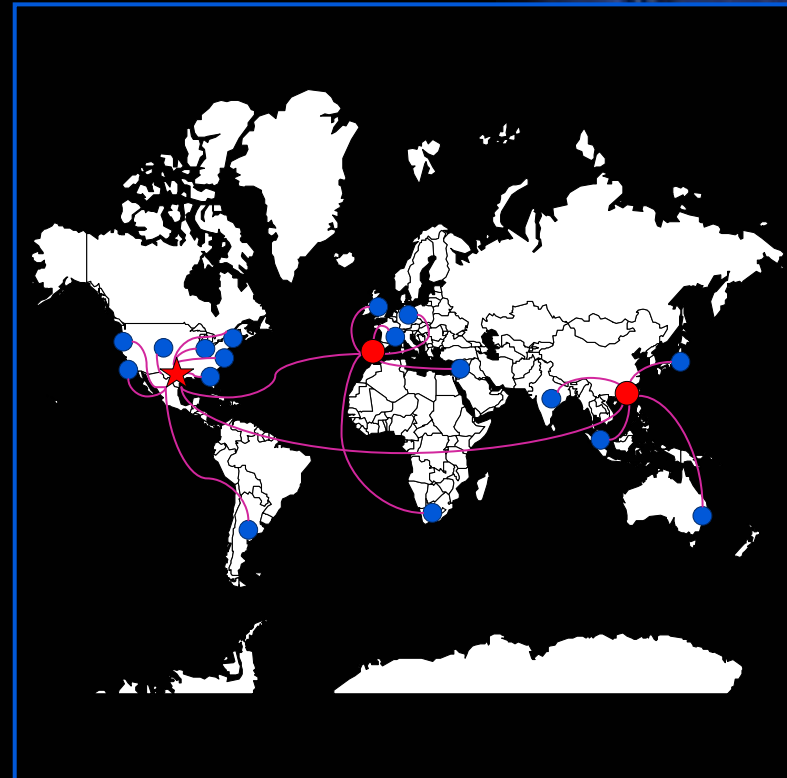
Automation technology facilitates rapid execution and integration of command COE processes

Automation Serves Process

- **Processes built to fit technology will fail**
  - **Inefficient execution**
  - **Bounded by limitations of the technology choice**

- **Understand the process and seek tools to fit**
  - **Automate established methods**
  - **Reduce manual effort**
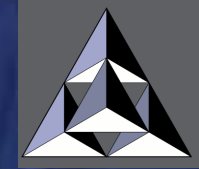 - **The right tool for the job**

"A Fool With a Tool Is Still a Fool!" — Lindsay Parker, HP

Tacoma Narrows Bridge (1940)

(a.k.a. Galloping Gertie)


Good Technology, Poor Process

IAM technology rarely functions properly without significant customization and integration work
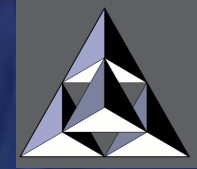
Custom Integration Is Necessary

- ⬤ **No single solution exists**
  - ▶ **Elusive vendor claims**
  - ▶ **Frameworks are a failure**

- ⬤ **Integration standards are maturing**
  - ▶ **XML message exchanges now appearing**
  - ▶ **Popular by 2003**

- ⬤ **Focus command center talent on tool integration**

Object Relationships in CIM
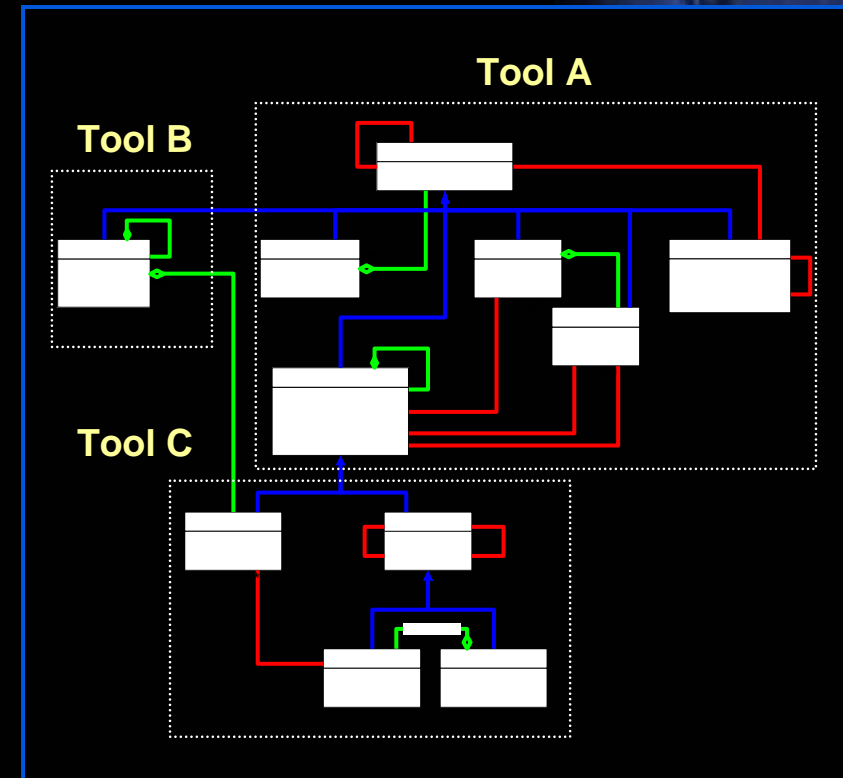
Object-oriented, standardized integration will be among the most profound IAM trends through 2003

Technology Trends

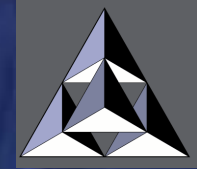| Topic	Past	Future
Monitored agents	Mainly infrastructure	Infrastructure and services (applications)
Domain groupings	Technology silos	Management function (clusters)
Fault correlation	Based on logical relationships (maybe)	Expanding to include physical relationships
Management processing	Central servers with limited distribution architectures	Sophisticated distribution of processing and presentation (Java, XML)
Incident detection	Post-failure reaction	Predict failures
Popular tools	Monolithic frameworks	Modular point tools with strong integration
Configuration integration	Manual; relied on silo experts for analysis	Integral to monitoring and correlation systems

Automate Processes With IAM Technology
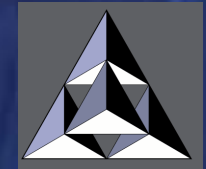
- **Seek automation solutions that fit the needs of the operational processes**
  - Avoid the fatal trap of the reverse adaptation
  - Beware vendor claims

- **Be prepared to undergo significant customization**
  - IAM tools are not shrink-wrapped software!
  - Command COE value is proportional to integration

- **Application views, correlation and integration technologies will lead the next trends**
  - Full integration of configuration management lags

Business Impact: Appropriate technology automates processes for optimum command center efficiency

# Evolving the Command COE for the Future

- ▲ **Adopt standardized process models**
  - ▶ **Process Maturity Model**

- ▲ **E-business management**
  - ▶ **Expanding beyond the bounds of the enterprise**

- ▲ **Technological progress**
  - ▶ **End-to-end service views**
  - ▶ **Embedded intelligence**
  - ▶ **Integration technologies**

● *NOCs & SOCs Develop Into COE*

Command Center Maturity

Efficiency

1 — Simple NOC/SOC → 5 — Command COE

2   3   4
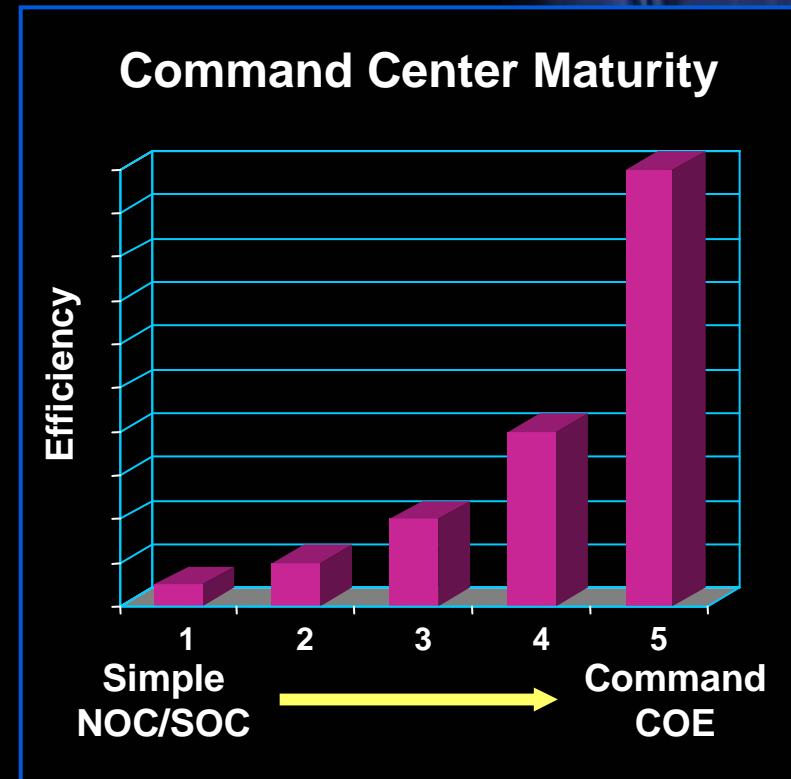
COE evolution begins with standardized processes

Standardized Process Models
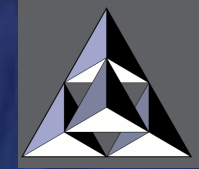
- ▲ **ITIL is gaining momentum as a foundation for IT service management**

- ▲ **META Group's Process Maturity Model is a superset of ITIL**

- ▲ **Transition to these models is a growing best practice**
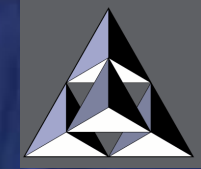
META Group Process Maturity Model

Process Flows
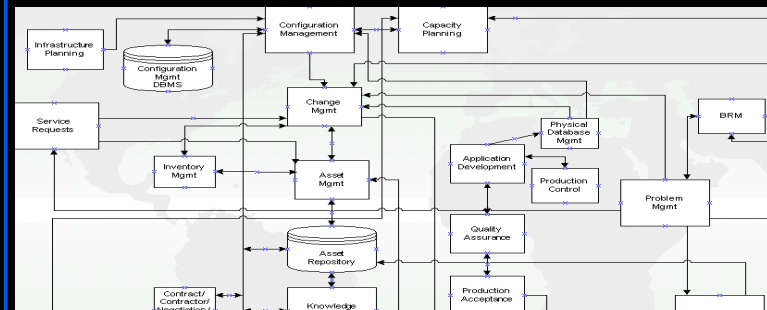
Cross-Process Integration

Standard processes are needed for cooperative management among business partners

E-Business Management

- **Infrastructure and users outside your control**

- **Passing information across firewalls**
  - ▸ **Another case for XML**

- **A different approach to agent distribution**
  - ▸ **Services like Mercury Interactive, Keynote**
  - ▸ **Applet (Appliant, Porivo)**
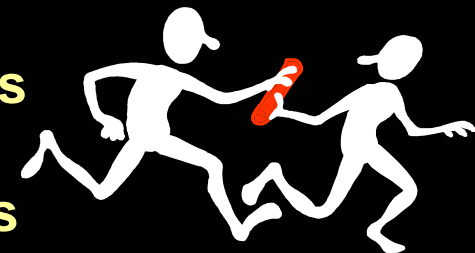
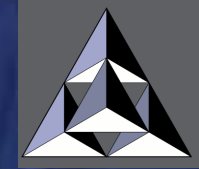*All Parties Must Agree on Standards*

Poor
Definitions

Poor
Process

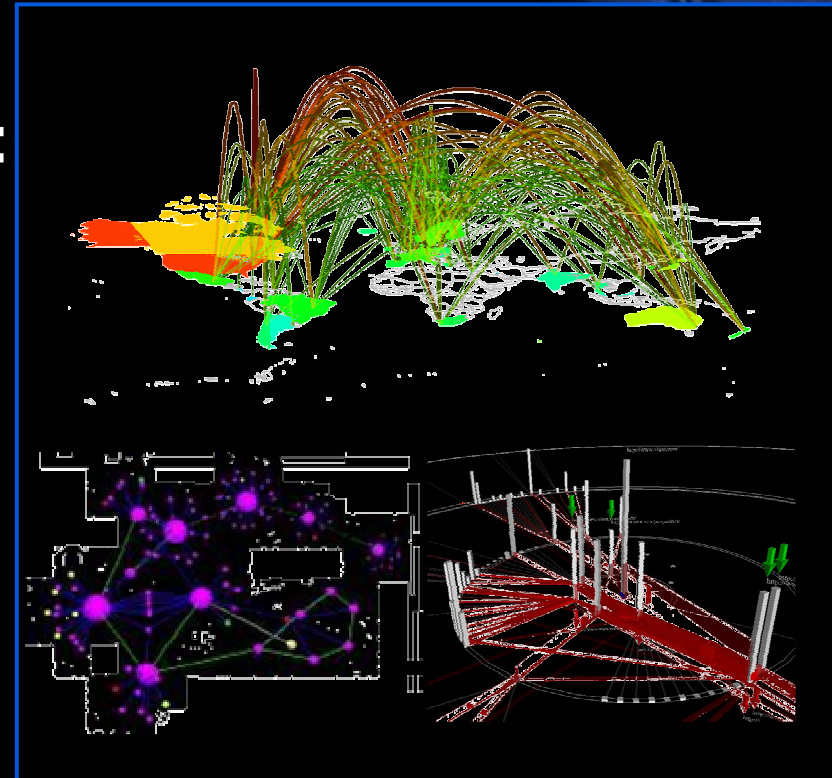Standard
Definitions
and
Processes

New traffic patterns are emerging to reflect emerging applications, including peer-to-peer
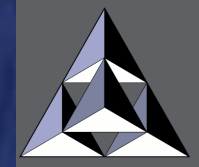
Technological Progress

- **Embedded intelligence:**
  - ▸ **Localize processing**

- **Better integration between:**
  - ▸ **Processes, tools, and businesses**

- **Pattern recognition:**
  - ▸ **Will be the next correlation breakthrough**

- **Infrastructure organisms**

Sophisticated Visualization

Technology evolution rounds out the future vision of the command COE

Evolve the Command COE for the Future

- **Standardization around process models based on ITIL is driving operations excellence**
  - ‣ **META Group Process Maturity Model**

- **Cross-enterprise e-business patterns demand new monitoring processes and technologies**
  - ‣ **Command and control will overflow into full business management automation (2002/03)**

- **Technology breakthroughs will enable extreme automation, including current manual response**
  - ‣ **Ultradynamic systems develop organic characteristics within the infrastructure (2003/04)**

Business Impact: Businesses will capitalize on COE cost savings and automation beyond IAM — dynamic business management itself will benefit
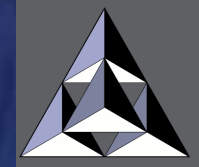
SOCs and NOCS:
Future Command Centers

- **Build the command COE around strong processes**
  - **Encompass all infrastructure and services**
  - **Implement a review process and take action**

- **Apply automation technology to the processes**
  - **Use commercial software (COTS) with in-house customization and integration**

- **Exploit evolving process models and automation technology**

- **Leverage command COE benefits for other business functions**
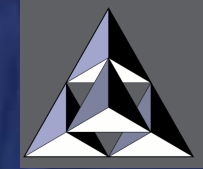
Upcoming Events and Resources

- **Operations Excellence Workshop**
  - ‣ **Infusion Workshop — June 26-28, 2001, Fairfax, VA**

- **Operations Excellence Teleconferences**
  - ‣ **Update Teleconference — May 24, 2001**
  - ‣ **EBT Special Event Teleconference — June 12, 2001**
  - ‣ **How-To Teleconference — August 23, 2001**

- **Direct META Group Analyst or Consultant Interaction**
  - ‣ **Teleconferences**
  - ‣ **Half-Day, On-Site Briefings**