

DEFENDING WORLD SECURITY



## Business Transparency via Security Dashboards

- Protection needs Determination -

Heiko Kirsch, Dr. Michael Hoche, Paul Kirner

Cyber Security Customer Solution

Friedrichshafen, Germany

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AN EADS COMPANY

## Content

- Understanding Business Needs
- Enabling Security Transparency
- Modeling Security Characteristics
- Determining Value of Security
- Visualizing via Security Dashboards
- Summary & Conclusion
- Questions & Discussion

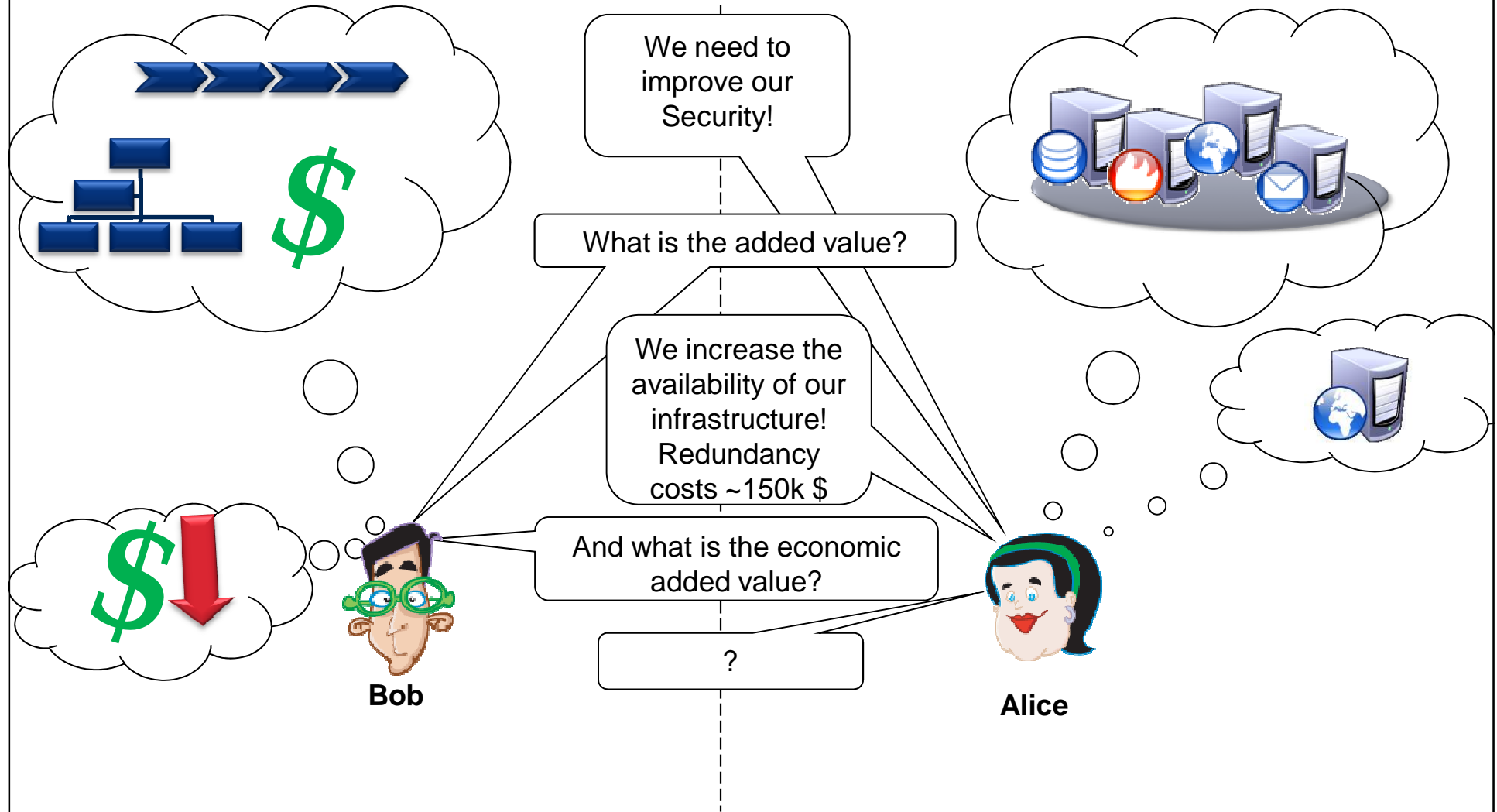


# UNDERSTANDING BUSINESS NEEDS

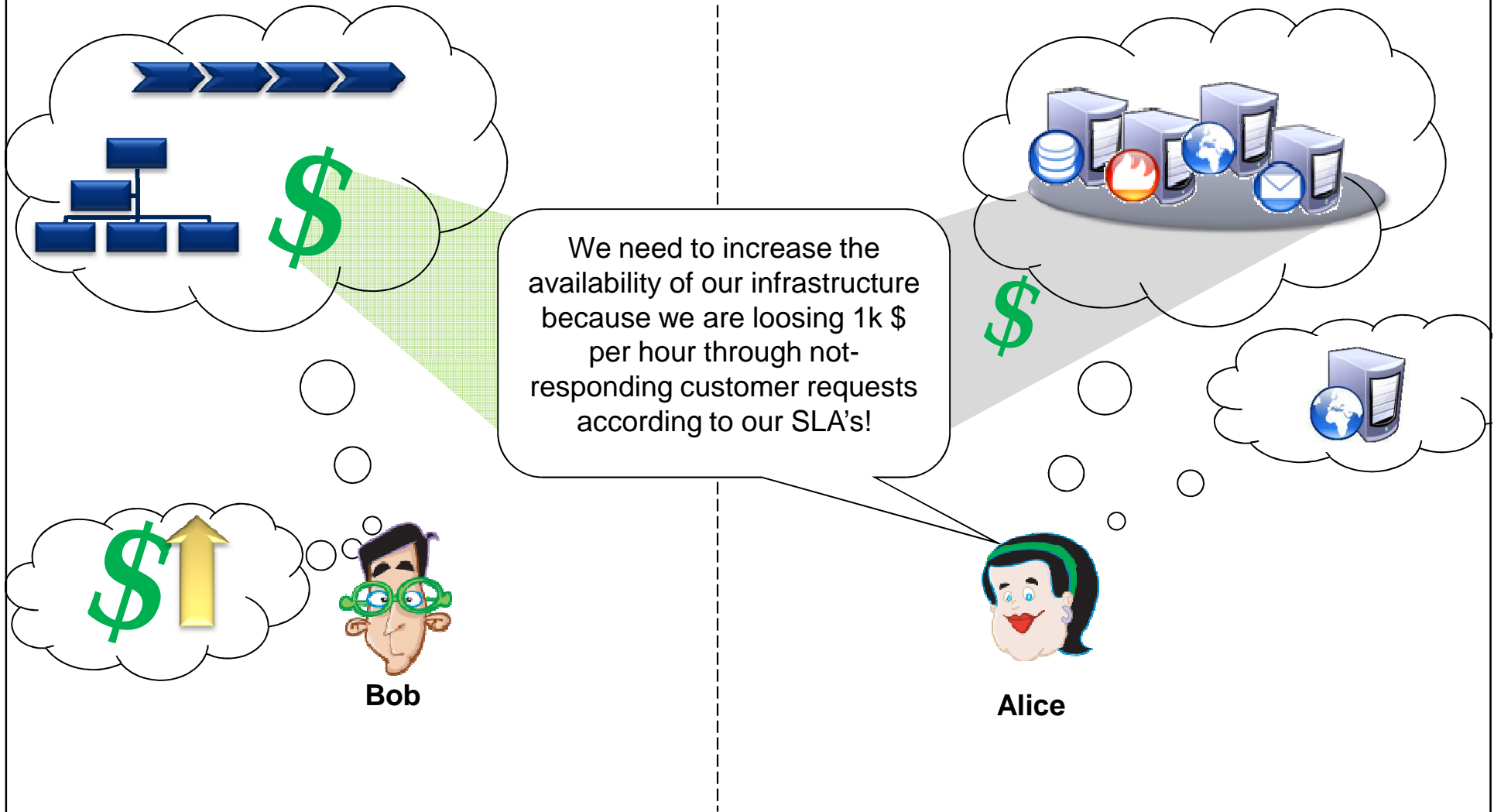
“You cannot manage what you don’t measure!”

Wayne W. Eckerson

# A Cyber Security Dilemma



# The Need for Security Transparency



## Understanding Customer Success

### Economic Need

transparent, competitive services



### Security & Transparency Needs

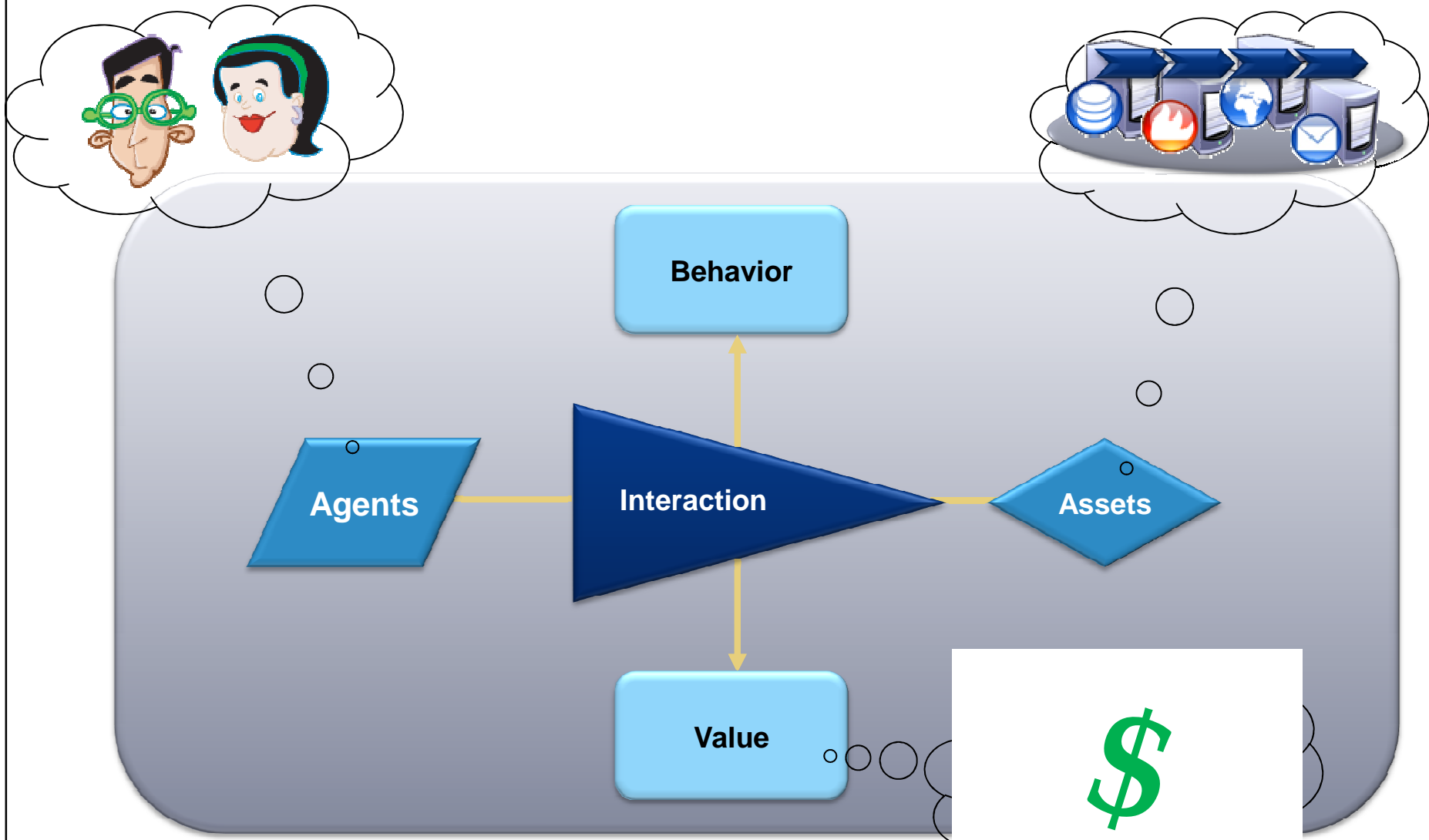
maximizing payoff including reducing security risk

# ENABLING SECURITY TRANSPARENCY

“If it matters at all, it is detectable / observable!”

Douglas W. Hubbard

# Generalizing Business Collaboration





# MODELING SECURITY CHARACTERISTICS

“If you have a lot of uncertainty now, you don’t need a lot of data to reduce uncertainty significantly!”

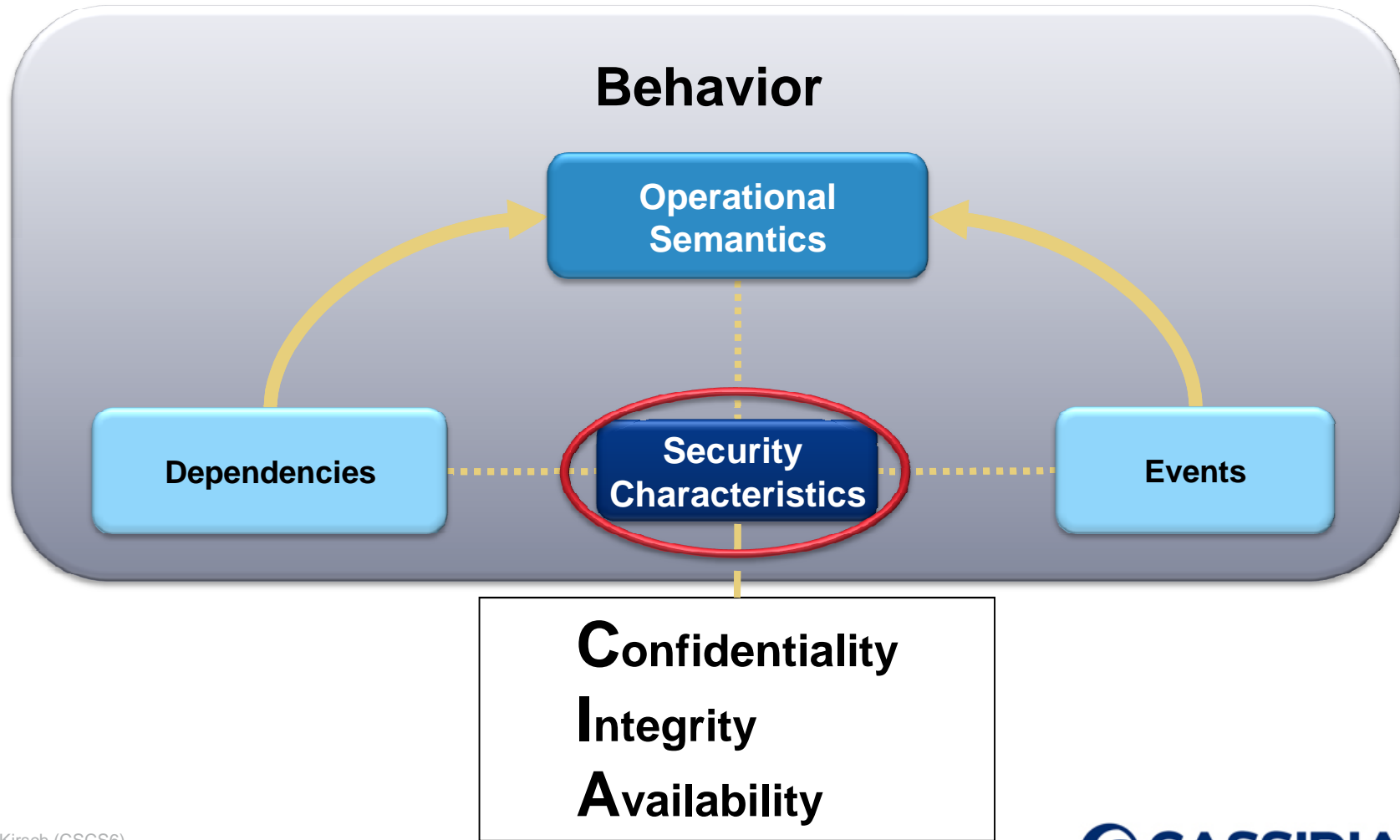
Douglas W. Hubbard

## Learning service-oriented Security

- **Confidentiality**  
Services are protected against unauthorized agents!
- **Integrity**  
Services are resistant and resilient against unauthorized interactions!
- **Availability**  
Services are accessible when needed!



# Modeling Security Characteristics

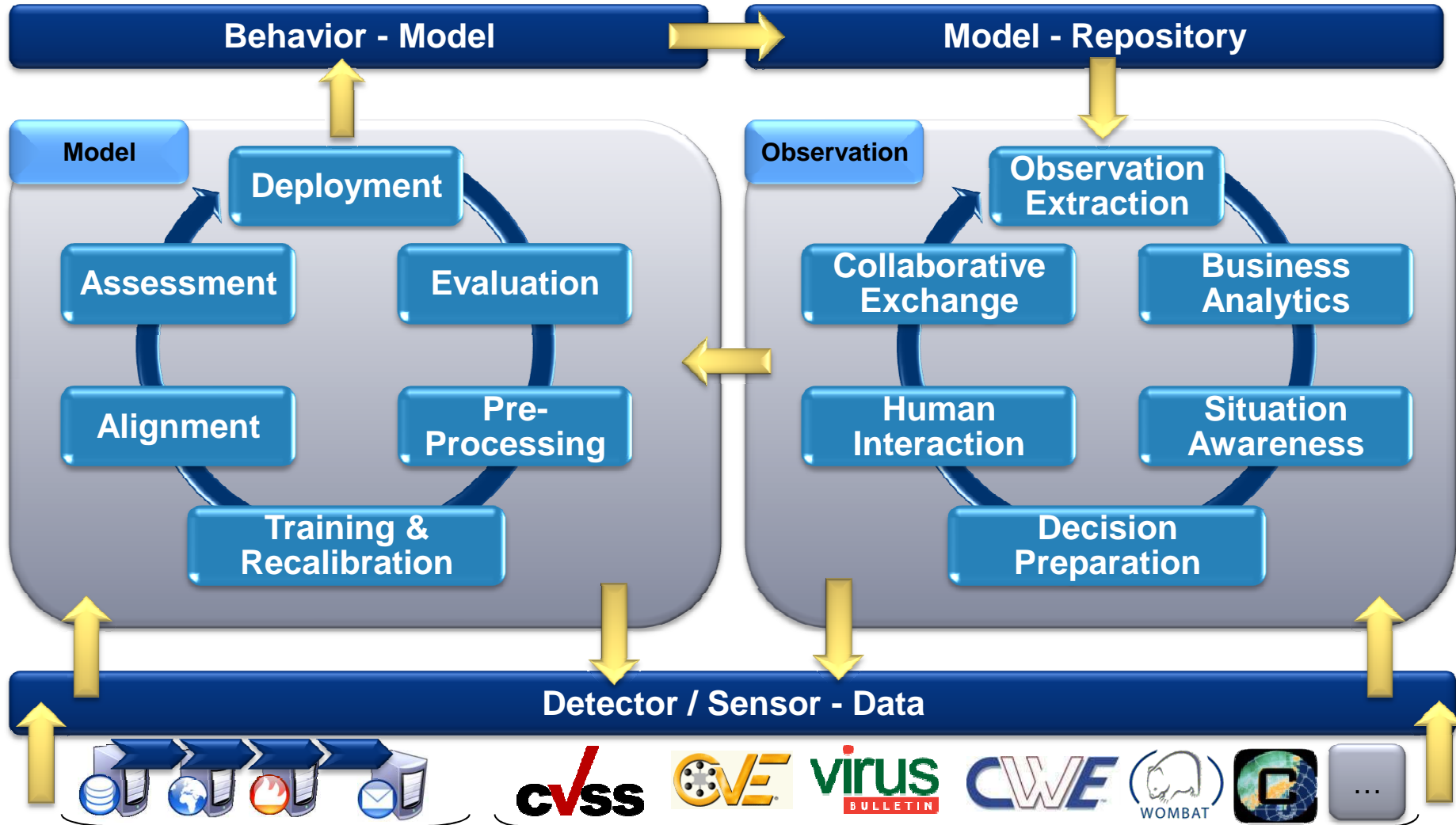


# DETERMINING VALUE OF SECURITY

“When you can measure what you are speaking about, and express it in numbers, you know something about it”

Lord Kelvin

# Determining Behavior Deviations



Heiko Kirsch (CSCS6)

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# VISUALIZING VIA SECURITY DASHBOARDS

“ What get’s watched, get’s done!”

Wayne W. Eckerson

## “The Magic Three”

### Applications

Monitoring, Analysis, Management

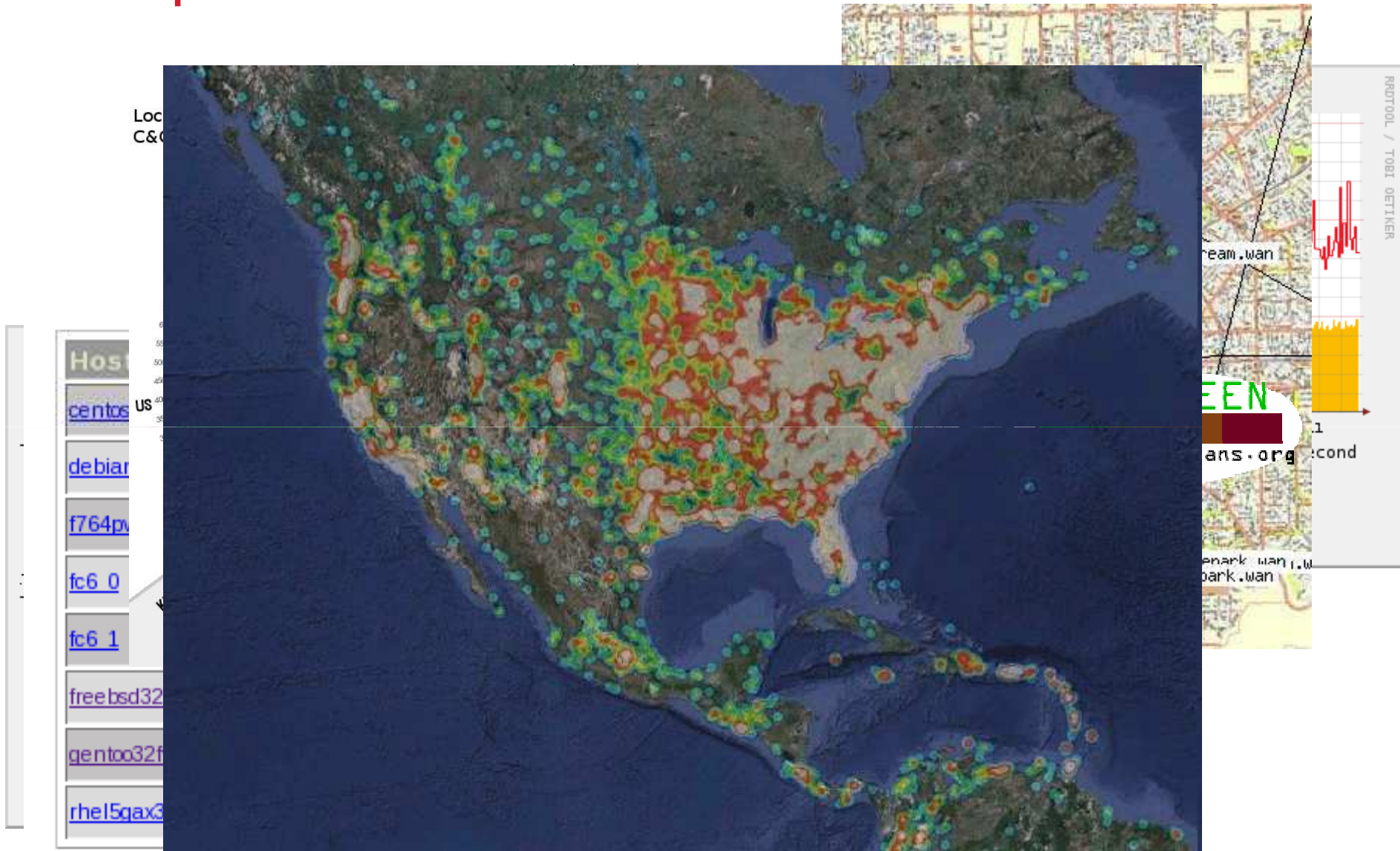
### Layers

Summarized, Multidimensional, Detailed

### Types

Operational, Tactical, Strategic

Be adequate!



dataviz.com

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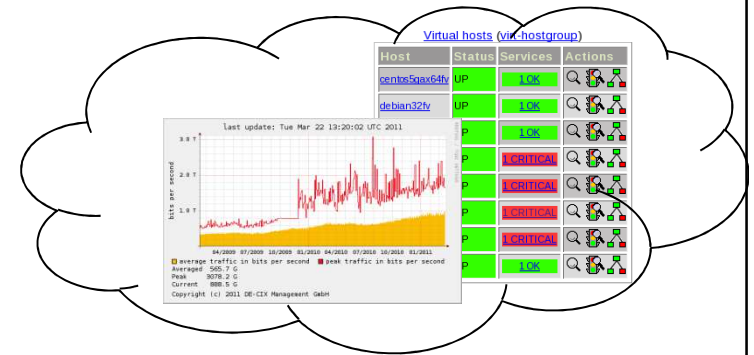
# Answering some basic questions

Who needs the information?

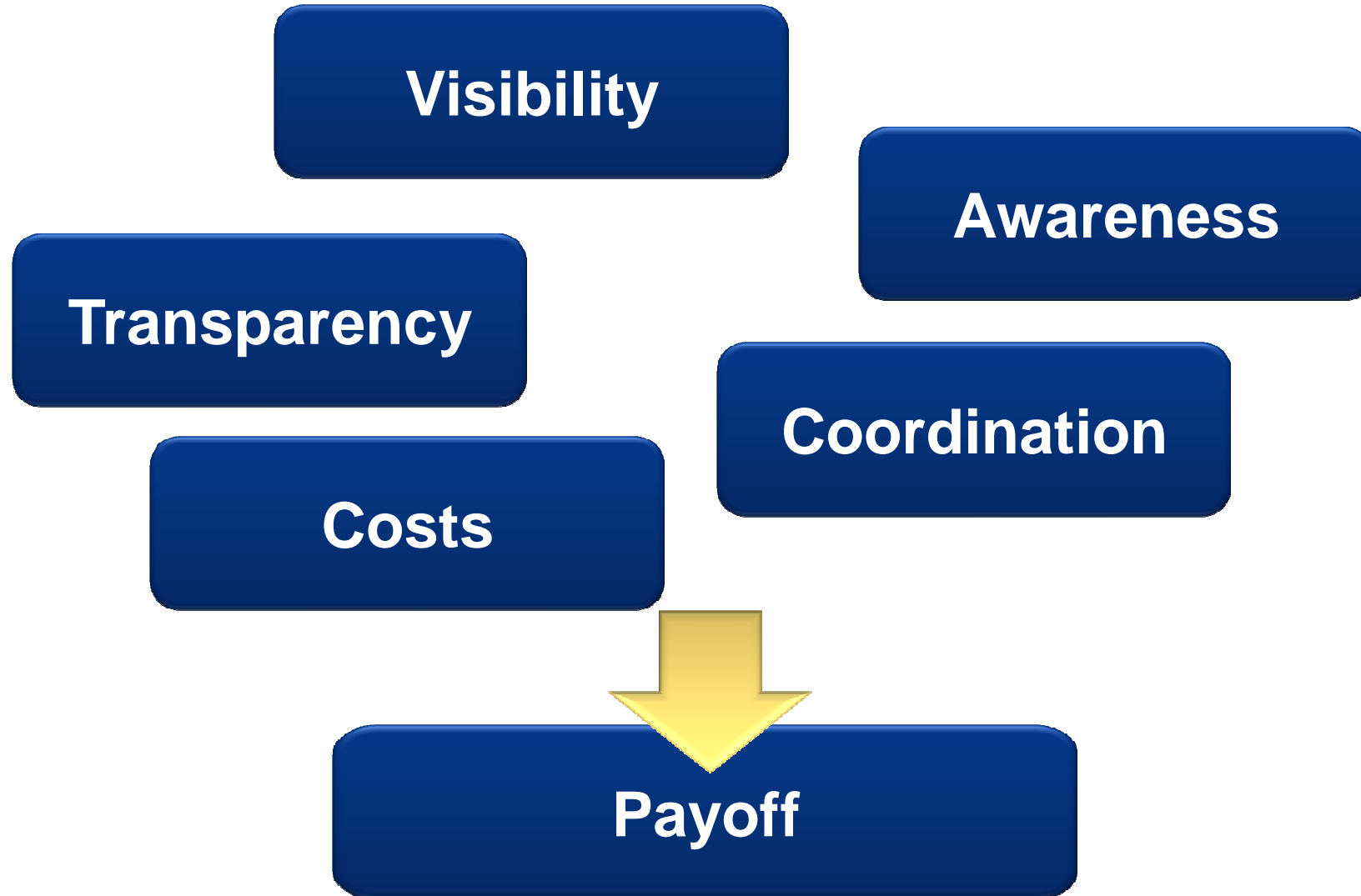


Which information do they need?

Which visualization is adequate?



## Experiencing the benefits



# SUMMARY & CONCLUSION

## Summary

Think service-oriented...

- information system's are composed by **services**
- services are consumed and provided by **agents**
- service invocations are **interactions**
- each interaction is characterized by **behavior** and **value flow**

... also in **security** !

- each service composition has **security characteristics**
- security characteristics influence **behavior** and thus the **value**
- **deviation** from **normal behavior** causes **value deviation**
- value deviation caused by security deviation is **security risk**



## Conclusion



“It is clear the future holds great opportunities.  
It also holds pitfalls.

The trick will be to avoid the pitfalls,  
seize the opportunities,  
and get back home by six o'clock.”



Woody Allen

Contact:

Heiko Kirsch  
CASSIDIAN  
Cyber Security Customer Solutions

[heiko.kirsch@cassidian.com](mailto:heiko.kirsch@cassidian.com)

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