



Homeland  
Security

**Talk with the Authors of NISTIR 8011**

**March 31, 2016**

**1:00 pm – 3:00 pm**

**A CDM Learning Community Event**

# The CDM Learning Program

## CDM Learning Program – What’s in it for you:

- Monthly Learning Community Event (CDM-LCE)
  - CDM leaders and implementers discuss relevant CDM topics in-depth, either in a live face-to-face session or using a virtual platform such as AvayaLive!
- Monthly Webinars
  - CDM experts deep-dive into specific CDM topics and participants are able to ask relevant questions using a text-chat function
- Weekly CDM Bits & Bytes
  - Short email awareness tips that link to additional content posted to the CDM Learning forum on GovLoop
- Online Vignettes
  - Short video vignettes which allow the learner to develop foundational knowledge around key CDM concepts and topics

Resources Available: <https://www.us-cert.gov/cdm>

Sign up to receive information on Learning Community Events  
by emailing [cdmlearning@hq.dhs.gov](mailto:cdmlearning@hq.dhs.gov)



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# Today's Agenda

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- Welcome and overview of today's event
- Panelist introductions, opening remarks
- Moderated Q&A session – Talk with the Authors of NISTIR 8011
- Panelists closing comments
- Final remarks, conclusion



# NISTIR 8011 Vol 1 and Vol 2

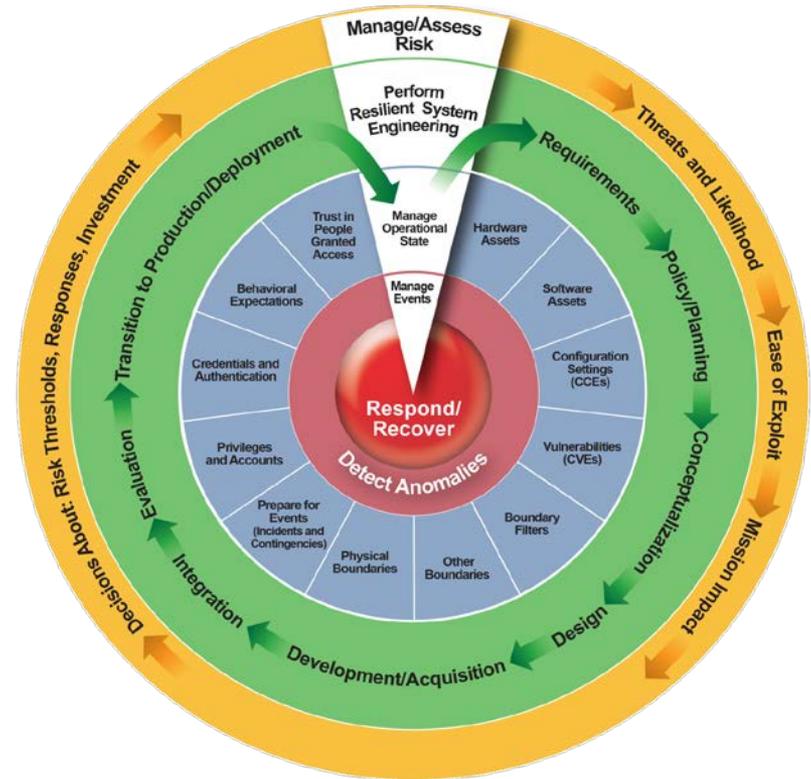
## Automation Support for Security Control Assessment

### Today's Panelists

**Kelley Dempsey, NIST**

**Paul Eavy, DHS FNR**

**George Moore, JHU APL**



# Event Conclusion

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## Thank you for attending today's CDM Learning Community Event!

- A certificate of attendance will be available to download on the CDM Learning Program website at [www.us-cert.gov/cdm/training](http://www.us-cert.gov/cdm/training), within one week of today's event
- Visit our website to learn more about the CDM Learning Program and upcoming events at [www.us-cert.gov/cdm](http://www.us-cert.gov/cdm)
- For any questions or comments, please email us at [www.cdmlearning@hq.dhs.gov](mailto:www.cdmlearning@hq.dhs.gov)



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# BACKUP SLIDES

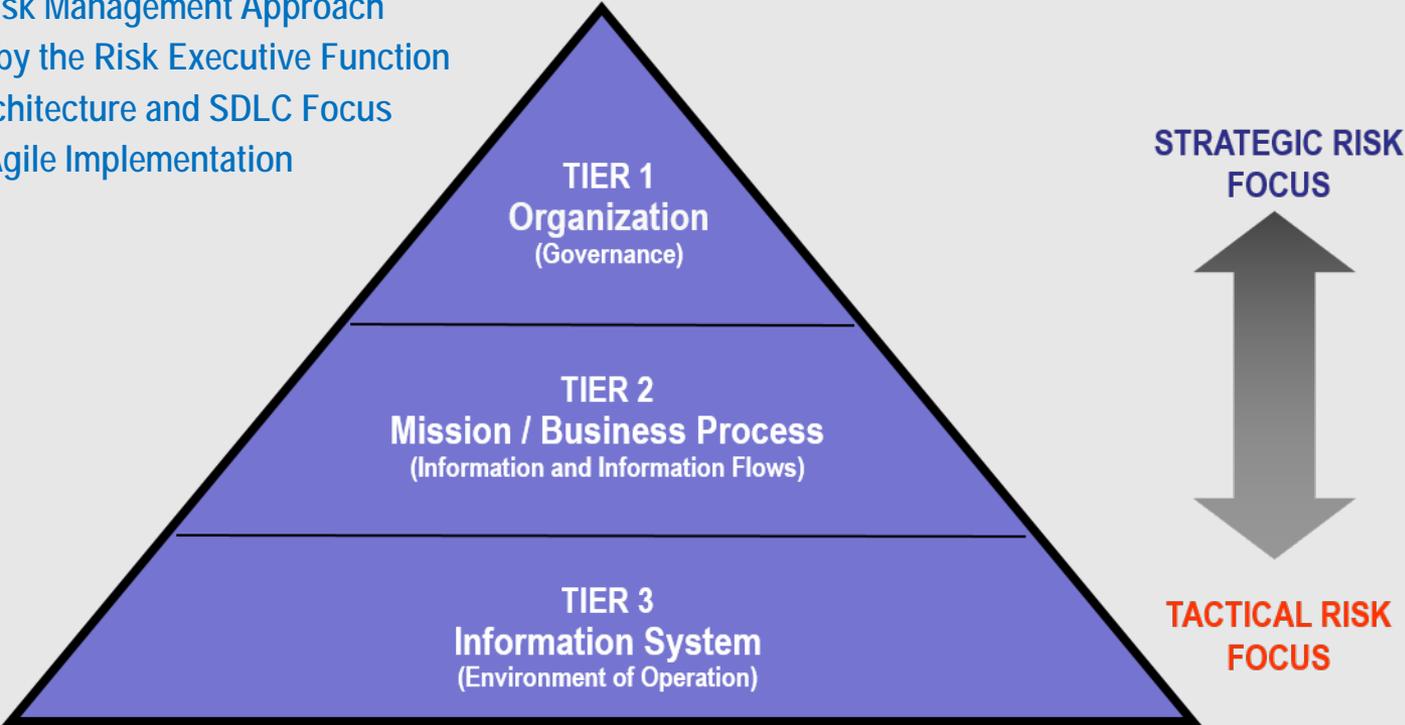


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# Enterprise-Wide Risk Management

- Multi-tiered Risk Management Approach
- Implemented by the Risk Executive Function
- Enterprise Architecture and SDLC Focus
- Flexible and Agile Implementation

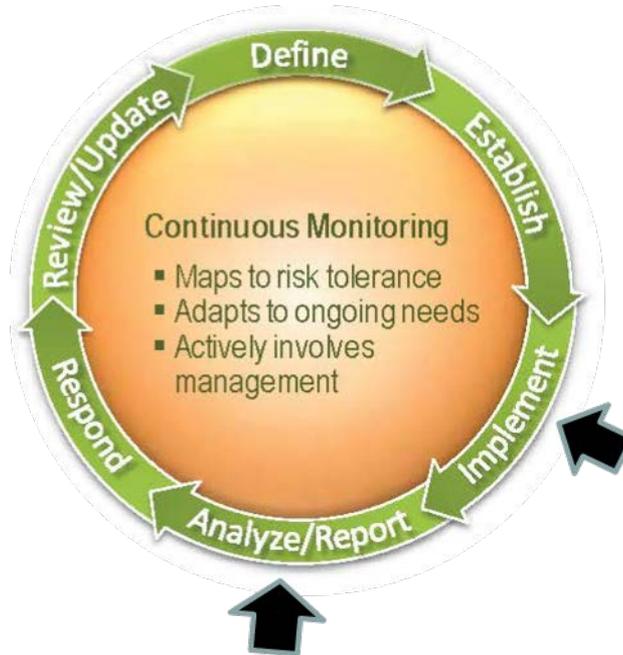


Source: NIST, SP 800-37



# Linkage between Monitoring and Automated Assessment

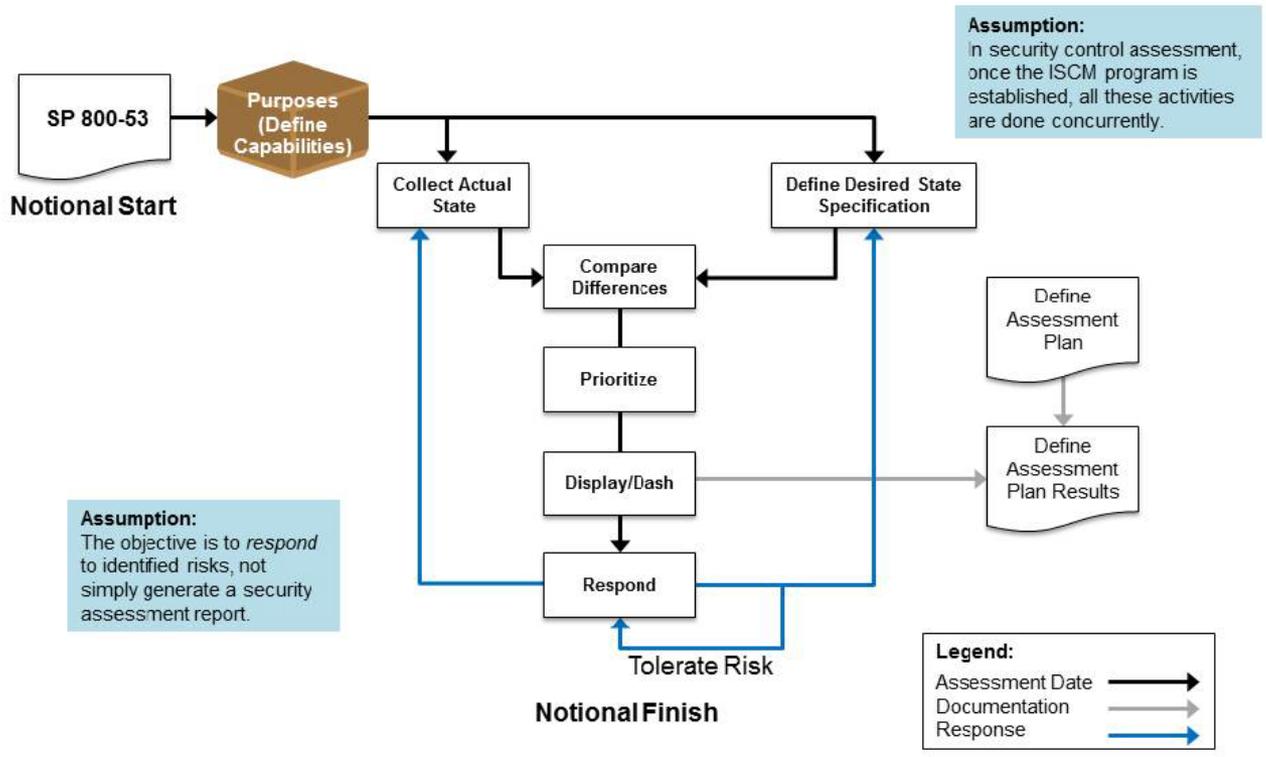
**NIST SP 800-137**  
Information Security  
Continuous  
Monitoring (ISCM) for  
Federal Systems and  
Organizations



In the ISCM process, automated assessment encompasses the *Implement* and *Analyze and Report* steps.

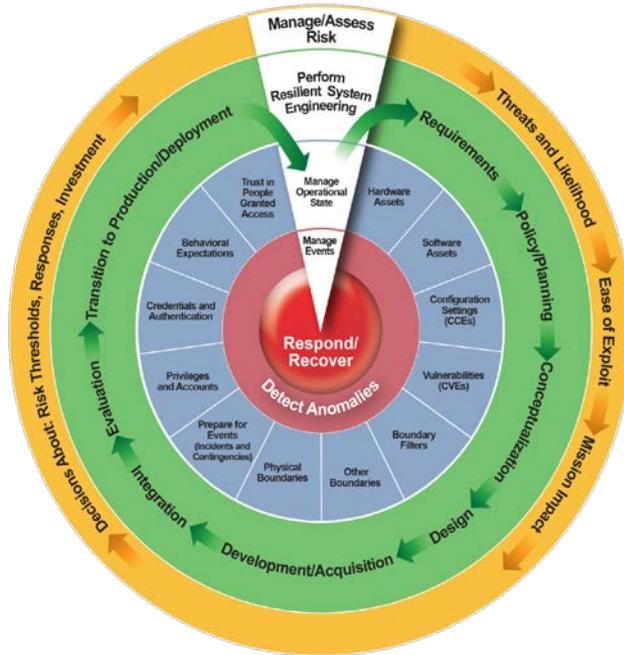


# Overview of the ISCM Ongoing Assessment Process



Source: NISTIR 8011, vol 1

# ISCM Security Capabilities



As suggested by SP 800-53A Rev 4, security *capabilities* are groups of security controls working together to support a particular *purpose*.

ISCM Security Capabilities

NISTIR 8011 Automation Support for Security Control Assessment



# Defending Against Attack Steps

## Attack Steps

1) Gain Internal Entry

2) Initiate Attack  
Internally

3) Gain Foothold

4) Gain Persistence

5) Expand Control —  
Escalate or Propagate

6) Achieve Attack  
Objective

The common *purpose* of each security capability is to block or limit the damage from one or more step(s) of a cybersecurity attack.



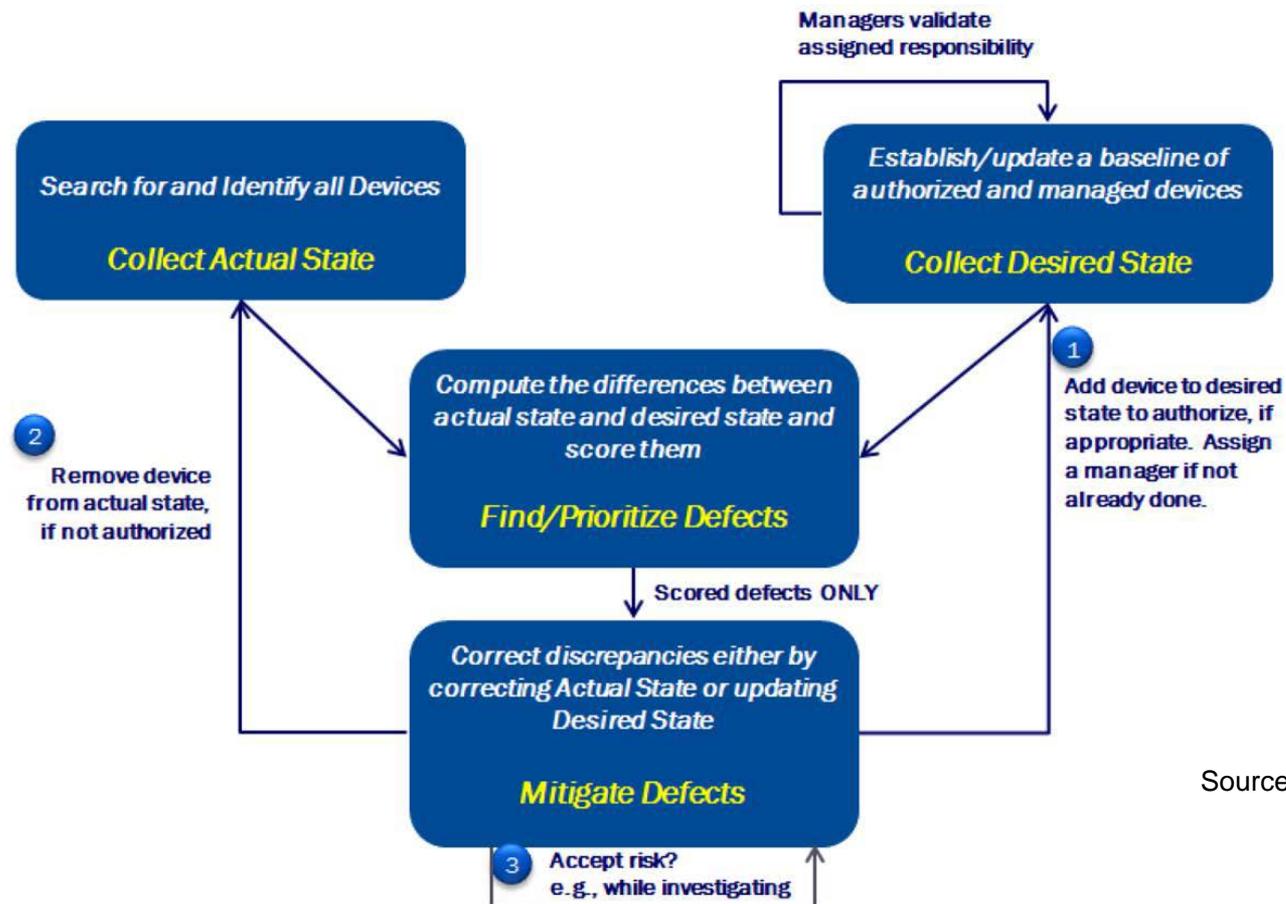
# ISCM Security Capabilities Defend Against Attack Steps

## Attack Steps

1) Gain Internal Entry
2) Initiate Attack Internally
3) Gain Foothold
4) Gain Persistence
5) Expand Control – Escalate or Propagate
6) Achieve Attack Objective



# HWAM Concept of Operations



Source: NISTIR 8011, vol 2

