Applying the CERT® Resilience Management Model to the Counter-Insider Threat Mission

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Document Markings

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Operational Resilience

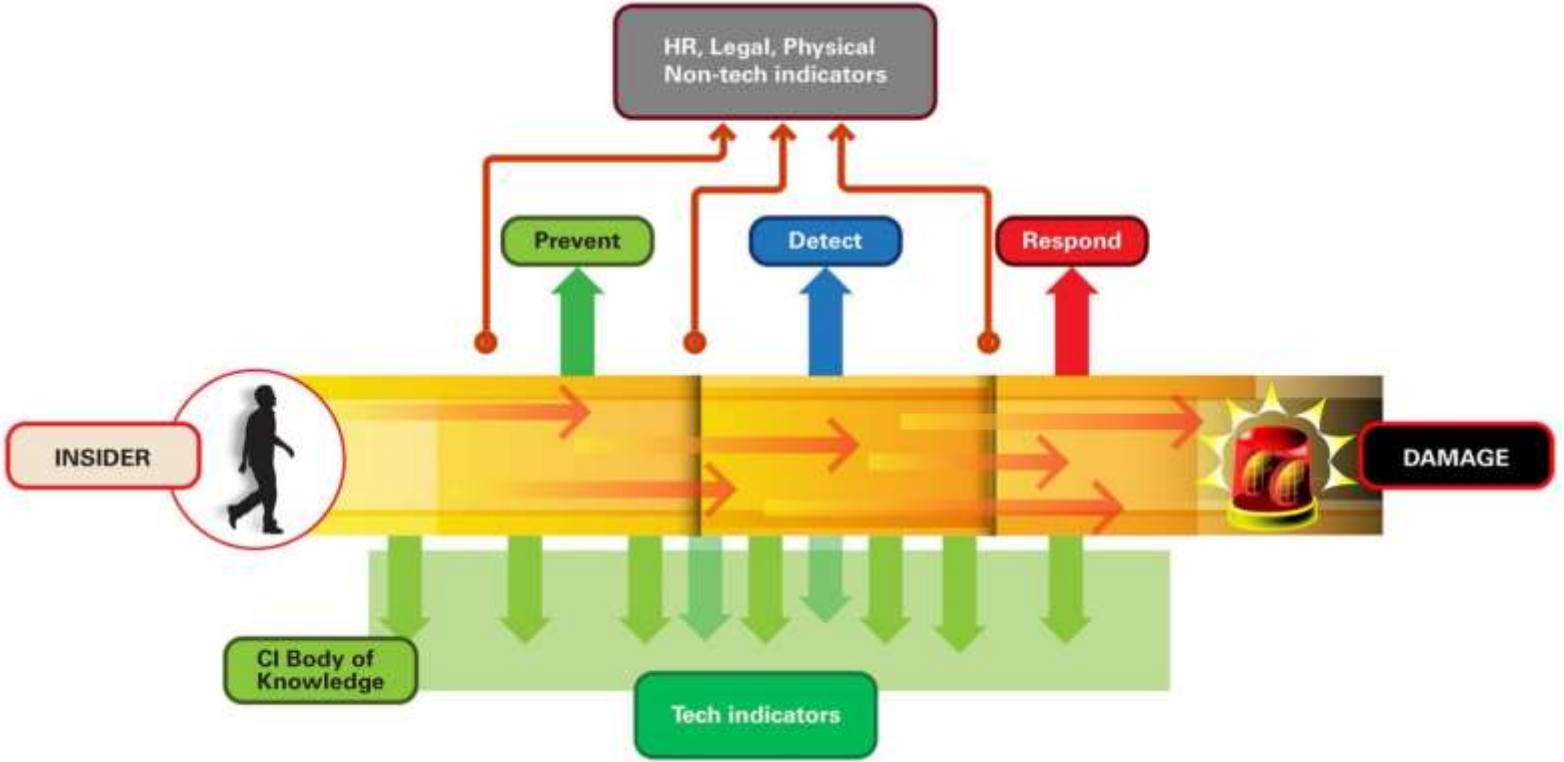
Operational resilience: The *emergent property* of an organization that can continue to carry out its mission in the presence of operational *stress* and *disruption* that does not exceed its limit.

Stress and *disruption* come from **risk**

Risk is the impact and likelihood associated with a threat occurring

Operational resilience emerges from effective **risk management**

The Goal for an Insider Threat Program…



Is to reduce insider risks to critical assets to acceptable levels

https://insights.sei.cmu.edu/insider-threat/2020/01/maturing-your-insider-threat-program-into-an-insider-risk-management-program.html

“Acceptable Levels”? Quantifiable and Actionable Risk Appetite Statements for Likelihood and Impact

Executive Attention

- Threat is between 75-99% likely to occur within the next year, or has occurred within the industry in the last year

Management Attention

- Threat is between 30-74% likely to occur within the next year, or has occurred within the industry in the last two years

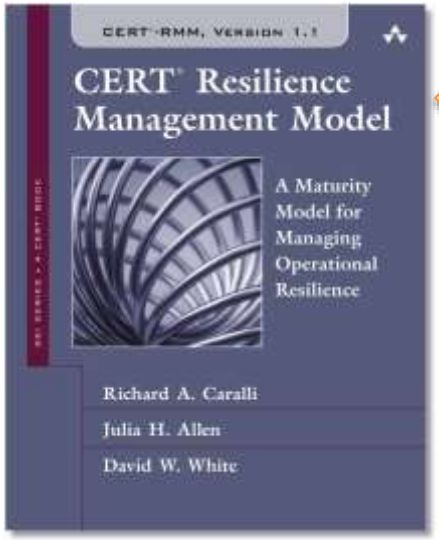
Front Line Attention

- Threat is between 1-29% likely to occur within the next year, or has occurred within the industry in the last 5 years

	Revenue (Operating Profit)	Safety	Operations	Reputation	Compliance	Human Capital	Projects
Escalate to Executive Attention	Any more than a 10% deviation from planned operating profit for a quarter	Loss of life or permanent disability	No more than three days of lost operations	Loss of market segment with multiple customers	Debarrment from a particular market segment linked to regulatory violation(s)	Any more than 5% high performer attrition from any business unit in a quarter	Liquidated damages that exceed contract value
Escalate to Management Attention	Any more than a 5% deviation from planned operating profit for a quarter	Time away or other reportable incident	No more than one day of lost operation	Loss of customer	Any fines or other penalties linked to regulatory violation(s)	Any more than 3% high performer attrition from any business unity in a quarter	Liquidated damages that erode the margin as sold
Provide Front Line Attention	Any deviations from planned operating profit for a quarter	Bumps, strains, bruises	No more than one shift of lost operation	Customer complaints or negative social media buzz	Any warnings linked to regulatory violation(s)	Any developing trend in high performer attrition	Minor disputes with limited contractual impact

https://www.rsaconference.com/industry-topics/presentation/finding-the-right-answersfacilitating-insider-threat-analysis-using-octave

CERT Resilience Management Model (CERT-RMM)



Framework for managing and improving operational resilience

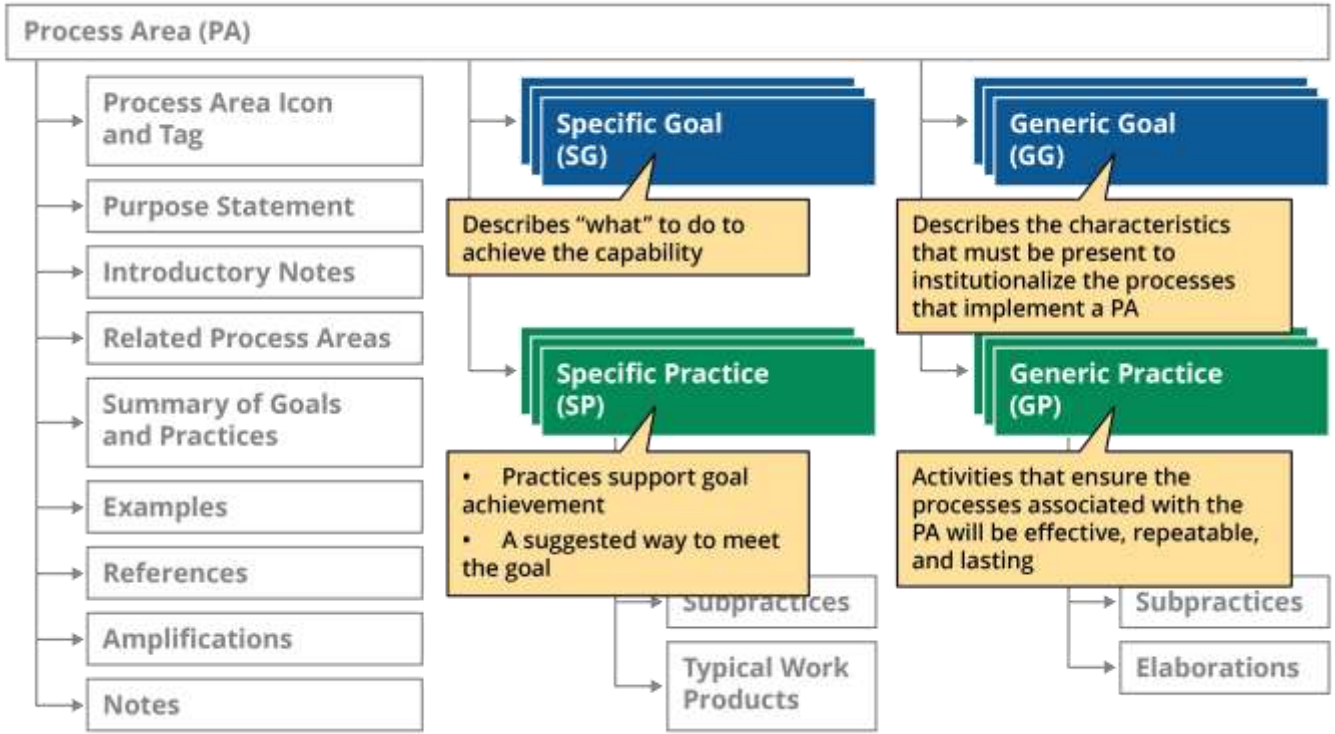
http://www.cert.org/resilience

"…an extensive super-set of the things an organization could do to be more resilient."

- CERT-RMM adopter

Desired Integrated Approach

RMM Structure & Components



CERT-RMM by the Numbers

RMM Categories and Process Areas

Engineering	
ADM	Asset Definition and Management
CTRL	Controls Management
RRD	Resilience Requirements Development
RRM	Resilience Requirements Management
RTSE	Resilient Technical Solution Engineering
SC	Service Continuity

Enterprise Management	
COMM	Communications
COMP	Compliance
EF	Enterprise Focus
FRM	Financial Resource Management
HRM	Human Resource Management
OTA	Organizational Training and Awareness
RISK	Risk Management

Operations	
AM	Access Management
EC	Environmental Control
EXD	External Dependencies Management
ID	Identity Management
IMC	Incident Management and Control
KIM	Knowledge and Information Management
PM	People Management
TM	Technology Management
VAR	Vulnerability Analysis and Resolution

Process Management	
MA	Measurement and Analysis
MON	Monitoring
OPD	Organizational Process Definition
OPF	Organizational Process Focus

Where Insider Threat Programs Traditionally Focus

Engineering		
ADM	Asset Definition and Management	
CTRL	Controls Management	★
RRD	Resilience Requirements Development	
RRM	Resilience Requirements Management	
RTSE	Resilient Technical Solution Engineering	
SC	Service Continuity	

Enterprise Management		
COMM	Communications	★
COMP	Compliance	
EF	Enterprise Focus	★
FRM	Financial Resource Management	★
HRM	Human Resource Management	★
OTA	Organizational Training and Awareness	★
RISK	Risk Management	

Operations		
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ID	Identity Management	★
IMC	Incident Management and Control	★
KIM	Knowledge and Information Management	
PM	People Management	
TM	Technology Management	★
VAR	Vulnerability Analysis and Resolution	★

Process Management		
MA	Measurement and Analysis	★
MON	Monitoring	★
OPD	Organizational Process Definition	
OPF	Organizational Process Focus	

Where Insider Threat Programs Need To Expand

Engineering		
ADM	Asset Definition and Management	★
CTRL	Controls Management	
RRD	Resilience Requirements Development	★
RRM	Resilience Requirements Management	★
RTSE	Resilient Technical Solution Engineering	★
SC	Service Continuity	★

Enterprise Management		
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Process Management		
MA	Measurement and Analysis	
MON	Monitoring	
OPD	Organizational Process Definition	★
OPF	Organizational Process Focus	★

Resources and Tools for Operational Resilience Management

- CERT Resilience Management Model
  - https://resources.sei.cmu.edu/library/asset-view.cfm?assetid=8419
- RMM Code of Practice Crosswalk
  - https://resources.sei.cmu.edu/library/asset-view.cfm?assetid=508084
- RMM NIST SP 800 Series Crosswalk
  - https://resources.sei.cmu.edu/library/asset-view.cfm?assetid=93044
- Operationally Critical Threat, Asset, and Vulnerability Evaluation
  - https://resources.sei.cmu.edu/library/asset-view.cfm?assetID=309051
- CERT Common Sense Guide to Mitigating Insider Threats
  - https://resources.sei.cmu.edu/library/asset-view.cfm?assetid=540644

Conclusion

The Counter-Insider Threat Program of the future is an integrated, proactive, risk-based mission enabler that makes its organization operationally resilient against insider threats.

How do we get there?

- By expanding relationships with traditionally under-represented insider threat program stakeholders
- By clearly articulating program goals and risk appetite
- By placing an emphasis on process institutionalization, yielding more stable processes that produce consistent results over time that are retained during times of stress

Presenter Contact Information

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