

#### **Data Loss Prevention Overview**

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Cisco Mid-Atlantic Users Group

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# **Background Information**

- Bob Bagheri, Network Consultant
- CCSP,CCNP,CICSA
- Working with Netcraftsmen since 2007
- Prior to Netcraftsmen mostly internal OPS
  - Fortune 500
  - Telco
  - Financial Institution
  - Biotech





# Agenda

What is DLP?





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- What/Why/How
  - What are we protecting?
  - Why are we protecting it?
  - How are we protecting it?





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- What is DLP?
- What/Why/How
  - What are we protecting?
  - Why are we protecting it?
  - How are we protecting it?
- Three functional areas of DLP
  - Policies
  - People
  - Technology





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- For Cisco engineers: EDLP Egress Data Loss
   Prevention





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# Why Do We Need DLP Methods



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  - Additional Creative DLP Training Needed For All Users









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  - Classification leads to proper response methods.



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- Culture Dictates Behavior
  - Smartphone
  - CVO





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    - Tangible costs approximately \$220 per user
      - Paper notifications, mandatory credit monitoring, regulatory compliance failure penalties, etc.
    - Intangible costs difficult to calculate
      - Brand un-loyalty
      - Corporate Reputation
      - (Intel IP example)





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- Must audit and review on a regular basis. Helps build behavior pattern and fine tune DLP policies.
- Tools similar to AAA accounting, NetFlow help know "appropriate user behavior".
- Utilize SIEM tools for rapid response.











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- Integrate DLP into the Information Security Policy as much as possible.
- Align your policy enforcement with your data loss risk levels.
- Continuously update and modify your security policy
- Create a internal "security policy evangelist" team or person within your company.





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- Drive the policy to the user in different formats.
   Paper (legacy), posters, multimedia, social networking, DLP awareness reward programs.
- Treat data like \$Cash\$. Most people hate losing cash and try extra hard to keep it safe. (Most people don't send cash in mail, similarly they might think about encrypting data before sending it via the Internet).





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- Come to an agreement about using personal devices for work, i.e. Android, iPhone, iPad, HP Slate
- Don't assume that your employees are already aware of IT security best practices.





#### People

"Company data continues to be put at risk not by ingenious code breaking on the part of hackers but by careless mistakes made by employees. The global study by Insight Express and funded by Cisco, concludes that education of workers to the impact of their behavior should be the first line of defense."



#### People

"The findings of inadequate training come at a particularly dangerous time. The <u>penalties and marketplace damage</u> from data losses are bigger than ever. In addition, data loss is increasingly occurring not from hackers or deliberate theft but due to <u>mishandling</u>, human error, carelessness, technical failure, or other inadvertent cause."



### **Intellectual Property Loss**

According to The Associated Press, 33-year-old
Biswamohan Pani downloaded the confidential documents

 worth up to \$1 Billion dollars (insert Dr. Evil grin here) back in June after resigning from rival microprocessor
manufacturer Intel. However, before leaving the company,
he used his remaining paid vacation days, thus sat at home
with full access to Intel's network and earning a paycheck
while gathering trade secrets. At the same time, Pani also
began working for AMD. Naturally, the situation sounds
rather suspicious on AMD's part.





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# **TECHNOLOGY**





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- Without Technology, it is practically impossible to stay within required regulatory compliance.
- The technology you choose must protect your data end-to-end. (Data at rest, in motion, in use).
- The chosen DLP technology must enforce your Information Security Policy remediation actions.





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  - Cisco



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    - CSA (Incredible DLP End Point Enforcement)



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  - Cisco
    - CSA (Incredible DLP End Point Enforcement)
    - IronPort (Integrated RSA/DLP Engine)
      - -Email
      - -Web



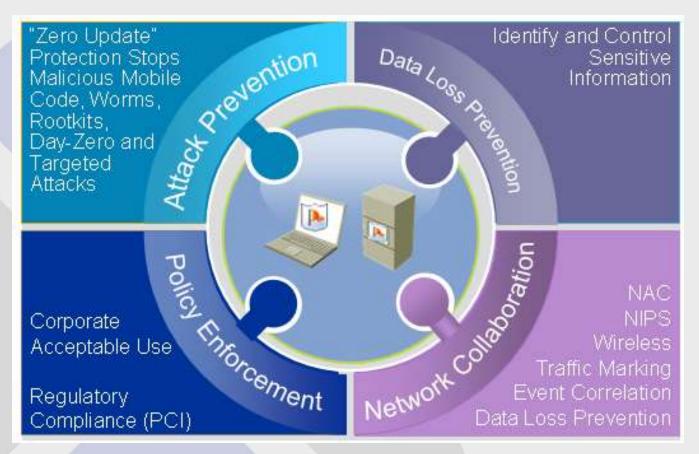
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  - Cisco
    - CSA (Incredible DLP End Point Enforcement)
    - IronPort (Integrated RSA/DLP Engine)
      - -Email
      - -Web
    - Integrated security in all devices.
       (Encryption, 802.1x, NetFlow, TrustSec).





## **Cisco Security Agent**

Always Vigilant Comprehensive Endpoint Security





#### Server Protection



EMENIT

SINGLE INTEGRATED AGENT AND MANAGEMENT





#### Policies in IronPort "RSA Email DLP" Add-on

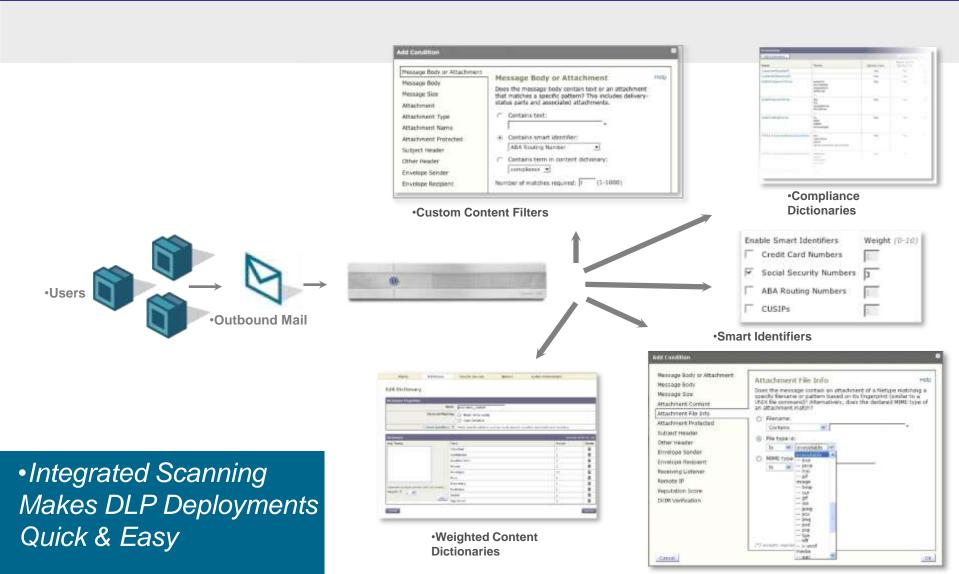
Policy Category	Number of Policies	Examples
Privacy Protection	52	<ul><li>US Social Security Numbers</li><li>Canada Social Insurance Numbers</li><li>Australia Tax File Numbers</li></ul>
Regulatory Compliance	34	<ul> <li>Payment Card Industry Data Security Standard (PCI-DSS)</li> <li>HIPAA (Health Insurance Portability and Accountability Act)</li> <li>FERPA (Family Educational Rights and Privacy Act)</li> </ul>
Acceptable Use	11	•Suspicious Transmission - Spreadsheet to Webmail •Encrypted and Password-Protected Files
Company Confidential	6	Network Diagrams     Corporate Financials
Intellectual Property Protection	2	•Source Code





#### **Data Loss Prevention Foundation**

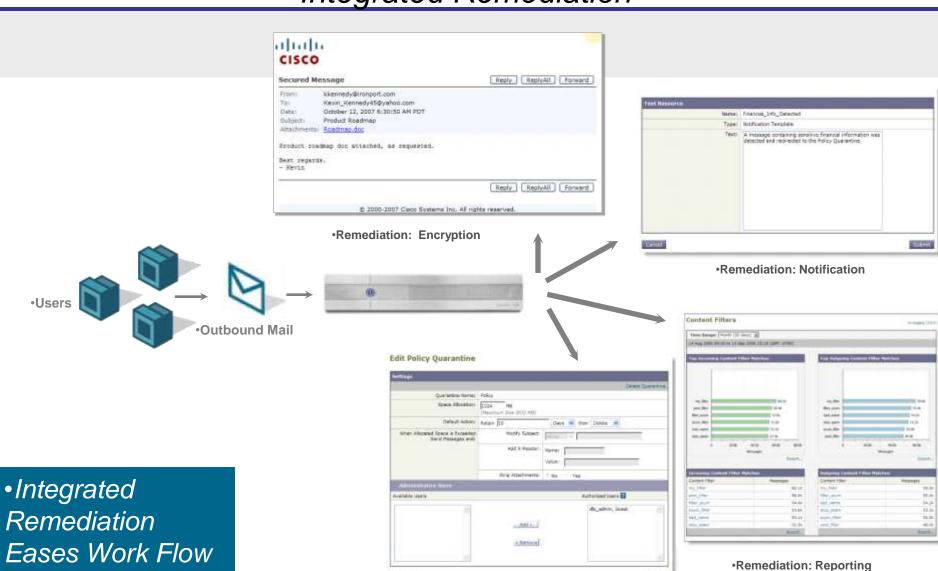
Integrated Scanning



Attachment Scanning

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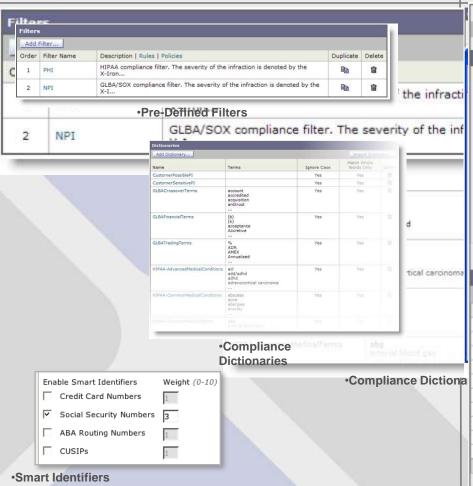
Integrated Remediation



Remediation Eases Work Flow Burden

Remediation: Quarantine

#### Scanning Work Flow



cisco.

PARTNER

#### Remediation Work Flow



RSA DLP Suite





- RSA DLP Suite
- Complete end to end solution



RSA DLP Data Center





RSA DLP DATA CENTER

RSA DLP NETWORK



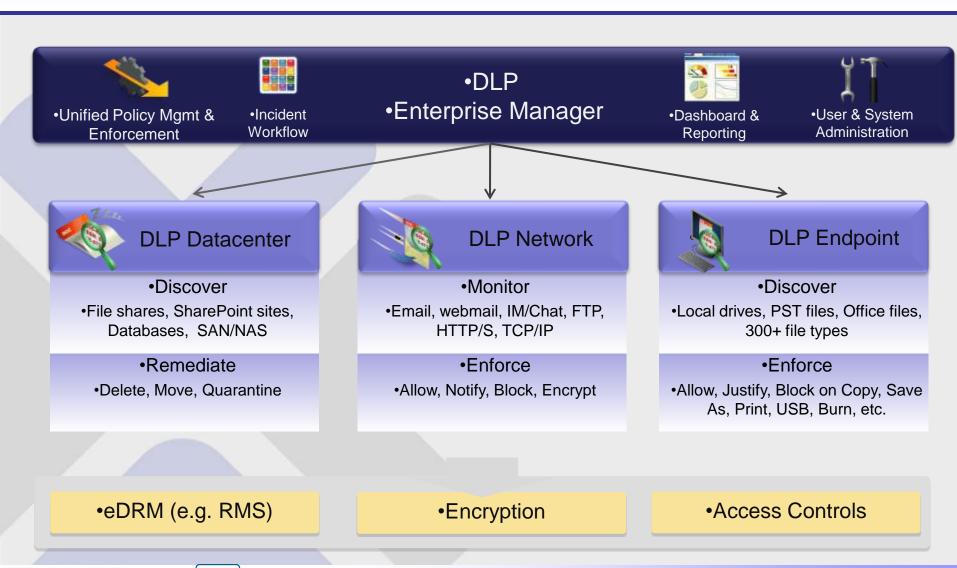
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RSA DLP END POINT



#### RSA Data Loss Prevention Suite





### CONCLUSION

POLICY





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# ALWAYS REMEMBER THE 10/10/80 RULE ©

