# **Security and Data Protection**

# Kamlesh Bajaj Data Security Council of India

21<sup>st</sup> August, 2008

OWASP Seminar on Application Security

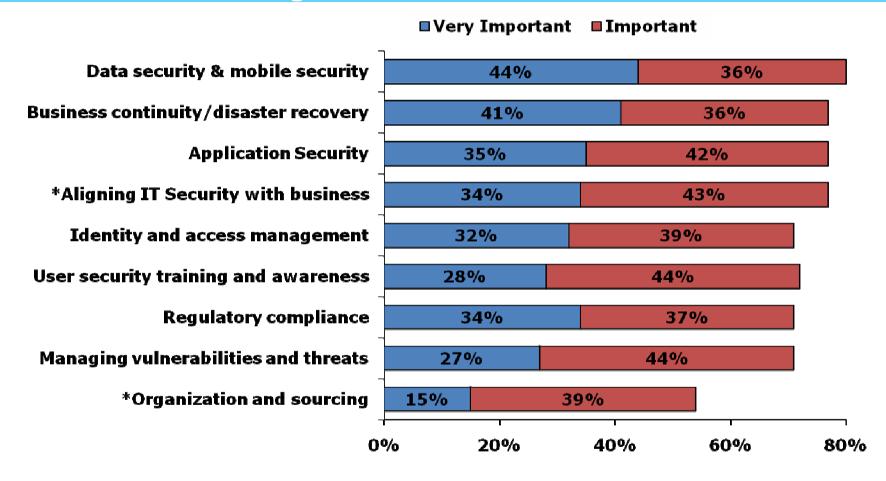
New Delhi





#### **Top Issues: Data Protection Leads, Compliance and Threats Trail**

# "How important to your IT Security organization will each of the following issues be in the next 12 months?"



Base: 2212 Security decision-makers at North American and European companies \*1007 Security decision-makers at North American and European enterprises

Source: Security Survey, North America And Europe, Q3 2007

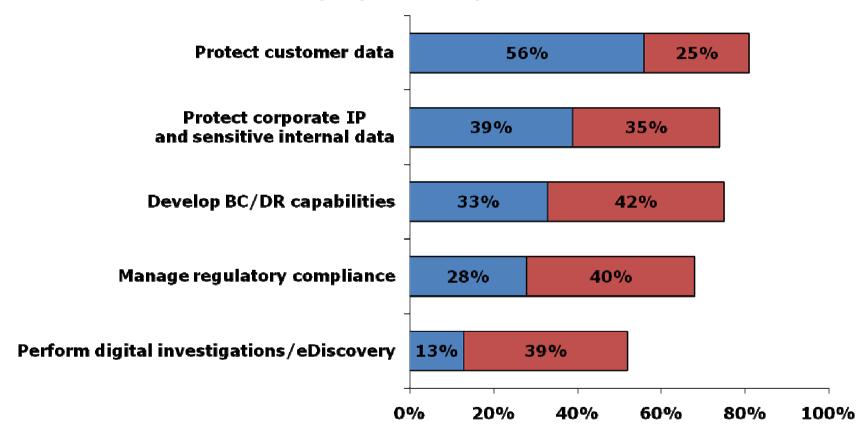




#### **Data Protection is the Leading Business Objective as well**

"How important to your IT Security group will each of the following business objectives be in the next 12 months?"





Base: 2212 Security decision-makers at North American and European companies

Source: Security Survey, North America And Europe, Q3 2007





### **Security Threat Scenario**

#### **External Threats**

- Viruses, worms, Trojans malware
- Spyware
- Bots
- Exploit vulnerabilities in platforms, applications
- Launch attacks using unsuspecting users' desktops
- Mail attachments
- Spam
- IRC attacks
- Phishing
- DNS spoofing/poisoning
- DDoS

#### **Internal Threats**

- A DBA wiped out critical data after supervisor undermined her authority
- Disgruntlement due to unmet expectations
- Behavioral precursors present, but ignored by organizations
- Insiders create, or use access paths unknown to mgmt to set up their attack and conceal their identity or actions
- Organizations fail to detect precursors
- Lack of physical and electronic access controls facilitate sabotage





### **Data Scenario & Security Requirements**

#### **Data Scenario**

- □ Data on laptops
- □ Data in files and databases
- Data in Word files
- Data in spreadsheets
- Data sent in emails
- □ 75 % of all IPRs in emails
- □ 75 % of all litigation involves some kind of email discovery
- ☐ 1 in 50 files contains confidential information
- ☐ 1 in 400 emails contains confidential information

#### **Security Requirements**

- ☐ Perimeter security
- □ Platform security
- Endpoint security
- □ Application Security
- ☐ Email Security
- ☐ Authentication & Authorization for access to data
- ☐ Identity protection
- □ Customer data protection
- ☐ IPR Protection





# **Securing the Enterprise**

**Information Security - Strategic View** 

- Infrastructure Protection: keep the unauthorized users out – FW, IDS, IPS, AV, SCM, MSS
- Secure Business Enablement: <u>let</u>
  <u>the genuine users in</u> IAM, strong
  authentication, access controls, digital
  rights management
- Security Administration: keep the wheels going – security operations, security awareness, information security organization, BCP/DR

#### **Information Security - Operational View**

#### Threat Management

Perimeter, internal network, applications security; VoIP, Web services, and storage networks, Wireless and mobile security; Moving from detection to prevention; Application layer protection

- Secure Content Management
  Spam, Spyware, Adware, Web
  content
- Security and Vulnerability Management

Risk management , Application and software security vulnerability mgmt

• Identity and Access Management

Access control, Identity confirmation, User provisioning

• Information Security Service

Threat focus, Application security, MSS

IS strategic view same as before, but more and more security concerns





## **Securing the Enterprise**

#### **Top Security Concerns**

- ■Security-conscious people, an important layer in defense-in-depth security strategy awareness programs
- ■Secure perimeter, weak web apps embed security in app dev
- ■Mobile technology significant risk
- □ Identity management and access control need to work in concert
- BCP/DR dev and implementation
- □Information Leak Prevention
- □Protect Data secure data rather than infrastructure: data-centric model - define strategy : info classification and data encryption

#### **Security Organization**

- ☐ Enterprises need structured approach to Governance, Risk, and Compliance (GRC)
- □ Risk Management Program -> Enterprise Security Strategy -> Enterprise Security Program
- As part of RMP, align security with business security business enabler
- ☐ Use governance framework to facilitate compliance and security
- ☐ Focus on security process to achieve maturity, in addition to controls and security architecture
- Define security metrics based on business objectives and security priorities
- ☐ Security program maturity takes 5 years of effort: roles & responsibilities, controls, architecture, process maturity, architecture migration
- Outsourcing strategies

Need to protect enterprise information assets throughout lifecycle Not merely a technology problem - Security culture, awareness, controls, processes





### **DSCI - Mission**

☐ To create awareness among industry professionals and other stakeholders about security and privacy issues ☐ To build capacity & provide training among members to develop, & continually improve appropriate data protection & security programs ☐ To adopt, monitor & enforce an appropriate security & data protection standard for the Indian IT/ITES industry that would be adequate, cost effective, adaptable & comparable with the global standards ☐ To create a common platform for promoting sharing of knowledge about information security & to foster a community of security professionals & firms ☐ To provide appropriate oversight and certification services for member organizations





# **DSCI – Objectives**

- ☐ Adoption of Best Global Practices
- ☐ Independent Oversight
- □ Self Regulation
- ☐ Focused Mission
- Enforcement Mechanism





### **Thank You**

Kamlesh Bajaj CEO, DSCI kamlesh.bajaj@dsci.in



