CLOUD SECURITY ISSUES USING THE EXAMPLE OF GOOGLE CLOUD SYSTEMS

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Why Cloud Services?

- Reduced costs
- Increased flexibility & scalability
- Customer only needs to pay what used (not local resources)

- Security concerns

Threats to the Cloud

- Distributed Denial of Services (DDoS)

- Man in the middle

- Data Breaches

- Data Loss

- Account or Service Traffic Hijacking

- Insecure APIs

- Malicious Insiders

Security Issues (1)

- Service provider security issues
  - Identity and Access Management
  - Privacy
  - User Identity
  - Securing Data in Transmission
  - Audit and Compliance
- Infrastructure Security Issues
  - Securing data-storage
  - Network and Server

Security Issues (2)

- End User Security Issues
  - Security as a service
  - Browser Security
  - Loss of Governance
  - Lock-in
  - Data protection

Google's Security Management

- At multiple levels of data storage, access, transfer
  - Google corporate security policies
  - Organizational security
  - Data Asset Management
  - Access Control
  - Physical and Environmental Security
  - Infrastructure Security
  - Systems Development and Maintenance
  - Disaster Recovery and Business Continuity

Google's Infrastructure Security Layers

- Infrastructure Security
  - Network Security
  - Malware Prevention
  - Monitoring
  - Vulnerability Management
  - Incident management
  - Transport Layer Security
  - Operating System Security

Outlook on use of cloud services

- Google offers good solutions
- Provides as secure as possible environment
- Use in enterprises could grow

References

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