

## The Second International Conference on Evolving Internet

**INTERNET 2010** 

Understanding, preparing for and developing compliance plans for regulatory issues governing cloud computing

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### Roadmap



# Roadmap

- Cloud definition workshop
- Understanding a cloud transaction
- Negotiating a cloud contract
- Understanding a compliance plan
- Evaluating risk in a cloud transaction
- Creating a compliance plan

Creating a cloud compliance plan



**Business risks** 

**Operational risks** 

Legal risks

**Regulatory risks** 





- Email
- Office Applications
- Payroll
- Backbone



## Cloud definition workshop





### Cloud definition workshop





### Cloud definition workshop



- Email
- Office Applications
- Payroll
- Backbone



Platform

Software

Infrastructure



Platform as a Service - PaaS

- Infrastructure
  - computing platform
  - "solution stack"
  - uses distributed infrastructure components
- Supports cloud applications
  - allows deployment of customer applications
  - vendor assumes management of underlying hardware and basic software



Software as as a Service - SaaS

- Software as selling point
  - COTS software
  - Centralized patch management
  - data preservation / backup
- Distributed delivery
  - Web access
  - one to many distribution



Infrastructure as as a Service - IaaS

- Cloud is the platform
- Virtual data center
  - No capital outlay
  - A-la-cartre hardware use
- Billed as a utility
  - Pricing feature or use based



- Email
- Office Applications Software
- Payroll
- Backbone

- Servers
- Data Center Space
- Network Equipment
- Development Resources
- Feature Updating

- PaaS
- SaaS
- laaS



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- Servers
- Software
- Data Center Space
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- Development Resources
- Feature Updating



### Understanding Risk





### **Understanding Cloud Contracts**



In what country is the provider located?



Where is the provider's infrastructure?



Will other providers be used?



### **Understanding Cloud Contracts**



Where will the data be physically located?





How will data be collected, processed, transferred?



What will happen to the data on termination?





Security

Data transfer



Disposition of data on termination



Change of control



Access to data





## Security

- Define "breach"
- Determine when a breach happens
- Assume there will be data breach laws
- Review any laws that my currently exist
- Understand who will be responsible for security
- Create enforceable contract terms
- Remember post termination issues
- Understand that you may not be made whole





## Data Transfer

- How is the cloud structured?
- Understand concepts like: controller, processor, transfer and aggregation.
- Limit uses
- Require flow down and flow up contract terms
- Evaluate whether "Safe Harbor" is appropriate
- Create methods to address data leakage





Disposition of data upon termination

- Review data retention laws
- Specify terms for deletion / transfer
- Set out obligations for security post termination





# Change of control

- Specify who owns the data
- Set out access terms
- Define what information may be sold





## Access to data

- Understand how cloud is outsourced / subcontracted
- Review your obligations to provide access to police
- Review your provider's obligations to provide access
- Research your laws about third party police access
- Set out notification and consent provisions





# **Privacy Regulations**

Jurisdiction





Data Subjects, Controllers and Processors:

Data Subjects: originators of the data Controllers: collectors of the data Processors: manipulators of the data



Jurisdiction over the contract



Whose law governs Where the dispute is heard Change in judicial presumptions

Jurisdiction over the data



Data protection directive Export control laws



• Email

- Servers
- Office Applications
  Software
- Payroll
- Backbone

- Data Center Space
- Network Equipment
- Development Resources
- Feature Updating
- Notification of breaches in security
- Data transfer
- Disposition of data on termination
- Change of control
- Access to data
- Jurisdiction
- Privacy

- PaaS
- SaaS
- laaS



### Creating a cloud compliance plan



Legal risks

**Regulatory risks** 



2. Craft policy



4. Training and communication



#### Craft policy – email outsourcing





### Craft policy – email outsourcing



Security

Data transfer



Disposition of data on termination



Change of control



Access to data





# Contract provisions

- Breach: malicious.
- Breach: parties, third parties, subcontractors, vendors
- Breach laws: Germany, U.K., possibly U.S.
- Responsibility for security: parties, third parties, subcontractors vendors
- Post termination issues: data belongs to sol vidro, breach liability extends post termination.
- Security policy: made part of contract. Revisions subject to sol vidro review. Flow down to subcontractors and vendors





All data, including, but not limited to, metadata, transactional information, and IP addresses is the sole and exclusive property of Sol Vidro, its affiliates, subsidiaries and assigns. Vendor warrants and respresents that this claim of ownership shall be included in all contracts and agreements with third parties who have access to this data. The provisions of this paragraph shall survive termination or expiration of this Agreement. Any limitations of liability set out in this Agreement shall not apply to a breach of Vendor's obligations set out in this paragraph.



### Craft policy – email outsourcing



Vendor has provided Sol Vidro with a copy of its current security policy (Policy) as it applies to the services to be performed by Vendor pursuant to this Agreement. Vendor represents and warrants that this security policy represents best of breed security procedures in its industry. Vendor shall give Sol Vidro no less than sixty days prior written notices of any changes in the Policy that impact the services provided to Sol Vidro. Should Sol Vidro determine that these changes materially impact the security of the services, Sol Vidro shall have the right to terminate this Agreement. In such a case, Vendor shall provide reasonable assistance to Sol Vidro to transition its services to another provider.



## Craft policy – email outsourcing



## **Policy provisions**

- Breach definition matches contract
- Internal notifications
- External notifications
- Law enforcement activity
- Investigation
- Secure / mitigate personally identifiable information





- Are you a controller? Processor? Transferor? Aggregator?
- Determine who owns or originates the data.
- Review the level of interaction with the data
- Look at position in the transaction








# **Contract provisions**

- Ensure compliance with member state law
- Require compliance with safe harbor
- Include flow down provision in contract
- Restrict processing of data in contract

Vendor represents and warrants that all affiliates, subsidiaries, vendors and partners having access to the data are either within the U.S. Department of Commerce's Safe Harbor program, or are located entirely within an E.U. member state.





• Restrict processing of data in contract

Vendor shall have no access to the data. Further, Vendor shall limit its manipulation, processing and interaction with the data to those actions strictly necessary for Vendor to carry out the obligations set out in this Agreement.





- Create methods to address data leakage.
- Require confidentiality agreements
- Secure the data, not the perimeter
- Enforce your policy around the data, not the enterprise or state boundaries.
- Insist on standardized SLAs





Contract and policy provisions



Disposition of data on termination

- Review data retention laws
- Employment
- Securities
- Government contracting
- Transactional information (IP addresses / email records)
- Industry specific





## Contract provisions

- Specify terms for deletion / transfer
- Set out obligations for security post termination

Upon termination or expiration of this Agreement, Vendor shall delete all data and provide Sol Vidro with written confirmation of this deletion. Vendor shall also instruct any entities who have had access to the data to also delete it and provide Vendor with written certification of this deletion. The security obligations set out in this Agreement relating to the data shall survive termination or expiration of this Agreement until such time as the data is completely deleted by Vendor and/or Vendor's suppliers. Vendor shall require this provision, or one similarly protective of Sol Vidro's rights in all its contracts with suppliers or other vendors who provide aspects of the Services.





## **Policy provisions**

- Document data to which you have access
- Limit the number of employees who have access to data
- Create and implement access policies
- Create and implement deletion policies
- Flow down contract terms to vendors
- Do not assume security ends upon termination





Sol Vidro shall retain all right, title and interest in the data. Vendor shall have no rights in the data, other than as necessary to fulfill Vendor's obligations set out in this Agreement. Under no circumstances shall Vendor sell and/or commercialize any of the data or information related to the data. Vendor shall require this provision, or one similarly protective of Sol Vidro's rights in all its contracts with suppliers or other vendors who provide aspects of the Services.





## **Policy provisions**

- Document data to which you have access
- Segregate by customer and/or use
- Create and implement access policies
- Maintain access logs
- Flow down contract terms to vendors





# Contract and policy provisions

- Understand and define law enforcement access
- Don't assume your country's laws will prevail
- Don't let stereotypes interfere with a legal analysis
- Try to create definition





Vendor shall provide Sol Vidro with no less than ten days prior written notice of any governmental request for access to the data. For the purposes of this paragraph only, the term "governmental" includes any law enforcement or similar entity. Should Vendor be prohibited by law from providing this notice, Vendor shall strictly limit any disclosure of the data to that which is required by the law and the written document upon which disclosure is based. Under no circumstances shall Vendor provide access without a written request of disclosure which cites the law requiring such disclosure. Vendor shall require this provision, or one similarly protective of Sol Vidro's rights in all its contracts with suppliers or other vendors who provide aspects of the Services.





**Policy provisions** 

- Require written notice
- Don't assume validity
- Create and implement access policies
- Centralize decisionmaking
- Include legal advisor



#### Toolkit



# Determine how services will be used



Evaluate cloud structure



Understand data collection, processing and transfer



Security breach notification



High risk regulatory areas



Disposition of data on termination



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