Best Practices in Developing Cloud Contracts

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Sinclair Interesting Facts

- 20 buildings on approximately 66 acres in Downtown Dayton.
- Average fall term enrollment of 23,000 students.
- Over 150 academic programs. Over 200 online courses and 6 fully-online degrees.
- Have received more National Science Foundation grants than any other community college in the U.S.
- Managing partner of the Ohio Cadre for Completion by Design.
- Board member of the League for Innovation in the Community College.
- Lowest cost tuition in the state of Ohio.
Service Area
Service Area

- Main Campus – Downtown Dayton
- Courseview Campus Center – Mason
- Huber Heights Learning Center
- Englewood Learning Center
- Preble County Learning Center
- Corporate College - Miamisburg

48 Neighborhood Centers, including:
- Wright Patterson AFB
- 7 High Schools
- Senior Centers
- Community Centers
- 4 Prisons
Types of Cloud Computing
Types of Cloud Computing

Pizza as a Service

<table>
<thead>
<tr>
<th>Traditional On-Premises (On Prem)</th>
<th>Infrastructure as a Service (IaaS)</th>
<th>Platform as a Service (PaaS)</th>
<th>Software as a Service (SaaS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made at home</td>
<td>Take &amp; Bake</td>
<td>Pizza Delivered</td>
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- You Manage
- Vendor Manages
Types of Cloud Computing

- **IaaS** – Amazon, Rackspace, Eucalyptus, vCloud, etc.
- **PaaS** – Force.com, Microsoft Azure, Heroku, etc.
- **SaaS** – SalesForce, FrontRange HEAT, Google Apps, Office365, etc.
Types of Cloud Computing

**Public Cloud**
- Hosted at a Service Provider Site
- Supports multiple customers
- Often utilizes shared infrastructure
- Supports connectivity over the internet
- Suited for information that is not sensitive
- May be cheaper than private cloud

**Private Cloud**
- Hosted on your premises, or at an Enterprise or Service Provider site.
- Supports one customer
- Does not utilize shared infrastructure
- Connectivity over private network/fiber or the internet
- Suited for information that is needs a high level of security
Types of Cloud Computing

- Contracted
- Free
  - Google Maps, Apps, etc.
  - iCloud
  - Dropbox
  - Skype
  - Youtube
Benefits of Cloud Computing

- Lower cost ???
- Opex vs. Capex
- Reduce IT resource involvement
- Shortage of skills
- Some services only offered in cloud
Concerns of Cloud Computing

- Increased risk
- Loss of control
- Increased contract management responsibility
- Maturity model
  - All solutions/vendors/systems different
  - All organization different
Cloud Computing Statistics

Figure 9. SaaS Most Highly Deployed Global Cloud Service by 2018

Source: Cisco Global Cloud Index, 2013–2018
Cloud Computing Statistics

Top Five Tech Spending Increases in 2015:

- **Security Technologies**: 46%
- **Cloud Computing**: 42%
- **Business Analytics**: 38%
- **Storage**: 36%
- **Wireless/Mobile**: 35%

The percent of those decreasing spending in each tech area is insignificant for 2015, with the exception of **hardware**, where 24% said they expect to decrease spending.

Q: Please tell us about your organization's technology SPENDING plans in the next 12 months:

Source: Computerworld 2015 Forecast Study
Demand for Cloud Workforce Booming

MCKINSEY: The Massive Skills Gap Is Only Going To Get Worse Because Our Education Systems Are Broken

Cloud Will Generate 14 Million Jobs By 2015: That's A Good Start

Cloud computing will potentially generate at least 14 million new jobs across the globe within the next three years. Moreover, these new jobs may likely be in many areas outside of IT.
Cloud Computing Reality - You’re already there

- eMail
- Help Desk
- Payment Processing
- Whole Systems vs. Components
- Publisher provided systems
- Address Validation
- Analytics
- CRM
Managing Risk of Cloud Contracts

- Risk acceptance varies - core vs. non-core
- Central vs. Decentralized IT
- Assess the role/responsibility of IT
- Some services sneak in or don’t have contracts
- All contracts are different
- Some items don’t show up in different contracts
A Cloud Contract Checklist

- Recognition of responsibility without control
- Initially created in 2013 for HEAT contract
- Iterative improvements:
  - Hobsons
  - Academic Works
  - Desire2Learn
  - PowerDMS
  - Civitas
  - Caspio
- Some items don’t apply, depending on function/type of service
Most Important Aspects to Negotiate

- Level set your expectations
  - Internal measurements, Gartner, InfoTech
- Business determines what is negotiable.
- IT provides recommendations
- Varying degrees of vendor willingness
- The checklist items to be presented primarily addresses IT related concerns.
**Example Checklist Items**

<table>
<thead>
<tr>
<th>Contract Term</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td><strong>1.</strong> Within the term of the contract, the provider will not diminish or re-bundle contractual services in a way that will cause the customer to incur additional costs.</td>
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<tr>
<td><strong>2.</strong> After the contract has expired and the customer agrees to renew the service, the price for the same contracted services will not increase by more than x% for the length of the renewal term. Percentage cap: _____ (3%)</td>
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<td>3. Provider will not suspend customer access to contracted services that are legitimately under dispute.</td>
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<td>4. During the term of the contract, the provider will maintain appropriate insurance coverage with a reputable insurance carrier for the services provided under the agreement. Evidence of such coverage will be provided to the customer upon request.</td>
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<td>5. The time to implement the services, or “not live” should be discounted, or added to the end of the agreement.</td>
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|   | Upon termination of the subscription services, the provider will retain the customer’s data for x days at no cost to the customer. If the data is requested by the customer, the provider will provide customer a copy of that data in y format (depending on the type of data) within z days of the request. Number of days to maintain data: _____ (60) Format data will be provided in: ____________ (xml) Number of days to fulfill request: ____ (30) |   |   |


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<td>7. If provider will not renew the service, they must provide the customer x days' notice prior to the end of the contract. Number of days’ notice: ______ (90)</td>
<td></td>
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<tr>
<td>8. Negotiate the right to access and export our data at any point during the contract period. The export would be performed by an agreed upon mechanism by both parties depending on the type of data stored.</td>
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<td>9. Incident response times and target resolution times should be delineated in the contract. For example (response time measured from time of reporting by customer);</td>
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<tr>
<td>Critical functions severely impacted. No workaround: ______ (3 hours)</td>
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<tr>
<td>Severe to moderate impact to business. Some workarounds: ____ (1 business day)</td>
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<tr>
<td>Default: Users can access the software and it continues to perform business critical functions: _____ (1 business day)</td>
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<td>10. Uptime should be measured by month and be at least x%, excluding scheduled maintenance. Uptime target: ______ (99.9%)</td>
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- Scheduled maintenance is covered separately.
- 100% - 99.9% = 0.1% of downtime.
  - One month total minutes = 30 days x 24 hours x 60 minutes = 43,200 minutes
  - 43,200 minutes * .1% = 43.2 minutes
  - 99.9% uptime measured quarterly means a 2 hr. outage is OK
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<td><strong>11.</strong> Planned maintenance must be scheduled at least x days in advance.</td>
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<tr>
<td>Planned maintenance advance notice: _______ (5 days)</td>
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<tr>
<td><strong>12.</strong> Planned maintenance will occur only between the hours of x and x.</td>
<td></td>
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<tr>
<td>Hours of planned maintenance ___________________________ (11:00 PM and 6:00 AM EST)</td>
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<td><strong>13.</strong> The amount of planned maintenance will not exceed x hours/month. Maximum planned maintenance per month: _____ (8 hours)</td>
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<td><strong>14.</strong> Any planned maintenance exceeding the maximum will be counted against the service level uptime commitment.</td>
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- Ensures that even outages that are planned are kept to a minimum.
- Causes the unplanned penalty to be used for missing this target.
  - Item 11 identifies a minimum advance notice and 12 limits the hours of the day that planned maintenance can be performed.
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<td><strong>15.</strong> Failure to meet the minimum uptime commitment will result in a refund or service credit equal to (or some agreed upon algorithm) the number of minutes of unscheduled downtime incurred that month. The unscheduled downtime “clock” will start with the first minute of unscheduled downtime and continue until the problem has been resolved or a mutually agreed workaround has been presented.</td>
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<tr>
<td><strong>16.</strong> The agreement should spell out how the unscheduled downtime is measured and the process the customer will follow to receive refunds or credits for downtime not meeting the uptime commitment. This will vary depending on the services provided.</td>
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<td>17. There should be contractual language giving us the ability to terminate the agreement w/o penalty if the SLA has not been met for 3 months of a rolling year.</td>
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<td>18. There must be contractual language protecting the confidentiality of the data stored by the provider and to ensure FERPA compliance.</td>
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<td>19. The provider will use commercially reasonable effort to safeguard the data from intrusion, attack or virus infection. In the event of a breach, the provider will be responsible for providing all resources and assuming all costs with mitigating the breach and providing restitution to victims of the breach per Ohio law.</td>
<td></td>
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<tr>
<td>20. It should be written into the contract that backups are performed on the system and data; specifying how often backups are performed and how long they are retained. This will vary depending on the service and data, but should not exceed 8 hours as a Recovery Time Objective and 24 hours as a Recovery Point Objective.</td>
<td></td>
<td></td>
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Questions
Thank You

“Find the need and endeavor to meet it.”
— David Ainsley Sinclair, Secretary of the Dayton YMCA, 1874–1902