Gamification Approach for the Next Generation Storage and Infrastructure Management User Interface

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Who is using your software today?
Who is using your software today?
We all LOVE games!!!

Fame
Happiness
Social & Community
Competition & Goal oriented
# Gaming vs. Work!

<table>
<thead>
<tr>
<th></th>
<th>Game</th>
<th>Work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tasks</strong></td>
<td>Repetitive but fun</td>
<td>Repetitive and dull</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Constantly</td>
<td>Once a year (twice if your lucky)</td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td>Clear</td>
<td>Most times contradictory and vague</td>
</tr>
<tr>
<td><strong>Paths to mastery</strong></td>
<td>Clear</td>
<td>So what do you want to do 10 years from now?</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Right amount at the right time</td>
<td>Ummmm!!!</td>
</tr>
<tr>
<td><strong>Failure</strong></td>
<td>Expected, encouraged, spectacular, share and brag</td>
<td>What would happen to our customer, revenue? You dare not!!!</td>
</tr>
<tr>
<td><strong>Status of other players</strong></td>
<td>Transparent, timely and clear progressive reporting</td>
<td>Usually built based on discussions around the water cooler or coffee table</td>
</tr>
<tr>
<td><strong>Promotion</strong></td>
<td>Purely based on merit</td>
<td>Lets not get there</td>
</tr>
<tr>
<td><strong>Collaboration</strong></td>
<td>Yes</td>
<td>Sure, whatever</td>
</tr>
<tr>
<td><strong>Speed/Risk</strong></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Narrative</strong></td>
<td>Yes</td>
<td>If your really really lucky</td>
</tr>
<tr>
<td><strong>Lastly</strong></td>
<td>ITS FUN!!!</td>
<td>ITS WORK!!!</td>
</tr>
</tbody>
</table>
Basic principles, how do games work?
Game Centric Design

- Monitoring
- Progressive improvement
- Rules
- Tasks & Actions
- Immersive Experience
- The Player
- Fun Paradigm
- Work Paradigm
- Motivation
- Rewards
Where does this work?

Travel & Hospitality

Health care

Social Networking

Banking and Financial Info

Driver Aid

Fitness
Storage and Infrastructure - Players

**CIO**
- We need to charge back the departments. What are my operating costs? Is IT making money or losing money? How can we increase use of public cloud?

**End User**
- I need storage to test my new release of enterprise app. My app is running slow, I think storage is the issue. Is anybody looking into it? I need faster storage.

**System Administrator**
- Will I ever get anything done here?

**Legal**
- Are we meeting Compliances? We need to collect all the evidence related to the new litigation. Can I identify the custodians of the evidence?
Start with the Boss - CIO

**Monitor**
- Costs (Capex, Opex)
- Public Cloud vs. Local Infrastructure Usage
- Usage of different storage tiers
- Chargeback per department
- Utilization

**Tasks/Actions**
- Set policies and chargeback rates to departments to incentivize use of lower cost (possibly public cloud) infrastructure
- Use collaborative mechanism to communicate with end users

**Goals**
- Reduced costs per unit storage
- Increased use of public cloud

**Rewards**
- Bonus directly tied to the reduced cost per unit storage

**Management software functionality**
- Dashboard to track resources and corresponding costs
- What if / predictive analysis tools to determine how changing chargeback rates will affect usage as well as make just in time purchase decisions
- UI with configurable dashboards to set goals and track progress
- Social communication mechanism to inform end users
End User

**Monitor**
- Performance and SLAs (real vs. perceived performance)
- Utilization
- Chargeback

**Tasks/Actions**
- Self service provisioning of appropriate tier of storage and move applications across tiers
- Use collaborative mechanism to communicate with other end users and administrators

**Goals**
- Applications running at SLA Performance
- Reduced chargeback costs

**Rewards**
- Reduced cost
- Create a hall of fame for users and departments with most efficient cost per unit storage

**Management software functionality**
- Dashboard to track resources, SLAs, performance and utilization
- Self service portals
- Admin configured dashboards to enforce policy
- Social communication mechanism to collaborate with other end users
Legal

Regulation compliances
Information ownership and audit logs
Suspicious activity

Set policies for different tiers of storage
Use collaborative mechanism to communicate with other end users and administrators

Regulation Compliance goals

Increased compliance, reduced legal costs

Management software functionality

Dashboard to regulation compliance, information ownerships and audit logs

Analytics to track logs and detect suspicious activity

Policy engine

Social communication mechanism to collaborate with other end users

Rewards

Goals

Tasks/Actions

Monitor
System Administrator

**Monitor**
- All physical, virtual resources for their operating health
- SLA compliance
- Incidents per system/user/department
- Utilization
- Costs

**Tasks/Actions**
- Proactive maintenance
- Just in time purchases / upgrades
- Use collaborative mechanism to communicate with end users and other administrators

**Goals**
- SLA compliance
- Cost reduction

**Rewards**
- Bonus tied to reduced cost per unit storage

**Management software functionality**
- Dashboards to monitor physical, virtual resources
- Connectivity to incident management systems
- Predictive analytics to determine just in time purchasing decisions and proactive maintenance
- Social communication mechanism to collaborate with other end users
**Gamification** approach ensures that the user stays involved and intuitively knows the actions to take in order to make progress towards achieving goals.

**Gamification** is applicable to several different domains including storage and infrastructure management.

**Gamification** is not just about UI but needs a paradigm shift in infrastructure or storage management software functionality.
Q & A

Thank you!

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