

Testing Risk/Impact Assessment ASP Change Request (CR# 72)

Quality Risk Category	General Description/ Specific Issues for this Change	Risk/Impact Assessment
Operations and Maintenance	Failures that endanger continuing operation, including backup/restore processes.	Very High
	<p>We would have to build, test, and support a sophisticated network operations/ data center.</p> <p>Testing implications: We would need a testing environment that mimicked – at least closely – the operational environment, which would be expensive and logistically challenging.</p> <p>Business implications: High initial and on-going operation costs, including hardware, software, reliable Internetwork connectivity, and staff.</p>	Very High
Compatibility	Failures with certain supported browser/OS combinations.	Very High
	<p>Data storage requirements might include Network Attached Storage (about \$25,000 to \$250,000 per config) and Storage Appliance Network (\$1M and up).</p> <p>Testing implication: Extremely expensive test environment.</p>	Very High
Security/Privacy	Failures to protect the system and secured data from fraudulent or malicious misuse.	Very High
	<p>Customers will reasonably expect that their documents never be accessible by other customers.</p> <p>Testing implication: Significant increases in these test scenarios required.</p> <p>Business implication: Serious legal exposure in the event of lapses.</p>	Very High

Competitive Inferiority	Failures to match competing systems in quality.	Unknown
	Customers would measure us against other ASPs in different market spaces. Testing implication: Unknown, marketing input needed.	Unknown
Data Quality	Failures in processing, storing, or retrieving data.	High
	ASP customers would reasonably expect that we be able to store their data securely, including disaster recovery, as well as provided restoration of accidental file loss. Testing implications: Expand current test scenarios to address various ASP situations. Business implications: Legal exposure if data lost.	Medium (T) High (B)
Performance	Failures to perform as required under expected loads.	High
	Large customers will involve large numbers of simultaneous users. Testing implications: Large investment in additional tool licenses and performance test environments.	High
	[Note: Some ways of ensuring security/privacy, such as encryption or SSLs, would have both functionality and performance implications not considered here.]	
Reliability/Stability	Failures to meet reasonable expectations of availability and mean-time-between-failure.	High
	ASP customers will have very high expectations and will probably want a service level agreement guaranteeing availability. Testing implication: Carrying out an MTBF demonstration and availability test between now and the proposed ship	High

	date for Sumatra is perhaps possible, but, if so, very expensive.	
Stress, Error Handling, and Recovery	Failures due to beyond-peak or illegal conditions (i.e., knock-on effects of deliberately inflicted errors).	Medium
	Even under the most inclement circumstances, peak or illegal usage by one customer should not affect other customers. Testing implication: Add new tests to address this.	Medium
Interfaces	Failures in interfaces between components.	Medium
	Customers might expect us to share data and otherwise integrate with their applications or other ASPs. Testing implication: New tests needed for each application and ASP, in addition to possible environmental/connectivity/test data issues. Business implication: Can we even <i>get</i> access in some cases (e.g., classified)?	Medium
Functionality	Failures that cause specific features not to work.	Low
	New client-facing front-end(s) and other features probably needed. Testing implication: Test front-end	Low
	[Note: Some ways of ensuring security/privacy, such as encryption or SSLs, would have both functionality and performance implications not considered here.]	
Load, Capacity, and Volume	Failures in scaling of system to expected peak concurrent usage levels.	Low
	As the business grew, we would need to be able to add capacity without affecting the server farm. Testing implication: Enhance tests to address “hot upgrades.”	Low

Installation/Migration	Failures that prevent or impede deploying the system.	Low
	Customers will need to migrate legacy data formats. Testing implication: Small increase in testing scenarios, already well covered.	Low
Date Handling	Failures in date math and handling.	Very Low
	None foreseen.	
Usability	Failures in human factors, especially at the user interface.	Very Low
	None foreseen.	
Localization	Failures in specific localities, including language, dictionary/thesaurus, and messages.	Very Low
	None foreseen	
Documentation	Failures in operating instructions for users or system administrators.	Very Low
	None foreseen.	