

4. QUALITY ATTRIBUTES

Because this is a corporate, web based application, the stakeholders reduced the quality attribute list to the following, deeming them most important: availability, integrity, interoperability, performance, scalability, security, usability.

Attribute	Score	Availability	Integrity	Interop.	Perform.	Scalability	Security	Useability
Availability	4		<	<	<	<	^	^
Integrity	3			<	<	<	^	^
Interoperability	1				<	^	^	^
Performance	1					<	^	^
Scalability	2						^	<
Security	5							^
Useability	5							

SUMMARY OF QUALITY ATTRIBUTE DISCUSSION:

My team decided that security and usability are the two most important quality attributes of the Shuco company website. Security is critical because the application will store sensitive information, such as customer data or financial records, that could be compromised if the website is not adequately secured. A security breach can damage a company's reputation, result in financial losses, and even result in legal action. Because Shuco is a large company with traditional business needs, its reputation is of utmost importance. The company would prefer a slightly worse user experience to having to pay out large financial penalties in the event of a data breach. Emphasizing security will ensure that sensitive information remains confidential, that access to the site is restricted according to authorization, and that users can use the site without fear of their data being stolen or compromised.

The team also learned, from our interviews with executives and users, that this web application is intended to replace an old system. That old system was the source of a great deal of frustration for all users, from administrators to customers, because its poor user interface was unintuitive and unstable. An application that is not user-friendly can drive potential customers away, leading to lost sales and revenue. From our surveys, we concluded that the majority of users will be naive users. They are not experts in technology, nor do they need it for sophisticated ends. Their primary concerns are simple, day to day business actions, like setting up direct deposits, updating company information, responding to customer inquiries, etc. Meeting these needs will improve productivity and generate a significant ROI based on our modeling. For customer users, ease of navigation, clear and concise content, and intuitive design will encourage users to return, increase engagement and loyalty, and ultimately drive business revenues up. By prioritizing usability, the application will also help reduce customer support costs as users, customers and employees alike, will require less assistance in using the application. In summary, our team analyzed Shuco's needs and designed a company web

application that prioritizes security and usability above all else as it will 1) protect privacy and therefore Shuco from litigation and 2) drive/support business growth and success.

Top 3 Attributes: Security, Useability, and Availability Non Functional Requirements:		
#	Identifier	Description
1	QUA.1	Access to the system must be secured according to industry standard best practices, such as via O-Auth 2 tokens and multi-factor authentication, to ensure that only authorized users can access sensitive data and functionalities within the system according to their assigned authorities
2	QUA.2	The system interface must be designed with user-centered principles for non technical users such that on average a user may be able to use 95% of their allowed system functionality (See "Authorities" document pg 32) after 4 hours of training.
3	QUA.3	The application shall be at least 97 percent available on weekdays between 5:00 A.M and 11:00 P.M. CDT, and at least 99 percent available on weekdays between 1:00 P.M. and 3:00 P.M. CDT