Key Challenges Facing Quotient's Federal Government Clients

Mission: To provide reliable archival data storage and access, enterprise- and nation-wide

EDAN Web Services

"Our systems regularly have outages and we're not sure why."

Case Study: Smithsonian Institutes (SI) LASSB

The Smithsonian Institution's Office of Systems Modernization's Libraries Archives Systems Support Branch's (LASSB) purpose is to manage library systems and support archival activity, especially through development. LASSB supports either portions of, or the entirety of various Smithsonian museum's information systems. LASSB & OCIO reached out to Quotient when experiencing repeated difficulty keeping a custom web application operational.

PROBLEM WAS:

- Under high usage, the system was responsive from the command line, but custom java web applications were failing to respond to requests.
- Memory allocation of the custom java web applications grew with load, but failed to return to pre-load levels.
- SI staff had to manually restart the custom java web applications, at least every other day.
- No obvious cause

SOLVED BY:

- Ascertaining the use cases and load which brought about failures.
- Installing additional system instrumentation to gather prescient component statistics.
- Writing custom scripts to monitor and graph TCP socket statistics.
- Isolating issue to unhandled exceptions within custom application.
- Providing reference code to properly handle TCP network connections.

RESULTS WERE:

- Improved understanding of the web application infrastructure.
- Improved response time.
- Reliable system operation.
- Additional tools available to troubleshoot issues.
- No outages in 30 days and counting!

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