

Vignette[®] Record/Case Manager

Benchmark Report

Introduction

In March 2008, Vignette collaborated with Hewlett Packard (HP) to test the performance of two parts of its Transaction Content Management solution, Vignette Record Manager and Vignette Case Manager. The aim of this testing was to demonstrate that these platforms can scale to meet the needs of Financial Services, public sector and other large organizations.

The testing concentrated on measuring simple document-centric transactions, including ingestion, searching and retrieval. These transactions were chosen because they can be easily compared to known business metrics, such as the number of applications received per day, the number of statements generated on peak days, the number of claims processed per day or the number of call center requests per day.

This document summarizes the key findings of these tests and details the specific hardware configuration and testing scenarios that were used. As performance is highly dependent on the specifics of the hardware configuration, the findings reported below may vary and neither Vignette nor HP provides any warranty, express or implied based on this study.

Key Findings

The tests demonstrated that Vignette Record Manager and Vignette Case Manager can be scaled to:

- Ingest more than 225 documents per second with an average size of 100Kb
- Service document search and retrieval requests from more than 8000 concurrent users generating 190 requests per second, with a search response time averaging approximately 1.3 seconds and a retrieval response time averaging approximately 3 seconds

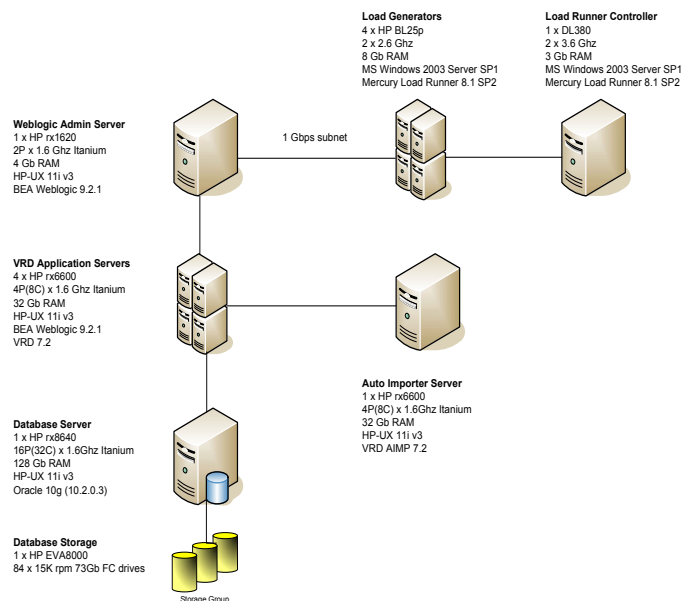
These figures can be projected to more than 19 million documents ingested and 16 million searches and retrievals in 24-hours, which significantly exceeds the demands of the vast majority of large organizations.

Test Environment

The tests were performed in HP labs in Boston using the following hardware and software:

- HP Itanium servers running HPUX 11i V3
- Oracle 10g
- Oracle (BEA) WebLogic 9.2.1
- Vignette Record Manager/Case Manager 7.2
- HP (Mercury) LoadRunner 8.1 SP2

The complete testing environment is illustrated below:



Setup and Tuning

To achieve optimal results, the following setup and tuning were performed:

- Separate operating system, redo, control and data disks were configured on the DB server
- A large and fixed servicing thread pool (150) was configured in the application server
- Database indexes were partitioned to maximize overall file ingestion throughput
- A dedicated physical disk was configured for each instance of the ingestion software
- Browser caching was enabled in LoadRunner, ensuring static images were not repeatedly downloaded

Document Ingestion Tests

The document ingestion tests used approximately 15,000 unique files in common office formats, including HTML, XML, TXT, PDF, DOC and JPG. The files averaged 100KB in size. These files were copied as many times as required to generate sufficient files to allow the ingestion tests to run for one hour. Each file copy was given a unique file name, but the file types/extensions were left unchanged.

After running some initial file ingestion tests, Vignette and HP determined the optimum configuration to be eight instances of the Vignette Auto Importer module (responsible for ingesting documents), feeding four servers running Vignette Record Manager. The server running Oracle was able to support the generated load.

Database index optimization was found to affect the ingestion rates. To achieve sustained optimal rates of ingestion, it therefore may be necessary to perform periodic index rebuilds. This may or may not be required on other database platforms or on later versions of Oracle.

In the hour-long test it was revealed that the configuration selected by Vignette and HP could ingest more than 200 documents per second (rates varied between 197 and 228 documents/second). Projected over 24 hours, this would be the equivalent of more than 19 million documents ingested per day.

Document Search/Retrieval Tests

The document search and retrieval tests simulated at least 8,000 (and as many as 10,000) unique users, using the LoadRunner load generating software. The load test scripts performed a search request followed by a document retrieval request, randomly pausing between 10 and 100 seconds between each transaction simulating typical user behavior. Searching was performed using a single attribute on an indexed field – as this is the most common type of search in customer centric business applications (such as: searching on a customer number, claim number, application number or social security number). Response times were measured from the client end (to be inclusive of network time and request/response processing) and throughput rates were measured at the server end.

The hardware configuration, software configuration, and data used in the search and retrieval tests were identical to those used in the document ingestion tests. The server hardware was found not to be the bottleneck (i.e., it was far from 100% utilized) when performing the search and retrieval tests. It is therefore likely to be the case that an alternative configuration could result in improved search and retrieval performance, possibly at the cost of a reduction in ingestion rates. The cause of the bottleneck, and possible alternative configurations to improve performance further, were not explored in depth.

The hour-long test demonstrated that the configuration selected by Vignette and HP could service search and retrieval requests from more than 8,000 concurrent users generating 190 requests per seconds. With this level of load, the response time for searches averaged approximately 1.3 seconds and the response time for document retrievals averaged approximately 3 seconds. Projected over 24 hours, this would be the equivalent of more than 16 million searches and document retrievals per day.

Find Out More About Vignette Record/Case Manager

Vignette Record/Case Manager is part of a comprehensive enterprise document system that enables organizations to effectively reduce costs and improve customer service by transitioning from paper to high-volume digital processes, streamlining document-intensive transactions and helping to ensure the capture, management, retention, access and expiration of the organization's business information assets. For more information about Vignette's products, solutions and their demonstrated value to organizations in virtually every industry, particularly Healthcare and Insurance, please visit www.vignette.com or call +1 888 608 9900.