



# Insurance Company

## Utilizing VirtualWisdom Infrastructure Monitoring to Maintain Performance and Availability

### Company Background

This US-based insurance company is among the largest global providers of insurance, annuities, and employee benefit programs, with tens of millions of customers in over 35 countries. It holds leading market positions in several worldwide regions and serves over 50 of the largest Fortune 500 companies.

### IT Environment / Overview

The company has over six petabytes of storage in two US data centers (plus international data centers), supporting over 1,000 applications and over 20,000 database instances. Storage is largely Dell/EMC with over 10,000 Brocade ports, virtualized with multiple VPLEX's, with Windows, Unix, Linux, and mainframe hosts. All systems are on-premise.

### IT Challenges

- IT infrastructure growth made controls and management a challenge
- Ongoing performance issues were not well understood with existing tools. Key applications were slowing down and causality was difficult to determine
- A major consolidation and migration project involving the US and international data centers added risk

## CASE STUDY



## Goals

The company categorized their storage infrastructure goals and objectives into three areas:

- **Reduce**
  - Drop the number of troubleshooting tickets
  - Eliminate bottlenecks through better front end port utilization
  - End internal array contention
  - Solve problems with elongated batch runtimes
  - Stop all performance issues
- **Baseline system and application profiles**
  - Allocate new workloads based on the best use of existing ports
- **Optimize**
  - Proactively detect abnormal I/O workload response
  - Detect events/issues early
  - Provide issue correlation to the cross domain teams
  - Balance resources system-wide
  - Spend less time finding data and more time solving problems

## The Virtual Instruments Solution

The company acquired VirtualWisdom, including VM probes, switch probes, and performance probes, for end-to-end performance visibility. The relationship began with a Critical Infrastructure Audit (CIA) on one VPLEX and in four weeks, the value of Virtual Instruments was proven, and the larger VirtualWisdom deployment began in earnest.

Over four short maintenance windows, over 700 ports were tapped with no outages or effects on application users. Today, dedicated Virtual Instruments Services resources assist the company's six-person capacity and performance planning team. Additionally, the Application Management Services team are VirtualWisdom users, as they wanted a real-time view into how the infrastructure supporting their key business applications was performing.

New VirtualWisdom deployments are accompanied by Virtual Instruments Services to help quickly operationalize the solution, and four of the company's infrastructure engineers have completed VI training.

## Benefits of the VI Solution

Virtual Instruments' VirtualWisdom infrastructure performance monitoring and analytics products provide comprehensive, real-time instrumentation

and measurement that allows IT managers to optimize the three IT imperatives of Cost, Risk, and Cycle Time. VirtualWisdom enables IT managers to optimize the performance, utilization, and availability of their physical and virtual IT infrastructure. According to the VP of Performance Engineering, "Virtual Instruments provides real time information absolutely necessary to turn raw data into information. VirtualWisdom allows us to spend less time gathering data and more time implementing performance enhancements". VirtualWisdom is a single, technology agnostic platform that does cross domain event correlation. Benefits are being accrued by several domains:

- **Capacity and Performance Engineering**
  - Profiling, tuning and troubleshooting the SAN
  - Migration planning and proper workload placement
  - Performance forecasting
  - Anticipating resources changes needed due to growth of I/O
- **Engineering**
  - Break/fix help
  - Migration with performance component
  - Configuration, server, and provisioning planning
  - Business continuance planning
- **Operations**
  - Allocation and migration metrics
  - Simplified troubleshooting
  - De-risked configuration and provisioning
  - End to end view of the SAN

## VirtualWisdom Use Cases at the Company

- **Performance impact of SAN on critical batch processing Use Case**

VirtualWisdom detected contention in the SAN caused by HBAs in a SQL Server host that was contributing to delays in critical batch processing. According to an IT VP, without VirtualWisdom, this would have taken three different monitoring tools and additional work to manually correlate the data.
- **Intermittent application slowdowns Use Case**

VirtualWisdom found a workload spike in traffic initiated on RecoverPoint appliances that

overwhelmed the existing infrastructure. Issue was diagnosed in under an hour once Virtual Instruments was engaged. According to an IT VP, “In five days, no other tool in place was either able to detect the entire issue or draw a correlation between the various environment components”.

- **Business application slowdown Use Case**

A critical line of business application was experiencing intermittent performance problems over several days. Prior to bringing in VirtualWisdom, the troubleshooting team could not find the cause because the switch card causing the problem had not failed, but was “in the process” of failing. It took the lower level monitoring of VirtualWisdom to see the signs and correlate them to the application, as the Brocade monitoring tools could not detect it.

- **Make best use of existing ports for new application workloads**

Prior to baselining port usage with VirtualWisdom, allocation of new workloads to SAN resources was a bit of a guessing game. Today, the team utilizes the Least Utilized Port Groups report to optimize and balance the allocation of new workloads, which helps to minimize resource contention and future problems.

## Summary

Beyond just improved troubleshooting, this insurance company uses VirtualWisdom to give IT departments a self-service portal to share information, prevent outages, and de-risk changes. According to the VP of Performance Engineering, “Virtual Instruments gives us unrivaled visibility into our end-to-end application infrastructure required to deliver cross organizational functionality, improved stability, and efficiency to our enterprise”.



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