

# Active Intelligence Engine® (AIE®)

## Case Study: General Electric



*GE is a global diversified infrastructure, finance and media company taking on the world's toughest challenges, from aircraft engines and power generation to financial services, medical imaging and television programming. The company operates in more than 100 countries and employs about 300,000 people worldwide.*

**“Attivio proved its technical advantages for this mission critical application at GE. Attivio’s efficiency advantages are far superior to anything we evaluated, thereby driving overall TCO [Total Cost of Ownership] way down.”**

*- GE Search Center of Excellence executive*

GE relies heavily on SupportCentral, its centralized global content base system. Known as “the heartbeat of GE,” SupportCentral stores everything from product manuals to equipment schematics to confidential personnel documents. The scale of this system dwarfs that of many public portals.

Today Attivio’s Active Intelligence Engine® (AIE®) supports GE’s 550,000 global users with fast, secure access to 200 million documents. Even better, AIE runs on just eight commodity servers, with scalability to spare for future 30% annual growth of GE’s content base system.

A comprehensive unified information access (UIA) platform, AIE has proven its scalability, availability and usability can fulfill the demands of even one of the largest content environments in the world.

### **CHALLENGE: PROVIDE HIGH SCALABILITY, AVAILABILITY AND USABILITY – NOW AND IN THE FUTURE**

Very large collaboration platforms like SupportCentral demand very high scalability, availability and usability. Recognizing this, GE had concluded its legacy search infrastructure was inadequate to satisfy heavy user demands as SupportCentral continued its fast growth. The company wanted a new solution for SupportCentral that would fulfill the following needs:

- Immediately improve performance, scalability and usability, including finding relevant information quickly, while accommodating future growth
- Address mounting hardware and storage requirements and reduce costs
- Support GE’s highly detailed user security model
- Maintain high user confidence in SupportCentral and prevent the proliferation of desktop document management ‘shadow systems’

### **ACTIVE INTELLIGENCE ENGINE (AIE) FULFILLED GE’S CHALLENGES**

#### ***Immediate Hardware and Operating Cost Savings***

The burgeoning costs for hardware and operations needed to maintain as well as scale its legacy search solution to meet rapid growth was unacceptable to GE. AIE provided immediate relief on these costs.

AIE proved to be highly scalable with a very small footprint of only eight servers, as previously noted, resulting in a significantly lower total cost of ownership (TCO), with hardware and storage efficiency of over 300% than with the company’s legacy search product. Downstream operating savings will increase over time as the GE’s content base system grows 30% annually.

#### ***Low Latency, High Performance, High Usability***

AIE immediately fulfilled a number of vital improvements to SupportCentral. First, AIE demonstrated far quicker response times to user requests for information, which previously took as long as ten seconds per query. AIE also improved SupportCentral usability through Attivio’s automatic facet



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recommendations, better relevancy of results, workflow and intelligent joins of disparate information. Fast response times and exceptional search functionality mean better global productivity: less time spent looking for information and more time actually putting it to use, around the world.

AIE also ensured that content added to SupportCentral would be easily findable virtually upon ingestion through real-time updates to the SupportCentral index. Previously, the index accessed by users could be up to 36 hours old, resulting in unacceptably high latency in finding content that had been uploaded but not yet indexed. Urgent information could be indexed and made available faster, but it still took 30 minutes. AIE eliminates such latency with real-time indexing with no impact to availability. The AIE ingestion function can also be separated from the indexing function, on a different server, for even greater scalability.

### **Active Security Supports Highly Complex User Permission Models**

Another critical ongoing challenge for administrators of SupportCentral was that GE's legacy search solution could not fulfill the company's highly detailed security model. User security access to SupportCentral was primarily role-based; however, there were numerous exceptions to set access rules. For example, users in a particular group might have access to an entire set of documents, but if a user is not a U.S. citizen, he or she might be allowed access to only a subset of those documents. AIE quickly resolved this problem through its Active Security model which provides the flexibility to fully support GE's security requirements, including security access down to the folder level.

### **A UNIFIED INFORMATION ACCESS PLATFORM FOR NEW INNOVATIVE APPLICATIONS**

A future SupportCenter project under consideration would provide users with a LinkedIn/Facebook-like interface to find and communicate with fellow GE employees anywhere in the world with expertise in desired topics or subjects, to actively cultivate an even deeper level of global collaboration and efficiency.

AIE is more than capable of fulfilling this and other new SupportCentral applications: AIE is a comprehensive unified information access (UIA) platform, designed for the rapid development and deployment of new value-added applications.

By providing a UIA platform that supports GE's vision for future SupportCentral innovation, AIE is a "future proof" solution that satisfies user demands today and provides invaluable new functionality and business value for future solution growth.

Commenting on GE's success with AIE, a GE Search Center of Excellence executive said, "Attivio proved its technical advantages for this mission critical application at GE. Attivio's efficiency advantages are far superior to anything we evaluated, thereby driving overall TCO [Total Cost of Ownership] way down."