

Case Study: Motorola

IN BRIEF

Industry

- Manufacturing

Scenario

- High Performance Computing

Challenges

- Consolidate global computing centers
- Control growing hardware and support costs
- Accelerate file transfers between engineers and HPC design centers

Solution

- Global deployment of DEI's ExpeDat software

Benefits

- Seven-times faster transfer speed to remote centers allows for consolidation
- Significant cost savings on hardware expenditures
- Productivity rises on faster design turn-around

ExpeDat™ Software Helps Motorola Get Products to Market Faster

Motorola is a world leader in the manufacturing of wireless devices and network mobility solutions. With manufacturing and engineering operations spread across the globe, the challenge of sending large data sets more efficiently between these facilities is one that Motorola has constantly struggled to overcome.

The task of improving data transfer between global design centers fell upon the shoulders of the engineers at Motorola's Advanced Product Technology Center (APTC), located in Plantation, Florida. Engineers at this facility manage a network of high-performance computing centers sited around the globe. These engineers knew that reducing the time it took to send and receive their large data sets would directly reduce the time it took for Motorola to get their products to market, and improve the efficiency of troubleshooting product designs along the way.

Motorola's Wide Area Network (WAN) is comprised of 45-megabit per second (mbps) lines connecting their major global sites. One of the greatest challenges Motorola's engineers faced was achieving full utilization and maximum throughput along these lines. On average, their users were seeing only about 6 – 7 mbps utilization. The mechanical simulation drop testing they performed typically generated data sets in the range of 2 – 25 gigabytes per set. Sending these very large data sets via FTP severely constrained the business unit's ability to turn around and evaluate test runs. Many of their internal customers were facing additional delays due to network disruptions and dropped transfers.

Deciding that improving their throughput and utilization would contribute to their overall success as a division, Motorola leadership made a concerted effort to rectify the situation and began evaluating vendors that would address their specific needs. Because of their global presence and the need for operational flexibility, the team preferred not to deploy costly and cumbersome appliances. Those factors drove them to evaluate and learn more about Data Expedition, Inc., its core MTP™/IP (Multipurpose Transaction Protocol®) technology, and the ExpeDat file transfer software.



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“ExpeDat was easy to implement and data transfer is now up to seven times faster between global design centers. Additionally, we’ve been able to consolidate our servers deployed throughout Asia, enabling a significant cost savings on hardware.”

***Lead Network Engineer
Mechanical Simulation Drop Test Analysis Group***

Motorola quickly discovered that while ExpeDat looks like a traditional FTP client and server, it moves files up to seven times faster and with ten times better reliability. The engineering team in Plantation, FL knew that with ExpeDat working for them, they would be able to greatly reduce the time it took to send their 25GB data sets between global design centers. Additionally, they began to recognize that with a more efficient transfer mechanism in place, they’d also be able to consolidate the number of servers deployed, reducing hardware and support costs while improving performance.

Within days, project managers knew they had found their solution. In their opinion, ExpeDat was everything they were looking for: low-profile software that’s easy to deploy; could be embedded beneath existing front-ends; inexpensive; increasing transfer times up to 7x faster; allowing them to average 42 to 45 mbps on their 45 mbps lines; and enabling them to consider server consolidation for their Asian deployment. All of these factors pointed toward a lower total cost of ownership (TCO) and provided Motorola the opportunity to increase their overall productivity.

Since the initial deployment of ExpeDat, Motorola’s team has innovated a variety of automated data and computing management solutions around the ExpeDat software. They estimate that their data transfer time savings is the equivalent of increasing their total system investment by 40%, for a fraction of that cost. Their return on investment (ROI) was recognized in months and was easily determined because they were able to increase their productivity, reduce hardware and facility costs, and defer any need to increase their existing bandwidth.

While these are significant reasons to consider ExpeDat for future deployments, it’s the fact that Motorola is able to get new designs into production and new products out to market faster that has them hooked on ExpeDat. With these results, the software from Data Expedition, Inc. has been classified as a "Mandatory Product" for the division.



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SUMMARY

Motorola is using Data Expedition, Inc.’s ExpeDat software to achieve 7-times faster throughput for data movement over their WAN.

Using ExpeDat, their global engineering design centers are able to perform mechanical simulation drop tests for Motorola’s products more efficiently, allowing them to get their products to market quicker.

Motorola determined that adopting ExpeDat was the equivalent of increasing their total system investment by 40%, for a fraction of that cost.

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