HYPERION RESEARCH

Special Report

Leading HPC Vendor Market Share Update

Alex Norton, Earl Joseph, Steve Conway, and Bob Sorensen
October 2018

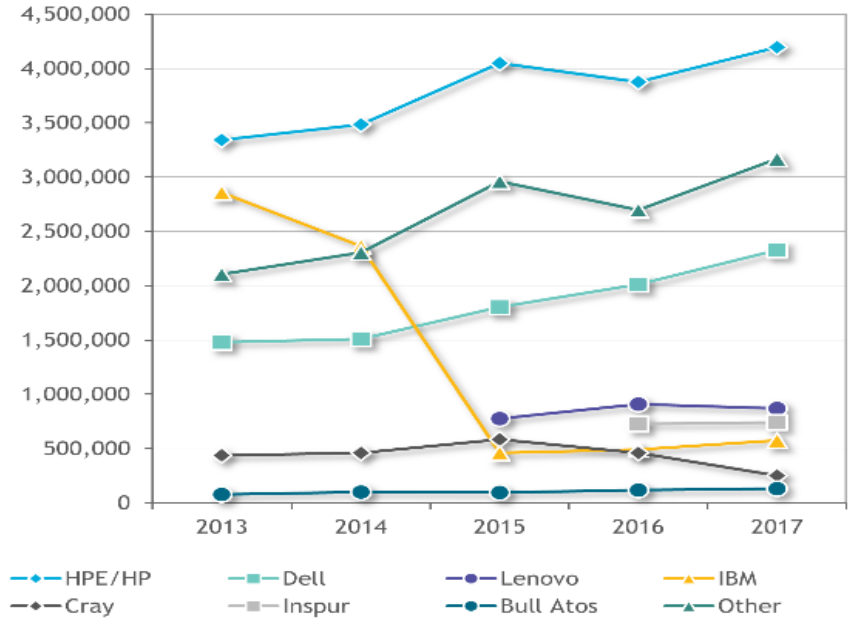
HYPERION RESEARCH OPINION

Over the past decade, the relative positions of HPC vendors in terms of revenue have shifted and evolved due to acquisitions, changes in product lines, and advances in technology. Hyperion Research sees this pattern continuing as we project out over the coming years as new areas of technology emerge and current technology evolves.

For many years, the top HPC vendor market share position has been held by both HP/HPE and IBM. However, over the last five years, HPE become the market leader and there has been major movement among the next three spots. In 2013, IBM firmly held the second spot, but in 2015, after selling their x86 server business to Lenovo, the firm saw its worldwide revenue decline. In contrast, Dell has grown steadily over the last five years, securing the slot for the second highest HPC revenue, worldwide, from 2015 to 2017. Inspur has been making strong gains the past two years, recording two strong revenue years. Finally, the category of others -- a collection of 40-plus smaller vendors, continues to gain prominence in the list. (See Figure 1)

FIGURE 1

Worldwide Leading HPC Vendor Market Shares ($)



Source: Hyperion Research, 2018

Note: This page is intentionally blank.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

IN THIS STUDY

As part of our databases, Hyperion Research tracks all the vendors in the HPC market, their revenues, as well as other metrics like units shipped and technologies. In this document, the leading HPC vendor revenues for the past five years are shown, displaying the constantly changing picture of HPC vendor positions. We track the HPC vendors on their global revenue, as well as their regional revenue. As some vendors only sell to certain geographical markets, they only appear in relevant regional charts.

WORLDWIDE VENDOR SHARES

Table 1 and Figure 1 show the vendor positions for the last five years worldwide. HPE/HP has held the top spot during that time span, growing almost every year, with their revenue in HPC over $4 billion last year. However, behind them, the list has changed each year, with IBM controlling the second position until 2015, when they sold their x86 business to Lenovo. Lenovo grew quite rapidly in the market, but they couldn't hold onto all of the business that IBM had previously held in the space.

Since then, Lenovo has become a major player in the HPC market, building on their acquisition of the IBM business. IBM has bounced back and is growing, bringing in more than half a billion dollars in revenue in 2017 in the HPC space. Dell jumped into the second spot in 2015 with steady growth every year. The one entry for Wuxi is the system they built and sold for the Wuxi Sunway TiahuLight computer.

Table 1

WW Overall Vendor Revenues ($K)

	2013	2014	2015	2016	2017
HPE/HP	3,343,758	3,483,471	4,050,658	3,877,593	4,194,470
Dell	1,478,224	1,510,806	1,801,821	2,013,824	2,330,134
Lenovo			775,245	908,532	869,895
Inspur				727,243	740,207
IBM	2,856,334	2,364,528	461,087	491,959	575,130
Sugon (Dawning)	200,497	217,200	282,230	315,048	348,846
Cray	436,741	459,900	583,933	460,830	250,195
Fujitsu	127,988	134,285	158,145	226,995	227,802
NEC	72,901	130,482	209,282	165,758	171,344
Bull Atos	77,322	98,468	96,475	117,717	133,422

Table 1

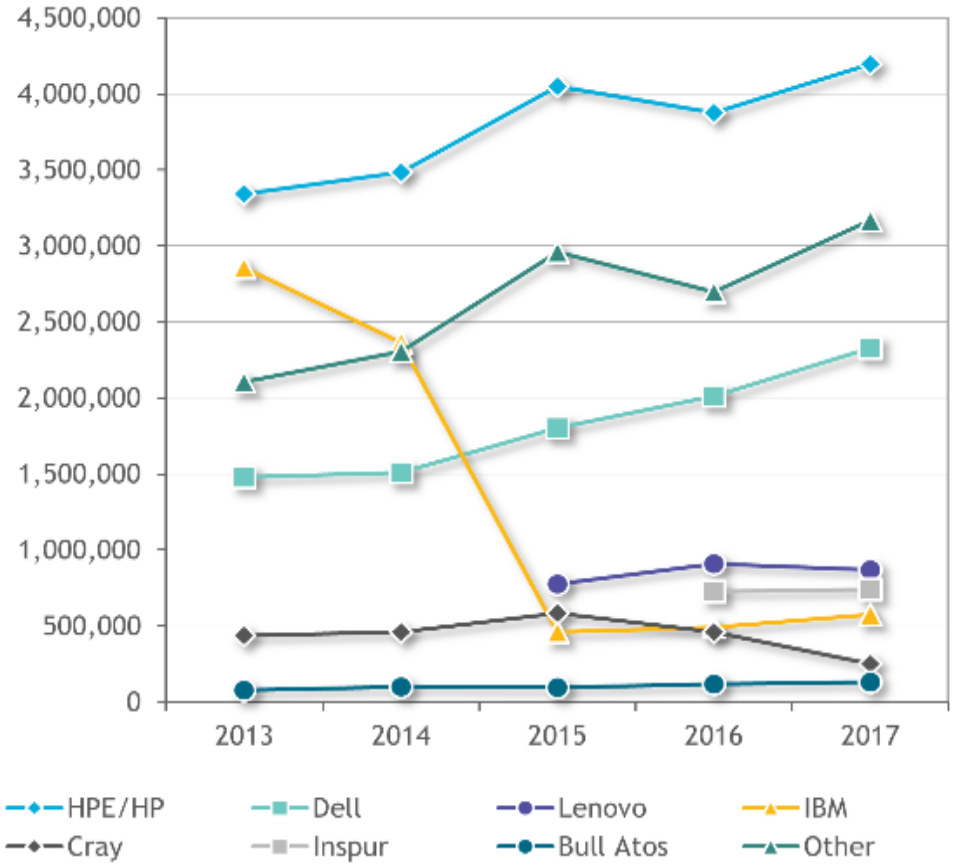
WW Overall Vendor Revenues ($K)

	2013	2014	2015	2016	2017
SGI	310,581	344,455	296,350	168,650	
Other	1,394,321	1,478,650	2,011,945	1,820,479	2,420,852
Wuxi				300,000	

Source: Hyperion Research, 2018

FIGURE 1

Worldwide Vendor Shares ($K)



Source: Hyperion Research, 2018

REGIONAL VENDOR SHARES

North America

Table 2 and Figure 2 list the significant HPC vendor positions in North America for the past five years. As with the worldwide positions, HPE/HP has held and continues to hold the number one spot in North America. Dell has made up a lot of the ground between themselves and the top spot. Lenovo, emerging on the scene in 2015, has made a splash in the North American market. Inspur has started selling in the North American market for the past two years.

Table 2

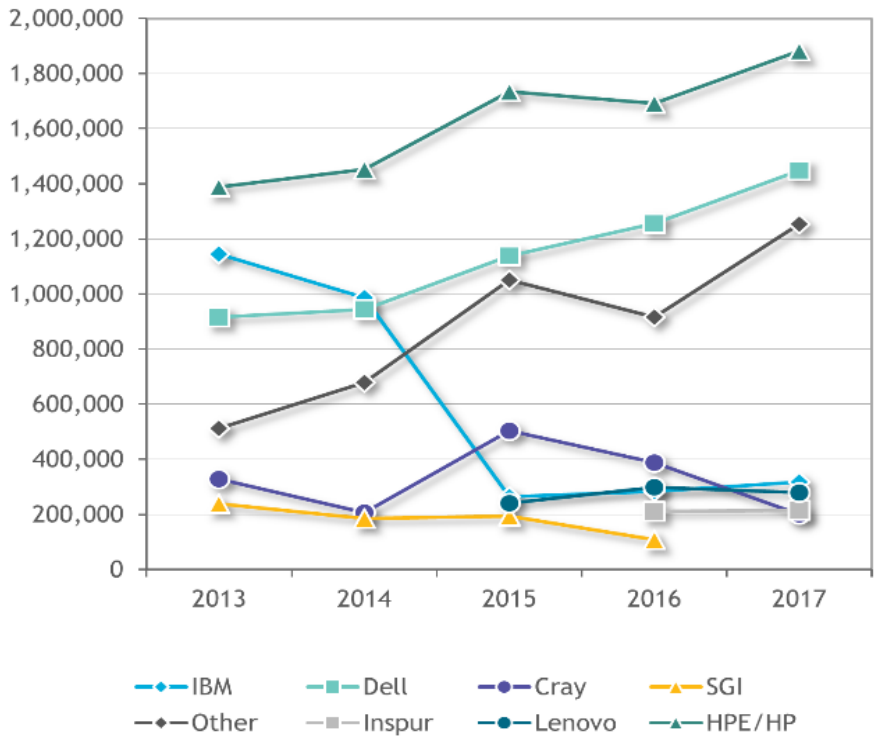
North America Vendor Revenue ($K)

	2013	2014	2015	2016	2017
HPE/HP	1,388,715	1,453,056	1,735,083	1,691,163	1,881,866
Dell	915,964	942,941	1,138,810	1,256,555	1,448,121
Other	511,753	679,775	1,051,329	916,828	1,254,520
IBM	1,145,628	987,486	263,980	283,884	317,547
Lenovo			240,177	297,723	278,861
Inspur				211,690	214,741
Cray	327,556	206,062	504,366	389,167	200,156
SGI	237,917	184,715	193,783	108,094	

Source: Hyperion Research, 2018

FIGURE 2

North America Vendor Shares ($K)



Source: Hyperion Research, 2018

Europe, Middle East, and Africa

In Table 3 and Figure 3, the vendor positions are shown for EMEA. HPE/HP held the top spot all five years, with almost triple the revenue of the second largest vendor, Dell. It is interesting to note that Inspur has a larger footprint in EMEA than in North America. Additionally, the bulk of HPC revenues for Bull Atos is in EMEA, about 90% of their HPC revenue.

Table 3

EMEA Vendor Revenue ($K)

	2013	2014	2015	2016	2017
HPE/HP	1,237,836	1,308,232	1,477,289	1,392,189	1,497,075
Other	295,532	457,653	511,461	491,398	622,550
Dell	327,880	323,876	342,201	423,491	510,454
Inspur				387,489	396,352

Table 3

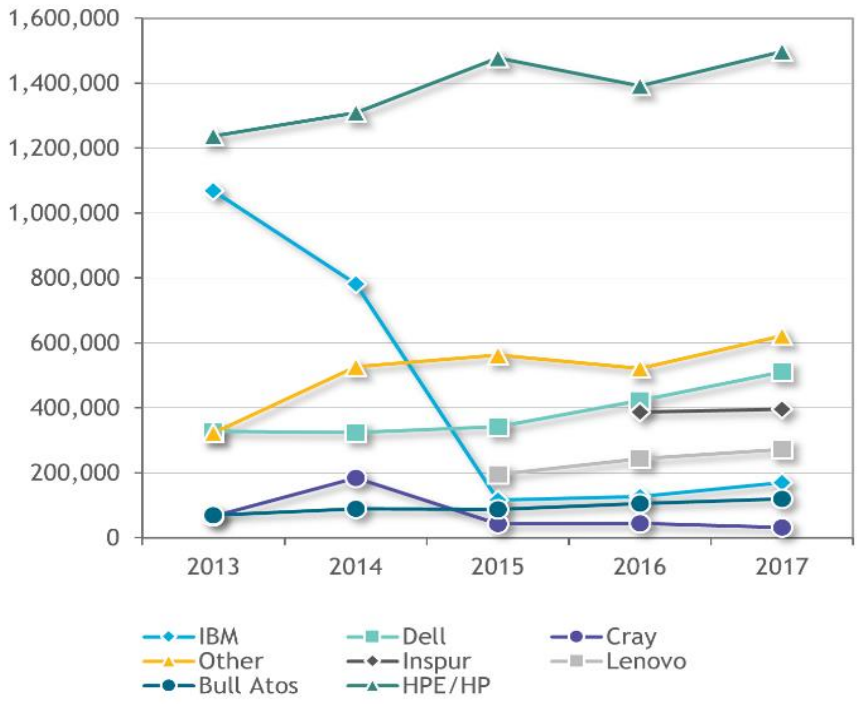
EMEA Vendor Revenue ($K)

	2013	2014	2015	2016	2017
Lenovo			195,772	243,668	271,826
IBM	1,068,064	781,270	115,756	127,652	170,636
Bull Atos	69,590	88,621	86,827	105,945	120,080
Cray	65,511	183,984	43,313	45,150	32,525
SGI	26,321	68,918	50,550	30,190	

Source: Hyperion Research, 2018

FIGURE 3

EMEA Vendor Shares ($K)



Source: Hyperion Research, 2018

Asia/Pacific (without Japan)

Table 4 and Figure 4 show the vendor positions for Asia/Pacific, which does not include Japan. Like the other regions, HPE/HP holds the top spot. But, unlike other regions, Sugon (Dawning) holds a strong footprint in the Asia/Pacific region. In fact, the bulk of their revenue is centered in the Asia/Pacific region.

Table 4

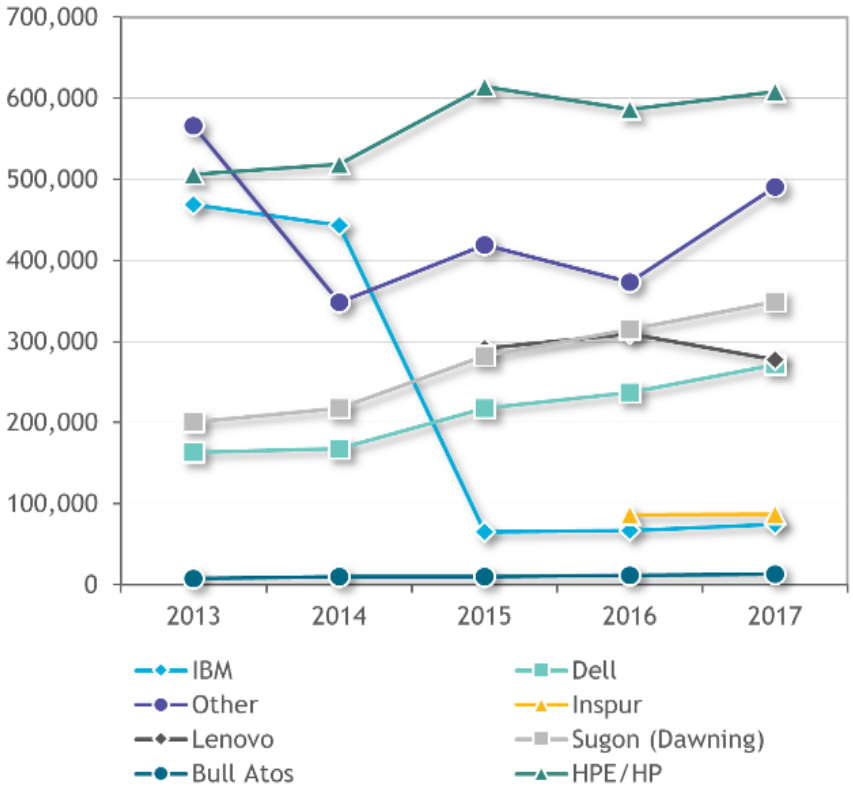
Asia/Pacific Vendor Revenue ($K)

	2013	2014	2015	2016	2017
HPE/HP	506,115	518,676	614,234	586,291	608,361
Other	544,186	300,292	404,875	366,659	488,322
Sugon (Dawning)	200,497	217,200	282,230	315,048	348,846
Lenovo			291,202	309,223	277,523
Dell	163,385	167,671	217,522	236,861	271,281
Inspur				86,290	86,697
IBM	468,621	443,251	64,885	66,605	74,236
Bull Atos	7,732	9,847	9,647	11,772	13,342
Cray	-	30,322	4,705	2,853	2,502
SGI	21,911	17,595	9,528	3,373	
Wuxi				300,000	

Source: Hyperion Research, 2018

FIGURE 4

Asia/Pacific Vendor Shares ($K)



Source: Hyperion Research, 2018

Japan

Table 5 and Figure 5 show the HPC vendor shares in Japan, which Hyperion Research tracks separately from the Asia/Pacific region. In Japan, unlike the other regions, HPE/HP does not hold the top vendor share position. Here, two Japanese companies, Fujitsu and NEC hold the top spots. NEC has seen a large growth from 2013 to 2017, almost doubling their revenue from 2013 to 2014, and then growing strongly again into 2015, taking the top spot. In 2017, Fujitsu had secured the highest HPC revenue.

Table 5

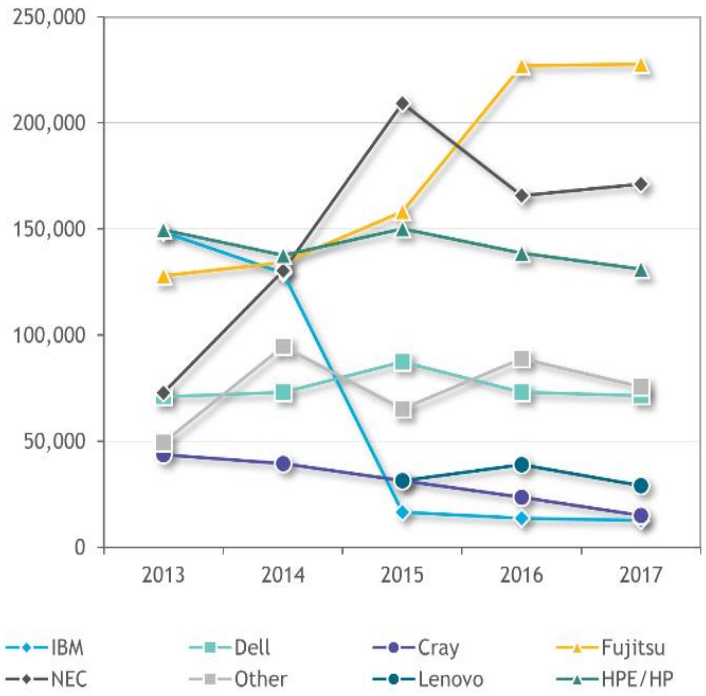
Japan Vendor Revenue ($K)

	2013	2014	2015	2016	2017
Fujitsu	127,988	134,285	158,145	226,995	227,802
NEC	72,901	130,482	209,282	165,758	171,344
HPE/HP	149,648	137,613	150,195	138,847	131,143
Dell	70,995	73,205	87,378	73,036	71,627
Other	30,608	29,236	31,629	32,567	39,614
Inspur				35,561	36,194
Lenovo			31,334	38,920	29,152
Cray	43,674	39,531	31,549	23,660	15,012
IBM	148,713	129,383	16,466	13,818	12,712
SGI	18,773	65,604	33,652	20,849	

Source: Hyperion Research, 2018

FIGURE 5

Japan Vendor Shares ($K)



Source: Hyperion Research, 2018

Rest of World

Table 6 and Figure 6 show the vendor share positions for the rest of the world, areas that we track that do not fall into the previous five regions. Following the pattern of the world as a whole, HPE/HP holds the highest HPC revenue for the rest of the world.

Table 6

ROW Vendor Revenue ($K)

	2013	2014	2015	2016	2017
IBM	25,308	23,138	-	-	-
Dell	-	3,113	15,911	23,882	28,651
SGI	5,659	7,622	8,837	6,143	
Other	12,243	11,694	12,651	13,027	15,846
Inspur				6,214	6,224

Table 6

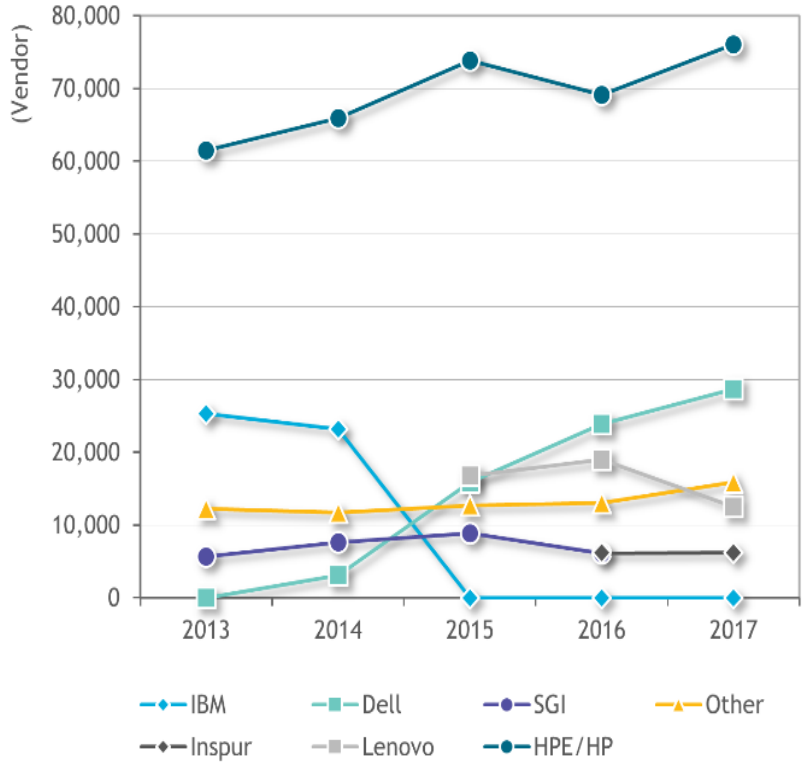
ROW Vendor Revenue ($K)

	2013	2014	2015	2016	2017
Lenovo			16,761	18,998	12,532
HPE/HP	61,442	65,893	73,858	69,102	76,025

Source: Hyperion Research, 2018

FIGURE 6

Rest of World Vendor Shares ($K)



Source: Hyperion Research, 2018

FUTURE OUTLOOK

The HPC sector has always been one marked by consistent change, as technology and market dynamics make it difficult for any one player to stand still for long. Hyperion Research expects that the next few years will, as seen in the past five years, bring about no small changes in the make-up and rankings of major HPC vendor market shares. To that end, there are a number of trends in the HPC sector that will play an important role in determining the winners and losers in this ever-evolving sector:

- The roll-out of new pre-exascale and exascale systems will create significant interest at the highest end of the HPC sector. Much of the technology developed for those systems will find its way over time into smaller, less costly, and more widely applicable systems.
- New workloads, requiring new types of solutions, in HPDA, big data, AL, ML and DL areas.
- The interest in new types of processors, new memory systems and ways to better manage data will push vendors to developed more advanced capabilities and systems.
- The seemingly endless roll-out of new algorithms, applications and use cases of deep learning will continue to drive interest in HPCs that can provide fast, capable performance for even the most aggressive deep learning training sessions. As new deep learning networks continue to emerge, the ability of HPC systems to match the computational requirements of those networks will become an increasingly important driver of HPC development.

About Hyperion Research, LLC

Hyperion Research, consisting of the former IDC high performance computing (HPC) analyst team, provides HPC information, analysis, and recommendations based on technology and market trends. Research includes market sizing and forecasting, share tracking, segmentation, technology and related trend analysis, and both user & vendor analysis for multi-user technical server technology used for HPC and HPDA (high performance data analysis). We provide thought leadership and practical guidance for users, vendors and other members of the HPC community by focusing on key market and technology trends across government, industry, commerce, and academia.

Headquarters

365 Summit Avenue
St. Paul, MN 55102
USA
612.812.5798
www.HyperionResearch.com and www.hpcuserforum.com
