

HP's Adaptive Enterprise strategy benefits Capgemini and its outsourcing clients



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– Laura McNeill, Vice President, Capgemini

The stakes are enormous whenever a high-profile company makes the strategic decision to entrust its IT responsibilities to an outsourcing specialist. Expectations for flawless delivery are pervasive, competition for business is highly aggressive, and the impact of underperformance can be catastrophic. One of the stars in the highly dynamic North American outsourcing marketplace is Capgemini.

Capgemini's clients ultimately begin the search for an outsourcing partner based on a desire to focus on their own core competencies and the pursuit of highly reliable IT services at cost-effective levels. Capgemini has gained prominence through its offerings of innovative and comprehensive services, coupled with the utilization of leading-edge technologies.

Business and Information Technology align to create success

Laura McNeill, a Capgemini Vice President, described an additional ingredient of the company's success, "We always concentrate on clients' business needs – asking the question 'what are they trying to achieve from a business perspective?' We then identify and implement the specific technology components required to make these objectives a reality. We allow them to focus on the demands of their own business, rather than worrying about technology."

By approaching prospects from a business perspective, Capgemini has attracted many large clients across multiple industry segments. It possesses in-depth knowledge of a wide variety of businesses, enjoying particular success in the energy and healthcare sectors, where clients include Hydro One, Bruce Power, Ontario Power Generation, and TXU.

Planning to succeed

In order to stay ahead in the highly competitive outsourcing marketplace, Capgemini is constantly reviewing its own abilities to deliver a compelling set of services to clients. One such review showed an emerging inflexibility in the legacy infrastructure that was restricting the Company's capabilities to react to the dynamic needs of its clients. At the same time, Capgemini's rapidly growing customer base across North America had created a requirement to expand its existing storage capacity and provide an increased level of pricing granularity for different tiers of service.

McNeill remembered, "One of our challenges was looking for creative ways to save our customers money, while providing leading-edge storage technology solutions. An additional driver was that many of our clients were looking for pay-per-use and capacity-as-needed services that were very predictable in price."

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Don Smith, Director of Strategic Sourcing Complex Agreements, noted, “Capgemini is focused on the total cost of our information technology solutions in order to truly satisfy our clients’ requirements. Our goal is to deploy solutions that enable our employees, clients and other service centres, to share information and resources on a global basis for the lowest possible cost. Saving a dollar per gigabyte is important, but it is small in comparison to accomplishing higher rates of utilization and performance increases.”

Dan Horton, Capgemini’s Enterprise Storage Group Manager, described how Capgemini built an innovative business and technology solutions approach through collaboration with its customers. He said, “We worked with our main clients to create a detailed list of requirements, and constructed evaluation matrices that weighted the importance of each criterion. We then sent a request for proposal (RFP) to a number of vendors and again partnered with our customers to evaluate each response.

“One of the additional complexities of our situation was that the storage solution had to embrace the disparate needs of both our mainframe and open-systems environments, covering multiple operating systems. Any proposed solution had to be highly flexible to meet all of our requirements.”

McNeill added, “One of the critical elements in the RFP was the mandate to have the ability to perform remote management of any element in the environment. The selection criteria included specifications to manage the whole infrastructure in a heterogeneous way – so that we didn’t have to deploy multiple point-solutions for each individual component.”

This was not possible with their previous infrastructure as Horton explained, “In the previous implementation we had evolved to storage area network (SAN) ‘islands’ – so a primary goal of the refresh program was to consolidate the storage environment into one highly accessible SAN infrastructure.”

As a recipient of the RFP, HP responded with a comprehensive proposal based on its highly acclaimed Adaptive Enterprise strategy. HP picked optimal solution components from its industry-leading technology portfolio using knowledge gathered from a detailed total cost of ownership analysis that it performed on Capgemini’s legacy EMC storage environment. It also utilized many virtualization solutions to optimize and improve utilization of shared resources to meet demand.

McNeill reflected, “HP’s track record and image of reliability among our current customer base was very strong, and HP’s proposal highlighted several factors that were differentiators for me: The ability to provide a truly integrated solution, and the existence of world-class components at all tiers of the architecture.”

The plan becomes reality

As part of the implementation, HP consolidated devices from six EMC Symmetrix frames down to three new HP StorageWorks XP1024 Disk Arrays. These were located at three different facilities, with each connected via a SAN utilizing Brocade 1200 Director Class switches, and configured to access over 125 heterogeneous servers and multiple large IBM mainframes. The XP1024’s rich multi-platform capabilities service the diverse connectivity demands of Capgemini’s multiple current customers – and its future clients. The infrastructure is highly scalable and flexible. The solution was founded on HP’s comprehensive software stack – including HP StorageWorks Business Copy XP, HP StorageWorks Continuous Access XP and HP storage management tools for costing calculations, pay-per-use, and chargeback.

Horton recalled, “The tiered architecture allows us to provide our customers with the solution that best meets their business needs in the most cost effective manner. As an example, in the previous storage implementation it was more of a “one size of storage fits all” type of model – this monolithic approach limited our flexibility

to provide tailored pricing options. What we've done is build a new model that is more flexible, and allows us to mold our offering for each individual customer. Using consulting and integration expertise from HP, multiple HP StorageWorks Enterprise Virtual Array 5000s (HP EVA5000) also have been implemented to deliver a lower-cost tier of storage."

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Storage as an asset

Leveraging Softek's Transparent Data Migration Facility (TDMF) software, HP's consultants transparently handled data migration from the production IBM mainframe storage systems to the XP1024s while users continued to work unaffected by the transition process.

Horton recounted, "One of the most critical elements of our data migration strategy was to be able to move our clients' mission-critical applications without any disruption to service. Working in conjunction with HP, we were able to make the whole process seamless to our customers and their own users, and maintain full disaster recovery capabilities at all times."

The project entailed moving a total of 125 hosts, with a mix of Solaris, HP-UX®, UNIX®, Microsoft® Windows® 2000 and Windows NT operating systems, and a combined storage total exceeding 100 terabytes of data, in less than six months. Horton observed, "We were pleased with the HP experts, they worked alongside us to achieve 100 percent success in all of the data migrations, and we met all of our implementation timelines."

McNeill reflected, "The implementation is spread across multiple data centres located in the greater Toronto area, all linked with high-bandwidth connections between the sites. This gives us excellent redundancy and allows us to perform replication between locations. We've been able to transparently replace services that customers already had, and are able to accommodate their changing needs as soon as they arise."

HP Superdomes provide virtualization and consolidation

Driven by specific customer requirements, Capgemini purchased two HP 9000 Superdome servers – located at separate facilities. Horton described the situation, "HP Superdomes were implemented as part of a server consolidation project. There were certain applications that just didn't have enough resources, and we used the HP Superdome servers to allocate additional resources and to virtualize the environment."

McNeill elaborated, "The virtualization capabilities with HP-UX 11i and the HP Superdome partitioning allow us to provide capacity as needed at the server level. We make use of hard partitions as well as creating further virtual partitions so that clients can benefit from leading-edge technology at a lower cost – they also have the flexibility to receive and reconfigure capacity among servers when required."

HP OpenView pulls everything together

Capgemini has been a long-time proponent of HP OpenView, and to fulfill the stringent requirements for centralized management of the new environment HP recommended implementation of HP OpenView Storage Area Manager (SAM).

Horton described, "We're using SAM to get a central view of our whole storage environment from one location, as well as for alerts and capacity trending. We've set the software up in a multi-customer environment, so that we can view each client's individual storage usage. We are now in a position to bill customers on a pay-per-use basis."

The results are in....

The results have been compelling – standardization and consolidation of the storage environment into a leveraged infrastructure have yielded significant cost savings to the client base. Increased agility at the data level is providing the flexibility to offer a much wider variety of storage pay-per-use options, as well as demonstrably better overall performance.

Smith observed, "There have been significant savings that result from resolving issues remotely without technician hands-on intervention. The HP storage and high-end computing solution sets the stage for us to offer virtual processing and tiered storage across multiple data centres. The robust nature of this architecture, and the joint service arrangements, provide for a very high fault tolerant installation, giving our clients worry-free computing. The addition of high-end HP 9000 Superdomes to this mix, along with state-of-the-art lifecycle management software, has provided a truly cost effective, leading-edge, high-performance solution."

Horton enthused, "From a performance perspective, when we migrated over to the new environment we experienced an immediate improvement. In fact, because the whole migration process went so smoothly, the only impact on our clients was that everything ran faster. We actually had enquiries asking why things were working so much quicker!"

McNeill concurred, "The new infrastructure makes us much more flexible in the ways that we can approach customers – we're not as large as some of our competitors, so we are able to fully leverage the advantages of being more agile and responsive."

She continued, "This is the first time that we've been able to offer our customers volumetric pricing and pay-per-use models. Our tiered storage architecture provides us with

At a glance

- **Company:** Capgemini
- **U.S. Headquarters:** New York, New York
- **Size:** Over 55,000 employees worldwide
- **Telephone:** 917-934-8000
- **URL:** www.capgemini.com
- **Primary business:** Capgemini is focused on helping companies around the globe address their business and IT issues through its Consulting, Technology and Outsourcing services.

critical storage capabilities at the top level, and ranges down to an archival-type storage media at the base.

"Clients can now select exactly the optimal server and storage class for their specific needs – using reduced cost tiers for lower importance data and applications. Standardization and simplification of the environment have allowed us to meet all of our own business and financial objectives at the same time as increasing our competitiveness and offering our customers a broader range of even more cost-effective solutions."

HP's Adaptive Enterprise strategy is perfectly synchronized with the objectives of Capgemini's outsourcing team. McNeill confirmed, "We are creating the foundation layer to enable our own adaptive enterprise. We have a framework that allows us to rapidly adapt to the dynamic needs of our clients and to seamlessly transition them from one set of services to another, independent of location, and

ostensibly free from the technological restrictions and risks typically imposed by inflexible architectures."

Paul Hermelin, Capgemini Chief Executive Officer, reflected, "As partners, HP and Capgemini have helped world-class organizations implement Adaptive IT solutions and strategies. HP Adaptive Infrastructure eliminates the historic challenges our customers face when upgrading, scaling, or evolving to new business processes."

McNeill summarized, "HP's offerings were very compelling for us because they aligned with our strategic direction and storage model. The Adaptive Enterprise optimizes and virtualizes IT, and synchronizes with our business, giving us a step-up on the competitors. It enables us to provide our clients with storage as required, and instant and dynamic capacity by tier, not just for the customers that we have today, but for those that may be coming on board."

Challenges

- Remove inflexibility of legacy infrastructure.
- Identify and implement leading-edge technological components to provide unrivalled facilities for clients.
- Create centralized management capability encompassing all components of the highly diverse infrastructure.
- Facilitate the use of technology to elevate the cost-effectiveness and competitiveness of services offered.
- Provide broader selection of services to optimally match clients' business requirements.

Solution

- Three HP StorageWorks XP1024 Disk Arrays, complemented by:
 - HP StorageWorks Business Copy XP
 - HP StorageWorks Continuous Access XP
- Multiple HP StorageWorks Enterprise Virtual Array 5000s
- Two HP 9000 Superdome servers running the HP-UX 11i operating system
- Consulting and integration expertise from HP
- HP OpenView Storage Area Manager
- HP-UX Workload Manager
- Softek Transparent Data Migration Facility software
- Brocade 1200 Director Class switches

Results

- Rapid deployment capability.
- Cost savings.
- Improved storage scalability.
- Flexibility to offer a much wider variety of storage pay-per-use options.
- Demonstrably better overall performance.
- Ability to offer customers volumetric pricing.
- Increased competitiveness.
- Capability to allow clients to seamlessly transition from one set of services to another, independent of location, without the technological restrictions and risks typically imposed by inflexible architectures.

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