Creating Cloud-Ready Data Center

Parentix changes traditional applications hosting model to software as a service using Cisco Unified Computing System.

EXECUTIVE SUMMARY
Customer Name: Parentix Parentix
Industry: Service provider
Location: Netherlands
Challenge
· Accelerate growth and win new business
· Reduce power consumption in data center
· Optimize customer experience
Solution
· Cisco Data Center 3.0 vision, architecture, and technologies
· Cisco Unified Computing System
Results
· More flexible platform enabled faster expansion
· Using less energy reduced operating costs
· Automation enhanced customer experience

Challenge

Parentix hosts business-critical applications for small and midsize companies, specializing in Windows solutions from Microsoft and Exact Software. Established in 2000, Parentix has grown quickly, increasing revenues by as much as 50 percent in recent years.

The company's top priority is to continue and accelerate its rapid growth, while finding ways of optimizing the customer experience and reducing costs. One of the main barriers to achieving this was the traditional structure of the company's two data centers in Amsterdam, which had separate servers and other components dedicated to different services or customers.

"Without a standardized and unified environment, it was hard for us to grow quickly enough," says chief executive officer Pieter Gabes. "We wanted to be more flexible in how we offer services to customers, by making our products cloud-ready. The idea was to become more efficient by serving more clients on the same platform and doing more business with the same number of people."

Because Parentix rents its data center space, the amount of power that it uses is limited by contract. The company had nearly reached that limit in both data centers and wanted to avoid opening a third facility. This meant doing more with the same level of power consumption, by virtualizing the data center assets. However, two performance issues had made full virtualization impossible.

First, some applications such as Exact Globe, an enterprise resource planning (ERP) solution for small businesses, needed higher I/O performance than was currently available on virtualized platforms. Second, it was important to have 10 Gb connectivity throughout the whole virtualized platform to support transaction processing on financial and ERP applications, which tend to need periodic intense bursts of very high bandwidth.

Solution

Parentix decided to introduce a new architecture based on the Cisco Unified Computing System™ (UCS), a next-generation data center platform specifically designed to accelerate the virtualization process. Cisco® 6100 Series Fabric Interconnects provide network connectivity and management capabilities for all the attached blades and chassis.

UCS is an integral part of the Cisco Data Center 3.0 portfolio, which is based on an architectural approach to evolving the data center through three phases of consolidation, virtualization, and automation. When Parentix was looking for a more structured approach to managing growth, the company was impressed both by the architectural vision of Cisco Data Center 3.0 and the technology solutions available.

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> **–Vincent Kemp, Technical Director, Parentix**

In fact, Parentix decided to purchase UCS based on the solution's performance metrics alone, a bold move that is typical of the company's innovative approach. "We were the first company in the Netherlands to move to the Cisco UCS platform, and we made that decision even before it became available for testing," says technical director Vincent Kemp. "That was a clear sign of our trust in Cisco, and we were not disappointed."

Six UCS B200 M2 Blade Servers not only offered ultra-high performance and flexibility, but also improved energy efficiency in the data center. The blade servers use Intel's new Xeon 5600 Series processors, which adapt their performance to the changing demands of applications in order to minimize power consumption. Because they utilize less electricity, the processors also produce less heat and require less cooling, further reducing energy needs and costs.

The speed of the Intel processors meant that applications like Exact Globe, which run on SQL servers and require fast I/O throughput, could operate in a virtualized environment for the first time. "At the time UCS was the only platform to use the new Intel processors," says Kemp. "This gave us the confidence to run systems on UCS that we previously hadn't wanted to run on a virtualized platform."

Parentix is using UCS as a virtualized platform for database servers, mail servers, and the terminal servers needed for Remote Desktop Services on Windows applications. Being able to consolidate disparate systems in this way creates a more standardized environment that is easier to work with. For example, increasing capacity on a particular service used to involve a series of different requirements to expand each element of the service, but can now be done much more efficiently using predefined templates.

"UCS was the first solution that made it possible for us to virtualize the whole data center and bring all our applications to the cloud," says marketing manager Babs Sturkenboom.

Other elements of the data center solution include VMware vSphere virtualization software and NetApp storage systems. Two Cisco Nexus® 5000 Series Switches enabled Parentix to:

- Consolidate the different network, server, and storage environments in its data centers

- Create a unified fabric over 10 Gb Ethernet, so that all types of traffic run on a single network.

The aim is to simplify the data center infrastructure to such an extent that it becomes easier and more cost effective to manage.

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> **–Babs Sturkenboom, Marketing Manager, Parentix**

A Cisco partner designed and implemented the new platform, with Cisco providing assistance throughout the project. "We had good support from Cisco, particularly when some of the hardware was delayed and we were at risk of missing our deadline," says Kemp. "They made a big effort to speed up delivery, and we got everything on time."

Results

Adopting a single data center architecture has enabled Parentix to change its business model from traditional, hosted services to a cloud-based approach, offering software as a service (SaaS). The company has created a new portal where customers can order and manage their services online, starting with the Exact Software applications that are widely used by small businesses in the Netherlands. Customers can set up services automatically and use them at once, without any intervention from Parentix staff, making the whole service delivery process much more flexible and responsive.

The business is changing to accommodate the new service model. "We used to charge a set-up fee, but now we can offer customers an all-inclusive price per month, per user," says Sturkenboom. "This makes our offer more attractive, because it keeps costs low for our customers." Parentix is also finding new routes to market, in preparation for future growth, beginning with a small number of reseller partners that customers can locate and select on the portal.

An important feature of the new data center is its extreme scalability, which will enable Parentix both to respond to customers' real-time requirements, and to cope with rapid growth in the number of services and users. Thanks to UCS, it will be possible to manage peaks in data center activity effectively and to provision new services, or upgrade existing ones, almost instantaneously.

"Previously it would take about a day to expand the capacity of a database server, including two or three hours of downtime for the customer," says Kemp. "Now we just assign additional resources to the software in a matter of minutes, and often the customer experiences no downtime at all."

Another highly visible benefit to customers is the faster performance of their applications, due to increased speed and capacity in the data center. Customers are also more satisfied with overall service quality, because they are experiencing higher availability. This is essential for customers' business operations and makes it easier for Parentix to fulfil its service-level agreements.

Five months after implementing the Cisco solutions, Parentix had reduced its power consumption enough to reverse the upward trend and stabilize usage below the maximum level. "Our energy consumption is now stable, which is an important achievement, and we're hoping to reduce it even further as we continue to take the traditional equipment out of the data center," says Kemp. The company is also hoping for additional cuts in operating costs over time, due to a combination of factors such as increased service automation, a unified architecture, and centralized management systems.

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>
> **–Pieter Gabes, Chief Executive Officer, Parentix**

Next Steps

Parentix will continue to develop and promote its SaaS model, using the new portal and working with its new reseller partners. The company is phasing out its traditional data center equipment and migrating services on to the new platform. In spite of its smaller footprint, the Cisco solution will support future business growth in an agile and cost-effective way, and Parentix is pleased with its new data center architecture.

"There are no more barriers to stop us entering the cloud," says Gabes. "We expect our new service model to enable us to win more business, and give customers more choice and an all-round better experience."

PRODUCT LIST

Data Center

· Cisco Unified Computing System

· Cisco Nexus 5000 Series Switches