



RED HAT® ENTERPRISE LINUX® SUPPORTS L'AGENZIA VENETA PER I PAGAMENTI IN AGRICOLTURA (AVEPA), THE VENETO AGENCY FOR AGRICULTURE PAYMENTS

Fast Facts

Industry:	Government				
Geography:	Italy				
Opportunity:	AVEPA, the Veneto Agency for Agriculture Payments, began moving their claims-handling process to an online solution in 2002. Demand for the system grew more than exponentially, and AVEPA required a new IT system that could handle the current demand, and would be extensible enough to accommodate future increase--while meeting strict requirements for security and reliability.				
Solution:	<table border="0"><tr><td>Software:</td><td>Red Hat Enterprise Linux 3, update 7 (with a planned upgrade to Red Hat Enterprise Linux 4), Oracle Database</td></tr><tr><td>Hardware:</td><td>4 IBM X3950, 4 Intel Xeon Processor MP up to 3.30 GHz (dual-core)/667 MHz (64 bit) Storage - IBM DS4800 system with 32 150 GB disks (and transfer technology up to 4GB)</td></tr></table>	Software:	Red Hat Enterprise Linux 3, update 7 (with a planned upgrade to Red Hat Enterprise Linux 4), Oracle Database	Hardware:	4 IBM X3950, 4 Intel Xeon Processor MP up to 3.30 GHz (dual-core)/667 MHz (64 bit) Storage - IBM DS4800 system with 32 150 GB disks (and transfer technology up to 4GB)
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Summary:	With the deployment of Red Hat Enterprise Linux, AVEPA realized immense improvements in reliability and stability, and now has the flexibility for future expansion. Since implementing Red Hat Enterprise Linux, AVEPA has experienced no machine downtime and no technical problems attributable to the operating system. Given the pressure to contain costs in public administration, AVEPA has enjoyed open source's inherent cost-savings and value.				

BACKGROUND

AVEPA manages claims for and payments of financial assistance in the agricultural sector.

The agency is the payment body for the Veneto Regional Authority, created by the Ministero per le Politiche Agricole e Forestali (MIPAF)--the Ministry of Agriculture and Forestry. The MIPAF is responsible for assistance, contributions, and premiums intended for district, regional, and national use by the rural community. These funds are allocated by the Fondo Europeo Agricolo di Orientamento e di Garanzia (FEOGA--the European Agricultural Guidance

and Guarantee Fund), the Guarantee section, the Italian state, and the Veneto Regional Authority. AVEPA--under legislation 31/2001 of the Veneto Regional Authority--operates autonomously in terms of its administration, organization, and finances. AVEPA collaborates with the Agenzia per le Erogazioni in Agricoltura (AGEA--the Agency for Agricultural Disbursement) for the management of community plans, with the Veneto Region for the implementation of rural development plans, and with the Agricultural Assistance Centres for the receipt phase of claims.



OPPORTUNITY

The agency began operations in late 2002, initially managing the payment of claims obtained via client/server applications. The payments were then processed offline.

In 2004, AVEPA implemented a new assistance claims submission system using of web applications. All requests related to funding would only be available online. The system was designed so that operators in all agricultural sectors--and, in 2006, operators in the wine growing sector--could compile their own modules and submit them to AVEPA in electronic format. After the necessary checks, the disbursement of sums would be granted.

"In the last few years there has been an exponential growth in the number of transactions carried out," said Renzo Padovano, Organisation and Services Area Manager, AVEPA. "Requests have risen from around 20,000 in 2003 to 150,000 in 2006, with significant peaks which are cyclical and in line with the deadlines set by the European Community".

Not only are requests accessible via the web, but company files relating to requests are available online as well.

"The database, which began around 800MB, has grown to nearly 160GB--bringing entirely different management problems," said Renato Benetti, Systems Manager, AVEPA.

SOLUTION

The rapid and constant increase in claims brought with it a series of new infrastructure requirements for services and high-level security guaranteed to the users.

"The strong presence of Linux in the Veneto Regional Authority infrastructures, one of our main partners, made Red Hat Enterprise Linux a favourable choice," said Padovano. "The possibility of having this tool available in open source was perfectly consistent with the guidelines of public administration." Red Hat Enterprise Linux was also chosen for its Oracle and IBM certifications--the other technology partners in the project.

"There was a need for a system that was solid and resistant on the enterprise level, and the certification of Red Hat Enterprise Linux on the part of Oracle and IBM was a decisive requisite for its adoption," confirmed Benetti. "Oracle is a strong presence in AVEPA and we had a need for an operating system that integrates with this database."

Red Hat Enterprise Linux 2.1 AS was used initially and has since been upgraded. Currently the version in production is Red Hat Enterprise Linux 3, update 7, and the move to Red Hat Enterprise Linux 4 is planned in the near future. SCC SpA, a systems integrator, oversaw the project and was responsible for all aspects of implementation and installation in close collaboration with the Oracle team.

During the project, great importance was given to the safety of the data.. Currently the AVEPA infrastructure includes three redundancy levels. The first is a production system based on a determined hardware architecture, with a second hardware architecture ready to be activated in the event of problems with the first. A third hardware architecture in a separate physical location is ready for disaster recovery. It is always possible to provide service through the third redundancy, even in the event of serious infrastructural problems--albeit with a reduced capacity.

"Safety of the data is of fundamental importance to us. We cannot to lose our users' data," explained Padovano. "The fact that this data is linked to administrative operations forces us to look for redundancy, which also goes beyond the norm. It aims to provide the best possible security in order to guarantee service continuity."

At the perimeter security level, AVEPA has installed a firewall based on Red Hat Enterprise Linux, which allows the systems to have precise control over the status of the equipment. The Red Hat firewall is very transparent, and can help monitor individual machines.



BENEFITS

With AVEPA's deployment of Red Hat Enterprise Linux, the company realized immense improvements in reliability and stability, and now has the flexibility for future expansion. Since implementing Red Hat Enterprise Linux, AVEPA has experienced no machine downtime or technical problems. In addition, open source's inherent cost-savings was a deciding factor, and the agency has reaped the value of open source in its deployment.

"The advantages that Red Hat Enterprise Linux has offered us are many," said Padovano. "Above all, we have seen great reliability, which has been successfully tested on site, in addition to stability and flexibility with the option of expansion in the future. The fact that the system is open source has played a significant role in our choice, given the pressure to contain costs in public administration. We were impressed with the certification of Oracle and IBM who testify to the suitability of the operating system in the business environment. Taking all of these into account, the choice of Red Hat Enterprise Linux has been completely in line with our needs."

"Red Hat Enterprise Linux has shown itself not only to be a trustworthy choice but also extremely advantageous, because it perfectly integrated with the other partners in our IT system," said Padovano. "Since we installed Red Hat Enterprise Linux we have had no machine downtime and no technical problems attributable to the operating system."

AVEPA currently has an infrastructure adjustment project in place since a further increase in claims and data is forecasted. AVEPA is working on a new infrastructure, centered on Red Hat Enterprise Linux 4. It will allow for an even more efficient and stabilized integration with the Oracle environment, as well as greater system scalability. The transition to Red Hat Enterprise Linux 4 will allow AVEPA to double the transfer speed of internal systems data, moving from 2GB to 4GB, with significant advantages passed on to the whole infrastructure. The choice of scalable IBM System x3950 servers will allow modular upgrades without replacing the entire hardware infrastructure.

"The new infrastructure plans allow us to look to the future with confidence. We can guarantee increased services, and enable future hardware expansion linked to increases in user activities," explained Benetti. "The machines we will use have great scalability, and we are certain that we can truly make the most of Red Hat Enterprise Linux 4."



**UFFICIO INFORMAZIONI GENERALI
E VENDITE RED HAT**

Numero verde:

E-Mail:

**Europe, Middle East and
Africa (EMEA)**

europa@redhat.com

00800 7334 2835

Turkey

00800 448 820 640

Israel

1809 449 548

UAE

80004449549

www.europe.redhat.com

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