

Whitepaper:

**The Collax Solution Platform as a Consolidation
Platform for Small and Medium sized Companies**

Author: Dr. Petra Gulz

Executive Summary

Collax has one priority – ‘Simply Linux’. With this objective in mind, the Munich-based software company develops and sells Linux-based server solutions. These solutions can be operated without Linux know-how and are thus highly suitable for small to medium sized enterprises (SMEs) that do not have in-house Linux experts.

Conceptualized as a multifunctional server, the Collax Business Server offers all services for network infrastructure, security and communication. The Collax Security Gateway is the ‘bodyguard’ controlling the company network and the complete data exchange for malware. The Collax Open-Xchange Server enables coordinated and compatible group and project work. With this comprehensive solution offering Collax provides all relevant applications that SMEs need for smoothly and economically running a company network.

The server solutions are the building blocks for the Collax Solution Platform. To operate the solutions without any Linux know-how, Collax has developed the Simply Linux technology. The Collax Integration Framework guarantees ease-of-use of all components, and enables maintenance via a graphical user interface. The result: Linux complexity is not an issue for the user. Collax’s Software Development Kit provides software manufacturers access to the Collax Platform and enables the integration of their solutions with Collax technology. The result is a uniform, flexible and scalable platform on which all business-related applications can be consolidated.

Index

| | |
|---|----|
| 1 The Linux Server Market..... | 3 |
| 2 Overview of Linux Distributions..... | 3 |
| 3 Linux in SMEs | 4 |
| 4 Important Topics for SMEs | 4 |
| 5 The Collax Strategy - 'Simply Linux'..... | 5 |
| 6 Collax Technology..... | 5 |
| 6.1 Selecting the best Open Source Components | 5 |
| 6.2 Easy administration via the Collax GUI..... | 6 |
| 6.3 Remote Maintenance..... | 6 |
| 6.4 The Collax Solution Platform | 6 |
| 6.5 Managed Integration – the Collax Integration Framework..... | 7 |
| 6.6 The Software Development Kit (SDK) for ISVs | 7 |
| 7 The Server Fleet | 8 |
| 7.1 All in One: The Collax Business Server..... | 8 |
| 7.2 Software Modules for the Collax Business Server..... | 8 |
| 7.3 Dedicated Server Solutions | 9 |
| 7.4 The Collax Open-Xchange Server | 9 |
| 7.5 The Collax Security Gateway..... | 9 |
| 8 A Cost Comparison..... | 10 |
| 9 Collax Growth Strategies | 10 |
| 10 Press contact | 11 |

1 The Linux Server Market

According to IDC research data from February 2006 [1] the Linux operating system has shown double-digit growth for the last 14 quarters, and with a sales volume of 5,7 billion US dollar has ensured a solid third place on the world market. Even the year before, IDC analysts confirmed that Linux servers were no longer niche products but were instead conquering the global server market [2]. In the meantime Linux is the third leading operating system in data processing centers, following Unix and Windows. According to IDC market researchers Linux servers in EMEA (Europe, Middle East, Africa) had a sales market share of almost 12 percent in the second quarter of 2006 – an increase of 34% compared to the same quarter in 2005. These numbers are valid only for products of commercial Linux suppliers and do not include the servers installed via community distribution with, for example, Open Suse or Debian.

There are several reasons for this continuous growth. Many users are switching from an aging Unix to Linux; compared to the 'Grande Dame' of the operating systems, Linux needs standard hardware which offers cost savings compared to proprietary Unix multi processor machines. This fact alone makes Linux worthwhile for new workloads such as Web 2.0 applications. Linux has also matured with regard to scalability, stability and security to offer business critical projects a cost effective and independent hardware alternative to Unix. The IDC numbers paint a clear picture: in the second quarter of 2006 Unix lost 9% market share.

2 Overview of Linux Distributions

The best-known Linux distributions are the server solutions produced by Novell/SUSE and RedHat. Such enterprise distributions provide IT administrators with an extensive suite of server software which is wholly or largely open-source-based. In order to guarantee maximum flexibility for all conceivable applications, the solutions generally include several components designed to serve the same purpose. All available components are stand-alone server loads. Put simply, such distributions may include thousands of open-source software packages, allowing the administrator to select the preferred version for the task at hand. This version is then integrated into the Linux operating system, resulting in the step-by-step development of an individual company

server landscape. But this requires a great deal of Linux know-how. High levels of expertise and experience are required, not only when selecting the components and taking account of all dependencies, but also when integrating, configuring, administering and maintaining the components. For this reason, Linux-based IT environments are primarily the purview of large companies and public authorities – institutions which have trained Linux personnel and which can economically justify the creation of specialised solutions.

3 Linux in SMEs

The German job market is driven by SMEs. Statistics show that more than 99% of all German businesses are Small to Medium sized Enterprises (SMEs). The European Union's January 1st, 2005 definition of an SME is a company with less than 250 employees and less than 50 million Euro turnover. When you take a look at these companies' server racks, you will rarely come across a Linux server. Why? SMEs with up to 250 employees have significantly different IT needs compared to larger companies and public institutions. When choosing an Enterprise Linux Distribution, there are over 2000 programs available ranging from database management systems, programming and scripting languages and software design development environments. Companies without solid Linux know-how are already challenged in selecting the necessary components. If certain components are missing, then the server will not be stable; if unnecessary software is installed then there is a higher risk for attacks and server maintenance becomes increasingly complex. Update management needs to be handled by a Linux professional - the interdependencies of the installed Open Source components are so intricate. Thus SMEs need simple solutions, not the comprehensive software and service packages of larger companies. Only when Linux is offered as a complete package will it become a technology of choice for the SME market.

4 Important Topics for SMEs

Companies need IT solutions that are not only aligned with each other, but that also integrate company resources such as suppliers, business partners and customers. Focus points are IT security, groupware, optimized personnel, financial and production

processes, Enterprise Resource Planning (ERP), Enterprise Content Management (EMC), Supply Chain Management (SCM) and Customer Relationship Management (CRM). The consolidation of applications and the server landscape simultaneously saves costs and optimizes workflows.

The TCO (Total Cost of Ownership) is an important deciding factor for SMEs when considering an IT investment. The solutions must show measurable results within a short period of time. The investment protection also plays a key role; the ability to quickly and flexibly react to changing needs is a prerequisite.

5 The Collax Strategy - 'Simply Linux'

Collax focuses its attention on the IT needs of SMEs. The company develops and sells Linux-based, Out-of-the-Box solutions for security, network infrastructure and groupware. With the slogan 'Simply Linux' Collax solves three main problems that SMEs face when deciding to use Linux: 'Managed Selection,' 'Managed Integration' and 'Managed Support'. By using defined interfaces Collax offers access to its technology, and enables software manufacturers to use the Collax Solution Platform as an easy to use and manageable Linux platform for their solutions.

6 Collax Technology

6.1 Selecting the best Open Source Components

How should an IT administrator without Linux training determine which file, mail or web server is the best? What selection criteria should s/he use? Anyone who is not at home in the open source space would find it difficult to navigate the vast range of available projects in order to make the right choice. Thanks to its employees, many of whom have deep roots in the open-source community, Collax has its ear to the open-source ground. The Collax development team decides which code - for example for a mail server - offers the most in terms of reliability and future promise. Only open-source projects with high quality standards and those suitable for SMEs are integrated into Collax products. This method ensures that only the required services are part of the final server solution.

6.2 Easy administration via the Collax GUI

A server system should be easy to set up and administer. Given the large range of Linux distributions, this could remain wishful thinking for some time. Even established enterprise distributions such as Novell/SUSE or RedHat do not offer a uniform tool for installing, configuring and operating a solution which not only allows service settings to be fine-tuned, but also enables users to be cleared for services. Collax, on the other hand, offers an administration tool in the form of a user interface based on a web browser. This AJAX-based management user interface – the Collax GUI, or Graphical User Interface – is the nexus of all Collax products. It allows information to be presented in a structured and compact list format, while settings can be carried out using context menus and icons, thus enabling the server to be configured in the shortest possible time.

6.3 Remote Maintenance

Collax solutions are managed via Browser-based user interfaces therefore can be maintained from any location. The standard network and VPN functions of the Collax Solution Platform make it easy to set-up remote maintenance, and make failure searches by phone redundant - allowing the support employee to offer immediate and on site help.

6.4 The Collax Solution Platform

Building on more than ten years of Linux experience Collax has developed a Linux-based system: the Collax Solution Platform. This Platform combines all the advantages of Open Source software with the requirements of a stable solution platform while avoiding the usual problems that arise with the software development of conventional Linux distributions. The Platform offers clearly defined and documented interfaces that allow ISVs (Independent Software Vendors) to quickly and easily integrate their applications such as a CRM System (Customer Relation Management System), an ERP application (Enterprise Resource Planning) or an industry application into the Platform. The result is a compact, flexible and scalable platform offering basic services and with which all relevant applications can be consolidated.

6.5 Managed Integration – the Collax Integration Framework

To make server technology as easy to use as Collax products a lot of work 'behind the scenes' is required. The Collax Integration Framework is Collax's central nervous system. This integration framework is a multi-level concept which starts with the graphic user interface (GUI) and ends with the software components integrated deep in the operating system. In between these, automated processes are executed which are invisible to the administrator. The integration framework technology guarantees the uniform configuration and administration of the software appliance. It also ensures that settings arrive at the corresponding points in the system in the correct format, and that dependencies and interoperability are guaranteed for all of Collax server's services without exception. It dynamically integrates applications and services in the web interface as soon as they are activated. In this regard, configurations maintain their fundamental consistency regardless of the solution in question. For example, firewall rules are adjusted as soon as specific services are cleared for specific users or networks.

Thanks to the integration framework, a Collax server can easily be configured by any administrator with basic knowledge of network and server configuration. The administrator will not need specific Linux know-how or details relating to the assignment of user rights. S/he merely needs to choose standard settings using a checkbox or drop-down menu. Installation wizards have been integrated into Version 3.0 and above. These wizards further demystify server configuration, helping – for example – to set up Internet and Intranet access, web proxies, backups, mail and file servers. At the end of the process, the Collax GUI will only display those services which are currently running. As well as ensuring clarity, this prevents the user losing his or her way in a jungle of options.

6.6 The Software Development Kit (SDK) for ISVs

The Collax SDK is for independent software developers who would like to use the Collax Solution Platform as the base for their solutions. In this way ISV solutions can be packaged and marketed as 'Turn Key' solutions. The SDK offers access to comprehensive basic functions such as E-Mail, database or web servers, or the update management of the Collax Solution Platform via well-organized, documented and standard interfaces. The individual Collax Solution Platform components together with

these APIs and the Collax Integration Framework enable a fast integration of the SDK. To operate the Collax SDK no special training is necessary.

The SDK offers all necessary functions to integrate and operate ISV applications via the graphical maintenance user interface, the Collax GUI.

To answer your questions regarding the Software Development Kit and the Collax Solution Platform, the Collax ISV Solution Center experts are available. Software manufacturers who are interested can order the SDK via Collax. The only prerequisite is the free of charge membership of the Collax Partner Program, and the application form can be completed in a few steps via:

<http://www.collax.com/en/partners/become-a-partner.html>

7 The Server Fleet

7.1 All in One: The Collax Business Server

Based on flexible, high-performance open-source server loads, the Collax Business Server offers everything related to security, network infrastructure and communication. The function spectrum ranges from file, e-mail, fax, proxy and web servers via routers and VPNs (Virtual Private Network) to firewall and anti-virus servers as well as anti-spam and web content filters. In contrast to other Linux distributions, all server loads are integrated in the operating system, are interlinked with each other and they can be operated using the Collax GUI. As well as concealing the complexity of Linux, this web-based user interface makes the server solution easier to administer. Thus, the interface automatically transmits parameters – such as a new user – to the various server components in the correct format.

7.2 Software Modules for the Collax Business Server

The same technology which enables software applications to be anchored deep in the operating system using interfaces also allows Collax to offer software from other manufacturers. These are provided in the form of modules for the Collax Business Server. Virus protection, web content filtering and groupware are currently available.

7.3 Dedicated Server Solutions

Although the Collax Business Server is an 'all in one' server, many companies only use a selection of the services included. This is because, although such companies are seeking an easily administered server solution, they often only need dedicated applications such as a groupware, security or file/print. To serve specific customer needs, Collax extended its product range to include these dedicated server products. In this case, Collax integrated only those components required for stand-alone products with server applications incorporated and integrated into the Linux operating system and the Collax GUI. Installation wizards guide the administrator as s/he configures the entire network, all dedicated server solutions can easily be integrated into existing Windows, Linux and Macintosh networks.

7.4 The Collax Open-Xchange Server

The Collax Open-Xchange server, a collaboration suite, facilitates e-mail communication and efficient teamwork. As well as basic functions such as transferring and administering e-mails, schedules and contacts, the collaboration suite also offers fully integrated services enabling document transfer, and task and project management. The performance scope is completed by software modules facilitating knowledge database development, a discussion forum, a bulletin board for publishing ideas and a tool for transmitting useful bookmarks. Regardless of the operating system, all information can be edited using any Internet browser. The Collax Open-Xchange server also supports standard clients such as Microsoft Outlook.

7.5 The Collax Security Gateway

As a UTM solution, the Collax Security Gateway provides Web, e-mail and network security available on one maintenance platform. Intrusion Detection (IDS) and Intrusion Prevention (IPS) systems detect Internet and block attacks on the company network. Misconfigurations in the Firewall, often allowing hackers an opening to the network, are avoided with the Collax Firewall Matrix. Integrated packet filters and a stateful inspection firewall check incoming and outgoing data for payloads. The integrated Web proxy server checks the Web requests and responses. E-Mail and web traffic, including attachments, are securely protected against malicious coding on multiple levels. All in all, the Collax Security Gateway provides optimum protection on multiple detection levels using the following technologies: real-time blocking lists, grey listing, online

blacklists (DNS lists), spam heuristics, network-based detection, detection training, attachment filtering, and customizable filters. The Collax Security Gateway sets up a secure VPN in no time. Data encryption is based on IPSec, blocking URL pages and hostile applets.

8 A Cost Comparison

In a study conducted by the Experton Group in March 2007, researchers analyzed the TCO (Total Cost of Ownership) of four competing Linux and Microsoft server operating systems (the Collax Business Server, the Microsoft Small Business Server, the Microsoft Windows 2003 Server, and the Red Hat Enterprise Linux Server) for a company with 25 employees over a period of three years. The results speak for themselves; small companies need multi-functional systems. The most cost effective solution is the Collax Business Server with a cost of Euro 112 per workstation. The runner up is Microsoft's Small Business Server with a cost of Euro 169. The Red Hat Enterprise Linux costs Euro 191 per year per workstation, and the most expensive solution is the Microsoft Windows Server 2003 R2 with Euro 251 Euro. The complete market study is available in English and can be ordered via Collax or essential media.

9 Collax Growth Strategies

From the technology point of view all signals point toward expansion and Collax is also well positioned as a formidable player in the corporate marketplace. Collax has a top flight team, CEO and CTO Boris Nalbach (formerly SUSE CTO and Vice President Linux Strategy at Novell), CFO Bill Hite (formerly corporate controller for OnTechnology) and Bertram Mandel, VP Sales and Marketing (formerly responsible for indirect sales EMEA for Oracle). In addition, the venture capital companies Intel Capital, Wellington partners and Atlas Ventures have invested € 7 million in Collax.

With an eye to internationalisation, Collax was established simultaneously as Collax GmbH in Ismaning near Munich, and as Collax Inc. in Boston. As well as Klaus-Dieter Laidig, former General Manager of HP Deutschland, the board of Collax Inc. includes

the investors Frank Böhnke of Wellington Partners, Alexander Brühl of Atlas Venture, Klaus Konrad (Intel Capital) and Richard Seibt (former CEO of SUSE and former European Director for Novell). Following a successful launch in the German market in August 2005, the company is rapidly expanding into Switzerland, Austria, the Benelux countries, France, the UK and the U.S.

###

Sources:

[1] IDC-Study: „IDC EMEA Quarterly Server Tracker, Q2 2006“

[2] 12/2004, “The Linux Marketplace 04 – Moving from Niche to Mainstream”, IDC #32424

[3] <http://www.ifm-bonn.org/> → Statistik

10 Press contact

essential media GmbH
Dr. Petra Gulz
Landwehrstr. 60-62
D-80336 Munich
Tel.: +49 (0)89-74 72 62-43
E-Mail: petra.gulz@essentialmedia.de

About Collax – Simply Linux

Collax develops Linux-based server solutions for small to medium sized companies. With the “Simply Linux” approach Collax technology bundles all the Linux strengths with an easy to use graphical user interface. The results are cost efficient, secure and scalable server solutions that can be operated without any Linux know-how. Collax offers solutions from data, database, e-mail, collaboration, fax, proxy, web-server via router and VPN (Virtual Private Network) to firewall, virus and spam protection and web content filters. The essence of Collax technology is the Collax Solution Platform, a Linux-based consolidation platform for Independent Software Vendors (ISVs). The company has offices in Munich, Germany and Boston, USA. More information about Collax can be found on the Internet at www.collax.com