

# LINUX MAGAZINE



## news

### 8 MORE ONLINE

Highlights from our Linux Magazine, ADMIN Online, and HPC websites.

### 9 NEWS

- Red Hat OpenShift PaaS.
- MariaDB Foundation launched.

### 10 NVIDIA LINUX DRIVERS

- Fedora 18 with Mate.
- Oracle Git repo for kernel code.
- NVidia GeForce R310 drivers.

### 11 ANDROID TOPS

- Android top smartphone OS.

### 12 UNITY SEARCH ADO

- HP writes off Autonomy loss.
- Canonical scrambles to settle search snafu.

### 13 TECH TOOLS

Open source tech.

## SERVICE

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England. Company registered in England.

# 10 Top Knoppix Rescue Tricks

Use these advanced troubleshooting techniques to save lost Windows and Linux systems.

## 16 The 10 Best Knoppix Hacks

Linux sage Klaus Knopper shares his experience in digital disaster recovery with his 10 best methods of saving lost systems, partitions, and data.

## 26 Partition Rescue

No matter what operating system you are running, you can use the SystemRescueCd Live Linux system to save your partition data and copy it to a safe location.



## Community Notebook

### 88 Kernel News

Boot speed, kernel tree litter, and ARM power usage. Linus rants. Oh my!

### 91 Doghouse: Industry Report

UN report on free software in developing countries.

### 92 Rescue Me

Three easy steps you can take to keep your Linux system safe, so you can work and play worry-free.



## HIGHLIGHTS

### 26 PARTITION RESCUE

When your disk fails, be prepared with SystemRescueCd.

### 36 REVIVE YOUR OLD LAPTOP

We'll show you how to bring new life to that old laptop on the shelf.

### 66 TCP FAST OPEN

This new protocol offers 41% acceleration on the Internet.

### 70 SSL DIGITAL ENCRYPTION

Encryption and self-signed certificates for email and documents.

# FEATURES

## 30 Kernel Rootkits

We tell you how kernel rootkits work and how to harden your system against kernel rootkit attacks.



## 40 CoffeeScript

CoffeeScript is a simplified version of JavaScript that compiles to JavaScript and runs on all JavaScript runtime environments.

### 33 MySQL Online Schema Changes

Live changes to MySQL tables.

### 36 Revive Your Old Laptop

That old laptop can still contribute.

### 46 Perl: CMS with GitHub

More than just version control: a content management system.

### 50 Charly: Di

Di is "df on steroids," with more detail and better filters.

### 52 Tracing Tools

Monitor and log program activity.

### 58 File Transport

Transferring large files.

### 62 Ask Klaus

Klaus Knopper answers your Linux questions.

### 64 Security Lessons: Backups

Creating secure backups.

### 66 TCP Fast Open

Speed up your network with this innovative TCP alternative.

## LINUXUSER

### 70 Digital Signatures and Encryption with SSL

Personal, self-signed certificates for encryption and digital document signatures.



### 74 Command Line: Vim Search Commands

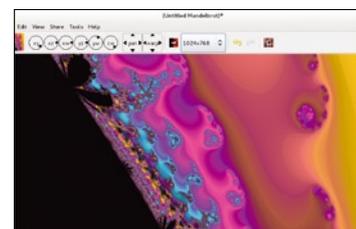
VIM search functions.

### 78 Workspace: QuickNote and Geeknote

Two note-taking tools that simplify your to-do life.

### 83 Gnofract 4D

This program delivers stunning fractal graphics.



## Linux Mint 14 "Nadia" with Cinnamon 1.6

Includes "Cinnamon" - the Gnome Shell alternative!

- Cinnamon 1.6
- New applets (Banshee, Notification, Window Quick List...)
- Based on Ubuntu 12.10
- Kernel 3.5

SEE P6 FOR FULL DETAILS