

Enterprise support on test



Enterprise support put to the test

Just how good is the business support of the top Linux distributions? IT executive **David Cartwright** goes undercover as a Linux newbie to find out.

About the author

David Cartwright is an IT consultant specialising in the design, installation and maintenance of corporate IT infrastructures for medium-size enterprises. His past roles include UK head of IT for an international publisher and CTO of a venture capital company.

When Linux appeared in the early 1990s, its use was confined to the IT geek classes – not surprising, since getting it to work was a black art and, unlike the commercial operating systems of the time such as Solaris and Windows, there was no official support channel to call on. The subsequent opening up of Linux to non-techies and emergence of business support came about through companies like SuSE (1992) and Red Hat (1994) – both of which realised that just because something was free, it didn't mean you couldn't make money from wrapping commercial services around it.

When you buy a commercial Linux distribution these days, you generally get access to a collection of self-help materials – often automated downloads of software updates and an online knowledge base. In some cases you'll also get access to the vendor's technical staff for a given number of weeks or months, with the option of paying for an extension at the end of the period. *Linux Format* asked me to put those staff to the test.

How do you test someone's support service? Well, in principle it's easy: you install their product, perhaps deliberately break it a bit, then give their support line a call or two and pretend you don't know much. This is what we did for Red Hat, Novell (SUSE's vendor) and Ubuntu; Red Hat and Novell because they're the biggest names in commercial Linux, and Ubuntu because Canonical's recent addition of support makes it an interesting alternative to the big boys.

Each vendor's PR company knew beforehand exactly what we were up to, so there was an outside chance they'd sneakily tell the vendors to red flag my calls. I think they were pretty honest, though – in fact, someone from Canonical even suspected me of trying to get support for two machines on a single-machine contract. Red Hat decided there wasn't time to set up a formal support contract, and gave me the direct email of the support team instead. Fortunately, a proper account was set up for me halfway through the test, so I could submit issues like any other user and avoid any preferential treatment!



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The hustle

I pretended to the support teams to have a small business with a couple of dozen employees that was dipping its toe into Linux. I asked for a copy of each vendor's enterprise product, preferably a desktop-specific version, along with an appropriate after-sales support contract. My test machine was a 600MHz Pentium III with 512MB of RAM and a pair of NetGear FA311 network adaptors – an ageing but typical desktop computer. Each Linux distribution was installed to a different IDE hard disk. Though this setup sounds antique, it was deliberate: with such long-established kit, I could be reasonably confident of not running into weird hardware incompatibilities that might introduce problems.

I tried the support teams with several queries:

» **Problem 1: My disk is filling up really quickly**
 I had this problem a little while back on a real MySQL database server. The chap who set it up had installed a small script that checked every few seconds that MySQL was running. If it wasn't, the script would email the system manager. When we took the MySQL server down to upgrade it, everyone forgot about this script – so it maxed out the processor by sending zillions of emails and simultaneously filled up the disk with its email log file. I simulated this in my test environment by running a *filldisk* script, which sent an email to a local user ID every second or two.

Correct answer: They should have at least spotted from the information I sent them that the email server was both hogging the CPU and filling up the disk with logging information.

» **Problem 2: I'm sure I've got file sharing set up right, but users can't log in from Windows machines.**

A common requirement is to share files between the new Linux systems and the company's existing Windows machines. As you're no doubt aware, you'd use *Samba* to provide Windows-compatible file sharing services so that people on Windows machines can access the files on the Linux machine. On some distros you must

(at least in their default form) add extra user IDs and passwords to the *Samba* server, in addition to those already defined for Linux, in order for *Samba* to recognise those users. If you don't (and I didn't), the users can't log on.

Correct answer: You need to add the user(s) to the *Samba* password file with the command `smbpasswd -a`.

» **Problem 3: I can't see the network on my second LAN card.**

Clearly I needed to connect to the network to try out our other problems, but I decided to have a little bit of fun with a broken network anyway. Some time ago a colleague had a weird network problem, which we eventually tracked down to an Ethernet adapter, some of whose components had transformed from recognisable electronics to black gunk. The computer recognised the card, but no electrons would flow. I simulated this in my test by adding a second Ethernet adapter with a known fault – although "someone's taped some wire over the important connections and shorted them out" would perhaps have been a slightly optimistic response to expect from the support teams.

Correct answer: You've probably got a faulty Ethernet card.

» **Problem 4: Can I change the size of the swap partition?**

This is the kind of problem I come across all the time. During the installation process someone did something unwise – like setting the size of the swap partition too small. Or, more likely, you want to install a commercial DBMS and the system requirements tell you that you ought to set a whopping swap partition. On my example server I set the swap space to whatever default the installer set, then asked the techies whether it was possible to modify it.

Correct answer: There's no easy way to change the swap partition size on the fly, but you could consider using a swapfile or even installing a second drive to host a new swap partition.

With my bogus system and faults carefully put in place, let's see how the vendors fared. All three give you the option of phoning, emailing or submitting problems online, so in each case I tried as many alternatives as I could.

Red Hat

PRODUCT DETAILS

Product tested: Red Hat Enterprise Linux 5.0

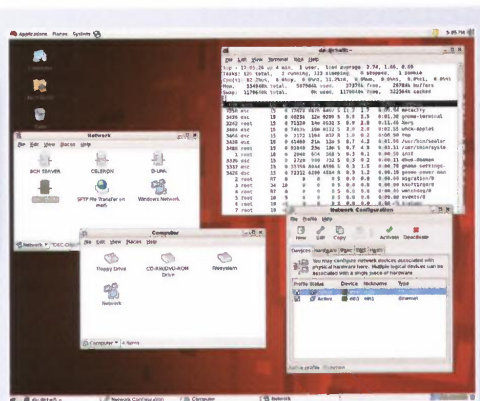
Support package tested: 90-day, 24x7 evaluation support under 'structured evaluation' programme

Cost: \$339 excl VAT a year for 9-9 (USA) or 9-5 (global) phone support (Standard). Basic packages also available. 24x7 support available with Server product

Web: www.redhat.com/rhel

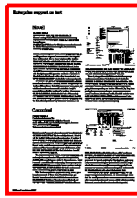
I submitted queries 1,3 and 4 to my nominated support email (a shortcut, because they hadn't yet set up my user ID on the web submission system). A tad over an hour later I'd had a response asking for a phone number they could call me on, and sure enough the phone rang a few minutes later. The techie on the end clearly had a brain the size of a planet, and dealt with problem 4 on the spot (in fact he suggested a load of stuff I hadn't thought of, all of which was sensible and useful). He suggested that the best way to proceed would be for him to raise official "tickets" for the other two problems, and he also said he'd set up a proper account for me in the official support system; this he did, and so I then was able to submit problem 2 via this mechanism.

The solutions were pretty fair. Problem 1 was, they suspected, due to the mail server working very hard and thus causing the disk to fill up thanks to all the logging it did. As for the network card problem, they asked me to run some system diagnostic tools that would output data so they could check for



low-level problems and/or whether the adaptor I was using was on the Red Hat "certified" list. To fix problem 2, Leonardo, the techie, was spot on with his first guess.

The quickest solution came in an hour and 20 minutes, and the longest time taken was just under 2:20. The staff I spoke to on the phone were very helpful and friendly, and where requests were made on the online portal, they were concise and clear. In many cases the technician would ask me to run particular commands or diagnostic programs and upload the answers, but even when this was quite involved they gave decent instructions so I couldn't go wrong.



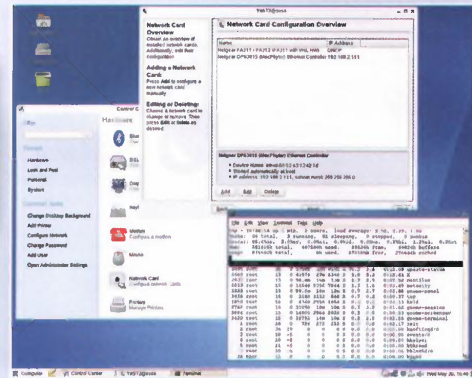
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Novell

PRODUCT DETAILS
Product tested: SUSE Linux Enterprise Desktop 10
Support package tested: We were attached to an existing all-purpose 24x7 contract, but the closest equivalent is Novell Priority Support
Cost: \$3,513 excl VAT a year for 12x5 phone support and support for all other Novell products including SLES (Tech Select)
Web: www.novell.com/linux

It wasn't immediately clear how to submit problems online. On emailing customer support I was told to email tech support. They hadn't replied after an hour, so I phoned the helpline. Initially I got a grumpy woman complaining that I didn't have an appropriate ID (the support customer ID is different from the product activation code), but at the second attempt I got a super American woman who was able to figure it all out from the SUSE Linux installer code and could therefore furnish me with the right support ID. I gave her the details of problem 2 (*Samba*) and retired to submit the other issues in what was turned out to be the proper way, ie via the web support portal.

As with Red Hat, some of the issues prompted requests for me to download and run a tool that scanned the system for the techies. With problem 2 the initial request from the support guy was for more information; once I'd mailed him back, he immediately spotted the problem. For problem 1, I received a couple of suggestions, one completely wide of the mark (a desktop search tool running amok) and one firmly in the right area (the email package filling up the disk with its logging). And for the LAN card problem, they looked into the detail of the



diagnostic information I sent them and said, "We need to check whether this card is 100% working. Have you been able to use this card before without any problems?" Nice one.

The only disappointment with Novell related to my swap partition query (problem 4). My first contact decided to reassign it to someone else more local to my time zone. This would have been sensible if it had been a problem that needed more input from me, but this query was probably only ever going to be one question, one answer. Otherwise, the time from posing the question to reaching an acceptable answer was around two hours. Mrs Grumpy aside, the staff I spoke to were polite and efficient, and though the problems seemed to be dealt with by several techies, the assignment process seemed to work fine and the responses were timely.

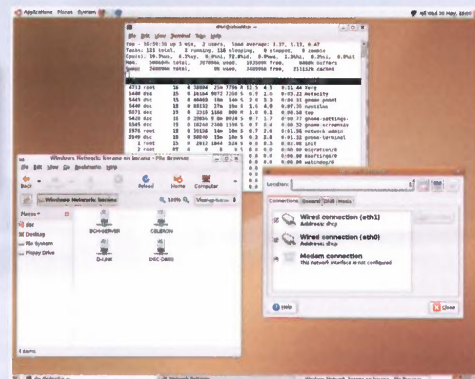
Canonical

PRODUCT DETAILS
Product tested: Ubuntu 7.04
Support package tested: 24x7 Desktop Support
Cost: \$250 excl VAT a year for 9x5 phone support, \$900 excl VAT a year for 24x7 phone support
Web: www.ubuntu.com/support/paid

Since Canonical's support scheme has a web-based helpdesk, I decided to submit three of my four calls (problems 1, 3 and 4) via this system. Thirty minutes after submission of problem 3 (the LAN card), an email arrived to say that the case had been updated. The techie asked, "Can you swap the configurations of the net cards, so eth0 is set with static IP and eth1 with DHCP addressing? May be something is wrong with the card, and if you loose [sic] the DHCP net after that, but static is fine, NC needs a replacement." Spot on.

The response to question 4 was also pretty speedy (just over an hour) and comprehensive. With problem 1 they decided, correctly, that everything was related to the mail server – in fact I even got a very diplomatic nudge saying that they suspected I might be trying to cage support for two servers from a single-desktop contract, as they wondered why I was running a mail server on the Desktop edition! All correct so far, then.

With the *Samba* problem, I placed the call by phone. I got a busy tone a couple of times, but at the third attempt got through to an automated voice (which had a most comical pronunciation of the name "Oooobooontoo", in fact) and within a minute I was talking to a friendly and efficient human



being. He asked a few relevant questions, added a call to my service ID, and asked me to attach some configuration files to it. We agreed that once I'd done that, the issue would be processed via the web portal rather than by phone, and with a fairly extensive interchange of questions and answers, we got close to the correct answer (the command suggested to me gave an error message, but its manual page had *smbpasswd* in the See Also section, so it was an obvious next step).

The fastest solution came in exactly 30 minutes, with the longest taking a tad over five hours. It's worth bearing in mind that this wasn't just dead time – in most of the cases there was a fair amount of question-and-answer activity with them asking things and me providing the information the requested.



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The results

The following tables summarise the results for each vendor. The number of interactions is the total number of calls, emails and entries to the online portal made both by me and by the vendor's techie – including the submission and the answer, and excluding courtesy and tidying-up entries such as me saying, "Thanks, you can close this case now", and auto-generated ones saying "Status changed from X to Y".

Novell				
Problem	Submitted	Solved	Number of interactions	Time (h)
1	By email [1]	Online	2	Approx 2:00 [2]
2	By phone	Online	4	Approx 2:00
3	By email [1]	Online	4	Approx 2:00
4	By email [1]	Failed	3	Approx 2:00

Red Hat				
Problem	Submitted	Solved	Number of interactions	Time (h)
1	By email	Online	2	2:17
2	Online	Online	2	1:21
3	By email	Online	2	1:43
4	By email	By phone	2	0:40

Canonical				
Problem	Submitted	Solved	Number of interactions	Time (h)
1	Online	Online	4[3]	4:31
2	By phone	Online	9	0:41
3	Online	Online	2	0:45
4	Online	Online	4[3]	3:15

[1] Resubmitted online. [2] Approximate, because the reporting system only tells you the date, not the time. [3] These are the times and interaction counts required to get to the answer that I wanted – but in both cases there were additional posts giving more detail on precisely what to do and useful additional advice.



Our support ratings			
	Red Hat	Novell	Canonical
Telephone service (out of 5)[1]	5	3	4
Online reporting (out of 5)	4	3	5
Time to solution (out of 5)	5	5	5
Correctness of answers (out of 4)	4	3	4
Overall (out of 19)	18	15	18

[1] In Red Hat's case I didn't report any cases over the phone, but they called me back so I got a chance to talk to them.

Problems solved

It certainly seems that small is beautiful. I simply can't fault the service I received from Ubuntu (in the shape of Canonical) – they were quick and helpful, and in the only case where they didn't get the answer I was looking for they were clearly heading in the right way. Although I did get an engaged tone a couple of times when I called, I'd rather have this than sit in a queue and pay for the privilege.

Red Hat was similarly on the ball. Although it was a little more reliant on the output from diagnostic tools, this isn't necessarily a bad thing – I'd rather they ask for more information than take a stab in the dark. I was particularly impressed with the techie I spoke to about the swap partition issue – he clearly understood his stuff extremely well.

Although I was a little disappointed when Novell's chap shuffled my problem off to another person, this only happened in one case out of the four. They asked – quite fairly – for some low-level information with regard to the LAN card, and in the other cases they did a good job of arriving at the right place very quickly. Their telephone person was also particularly switched on, and asked all the right questions.

With so little to choose between them, it's worth considering the system that each support team uses. I suspect that if you're a huge corporation with a vast Linux install base, you may have intricate questions that can only really be dealt with by a long phone call. In the case of the mass-market products, though, all

roads lead to the vendor's web portal. Even if you make the initial contact by phone, by far the easiest way to keep track of what stage your query has reached is to do so via the website.

Canonical's seems to be a home-grown system – or perhaps a commercial one whose writers have taken care to avoid it becoming bloatware. As well as adding problem descriptions, you can also attach documents, and when a techie adds something you receive an email to let you know – though rather annoyingly the detail isn't included in the email, so you have to go to the website to look at what's new. Red Hat seems to use *Oracle CRM*, which is big and (like many such commercial systems) a bit slow, but it's pretty usable and it also emails you when something changes. Unlike Canonical's, it includes the update detail in the message.

Novell has the least usable of the three systems (actually a *Siebel eService* system), which didn't seem to email me when something changed and wasn't particularly intuitive to navigate, particularly when you wanted to hop between the various requests active on your account.

Overall, I couldn't split Red Hat from Canonical, and placed them joint first. My experience suggests all three vendors have competent people asking sensible questions via usable systems, and giving solutions in an acceptable time. That might sound like a bland conclusion, but believe me: you don't need thrills and spills when it comes to enterprise IT support. With so many high-profile Linux installations taking place in the private and public sectors, I hope their users will be in safe hands. **LF**