

Secrets of the Citrix Support Ninjas



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Services



Stuff happens.

Let's face it. Citrix technology is pretty complex stuff – and it touches just about every other part of your IT infrastructure.

As an administrator, you need to be at the top of your game.

Fortunately, you're never alone when you deploy Citrix. We've got a whole ecosystem of support services and free self-support resources and tools to help (see the last page for a quick overview).

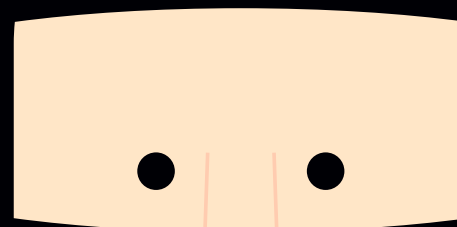
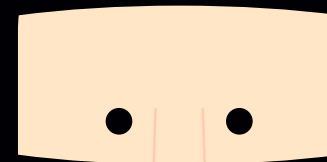
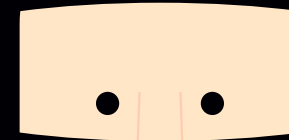
Ninja power

A lot of our best advice for administrators comes from the ridiculously smart people who run our Premier Support and hardware maintenance helpdesks. They help thousands of people every week and, in doing so, they've learned a hell of a lot about the things that can go wrong.

So we thought we'd ask some of our best support people to share their favorite tips for administrators, then we organized them by product so you could browse them and discover some goodies to take back to your job.

Good luck out there.

The Citrix Support team



A short commercial for Auto Support

The secret all our support Ninjas use every day.

The one tool that helps all of our support people quickly solve problems for our customers is something we call [Auto Support](#) (formerly known as TaaS).

Auto Support is a quick and easy troubleshooting tool for administrators like you. If you open a case with Citrix Support, chances are they'll ask you to upload your log file to Auto Support first.

Now, we've made this powerful tool available to all customers online so you can diagnose and fix problems quickly. Here's how it works:

Upload your log file

[Here's the start page.](#)

Let Auto Support analyse it

– looking for known issues.

Get your full report

– including recommended fixes, links to the perfect support article and best-practice advice for your configuration.

Auto Support is available for XenDesktop, XenServer, NetScaler and (this just in) XenApp.

And we're adding new plug-ins, fixes and recommendations all the time, so Auto Support keeps getting better and better.

Be proactive.

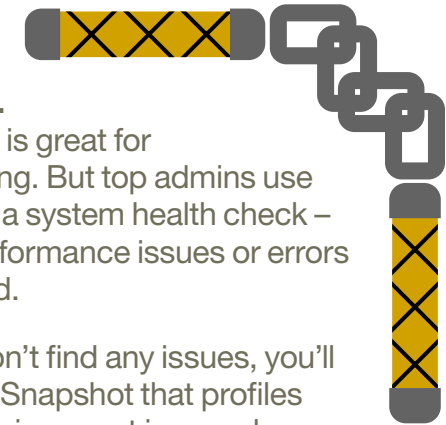
Auto Support is great for troubleshooting. But top admins use it regularly as a system health check – even if no performance issues or errors have occurred.

Even if you don't find any issues, you'll get a System Snapshot that profiles your entire environment in one place. Which can be pretty useful.

So come back to Auto Support whenever you've made a significant change to your Citrix deployment. Or stop by for some peace of mind every few months.

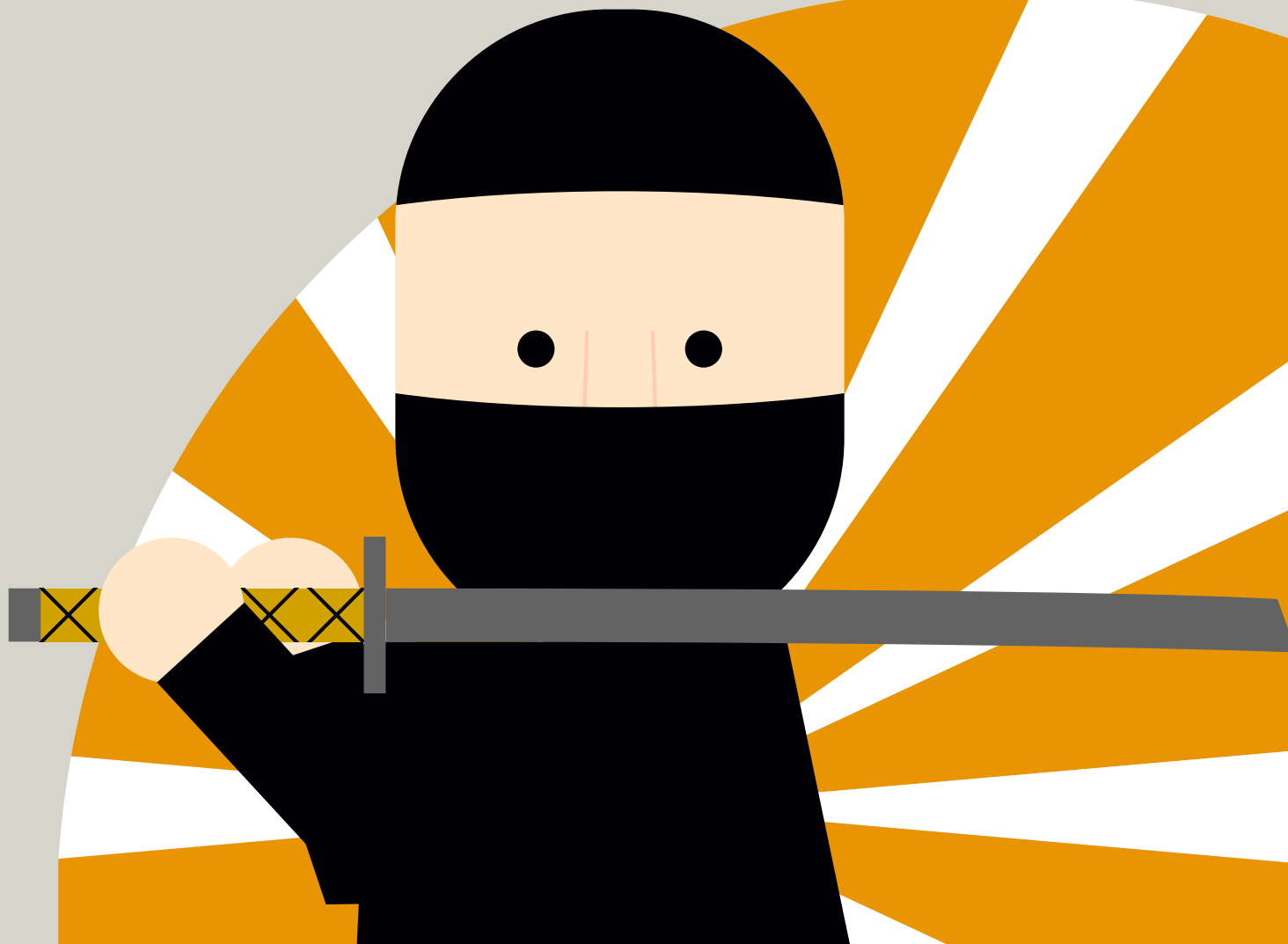
Auto Support handles log files for:

- XenDesktop
- XenServer
- NetScaler
- XenApp



The Ninja Secrets

Grab your *katana* and turn the page.



NetScaler

1 Learn to troubleshoot in the command-line interface.

You see more information as a result of one command instead of several clicks in the GUI.

An example: `Show service <servicename>` gives you ALL the service information, AND the monitor, AND the last monitor status.

2 Is one of your users not getting the access they want and expect?

These commands will give you real-time information of all authentication requests done from the NetScaler. You won't find this information in any logs.

- » `SSH to CLI`
- » `shell`
- » `cat /tmp/aaad.debug`

3 If you type “`Sysctl -a`” into the command line, it gives you the limitations and information related to the model of NetScaler you're using.

4 If the NetScaler has multiple MIPs/SNIPs and you don't know the source IP communicating to a particular backend server, create a service under load balancing for the particular backend server and bind a ping or tcp monitor to it.

Open an SSH session and type the following command in shell:

- » `Nstcpdump.sh -an Host Port`
- » `Host: BackendIPAddress`
- » `Port: Portnumber`

5 If multiple kernels are located on the flash, and you want to know which one the appliance will use when it next reboots (i.e. to identify if an install but no reboot has taken place), check the version in loader.conf by running this command:

```
cat /flash/boot/loader.conf
```

6 In order to test NetScaler connectivity to the NTP server:

- » `disable NTP in GUI (system -> NTP)`
- » `SSH to CLI`
- » `shell`
- » `ntpdate <IP of NTP server>`
- » If successful enable NTP in the GUI. Otherwise, check for firewalls...



7 Use:

<http://<Netscaler-ip-address>/menu/guia>

instead of:

<http://<Netscaler-ip-address>/menu/neo>

in the NetScaler version 10 when accessing the management page of NetScaler. It gives the look and feel of 9.3 version.

8 While taking a nstrace, set the packet size to zero to collect the complete payload.

9 While logging into the NetScaler, at the page where you are prompted for credentials, click on “show options” and choose the page that you want to go into instead of the configuration.

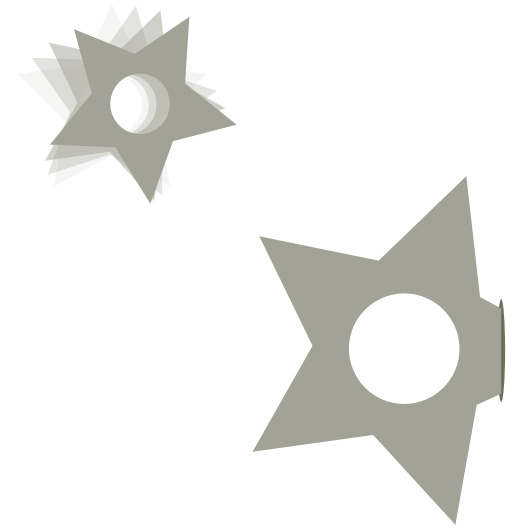
10 You can execute shell commands from the NetScaler command line interface by simply typing ‘shell’ before the shell command. Example:

```
shell ls -la /flash
```

This is particularly useful when you only have GUI access to the NetScaler / Access Gateway Enterprise appliance. You can push these commands through the dialog box at System -> Diagnostics -> Command Line Interface.

11 Use the Winscp tool (<http://winscp.net>) to edit text-based files in the NetScaler instead of using vi editor

12 While logging into the NetScaler, at the page where you are prompted for credentials, click on “show options” and increase the session timeout for a longer session.



XenApp

1 From a cmd prompt on a XenApp Server, type:

```
cpatch /i findstr /i hotfixname
```

This command string lists only the hotfixes installed.

It does not include all the extraneous information about the hotfixes provided when running *cpatch /L*

2 Use the Citrix Scout tool to collect logs and CDF traces from selected computers.

Citrix Scout is also used in conjunction with Auto Support to help resolve known issues.

3 Whenever you need to troubleshoot a XenApp environment, do not forget Citrix Quick Launch.

This little fella can help to reduce the number of items you have to troubleshoot:

Is it the web interface?

Is it a published application?

Is it some client or server setting?

Go to CTX122536 (<http://support.citrix.com/article/CTX122536>) and download the latest release!

4 Wondering if that print driver will work with XenApp?

Use StressPrinters to get the answer!
Find it here:

<http://support.citrix.com/article/CTX109374>

5 You can try all seamless flags at once if you enter this:

- » Registry Key: *HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Citrix\wfshell\TWI*
- » Value Name: *SeamlessFlags*
- » Value Type: *3EFFF7*



6 Here's a nifty tip to prevent auto-creation of client printers.

- » Use the Group Policy Editor in Windows or the Citrix Delivery Services Console in XenApp to create and name a User-type policy.
- » In the Printing section of the policy, navigate to Drivers.
- » Select the Printer driver mapping and compatibility policy rule.
- » Click Add, type the name of the printer driver to be excluded.
- » Select "Do not create".

7 This is an ingenious little tool that tests if Citrix ports are open and listening for a connection.

It's called Citrix Port Check Utility. Get it here:

<http://support.citrix.com/article/CTX122450>

8 Here's a great way to fix display corruption issues:

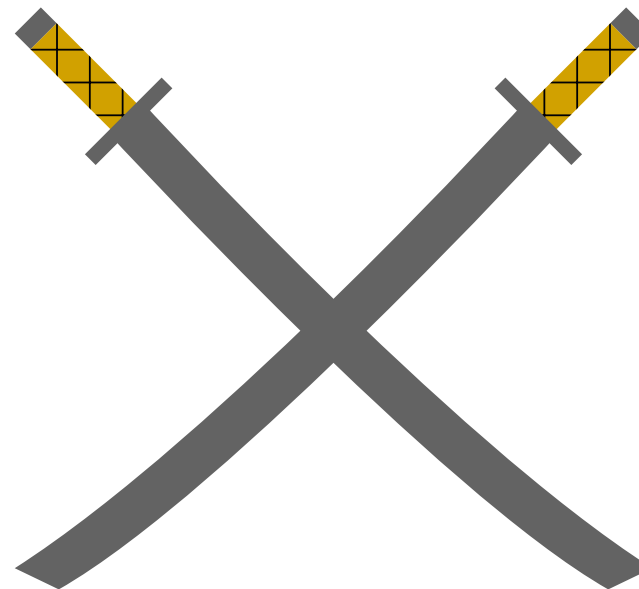
Change ForceLVBMode to 1 under the following registry key on client machines:

32bit: HKLM\SOFTWARE\Citrix\ICA ClientEngine\Configuration\Advanced\Modules\WFClient

64bit: HKLM\SOFTWARE Wow6432Node\Citrix\ICA Client\Engine\Configuration\Advanced\Modules\WFClient

9 Break out of a seamless window to see if the weird display issue is seen in a fixed window.

Shift and F2.



XenDesktop

1 When troubleshooting VDA registration issues, follow these easy steps:

- » Run *Nslookup* Ip address of the VDA from the DDC
- » Run *Nslookup* full qualified name of the VDA from the DDC
- » Run *Nslookup* Ip address of the DDC from the VDA
- » Run *Nslookup* full qualified name of the DDC from the VDA
- » Verify you can ping the VDA from the DDC.
- » Verify you can ping the DDC from the VDA.

2 If registration fails and you get the error message “DNS is not properly configured”, then this tip will be useful:

Registration fails if the VDA or the DDC controller sees an incorrect IP address for the other party. Complete the following experiment to see if this is an issue:

On both machines, start a command shell window and run the following commands:

- » *ipconfig*
- » *ping <othermachine.domain.com>*

Both machines should be able to ping each other successfully by DNS name (this means using the fully qualified domain name (FQDN) including the domain.com bit and not the simple NetBIOS name).

Crucially, the IP address reported for the remote machine by the ping command in each case should match the IP address reported by the ipconfig command on the relevant machine.

If there is any discrepancy, fix the problem with your DNS configuration and restart either the VDA and or the DDC controller, as appropriate.

3 Multiple Network Adapters

If the virtual desktops contain multiple network adapters that can be used to communicate with the DDC, this might cause the security negotiation to fail. In that case, try disabling all network adapters except for the one used to communicate with the DDC.

4 CDFMarker is a great way to seriously reduce the amount of CDF tracing you need to analyze.

CDF traces can grow to 100's of thousands of lines very quickly, but by using CDFMarker you can identify the area of interest in the trace straight away, avoiding the need to analyze thousands, or even hundreds of thousands of lines of tracing!
Get the tool here:

<http://support.citrix.com/article/CTX124577>

5 You can quickly and easily optimize the user experience on XenApp & XenDesktop with the help and recommendations of HDX Monitor.

6 This is a useful PowerShell command to perform a health check on the Broker Service.

<http://support.citrix.com/static/kc/CTX127254/help/Get-BrokerConnectionLog.html>



7 Refer to the blog post below or CTX117248 for a good list of what typically causes VDA registration issues. They explain how to resolve them:

<http://support.citrix.com/static/kc/CTX127254/help/Get-BrokerConnectionLog.html>

8 I frequently refer to (blog post) or CTX117248 for a good list what typically causes VDA registration issues, and they explain how to resolve them:

<http://blogs.citrix.com/2012/07/23/troubleshooting-Xendesktop-brokering-process-2/>

9 The XD Site Checker Tool is great for troubleshooting site services registration issues.

<http://support.citrix.com/article/CTX133767>

10 Here is a little tip that saves me time and effort every time I troubleshoot XenDesktop issues, especially VDA registration problems. XDPing: It's a very useful tool that automates the verification of configuration settings in a XenDesktop environment. Download it here:

<http://support.citrix.com/article/CTX123278>

XenServer

1 Always run a metadata backup before any significant modification to the pool, such as a hotfix installation or upgrade.

2 While trying to export virtual machines from a XenServer box, any attempt to use the OVF format may fail.

The XenCenter log file (in `%appdata%\Citrix\XenCenter\Log\Xencenter.log`) shows something like: 2012-07-23 16:14:56,676 DEBUG XenAdmin.Actions.ActionBase [4132] - System.Exception: Failed to export. ---> System.Xml.XmlException: Root element is missing.

When you wish to use the OVF format, XenServer relies on a “Transfer VM” which is a hidden object in XenCenter. So, if you don’t see it in your XenCenter (View/Hidden Object) as a grayed template, no OVF export can be done!

In that situation, make sure a default SR is set (required to rebuild the transfer virtual machine) in XenCenter and, from the command line interface, run:

```
[root@PARCCSXEN ~]# /opt/xensource/packages/files/transfer-vm/install-transfer-vm.sh
```

After just a few minutes, the new template VM will be visible as a hidden object in XenCenter and (voilà!) you can now export using OVF.

3 If you run vm-exports from the command line interface instead of XenCenter you can get much faster export speeds.

Why? Because you’re not using the Windows transfer methods or compressing on the fly on a less powerful workstation.

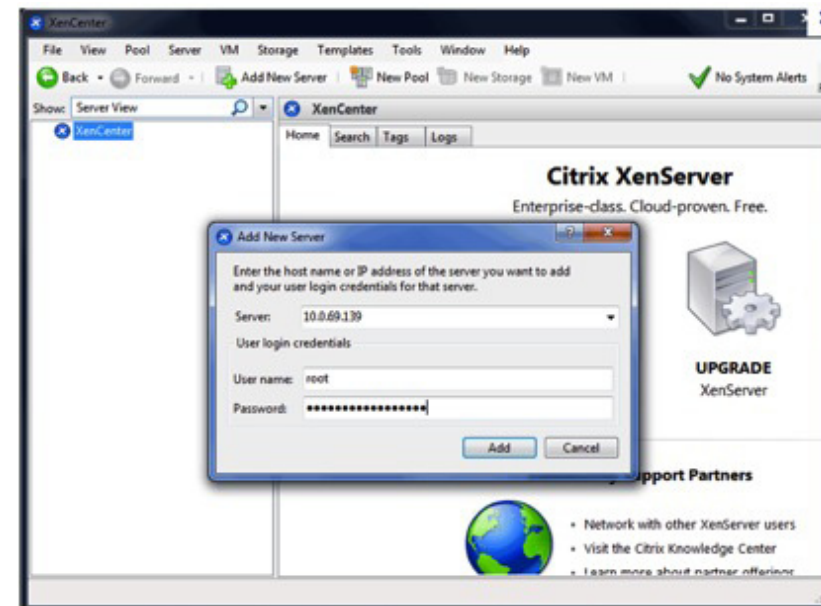
4 Review historical pool status and other useful information using a pool status report:

Click “Add New Server” in XenCenter, and in the server block enter the path to the xapi-db.xml file in the status report. Here’s an example:

```
C:\Users\blaine\Desktop\status-report012-09-27-15-48-14\2012-09-27-15-48-22-1-bugtool-xenHA\bug-report-20120927154726\xapi-db.xml
```

You can now browse the pool resources as if you were connected to the live pool. This will show the pool data from the point in time the status report was taken.

This can be very helpful when trying to recover storage that has been disconnected since SR UUID’s and SCSI ids can be seen in a GUI instead of having to locate the information in a log.



5 Extra RAM can sort a lot of host issues but good storage speed is priceless.

6 Use the [XAPI DB Parsing tool](#) to create a report that can be viewed in a web browser.

This can be very helpful if a status report was taken recently and - if for some reason VDI associations were lost – the report will provide the UUIDs of the VDIs so they can be re-associated either manually or using a script.

7 If you are using OVS, capturing traces on the bond won't work.

Use tcpdump on the two physical interfaces. If you are using something like eth0 and eth1, try:

```
» tcpdump -i eth0 -s 0 -w /tmp/eth0.pcap &  
» tcpdump -i eth1 -s 0 -w /tmp/eth1.pcap &
```

Then, when you're done

fg then ctrl+c to end the first, and again to end the second.

8 While applying a bunch of patches, you do not need to reboot the physical host after every patch unless it is a prerequisite for another patch (this is normally not the case).

Just install all of them one by one and then give one final reboot. This will save you a lot of time.

9 Use CPU exclusive pinning on large systems to get the best performance from XenServer with the new utility "xl".

This was first introduced quietly in 6.0 and is fully implemented in 6.1.



There you have it.

Now you've learned the secrets of some of our top Support Ninjas, go in peace.

We hope you took away some great tips.

And [do let us know](#) if you've got tips like these you've learned from your own deployment experiences. We'll share our favorites in a [Knowledge Center](#) article or in social media channels.

A big doumo arigatou gozaimasu

("thank you") to our Citrix Support ninjas:

Ronan O'Brien, Magnus Esse, Durga Kiran Bolagani, Gene Whitaker, Paul Gardner, David McGeough, Frederic Serriere, Nicholas Vasilie, Rene Alfonso, Nicholas Connolly, Frank Nicosia, Colm Naish, Michael Ryan, Martin Zugec, Kenneth Baldwin, Marek Dresler, Corin Goodier, Blaine Anaya, Gareth O'Brien and Trijot Singh Baweja.



Try Auto Support now

Upload your log file to Auto Support and we'll give you a quick system snapshot, plus any errors, fixes and best-practice advice.

Auto Support
Faster resolutions

Upload your log file. → Troubleshoot. → Health Check.

My Citrix Username

Password

Remember Me

Let's Go

[Forgot your details? \(Don't have any?\)](#)

For: XenDesktop | XenServer | XenApp | NetScaler [How does it work?](#)

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More Resources

[Our XenDesktop Blog](#)

For best-practice advice from some of our top people.

[The XenDesktop Support Forum](#)

There's not a lot this community doesn't know about desktop virtualization.

[The XenDesktop Design Handbook](#)

With reference architectures, planning guides and lots more.

[The Citrix Knowledge Center](#)

Dig in - we share everything we know.

[eDocumentation](#)

All our documentation in an easy-to-use format.

[The Ask the Architect blog](#)

An excellent team blog by some of the best in the business.

[Podio](#)

The social collaboration platform that you make your own.

[AppDNA](#)

The application compatibility testing tool that accelerates and de-risks migration.

About Citrix Services

We're Citrix consultants, teachers and support engineers and we're all about one thing: making sure you succeed.

With our help, you'll deploy high-performance, robust virtualization and networking projects, faster and with dramatically lower risk and higher return.

From free online tools and 24x7 support to intensive training, live events and deeply committed consulting engagements – we're here for you.

How we can help

Citrix Consulting

Intensive engagements for complex, critical or just plain massive projects.

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