

ODDVAR MOE'S BLOG

Notes from My adventures with Windows security

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@oddvarmoe

ACCESSING CLIPBOARD FROM THE LOCK SCREEN IN WINDOWS 10

Posted on 24 Jan 2017

#UPDATE#

This issue is fixed in the Windows 10 1803 versions and newer.

I discovered something interesting that I wanted to be shared with the rest of the world.

Before you read any further, I want you to know that I did send an email to MSRC (Microsoft Security Response Center) about this. The answer I got was this:

<quote>«In general, MSRC does not consider issues that require physical access to be exploited as security vulnerabilities (immutable law #3 in the link below).

If the issue allows for direct code execution bypassing the logon screen of a locked computer, we may consider that a security vulnerability on a case-by-case basis.

“Definition of a Security Vulnerability”

<https://msdn.microsoft.com/en-us/library/cc751383.aspx>

“Ten Immutable Laws Of Security (Version 2.0)”

<http://blogs.technet.com/b/rhalbheer/archive/2011/06/16/ten-immutable-laws-of-security-version-2-0.aspx>

</quote>

What I discovered was that I could access the clipboard from the lock screen on Windows 10. How do I do that?

Look at this video:

Accessing clipboard from the lock screen in Windows 10



In this video I, have copied a text to the clipboard prior to locking my machine and I am able to paste into the key field on the wireless connection (WHAT????).

The thing that I find strange is that every other field (username / password) is prohibited to accept paste and to me that means that Microsoft do have some thoughts on preventing access to the clipboard from the lock screen.

I guess this could be useful for an attacker doing social engineering attacks. Like going to a computer during lunch and see what is on the clipboard. And when you think about it, more and more companies are starting to use password managers that generates passwords for the user. And what happens when a generated password is not possible to remember? The user copies it to clipboard of course.

I don't think this is a serious issue, but I would assume that it would be easy for Microsoft to prevent this with a few lines of code.

Hope you liked the blogpost and remember, sharing is caring. 😊

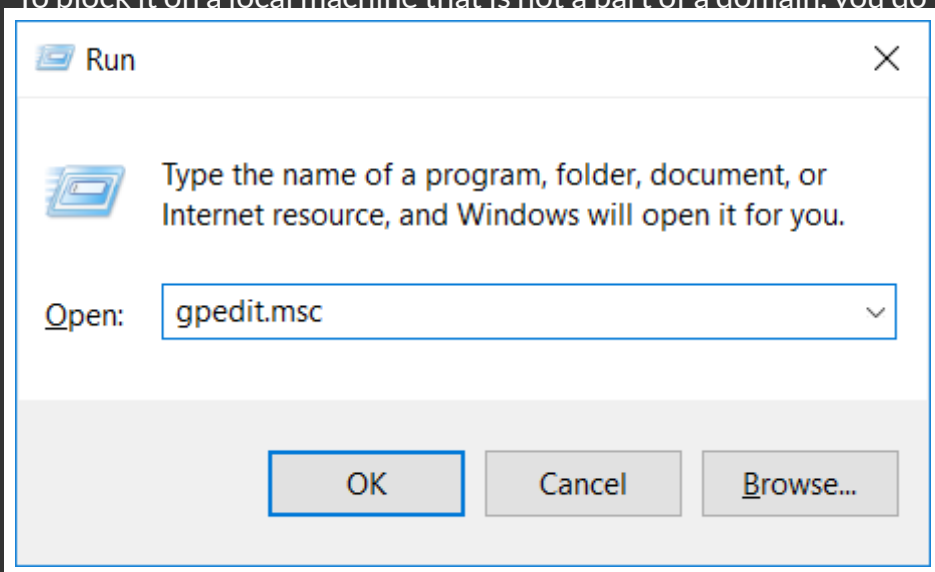
Update #1 26.01.2017: It has come to my attention from Reddit that if you try to connect to an 802.1x-network you will get the unmasked username field as well. Thanks to [paulanerspezi](#) for pointing that out.

To clear your clipboard before locking your computer you could run the following command:
`cmd /c "echo off | clip"`

Update #2 26.01.2016: How to remove the network icon from the lock screen

To remove the network option on the lock screen you could either create a Group Policy and link it or do it locally if your computer is not a part of a domain. The settings are exactly the same.

To block it on a local machine that is not a part of a domain, you do the following:



Then you browse to this location (Computer configuration – Administrative Templates – System – Logon):

The screenshot shows the Windows Local Computer Policy console. The left-hand navigation pane is expanded to show the path: Computer Configuration > Administrative Templates > System > Logon. The 'Logon' folder is selected, and the right-hand pane displays a list of 16 policies. The policy 'Do not display network selection UI' is highlighted with a red box. The 'State' column for this policy is 'Not configured'.

Setting	State	Comment
Do not display network selection UI	Not configured	No
Allow users to select when a password is required when resu...	Not configured	No
Always use classic logon	Not configured	No
Always use custom logon background	Not configured	No
Always wait for the network at computer startup and logon	Not configured	No
Assign a default credential provider	Not configured	No
Assign a default domain for logon	Not configured	No
Block user from showing account details on sign-in	Not configured	No
Do not display the Getting Started welcome screen at logon	Not configured	No
Do not enumerate connected users on domain-joined com...	Not configured	No
Do not process the legacy run list	Not configured	No
Do not process the run once list	Not configured	No
Enumerate local users on domain-joined computers	Not configured	No
Exclude credential providers	Not configured	No
Hide entry points for Fast User Switching	Not configured	No
Run these programs at user logon	Not configured	No
Show first sign-in animation	Not configured	No
Turn off app notifications on the lock screen	Not configured	No
Turn off picture password sign-in	Not configured	No
Turn off Windows Startup sound	Not configured	No
Turn on convenience PIN sign-in	Not configured	No

Then you change the “Do not display network selection UI” setting to enabled like this:

Do not display network selection UI

Do not display network selection UI

Previous Setting Next Setting

☐ Not Configured Comment:

☒ Enabled

☐ Disabled

Supported on: At least Windows Server 2012, Windows 8 or Windows RT

Options:

Help:

This policy setting allows you to control whether anyone can interact with available networks UI on the logon screen.

If you enable this policy setting, the PC's network connectivity state cannot be changed without signing into Windows.

If you disable or don't configure this policy setting, any user can disconnect the PC from the network or can connect the PC to other available networks without signing into Windows.

OK Cancel Apply

Thats it!

Update 27.01.2017:

A new [blogpost](#) about the same problem using Narrator.

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9 THOUGHTS ON “ACCESSING CLIPBOARD FROM THE LOCK SCREEN IN WINDOWS 10”

Pingback: [Access clipboard from the lock screen – Windows 10 – sec.uno](#)



Brian Peppers says:

25 Jan 2017 at 8:43 pm

It's a password field though, so the content of the clipboard isn't being disclosed, but only the length (where it is below the maximum length of the visible password box).

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Oddvar Moe says:

25 Jan 2017 at 10:15 pm

Well, you can click on the Eye icon and see the content after pasting so I would say it is disclosed... See the video.

★ Like

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Pingback: [【知识】 1月26日 - 每日安全知识热点 - 莹莹之色](#)



Hack Happy says:

2 Mar 2017 at 2:30 am

There is another method that does not require the narrator. Use the “Password Recovery” option after typing an invalid password.

- Insert any removable media, contents do not matter, removable media is required for password recovery tool to run.
- Enter invalid password
- Run password recovery, select Next
- Paste clipboard contents into the media selection ComboBox

I demonstrate this method here: <https://youtu.be/XdbFGjOOel0?t=4m>

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Patrick says:

22 May 2017 at 7:40 pm

You can also disable the ability to view passwords with the eye button. Even though this feature is nice, I would absolutely disable this.

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