Questions, Issues, Concerns, Suggestions Welcome at any time Even Now

# Sun City Computer Club

Cyber Security SIG

January 18, 2018

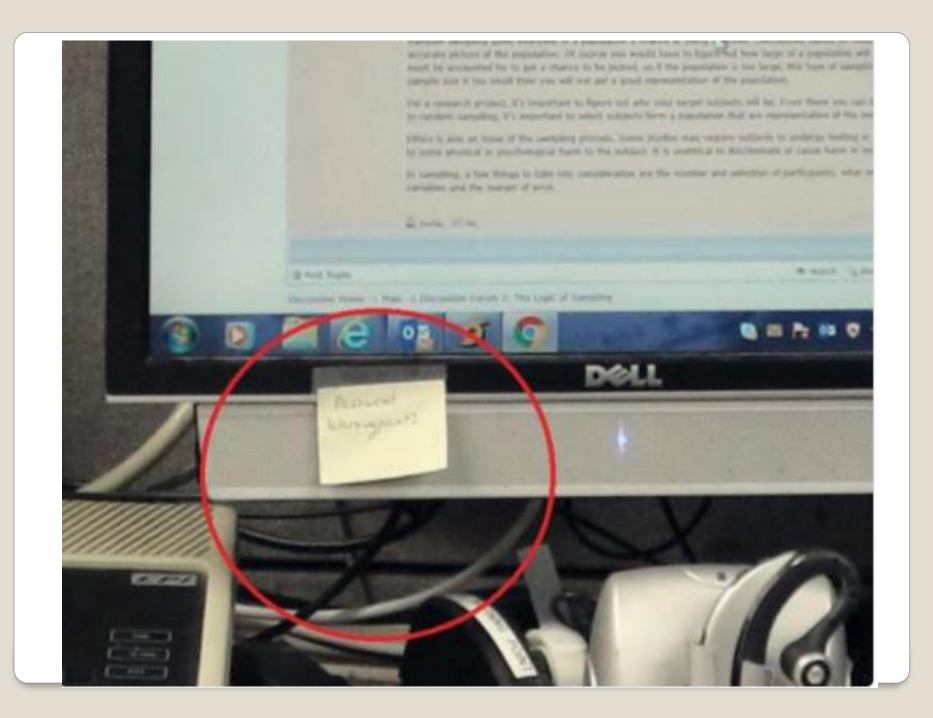
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Current Topics – Presenter and attendees
Presentation

- Questions
- Any other business

#### Questions, Issues, Concerns at any time







Spectre and Meltdown
Speculative execution
Branch prediction
Firmware microcode
Conspiracy??

### Meltdown & Spectre

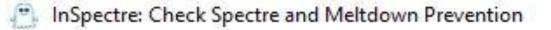


#### • IoT

- SPARC
- Blue Screen
- Brick Boot cycles
- Bandwidths
  - Network 1 Gb/sec
  - Disk 2 GB/sec
  - Memory 10 GB/sec
  - Cache 100 GB/Sec
  - Registers 1 clock cycle

## Meltdown & Spectre







Check Windows operating system and processor hardware safety. Freeware by Steve Gibson / @Sggrc



update the system's hardware and software for maximum security and performance.

This system's present situation:

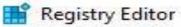
 This 64-bit version of Windows is <u>not aware of either</u> the Spectre or Meltdown problems. Since Intel processors are vulnerable to both of these attacks, this system will be vulnerable to these attacks until its operating system has been updated to handle and prevent these attacks.

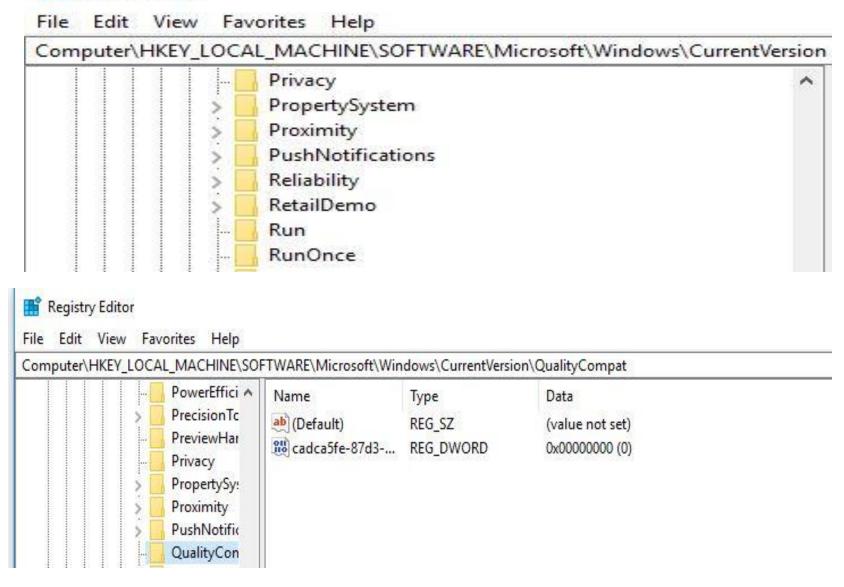
See GRC's InSpectre webpage at: <a href="https://grc.com/inspectre.htm">https://grc.com/inspectre.htm</a> for a full explanation of the use and operation of this freeware utility.

Enable Meltdown Protection

Enable Spectre Protection



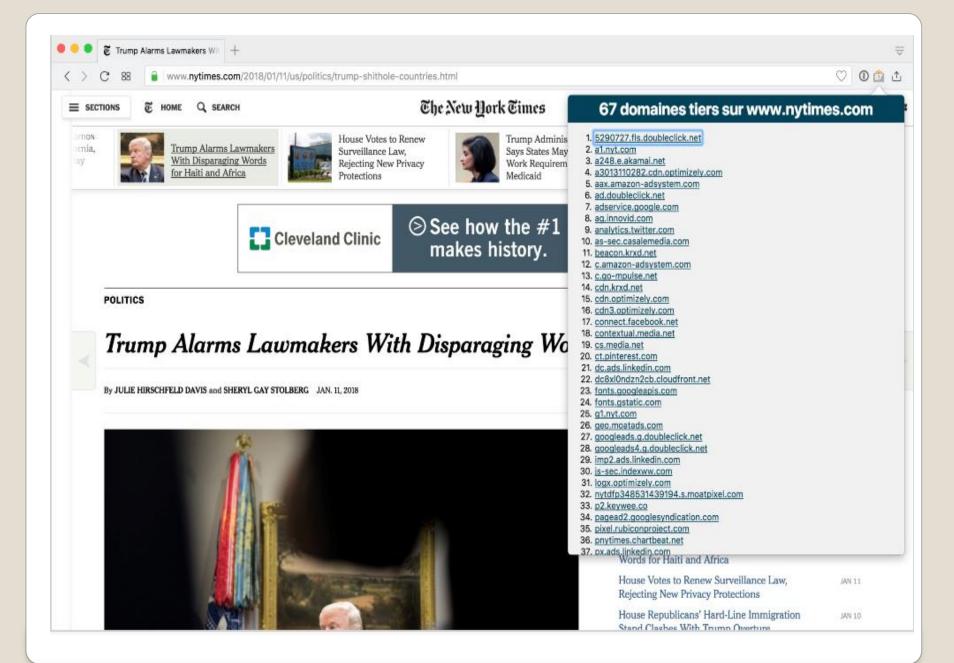




ocesses	Performance App history	Startup Use	rs Details	Services			
mant	CPU 21% 2.49 GHz	CPU % Utilization			Intel(R) Core(TM) i5-4570 CPU @ 3.20GHz		
	Memory 6.4/11.9 GB (54%)						
h	Disk 0 (C: D:)						
La mil	Ethernet S: 160 R: 88.0 Kbps	~			~~ ~	M	
	Wi-Fi Not connected	4 minutes Utilization	Speed		Base speed:	3.20 GHz	C
	Bluetooth Not connected	21% Processes	2.49 C	Handles	Sockets: Cores: Logical processors: Virtualization:	1 4 4 Disabled	
	GPU 0 Intel(R) HD Graphics 460 2%	232 3358 108966 Up time 0:03:31:53			Hyper-V support: L1 cache: L2 cache: L3 cache:	Yes 256 KB 1.0 MB 6.0 MB	

- High Sierra App store ANY password
  WPA3
- Border Patrol inspection of devices
- Browser extension add-ons repair
- Ukraine NotPetya
- Intel AMT
- Cyber weapon on VirusTotal
- FISA Section 702
- Hawaii ICBM alert
- Snowden "last straw"

### **Current Topics**



### Questions, suggestions, comments?

#### Chicken Little

- Tortoise and hare
- Each of us safer, all of us safer

