**Data Dictionary**

1. **MachineIdentifier** - Individual machine ID
2. **ProductName -** Defender state information
   1. Windows=1
   2. MSE=2
   3. SCEP=3
   4. FEP=4
3. **EngineVersion** - Current version of the engine that is installed within the device
4. **AppVersion** - Current version of Microsoft Windows Defender
5. **AvSigVersion** - Current version of the antivirus signature learning software
6. **IsBeta** - Defender state information
   1. No=0
   2. Yes=1
7. **RtpStateBitfield** - The amount of bitfields within device
8. **IsSxsPassiveMode** - Whether the device is in side-by-side passive mode
   1. No=0
   2. Yes=1
9. **AVProductStatesIdentifier** - The state for the specific configuration of a user's antivirus software
10. **AVProductsInstalled** - The amount of antivirus products installed
11. **AVProductsEnabled** - The number of antivirus products that are activated within the device
12. **HasTpm** - If true, this means that the device has a trusted platform module, which is essentially a chip that is engineered for hardware-based security related functions
    1. No=0
    2. Yes=1
13. **CountryIdentifier** - ID for the country the machine is located within (222 values)
14. **CityIdentifier** - ID for the city the machine is located in (10,736 values)
15. **OrganizationIdentifier** - The ID for what organization the machine belongs within. This can be traced back to specific companies and/or broad industries
16. **GeoNameIdentifier** - The geographic ID where a machine is located (248 values)
17. **LocaleEnglishNameIdentifier** - The English name of the local ID of the user
18. **Platform** - Platform name of a machine based off OS-related properties and the processor properties
    1. Windows7= 7
    2. Windows8= 8
    3. Windows10=10
19. **Processor** - The type of structure within the installed operating system (either 64 or 86)
20. **OsVer** - The version of that machines operating system
21. **OsBuild** - The build of that machines operating system
22. **OsSuite** - Product suite mask for the current operating system (8 unique values)
23. **IsProtected** - A calculated field made from the antivirus products field.
    1. Yes=1 (which means that there is one active and up-to-date antivirus product running on this machine)
    2. No=0 (which means that no antivirus products are installed or that they are installed, however they aren't updated yet)
24. **AutoSampleOptIn** - This is the SubmitSamplesConsent value passed in from the service
    1. False=0
    2. True=1
25. **PuaMode** - PUA (potentially unwanted application) mode allows user to access adware, installs toolbars, or other features that pose potential security vulnerabilities
    1. Off (nonexistent) =0
    2. Audit= 0.5
    3. On= 1
26. **IeVerIdentifier** - Microsoft Internet Explorer identifier
27. **SmartScreen** - Cloud-based software decided to prevent malware attacks like phishing. It is included within Microsoft packages
    1. ExistsNotSet=1
    2. Warn=2
    3. On=3
    4. Block=4
    5. Off=5
    6. Prompt=6
    7. RequireAdmin=7
28. **Firewall -** Whether firewall is enabled for Window devices
    1. False=0
    2. True=1
29. **UacLuaenable** - Whether or not the user in the “Admin Approval Mode” type is off or activated in user account control
    1. True= 1
    2. False=0
30. **Census\_MDC2FormFactor** - A grouping of different types of machines based on hardware characteristics. The grouping is rooted by how people look at their device and what they would classify it as.
31. **Census\_OEMNameIdentifier** - Original equipment manager name identifier (2564 unique values)
32. **Census\_OEMModelIdentifier** - Original equipment model identifier (175365 unique values)
33. **Census\_ProcessorCoreCount** - The quantity of logical cores located in the processor
34. **Census\_ProcessorManufacturerIdentifier** - The manufacturer ID of the hardware (7 unique values)
35. **Census\_ProcessorModelIdentifier** - The model identification of the processor
36. **Census\_PrimaryDiskTotalCapacity** - Numerical value for the amount of disk space on the primary disk of the machine
37. **Census\_PrimaryDiskTypeName** - The name of the primary disk type on the device
    1. HDD= 1
    2. SSD= 2
    3. Unknown= 3
    4. Unspecified=4
38. **Census\_SystemVolumeTotalCapacity** - The size of the system volume that the machine is installed on, measured in megabytes
39. **Census\_HasOpticalDiskDrive** – Whether or not the device has an optical disk drive
    1. False=0
    2. True=1
40. **Census\_TotalPhysicalRAM** - The total physical RAM reported in megabytes
41. **Census\_InternalPrimaryDiagonalDisplaySizeInInches** - Diagonal length of the primary display of the machine (measured in inches)
42. **Census\_InternalPrimaryDisplayResolutionHorizontal** - Number of pixels within the horizontal direction of the internal display
43. **Census\_InternalPrimaryDisplayResolutionVertical** - Number of pixels within the vertical direction of the internal display
44. **Census\_OSVersion** - Operating system version that is currently on device
45. **Census\_OSBranch** - Taken from the operating system version
    1. Rs (and Khmer OS)=1
    2. Th=2
    3. Win=3
46. **Census\_OSBuildNumber** - Operating system build number of a machine
47. **Census\_OSBuildRevision** - Operating systems build revision of a machine
48. **Census\_OSEdition** - Edition of the current operating system of the machine
    1. Education=1
    2. Enterprise=2
    3. Professional=3
    4. Home=4
    5. Core=5
    6. Cloud=6
    7. Server=7
49. **Census\_OSInstallTypeName** - What install type was used on the device
    1. Clean=1
    2. Upgrade=2
    3. Other=3
    4. Reset=4
    5. Update=5
    6. Refresh=6
50. **Census\_OSInstallLanguageIdentifier** - The numerical identifier used to determine the language of the operating system (39 unique values)
51. **Census\_OSUILocaleIdentifier** - The identifier of the OS user interface
52. **Census\_OSWUAutoUpdateOptionsName** – The name of the settings on the operating system windows update/auto update device
    1. Full Auto=1
    2. Unknown=2
    3. AutoInstallAndRebootAtMaintenanceTime=3
    4. Off=4
    5. Notify=5
    6. DownloadNotify=6
53. **Census\_IsPortableOperatingSystem** - If true, then the operating system is on and running through via Windows-To-Go on a USB drive
    1. False=0
    2. True=1
54. **Census\_GenuineStateName** -Whether or not the operating system’s state is genuine
    1. Offline=1
    2. IsGenuine=2
    3. InvalidLicense (tampered)= 3
    4. Unknown=4
55. **Census\_ActivationChannel** - The retail or volume license key for the Microsoft device
    1. Volume=1
    2. OEM=2
    3. Retail=3
56. **Census\_IsFlightsDisabled** - Indicates whether the machine user has currently disabled participating in flighting
    1. True=1
    2. False=0
57. **Census\_FlightRing** - The ring that the user would like to receive flights for
    1. Retail, RP= 1
    2. Disabled, NotSet=2
    3. Canary, Invalid, OSG=3
    4. WIF & WIS=4
58. **Census\_FirmwareManufacturerIdentifier** - Software manufacturer ID
59. **Census\_FirmwareVersionIdentifier** – The version of the firmware
60. **Census\_IsSecureBootEnabled** – Whether or not the “Secure Boot” function, a security standard which ensures a device boots using only software that is trusted by the Original Equipment Manufacturer (OEM), is on
    1. False= 0
    2. True= 1
61. **Census\_IsVirtualDevice** - Indicates whether the device is a virtual machine
    1. False=0
    2. True=1
62. **Census\_IsTouchEnabled** - If true, the machine has a touch device
    1. False=0
    2. True=1
63. **Census\_IsPenCapable** - If true, the machine is capable of pen input
    1. False=0
    2. True=1
64. **Census\_IsAlwaysOnAlwaysConnectedCapable** - If true, this indicates whether the battery allows the Microsoft device to be on the “ AlwaysOnAlwaysConnected” mode
    1. False=0
    2. True=1
65. **Wdft\_IsGamer** - Binary classifier that specifies whether the user is a gamer or not
    1. Gamer= 1
    2. Non-gamer= 0
66. **Wdft\_RegionIdentifier** - Region identifier of the “windowed discrete fourier transform” (15 unique values)
67. **ExistsNotSet-** Using the value within the SmartScreen observation, this value is true when a user has the smart screen capability but has not enabled it yet
    1. True=1
    2. False=0
68. **IOT-** “Internet of things”, created by using the Census\_MDC2Factor variable to classify size of computer notebooks/tablets
    1. Small tablet=1
    2. Large tablet=2
    3. Notebook and IOTOther=3
    4. All other values not listed above =0
69. **PC-** Created by using the Census\_MDC2Factor variable to classify what type of PC a machine was
    1. Detachable=1
    2. Convertible=2
    3. All in One=3
    4. Desktop & PcOther=4
70. **Server-** Created by using the Census\_MDC2Factor variable in order to understand the server size
    1. Large server= 1
    2. Medium server= 2
    3. Small server & server other =3
    4. All other values that were not mentioned above =0