# TTP Detail – T1209

## TTP Information

Name: Time Providers

Description: The Windows Time service (W32Time) enables time synchronization across and within domains. (Citation: Microsoft W32Time Feb 2018) W32Time time providers are responsible for retrieving time stamps from hardware/network resources and outputting these values to other network clients. (Citation: Microsoft TimeProvider)  
  
Time providers are implemented as dynamic-link libraries (DLLs) that are registered in the subkeys of <code>HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\W32Time\TimeProviders\</code>. (Citation: Microsoft TimeProvider) The time provider manager, directed by the service control manager, loads and starts time providers listed and enabled under this key at system startup and/or whenever parameters are changed. (Citation: Microsoft TimeProvider)  
  
Adversaries may abuse this architecture to establish Persistence, specifically by registering and enabling a malicious DLL as a time provider. Administrator privileges are required for time provider registration, though execution will run in context of the Local Service account. (Citation: Github W32Time Oct 2017)

## Threat-Mapped Scoring

Score: 1.8

Priority: P4 - Informational (Low)

## Kill Chain Phases

**•** mitre-attack: persistence