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credentials for an account.

Event 4777 F: The domain controller failed to validate the credentials for an account.

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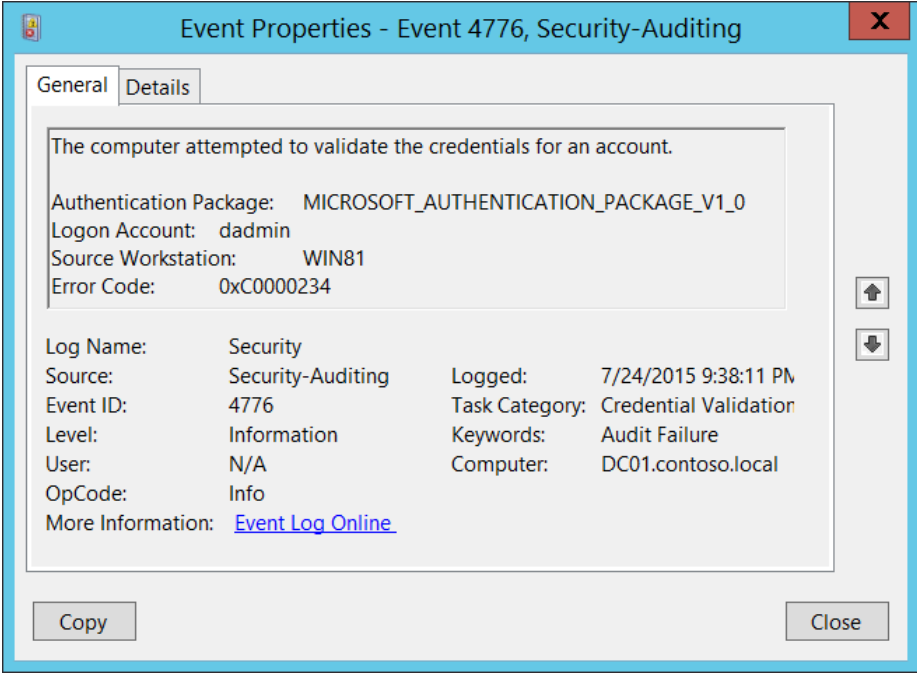
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4776(S, F): The computer attempted to validate the credentials for an account.

Article • 09/13/2021 • 1 contributor



Subcategory: [Audit Credential Validation](#)

Event Description:

This event generates every time that a credential validation occurs using NTLM authentication.

This event occurs only on the computer that is authoritative for the

provided credentials. For domain accounts, the domain controller is authoritative. For local accounts, the local computer is authoritative.

It shows successful and unsuccessful credential validation attempts.

It shows only the computer name (**Source Workstation**) from which the authentication attempt was performed (authentication source). For example, if you authenticate from CLIENT-1 to SERVER-1 using a domain account you'll see CLIENT-1 in the **Source Workstation** field. Information about the destination computer (SERVER-1) isn't presented in this event.

If a credential validation attempt fails, you'll see a Failure event with **Error Code** parameter value not equal to "0x0".

The main advantage of this event is that on domain controllers you can see all authentication attempts for domain accounts when NTLM authentication was used.

For monitoring local account logon attempts, it's better to use event "[4624](#): An account was successfully logged on" because it contains more details and is more informative.

This event also generates when a workstation unlock event occurs.

This event does *not* generate when a domain account logs on locally to a domain controller.

Note For recommendations, see [Security Monitoring Recommendations](#) for this event.

Event XML:

Copy

```
- <Event xmlns="http://schemas.microsoft.com/win/2004/08/events/event">
- <System>
```

```
<Provider Name="Microsoft-Windows-Security-Auditing" Guid="{54849625-5478-4994-  
<EventID>4776</EventID>  
<Version>0</Version>  
<Level>0</Level>  
<Task>14336</Task>  
<Opcode>0</Opcode>  
<Keywords>0x8010000000000000</Keywords>  
<TimeCreated SystemTime="2015-07-25T04:38:11.003163100Z" />  
<EventRecordID>165437</EventRecordID>  
<Correlation />  
<Execution ProcessID="500" ThreadID="532" />  
<Channel>Security</Channel>  
<Computer>DC01.contoso.local</Computer>  
<Security />  
</System>  
- <EventData>  
  <Data Name="PackageName">MICROSOFT\_AUTHENTICATION\_PACKAGE\_V1\_0</Data>  
  <Data Name="TargetUserName">dadmin</Data>  
  <Data Name="Workstation">WIN81</Data>  
  <Data Name="Status">0xc0000234</Data>  
</EventData>  
</Event>
```

Required Server Roles: no specific requirements.

Minimum OS Version: Windows Server 2008, Windows Vista.

Event Versions: 0.

Field Descriptions:

- **Authentication Package** [Type = UnicodeString]: the name of [Authentication Package](#) that was used for credential validation. It's always "MICROSOFT_AUTHENTICATION_PACKAGE_V1_0" for [4776](#) event.

Note **Authentication package** is a DLL that encapsulates the authentication logic used to determine whether to permit a user to log on. [Local Security Authority](#) (LSA) authenticates a user logon by sending the request to an authentication package. The authentication package then examines the logon information and either authenticates or rejects the user logon attempt.

- **Logon Account** [Type = UnicodeString]: the name of the account that had its credentials validated by the **Authentication Package**. Can be user name, computer account name or [well-known security principal](#) account name. Examples:
 - User example: dadmin
 - Computer account example: WIN81\$
 - Local System account example: Local
 - Local Service account example: Local Service
- **Source Workstation** [Type = UnicodeString]: the name of the computer from which the logon attempt originated.
- **Error Code** [Type = HexInt32]: contains error code for Failure events. For Success events this parameter has "0x0" value. The table below contains most common error codes for this event:

[Expand table](#)

Error Code	Description
0xC0000064	The username you typed does not exist. Bad username.
0xC000006A	Account logon with misspelled or bad password.

0xC000006D	- Generic logon failure. Some of the potential causes for this: An invalid username and/or password was used LAN Manager Authentication Level mismatch between the source and target computers.
0xC000006F	Account logon outside authorized hours.
0xC0000070	Account logon from unauthorized workstation.
0xC0000071	Account logon with expired password.
0xC0000072	Account logon to account disabled by administrator.
0xC0000193	Account logon with expired account.
0xC0000224	Account logon with "Change Password at Next Logon" flagged.
0xC0000234	Account logon with account locked.
0xC0000371	The local account store does not contain secret material for the specified account.
0x0	No errors.

Table 1. Winlogon Error Codes.

Security Monitoring Recommendations

For 4776(S, F): The computer attempted to validate the credentials for an account.

 Expand table

Type of monitoring required	Recommendation
High-value accounts: You might have high-value domain or local accounts for which you need to monitor each action. Examples of high-value accounts are database administrators, built-in local administrator account, domain administrators, service accounts, domain controller accounts and so on.	Monitor this event with the " Logon Account " that corresponds to the high-value account or accounts.
Anomalies or malicious actions: You might have specific requirements for detecting anomalies or monitoring potential malicious actions. For example, you might need to monitor for use of an account outside of working hours.	When you monitor for anomalies or malicious actions, use the " Logon Account " value (with other information) to monitor how or when a particular account is being used. To monitor activity of specific user accounts outside of working hours, monitor the appropriate Logon Account + Source Workstation pairs.
Non-active accounts: You might have non-active, disabled, or guest accounts, or other accounts that should never be used.	Monitor this event with the " Logon Account " that should never be used.
Account allow list: You might have a specific allow list of accounts that are the only ones allowed to perform actions corresponding to particular events.	If this event corresponds to a "allow list-only" action, review the " Logon Account " for accounts that are outside the allow list.
Restricted-use computers: You might have certain computers from which certain people (accounts) shouldn't log on.	Monitor the target Source Workstation for credential validation requests from the " Logon Account " that you're concerned about.
Account naming conventions: Your organization might have specific naming conventions for account names.	Monitor " Logon Account " for names that don't comply with naming conventions.

- If NTLM authentication shouldn't be used for a specific account, monitor for that account. Don't forget that local logon will always use NTLM authentication if an account logs on to a device where its user account is stored.

- You can use this event to collect all NTLM authentication attempts in the domain, if needed. Don't forget that local logon will always use NTLM authentication if the account logs on to a device where its user account is stored.
- If a local account should be used only locally (for example, network logon or terminal services logon isn't allowed), you need to monitor for all events where **Source Workstation** and **Computer** (where the event was generated and where the credentials are stored) have different values.
- Consider tracking the following errors for the reasons listed:

 Expand table

Error to track	What the error might indicate
User logon with misspelled or bad user account	For example, N events in the last N minutes can be an indicator of an account enumeration attack, especially relevant for highly critical accounts.
User logon with misspelled or bad password	For example, N events in the last N minutes can be an indicator of a brute-force password attack, especially relevant for highly critical accounts.
User logon outside authorized hours	Can indicate a compromised account; especially relevant for highly critical accounts.
User logon from unauthorized workstation	Can indicate a compromised account; especially relevant for highly critical accounts.
User logon to account disabled by administrator	For example, N events in last N minutes can be an indicator of an account compromise attempt, especially relevant for highly critical accounts.
User logon with expired account	Can indicate an account compromise attempt; especially relevant for highly critical accounts.
User logon with account locked	Can indicate a brute-force password attack; especially relevant for highly critical accounts.