



python



PowerShell

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### **PowerShell Get-Help on command 'Test-Dtc'**

**PS C:\Users\wahid> Get-Help Test-Dtc**

#### NAME

Test-Dtc

#### SYNOPSIS

Tests whether two computers can participate in networked transactions.

#### SYNTAX

```
Test-Dtc [[-LocalComputerName] <String>] [[-RemoteComputerName] <String>]  
[[-ResourceManagerPort] <Int32>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

#### DESCRIPTION

The Test-Dtc cmdlet tests whether two computers can participate in networked transactions. The cmdlet performs the following tests:

- Checks whether the required firewall rules are enabled.
- Checks whether the Microsoft Distributed Transaction Coordinator (MSDTC) network security settings are correctly configured for network transactions.

- Checks whether the two computers can ping each other.
- Checks whether a transaction can be propagated between the two computers.

To run this cmdlet, you must first enable the firewall rule for Distributed Transaction Coordinator on both computers by using the Netsh utility run the following command:

```
`netsh advfirewall firewall set rule group="Distributed Transaction Coordinator" new enable=yes`
```

For more information, see [Netsh Command Syntax, Contexts, and Formatting \(/windows-server/networking/technologies/netsh/netsh-contexts\)](#).

To enable the rule using PowerShell run the following command:

```
`Enable-NetFirewallRule -DisplayGroup "Distributed Transaction Coordinator"`
```

## PARAMETERS

**-LocalComputerName <String>**

Specifies the virtual server name of the MSDTC instance on the local computer to test.

**-RemoteComputerName <String>**

Specifies the virtual server name of the MSDTC instance on the remote computer to test.

**-ResourceManagerPort <Int32>**

Specifies the port number that the MSDTC diagnostic Resource Manager uses. If you do not specify a value, this cmdlet uses a default value of 3002.

-WhatIf [<SwitchParameter>]

Shows what would happen if the cmdlet runs. The cmdlet is not run.

-Confirm [<SwitchParameter>]

Prompts you for confirmation before running the cmdlet.

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see [about\\_CommonParameters \(https://go.microsoft.com/fwlink/?LinkID=113216\)](https://go.microsoft.com/fwlink/?LinkID=113216).

----- Example 1: Test MSDTC on the local computer -----

```
PS C:\> Test-Dtc -LocalComputerName "$env:COMPUTERNAME" -Verbose
```

```
VERBOSE: ": Firewall rule for "RPC Endpoint Mapper" is enabled."
```

```
VERBOSE: ": Firewall rule for "DTC incoming connections" is enabled."
```

```
VERBOSE: ": Firewall rule for "DTC outgoing connections" is enabled."
```

```
VERBOSE: Contoso089: AuthenticationLevel: Mutual
```

```
VERBOSE: Contoso089: InboundTransactionsEnabled: True
```

```
VERBOSE: Contoso089: OutboundTransactionsEnabled: True
```

```
VERBOSE: Contoso089: RemoteClientAccessEnabled: False
```

```
VERBOSE: Contoso089: RemoteAdministrationAccessEnabled: True
```

```
VERBOSE: Contoso089: XATransactionsEnabled: True
```

```
VERBOSE: Contoso089: LUTransactionsEnabled: True
```

This command tests MSDTC on the local computer.

Example 2: Test MSDTC on the local computer and a remote computer

```
PS C:\> Test-Dtc -LocalComputerName "$env:COMPUTERNAME" -RemoteComputerName
```

```
"Contoso075" -ResourceManagerPort 17100 -Verbose
```

```
VERBOSE: ": Firewall rule for "RPC Endpoint Mapper" is enabled."
```

```
VERBOSE: ": Firewall rule for "DTC incoming connections" is enabled."
```

VERBOSE: ": Firewall rule for "DTC outgoing connections" is enabled."

VERBOSE: Contoso089: AuthenticationLevel: Mutual

VERBOSE: Contoso089: InboundTransactionsEnabled: True

VERBOSE: Contoso089: OutboundTransactionsEnabled: True

VERBOSE: Contoso089: RemoteClientAccessEnabled: False

VERBOSE: Contoso089: RemoteAdministrationAccessEnabled: True

VERBOSE: Contoso089: XATransactionsEnabled: True

VERBOSE: Contoso089: LUTransactionsEnabled: True

VERBOSE: Exporting cmdlet 'Get-CimInstance'.

VERBOSE: Exporting cmdlet 'Get-CimSession'.

VERBOSE: Exporting cmdlet 'New-CimSession'.

VERBOSE: Exporting cmdlet 'New-CimSessionOption'.

VERBOSE: Exporting cmdlet 'Remove-CimSession'.

VERBOSE: Exporting cmdlet 'Get-CimAssociatedInstance'.

VERBOSE: Exporting cmdlet 'Get-CimClass'.

VERBOSE: Exporting cmdlet 'Invoke-CimMethod'.

VERBOSE: Exporting cmdlet 'New-CimInstance'.

VERBOSE: Exporting cmdlet 'Register-CimIndicationEvent'.

VERBOSE: Exporting cmdlet 'Remove-CimInstance'.

VERBOSE: Exporting cmdlet 'Set-CimInstance'.

VERBOSE: Importing cmdlet 'Get-CimAssociatedInstance'.

VERBOSE: Importing cmdlet 'Get-CimClass'.

VERBOSE: Importing cmdlet 'Get-CimInstance'.

VERBOSE: Importing cmdlet 'Get-CimSession'.

VERBOSE: Importing cmdlet 'Invoke-CimMethod'.

VERBOSE: Importing cmdlet 'New-CimInstance'.

VERBOSE: Importing cmdlet 'New-CimSession'.

VERBOSE: Importing cmdlet 'New-CimSessionOption'.

VERBOSE: Importing cmdlet 'Register-CimIndicationEvent'. "

VERBOSE: Importing cmdlet 'Remove-CimInstance'.

VERBOSE: Importing cmdlet 'Remove-CimSession'.

VERBOSE: Importing cmdlet 'Set-CimInstance'.

VERBOSE: "Contoso075 Operating System Version: 6.2.8179."

VERBOSE: "Contoso075: Firewall rule for "RPC Endpoint Mapper" is enabled."

VERBOSE: "Contoso075: Firewall rule for "DTC incoming connections" is enabled."

VERBOSE: "Contoso075: Firewall rule for "DTC outgoing connections" is enabled."

VERBOSE: Contoso075: AuthenticationLevel: Mutual

VERBOSE: Contoso075: InboundTransactionsEnabled: True

VERBOSE: Contoso075: OutboundTransactionsEnabled: True

VERBOSE: Contoso075: RemoteClientAccessEnabled: False

VERBOSE: Contoso075: RemoteAdministrationAccessEnabled: True

VERBOSE: Contoso075: XATransactionsEnabled: True

VERBOSE: Contoso075: LUTransactionsEnabled: True

VERBOSE: "Pinging computer Contoso089 from Contoso075 succeeded."

VERBOSE: "Pinging computer Contoso075 from Contoso089 succeeded."

VERBOSE: Contoso089: OleTx: a9f3f4c0-cc24-4f34-bfc3-6b6d819dab84

VERBOSE: Contoso075: OleTx: 94a24f8a-3040-4fa2-9f27-833ffb2037bc

VERBOSE: Contoso089: XA: f35da6a2-26d2-4d14-98e6-1a8feea41bc8

VERBOSE: Contoso075: XA: 15614187-293b-4a39-92ce-6740b1ea526c

VERBOSE: Contoso089: UIS: 7f8d8ad0-7096-47fd-9aab-5d561852c93b

VERBOSE: Contoso075: UIS: e1a97aaa-003c-4b61-a978-8601e8438d5f

VERBOSE: "This diagnostic test will attempt to carry out a transaction

propagation between Contoso089 and

Contoso075. It requires that a TCP port is opened on Contoso089 so that a Test

Resource Manager can participate

in network transactions." "You have specified 17100 as the

'ResourceManagerPort'." "Please open port 17100 in the

firewall to proceed with the test."

VERBOSE: "Test resource manager started."

VERBOSE: "A new PSSession to Contoso075 created."

VERBOSE: "Transaction propagated from Contoso089 to Contoso075 using PULL propagation."

VERBOSE: "Transaction propagated from Contoso089 to Contoso075 using PUSH propagation."

VERBOSE: "Test Resource Manager Verbose Log:"  
VERBOSE: DtcDiagRM:17100 is now listening at  
http://Contoso089:17100/DTCDiagRM.  
VERBOSE: Resolution of IP address to hostname failed, just using IP address:  
2001:0db8:2a:1006:c041:b365:30de:b2e3.  
VERBOSE: DtcDiagRM:17100 received a request for PropagationToken from  
2001:0db8:2a:1006:c041:b365:30de:b2e3.  
VERBOSE: DtcDiagRM:17100 created Transaction  
4a546251-db38-4fe9-91bb-22e532deb68b.  
VERBOSE: DtcDiagRM:17100 obtained a PropagationToken for Transaction  
4a546251-db38-4fe9-91bb-22e532deb68b from DTC.  
VERBOSE: Resolution of IP address to hostname failed, just using IP address:  
2001:0db8:2a:1006:c041:b365:30de:b2e3.  
VERBOSE: ResourceManager DtcDiagRM:17100 received a request for an  
ExportCookie from  
2001:0db8:2a:1006:c041:b365:30de:b2e3.  
VERBOSE: DtcDiagRM:17100 created Transaction  
cc088777-03c6-43cc-83f6-06539b83e1fd.  
VERBOSE: DtcDiagRM:17100 obtained an ExportCookie for Transaction  
cc088777-03c6-43cc-83f6-06539b83e1fd from DTC.  
VERBOSE: Resource Manager DtcDiagRM:17100 -  
24aeb805-7ef5-4410-9a19-f5ddf93c4d2 is removed.

This command tests the local computer and the computer named Contoso075. The command specifies a resource manager port.

Example 3: Test MSDTC on a local computer that blocks inbound transactions

```
PS C:\> Test-Dtc -LocalComputerName "$env:COMPUTERNAME" -RemoteComputerName  
"Contoso075" -ResourceManagerPort 17100 -Verbose  
VERBOSE: ": Firewall rule for "RPC Endpoint Mapper" is enabled."  
VERBOSE: ": Firewall rule for "DTC incoming connections" is enabled."  
VERBOSE: ": Firewall rule for "DTC outgoing connections" is enabled."  
VERBOSE: Contoso089: AuthenticationLevel: Mutual
```

VERBOSE: Contoso089: InboundTransactionsEnabled: False  
WARNING: "Contoso089: Inbound transactions are not allowed and this computer cannot participate in network transactions."  
VERBOSE: Contoso089: OutboundTransactionsEnabled: True  
VERBOSE: Contoso089: RemoteClientAccessEnabled: False  
VERBOSE: Contoso089: RemoteAdministrationAccessEnabled: True  
VERBOSE: Contoso089: XATransactionsEnabled: True  
VERBOSE: Contoso089: LUTransactionsEnabled: True  
VERBOSE: Operation " complete.  
VERBOSE: "Contoso075 Operating System Version: 6.2.8179."  
VERBOSE: "Contoso075: Firewall rule for "RPC Endpoint Mapper" is enabled."  
VERBOSE: "Contoso075: Firewall rule for "DTC incoming connections" is enabled."  
VERBOSE: "Contoso075: Firewall rule for "DTC outgoing connections" is enabled."  
VERBOSE: Contoso075: AuthenticationLevel: Mutual  
VERBOSE: Contoso075: InboundTransactionsEnabled: True  
VERBOSE: Contoso075: OutboundTransactionsEnabled: True  
VERBOSE: Contoso075: RemoteClientAccessEnabled: False  
VERBOSE: Contoso075: RemoteAdministrationAccessEnabled: True  
VERBOSE: Contoso075: XATransactionsEnabled: True  
VERBOSE: Contoso075: LUTransactionsEnabled: True  
VERBOSE: "Pinging computer Contoso089 from Contoso075 succeeded."  
VERBOSE: "Pinging computer Contoso075 from Contoso089 succeeded."  
VERBOSE: Contoso089: OleTx: a9f3f4c0-cc24-4f34-bfc3-6b6d819dab84  
VERBOSE: Contoso075: OleTx: 94a24f8a-3040-4fa2-9f27-833ffb2037bc  
VERBOSE: Contoso089: XA: f35da6a2-26d2-4d14-98e6-1a8feea41bc8  
VERBOSE: Contoso075: XA: 15614187-293b-4a39-92ce-6740b1ea526c  
VERBOSE: Contoso089: UIS: 7f8d8ad0-7096-47fd-9aab-5d561852c93b  
VERBOSE: Contoso075: UIS: e1a97aaa-003c-4b61-a978-8601e8438d5f  
"DTC security settings and firewall settings should be fixed in order to complete the transactions propagation test."

This command tests the local computer and the computer named Contoso075. The output from this test shows that the local computer does not allow inbound transactions.

Example 4: Test MSDTC on a local computer that blocks outbound transactions

```
PS C:\> Test-Dtc -LocalComputerName "$env:COMPUTERNAME" -RemoteComputerName  
"Contoso075" -ResourceManagerPort 17100 -Verbose
```

```
VERBOSE: ": Firewall rule for "RPC Endpoint Mapper" is enabled."
```

```
VERBOSE: ": Firewall rule for "DTC incoming connections" is enabled."
```

```
VERBOSE: ": Firewall rule for "DTC outgoing connections" is enabled."
```

```
VERBOSE: Contoso089: AuthenticationLevel: Mutual
```

```
VERBOSE: Contoso089: InboundTransactionsEnabled: True
```

```
VERBOSE: Contoso089: OutboundTransactionsEnabled: False
```

```
WARNING: "Contoso089: Outbound transactions are not allowed and this computer  
cannot participate in network transactions."
```

```
VERBOSE: Contoso089: RemoteClientAccessEnabled: False
```

```
VERBOSE: Contoso089: RemoteAdministrationAccessEnabled: True
```

```
VERBOSE: Contoso089: XATransactionsEnabled: True
```

```
VERBOSE: Contoso089: LUTransactionsEnabled: True
```

```
VERBOSE: Operation " complete.
```

```
VERBOSE: "Contoso075 Operating System Version: 6.2.8179."
```

```
VERBOSE: "Contoso075: Firewall rule for "RPC Endpoint Mapper" is enabled."
```

```
VERBOSE: "Contoso075: Firewall rule for "DTC incoming connections" is  
enabled."
```

```
VERBOSE: "Contoso075: Firewall rule for "DTC outgoing connections" is  
enabled."
```

```
VERBOSE: Contoso075: AuthenticationLevel: Mutual
```

```
VERBOSE: Contoso075: InboundTransactionsEnabled: True
```

```
VERBOSE: Contoso075: OutboundTransactionsEnabled: True
```

```
VERBOSE: Contoso075: RemoteClientAccessEnabled: False
```

```
VERBOSE: Contoso075: RemoteAdministrationAccessEnabled: True
```

```
VERBOSE: Contoso075: XATransactionsEnabled: True
```

```
VERBOSE: Contoso075: LUTransactionsEnabled: True
```



VERBOSE: "Pinging computer Contoso089 from Contoso075 succeeded."  
VERBOSE: "Pinging computer Contoso075 from Contoso089 succeeded."  
VERBOSE: Contoso089: OleTx: a9f3f4c0-cc24-4f34-bfc3-6b6d819dab84  
VERBOSE: Contoso075: OleTx: 94a24f8a-3040-4fa2-9f27-833ffb2037bc  
VERBOSE: Contoso089: XA: f35da6a2-26d2-4d14-98e6-1a8feea41bc8  
VERBOSE: Contoso075: XA: 15614187-293b-4a39-92ce-6740b1ea526c  
VERBOSE: Contoso089: UIS: 7f8d8ad0-7096-47fd-9aab-5d561852c93b  
VERBOSE: Contoso075: UIS: e1a97aaa-003c-4b61-a978-8601e8438d5f  
"DTC security settings and firewall settings should be fixed in order to  
complete the transactions propagation test."

This command tests the local computer and the computer named Contoso075. The output from this test shows that the local computer does not allow outbound transactions.

#### REMARKS

To see the examples, type: "get-help Test-Dtc -examples".

For more information, type: "get-help Test-Dtc -detailed".

For technical information, type: "get-help Test-Dtc -full".

For online help, type: "get-help Test-Dtc -online"