

Quest® InTrust 11.5

System Requirements



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Legend

 **CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.**

 **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

InTrust System Requirements

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Contents

Default Set of Components	5
Individual Components	7
InTrust Deployment Manager	7
InTrust Manager	9
InTrust Server	10
InTrust Monitoring Console	12
InTrust Repository Viewer	13
InTrust Repository	13
Disk Space	13
Choice of Hosting Computer	14
Repositories Not Based on Filesystems	14
Repository Indexing Tool	15
Supported Platforms	16
Microsoft Windows Events	16
Microsoft IIS Events	19
Microsoft Forefront Threat Management Gateway and ISA Server Events	21
Microsoft DHCP Server Events	22
Red Hat Enterprise Linux Events	23
Oracle Linux Events	24
SUSE Linux Events	25
Debian GNU/Linux Events	25
Ubuntu Linux Events	26
HP-UX Events	27
VMware vCenter Events	28
VMware ESX and ESXi Events	29
Minimal Rights and Permissions Required for InTrust Operations	30
InTrust Setup: Common	30
InTrust Setup: Extended Deployment Only	32
Repository Viewer	33
Extended InTrust Features	34
About us	39
Contacting Quest	39
Technical support resources	39

Third-Party Contributions	40
Licenses	41
Apache 2.0	41
BSD 3-Clause "New" or "Revised" License	44
CPOL 1.02	44
flex 2.5.25/27	47
GPL (GNU General Public License) 2.0	48
GPL (GNU General Public License) 3	53
LGPL (GNU Lesser General Public License) 2.1	66
Net-SNMP	75
OpenSSL 1.0	79
Netscape Public License Version 1.1	82
Stanford SRP	88
zlib	90

Default Set of Components

The components installed by default are [InTrust Deployment Manager](#), [InTrust Server](#) and [InTrust Repository Viewer](#). If you customize the selection to install individual components, see the [requirements](#) for the components you need. If you use the default selection, the combined requirements are as follows:

Architecture	x64
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2019• Microsoft Windows Server 2016• Microsoft Windows Server 2012 R2 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows Server 2012• Microsoft Windows Server 2008 R2 Service Pack 1
CPU	Min. 4 cores (for example, for evaluation purposes). For any real-world uses, at least 8 cores are recommended.
Memory	Min. 4GB (for example, for evaluation purposes). For any real-world uses, at least 8GB are recommended.*
Additional Software and Services	<ul style="list-style-type: none">• Microsoft .NET Framework 4.6.2 or later, with all updates that are current at the time of this InTrust release• Microsoft Visual C++ Redistributable, provided in the Redist folder of your InTrust distribution• Microsoft SQL Server Native Client 11.0.6538.0 or later (version 11.0.6538.0 redistributable package of the client is included in the InTrust distribution) Important: Install the required version of the client in advance, and only then install InTrust.• If you want to use the Autorun application from your InTrust distribution, make sure that Windows provides the mshta.exe utility on your computer and that the utility is allowed to open *.hta files.

* This is only an observation. To estimate consumed memory (in gigabytes) more accurately, use the following formula:

$$\langle \text{number_of_cores} \rangle * 0.26 + 6$$

Remember that this means memory used by InTrust Server alone on average. During activity peaks (such as data merging and report building), the memory requirements of InTrust increase.

i **NOTE:** Make sure that the computer where you perform InTrust setup has ports 900, 8340 and 8341 open for inbound traffic and not blocked by any firewalls. This is required for InTrust configuration management, agent-server communication and repository access.

In a virtualized environment

If you deploy InTrust on a virtual machine, make sure the CPU and memory requirements above are met, and do not overload the virtual machine host.

InTrust components can be deployed on virtual machines running in Infrastructure as a Service (IaaS), such as Amazon Web Services and Microsoft Azure.

For the configuration database:

Any of the following:

- Microsoft SQL Server 2017
- Microsoft SQL Server 2016
- Microsoft SQL Server 2014
- Microsoft SQL Server 2012
- Microsoft SQL Server 2008 R2

i **NOTES:**

- A local or remote installation of SQL Server can be used.
- The collation order must be case-insensitive.

Individual Components

The requirements for a custom InTrust deployment vary greatly depending on the components you select. For details, please see the sections about the components you need.

- [InTrust Deployment Manager](#)
- [InTrust Manager](#)
- [InTrust Server](#)
- [InTrust Monitoring Console](#)
- [InTrust Repository Viewer](#)
- [InTrust Repository](#)
- [Repository Indexing Tool](#)



NOTE: If you deploy an InTrust component on a virtual machine, make sure the CPU and memory requirements for the component are met, and do not overload the virtual machine host. InTrust components can be deployed on virtual machines running in Infrastructure as a Service (IaaS), such as Amazon Web Services and Microsoft Azure.

InTrust Deployment Manager

Architecture

- x64
- x86 where applicable

Operating System

Any of the following:

- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows 10
- Microsoft Windows Server 2012 R2 with [April 2014 Cumulative Update \(Microsoft KB article 2919355\)](#)
- Microsoft Windows 8.1 with [April 2014 Cumulative Update \(Microsoft KB article 2919355\)](#)
- Microsoft Windows Server 2012
- Microsoft Windows 8
- Microsoft Windows Server 2008 R2 Service Pack 1

Additional Software and Services

- Microsoft Windows 7 Service Pack 1
 - Microsoft .NET Framework 4.6.2 or later, with all updates that are current at the time of this InTrust release
 - Microsoft Visual C++ Redistributable, provided in the **Redist** folder of your InTrust distribution
-

InTrust Manager

Architecture

- x64
- x86 where applicable

Operating System Any of the following:

- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows 10
- Microsoft Windows Server 2012 R2 with [April 2014 Cumulative Update \(Microsoft KB article 2919355\)](#)
- Microsoft Windows 8.1 with [April 2014 Cumulative Update \(Microsoft KB article 2919355\)](#)
- Microsoft Windows Server 2012
- Microsoft Windows 8
- Microsoft Windows Server 2008 R2 Service Pack 1
- Microsoft Windows 7 Service Pack 1

Additional Software and Services

- Microsoft .NET Framework 4.6.2 or later, with all updates that are current at the time of this InTrust release
- Microsoft Visual C++ Redistributable, provided in the **Redist** folder of your InTrust distribution
- Microsoft SQL Server Native Client 11.0.6538.0 or later (version 11.0.6538.0 redistributable package of the client is included in the InTrust distribution)
Important: Install the required version of the client in advance, and only then install InTrust.

InTrust Server

Architecture	x64
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2019• Microsoft Windows Server 2016• Microsoft Windows Server 2012 R2 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows Server 2012• Microsoft Windows Server 2008 R2 Service Pack 1
CPU	Min. 4 cores (for example, for evaluation purposes). For any real-world uses, at least 8 cores are recommended.
Memory	Min. 4GB (for example, for evaluation purposes). For any real-world uses, at least 8GB is recommended.*
Hard Disk Space	Min. 14GB when installing all components. 10GB out of that is reserved space that is not in constant use. It is needed for temporary storage during activity peaks such as repository cleanup operations.
Additional Software and Services	<ul style="list-style-type: none">• Microsoft .NET Framework 4.6.2 or later, with all updates that are current at the time of this InTrust release• Microsoft Visual C++ Redistributable, provided in the Redist folder of your InTrust distribution• Microsoft SQL Server Native Client 11.0.6538.0 or later (version 11.0.6538.0 redistributable package of the client is included in the InTrust distribution) Important: Install the required version of the client in advance, and only then install InTrust Server.

* This is only an observation. To estimate consumed memory (in gigabytes) more accurately, use the following formula:

$$\langle \text{number_of_cores} \rangle * 0.26 + 6$$

Remember that this means memory used by InTrust Server alone on average. During activity peaks (such as data merging and report building), the memory requirements of InTrust increase.

In a virtualized environment

If you deploy InTrust on a virtual machine, make sure the CPU and memory requirements above are met, and do not overload the virtual machine host.

For communication with the server:

Computers that are supposed to run InTrust Server must be configured to allow for incoming connections on the TCP port on which your InTrust Servers are configured to communicate with agents (900 by default), the TCP port used for InTrust Server management (8340 by default) and TCP port 8341.

For the configuration, alert and audit databases:

Any of the following:

- Microsoft SQL Server 2017
- Microsoft SQL Server 2016
- Microsoft SQL Server 2014
- Microsoft SQL Server 2012
- Microsoft SQL Server 2008 R2

i NOTES:

- If a database is used by InTrust, no other products should modify it.
- A local or remote installation of SQL Server can be used.
- The collation order must be case-insensitive.
- Microsoft SQL Server Express Edition is also supported, but you should be aware of the limitations of this edition before InTrust deployment. See SQL Server Express Edition documentation for details.

For reporting jobs:

- Web server based on Microsoft Internet Information Services (IIS) version 7.0 or later, with ASP.NET*
- Microsoft SQL Server Reporting Services**

i NOTES:

* A local or remote installation can be used. Make sure ASP extensions are allowed.

** A local or remote installation of Reporting Services can be used; Microsoft SQL Server Express Edition with Advanced Services is not supported.

For requirements on local or remote installation of Knowledge Portal, refer to the Knowledge Portal documentation.

InTrust Monitoring Console

Server side

Architecture	<ul style="list-style-type: none">• x64• x86 where applicable
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2019• Microsoft Windows Server 2016• Microsoft Windows 10• Microsoft Windows Server 2012 R2• Microsoft Windows 8.1• Microsoft Windows Server 2012• Microsoft Windows 8• Microsoft Windows Server 2008 R2• Microsoft Windows 7
Additional Software and Services	<ul style="list-style-type: none">• Microsoft IIS 7.0 or later; make sure ASP extensions are allowed• Microsoft .NET Framework 4.6.2 or later, with all updates that are current at the time of this InTrust release

Client side

Internet Explorer shipped with Windows, or an upgraded version of Internet Explorer.



NOTES:

Check Internet Explorer security settings as follows:

1. In the Control Panel, open **Internet Options**.
2. On the **Security** tab, click the **Trusted Sites** icon and make sure the web site where Monitoring Console runs is included in the list of trusted sites.
3. Click **Custom Level** and make sure **Misc | Use Pop-Up Blocker** is set to **Disabled**, and **Misc | Allow script-initiated windows without size or positioning constraints** is set to **Enabled**.

If you plan to use a web server based on Microsoft IIS 7.0, check that the following role services are installed in addition to default role services of Web Server:

- IIS 6 Management compatibility
- Security: Windows Authentication

InTrust Repository Viewer

Architecture	<ul style="list-style-type: none">• x64• x86 where applicable
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2019• Microsoft Windows Server 2016• Microsoft Windows 10• Microsoft Windows Server 2012 R2 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows 8.1 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows Server 2012• Microsoft Windows 8• Microsoft Windows Server 2008 R2 Service Pack 1• Microsoft Windows 7 Service Pack 1
Additional Software and Services	<ul style="list-style-type: none">• Microsoft .NET Framework 4.6.2 or later, with all updates that are current at the time of this InTrust release• Microsoft Visual C++ Redistributable, provided in the Redist folder of your InTrust distribution

InTrust Repository

The requirements for an InTrust repository cannot be stated definitely. This topic outlines the general considerations for choosing the right locations for your repositories.

Disk Space

Disk space requirements depend on many things, and they vary greatly from environment to environment. For some examples, see the following table:

Considerations	Comments
What kinds of events are stored?	Windows event log events are highly normalized and compress very well. In events from lesser-known logs, the field values are less predictable, and the events require more disk space.
What type of	Data from non-Windows environments, especially from Syslog, is generally the least

Considerations	Comments
environment does the data come from?	compact.
Is the repository indexed?	An indexed repository is roughly twice the size of a non-indexed repository with the same data.

Choice of Hosting Computer

It is recommended that you host your repositories on computers that are not InTrust servers.

Repositories Not Based on Filesystems

InTrust repositories can be hosted by appliances and virtual appliances based on EMC technology. Support for these systems is provided by the use of the CAS SDK in InTrust.

The following solutions are known to be suitable for hosting InTrust repositories:

- EMC Centera
- Dell EMC Elastic Cloud Storage (ECS)

See also:

[Estimating the Resources Required for Indexing](#)

Repository Indexing Tool

Repository indexing implicitly uses the **IndexingTool.exe** utility. This utility can also be used directly from the command line. The following requirements apply to all computers where **IndexingTool.exe** is launched, whether explicitly or automatically.

Architecture	<ul style="list-style-type: none">• x64• x86 where applicable
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2019• Microsoft Windows Server 2016• Microsoft Windows 10• Microsoft Windows Server 2012 R2 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows 8.1 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows Server 2012• Microsoft Windows 8• Microsoft Windows Server 2008 R2 Service Pack 1• Microsoft Windows 7 Service Pack 1
Additional Software and Services	Microsoft Visual C++ Redistributable, provided in the Redist folder of your InTrust distribution
Other Requirements	InTrust agents that perform indexing must be deployed in the same domain as the index-managing InTrust server.

Supported Platforms

- Microsoft Windows Events
- Microsoft IIS Events
- Microsoft Forefront Threat Management Gateway and ISA Server Events
- Microsoft DHCP Server Events
- Red Hat Enterprise Linux Events
- Oracle Linux Events
- SUSE Linux Events
- Debian GNU/Linux Events
- Ubuntu Linux Events
- HP-UX Events
- VMware vCenter Events
- VMware ESX and ESXi Events

Microsoft Windows Events

InTrust provides auditing and real-time monitoring facilities for the following logs in Windows event log format:

- Windows Security Log
- Windows System Log
- Windows Application Log
- Categorized event logs in the the **Application and Services Logs** container
- Windows Directory Service Log
- Windows DNS Server Log
- Windows File Replication Service Log
- Active Roles Server Log (EDM Server Event Log)
- InTrust for MIIIS Log
- InTrust Server Log
- Custom data source of "Windows Event Log" type

Server side:

- InTrust Server

Processed computer:

Architecture	<ul style="list-style-type: none">• x64• x86 where applicable
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2016• Microsoft Windows 10• Microsoft Windows Server 2012 R2 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows 8.1 with April 2014 Cumulative Update (Microsoft KB article 2919355)• Microsoft Windows Server 2012• Microsoft Windows 8• Microsoft Windows Server 2008 R2 Service Pack 1• Microsoft Windows 7 Service Pack 1
Additional Software and Services	<ul style="list-style-type: none">• For data gathering without agents: Remote Registry Service

Rights and permissions for gathering without agents:

- **Access this computer from the network** right.
- **Deny access to this computer from network** right must be disabled.
- **Manage auditing and security log** right to gather events from the Security log; members of the local **Administrators** group have this right by default.
- Starting with Windows Server 2008, the **Network access: Remotely accessible registry paths and sub-paths** policy must be enabled, and the following registry paths must be added to it:
 - Software\Microsoft\Windows NT\CurrentVersion
 - System\CurrentControlSet\Services\EventLog
 - System\CurrentControlSet\Control\TimeZoneInformation
- Starting with Windows Server 2008, to make the Security log accessible for gathering using a specific account, this account must have the **Read** permission on the **HKLM\CurrentControlSet\Services\EventLog\Security** registry key.
- Starting with Windows Vista, if the Windows firewall is enabled, the "Remote Event Log Management" exception should be added to its configuration. Otherwise, the **Category** field is not resolved in the gathered events.
- To clear logs after gathering: membership in the local **Administrators** group and an open **Admin\$** share.

- To permit agentless gathering of logs in the **Application and Services Logs** container, enable **Remote Event Log Management** in the list of allowed programs and features in Windows Firewall configuration.

Rights and permissions for gathering with agents and real-time monitoring:

The following rights and permissions must be assigned to the InTrust agent account if the agent is not running under the **LocalSystem** account:

- **Manage auditing and security log** right is required to gather events from the **Security** event log.

i | **NOTE:** For more information about job and task accounts, see the [Understanding Jobs and Tasks](#) topic and [Minimal Rights and Permissions Required for InTrust Operations](#).

Microsoft IIS Events

Server side:

- InTrust Server
- The IIS 6 Metabase Compatibility role service (**Management Tools | IIS 6 Management Compatibility | IIS 6 Metabase Compatibility** in the IIS role service tree) must be installed

Processed computer:

Architecture	<ul style="list-style-type: none">• x64• x86 where applicable
Microsoft Internet Information Services	<ul style="list-style-type: none">• 7.0• 8.0• 10.0
Additional Software and Services	<ul style="list-style-type: none">• For data gathering without agents: Remote Registry Service• For executing response action scripts: Microsoft Windows Script Host 5.6 or later• The IIS 6 Metabase Compatibility role service (Management Tools IIS 6 Management Compatibility IIS 6 Metabase Compatibility in the IIS role service tree) must be installed

i NOTES:

- Monitoring of IIS FTP logs is not supported; gathering of IIS FTP logs with **Create agent-side audit log backup** option turned on is not supported.
- For real-time monitoring to work, on 64-bit Windows, IIS must be running in 32-bit mode.
- For gathering to work, IIS logging must be done on a per-site basis, meaning that the **One log per** option must be set to **Site** (instead of **Server**) in IIS Manager.

Rights and permissions for data gathering without agents:

- **Access this computer from the network** right
- **Deny access to this computer from network** right must be disabled
- Membership in the local **Administrators** group
- Membership in the local **Site Operators** group
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Control\TimeZoneInformation** registry key
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Control\Nls\Language** registry key
- **Read** and **List Folder Contents** permissions on log file folders; the **Delete** permission must also be granted if the **Clear log after gathering** option is turned on for the data source

Rights and permissions for data gathering with agents:

The following rights and permissions must be assigned to the InTrust agent account if the agent is not running under the **LocalSystem** account:

- Membership in the local **Site Operators** group
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Control\TimeZoneInformation** registry key
- **Read** and **List Folder Contents** permissions to log file folders; the **Delete** permission must also be granted if the **Clear log after gathering** option is turned on for the data source

Rights and permissions for real-time monitoring:

The InTrust agent account must have the following privilege if the agent is not running under the **LocalSystem** account:

- Membership in the **Site Operators** group

i | **NOTE:** For more information about job and task accounts, see the [Understanding Jobs and Tasks](#) topic and [Minimal Rights and Permissions Required for InTrust Operations](#).

Microsoft Forefront Threat Management Gateway and ISA Server Events

Server side:

- InTrust Server
- Microsoft Microsoft TMG Management Console for data gathering without agents

Processed computer:

Architecture	x86
Microsoft Forefront Threat Management Gateway or ISA Server	Any of the following: <ul style="list-style-type: none">• Forefront Threat Management Gateway 2010 (gathering without agents is not supported)• ISA Server 2006 (gathering without agents is not supported)• ISA Server 2004 (gathering without agents is not supported)
Additional Software and Services	<ul style="list-style-type: none">• For data gathering with agents: Microsoft Microsoft TMG Management Console

Rights and permissions for data gathering with agents:

The following rights and permissions must be assigned to the InTrust agent account if the agent is not running under the **LocalSystem** account:

- **Read** permission to the server (or server array) configuration
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Control\TimeZoneInformation** registry key
- **Read** and **List Folder Contents** permissions to log file folders; the **Delete** permission must also be granted if the **Clear log after gathering** option is turned on for the data source

Requirements for gathering Threat Management Gateway logs in SQL Server Express format without agents:

- RPC connections to the Threat Management Gateway server must be allowed.
- The SQL Server instance named "MSFW" on the Threat Management Gateway server must be made remotely available.
- The Microsoft TMG Management Console must be installed on the InTrust server.

i | **NOTE:** For more information about job and task accounts, see the [Understanding Jobs and Tasks](#) topic and [Minimal Rights and Permissions Required for InTrust Operations](#).

Microsoft DHCP Server Events

Server side:

- InTrust Server

Processed computer:

Architecture	<ul style="list-style-type: none">• x64• x86 where applicable
Operating System	Any of the following: <ul style="list-style-type: none">• Microsoft Windows Server 2016• Microsoft Windows Server 2012 R2• Microsoft Windows Server 2012• Microsoft Windows Server 2008 R2
Microsoft DHCP Server	N/A
Additional Software and Services	<ul style="list-style-type: none">• For data gathering without agents: Remote Registry Service

Rights and permissions for data gathering without agents:

- **Access this computer from the network** right
- **Deny access to this computer from network** right must be disabled
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Services\DHCPServer\Parameters** registry key
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Control\TimeZoneInformation** registry key
- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Control\Nls\Language** registry key
- Membership in the local **Administrators** group
- **Read** and **List Folder Contents** permissions to log file folders; the **Delete** permission must also be granted if the **Clear log after gathering** option is turned on for the data source

Rights and permissions for data gathering with agents:

- **Read** permission to the **HKLM\SYSTEM\CurrentControlSet\Services\DHCPServer\Parameters** registry key
- **Read** permission to the **SYSTEM\CurrentControlSet\Control\TimeZoneInformation** registry key
- **Read** and **List Folder Contents** permissions to log file folders; the **Delete** permission must also be granted if the **Clear log after gathering** option is turned on for the data source

i **NOTE:** For more information about job and task accounts, see the [Understanding Jobs and Tasks](#) topic and [Minimal Rights and Permissions Required for InTrust Operations](#).

Red Hat Enterprise Linux Events

Server side:

- InTrust Server

Processed computer:

Architecture	Any of the following: <ul style="list-style-type: none">• x64 (RHEL 5 and later; see the <i>Additional Software</i> note below for details)• x86
Operating System	Any of the following: <ul style="list-style-type: none">• Red Hat Enterprise Linux 7 – 7.4• Red Hat Enterprise Linux 6.3 – 6.9• Red Hat Enterprise Linux 5• Red Hat Enterprise Linux 4
Additional Software	<p>This note applies only to Red Hat Enterprise Linux 6 and 7.</p> <p>The InTrust agent is a 32-bit application, so the following dependencies must be installed on 64-bit editions of the operating system:</p> <ul style="list-style-type: none">• glibc.i686• libuuid.i686

Oracle Linux Events

Server side:

- InTrust Server

Processed computer:

Architecture	Any of the following: <ul style="list-style-type: none">• x64• x86
Operating System	Any of the following: <ul style="list-style-type: none">• Oracle Linux 7 – 7.4• Oracle Linux 6.3 – 6.9
Additional Software	The InTrust agent is a 32-bit application, so the following dependencies must be installed on 64-bit editions of the operating system: <ul style="list-style-type: none">• glibc.i686• libuuid.i686

SUSE Linux Events

Server side:

- InTrust Server

Processed computer:

Architecture	<ul style="list-style-type: none">• x64• x86• IA64 (SLES 10 only)
Operating System	Any of the following: <ul style="list-style-type: none">• SUSE Linux Enterprise Server 11• SUSE Linux Enterprise Server 10

Debian GNU/Linux Events

Server side:

- InTrust Server

Processed computer:

Architecture	<ul style="list-style-type: none">• x64• x86
Operating System	Debian GNU/Linux 9, 8
Additional Software	The InTrust agent is a 32-bit application, so the following dependencies must be installed on 64-bit editions of the operating system: <ul style="list-style-type: none">• libc6:i386• libuuid1:i386

Ubuntu Linux Events

Server side:

- InTrust Server

Processed computer:

Architecture	<ul style="list-style-type: none">• x64• x86
Operating System	Ubuntu Linux 18.04, 16.04, 14.04
Additional Software	<p>The InTrust agent is a 32-bit application, so the following dependencies must be installed on 64-bit editions of the operating system:</p> <ul style="list-style-type: none">• libc6:i386• libuuid1:i386

HP-UX Events

Server side:

- InTrust Server

Processed computer:

Architecture	Any of the following: <ul style="list-style-type: none">• 9000/800 (PA-RISC)• IA64
Operating System	Any of the following: <ul style="list-style-type: none">• HP-UX 11.31• HP-UX 11.23• HP-UX 11.11 <p>For version 11.11 the following HP-UX patches are also required:</p> <ul style="list-style-type: none">• PHCO_27049 s700_800 11.11 audit(5) man page patch• PHCO_27704 s700_800 11.11 audisp(1M) cumulative patch• PHCO_27752 s700_800 11.11 audevent(1M) cumulative patch• PHCO_33758 s700_800 11.11 login(1) cumulative patch• PHCO_35732 s700_800 11.11 ugm cumulative patch• PHCO_36465 s700_800 11.11 passwd(1) cumulative patch• PHKL_32126 s700_800 11.11 audit subsystem cumulative patch• PHNE_36211 s700_800 11.11 r-commands cumulative mega-patch• PHSS_33035 s700_800 11.11 ld(1) and linker tools cumulative patch (if operating on PA-RISC architecture)
Additional Software and Services	Secure_Shell.SECURE_SHELL A.04.40.010 or later (for HP-UX 11.11)

VMware vCenter Events

Server side:

- InTrust Server

Processed computer:

VMware vCenter Any of the following:

- VMware vCenter Server 6.5
 - VMware vCenter Server 6.0
 - VMware vCenter Server 5.5
 - VMware vCenter Server 5.1
 - VMware vCenter Server 5.0
 - VMware vCenter Server 4.1
-

VMware ESX and ESXi Events

Server side:

- InTrust Server

Processed computer:

VMware ESXi or ESX Any of the following:

- VMware ESXi 6.7
 - VMware ESXi 6.5
 - VMware ESXi 6.0
 - VMware ESXi 5.5
 - VMware ESXi 5.1
 - VMware ESXi 5.0
 - VMware ESX 4.1
 - VMware ESXi 4.1
-

Minimal Rights and Permissions Required for InTrust Operations

InTrust Setup: Common

Operation or Account	Permissions or Database Roles	Notes
Run InTrust suite setup (default or extended)	<p>Setup must be launched under the account that:</p> <ul style="list-style-type: none"> Is a member of the local Administrators group on the computer where it is run. Has a dbo role for all InTrust databases (or access rights for these databases at least as prescribed by this table). 	<p>When installing the second (and subsequent) InTrust servers into your InTrust organization, make sure the the setup account is listed as an InTrust organization administrator. To view and edit the list of organization administrators, do one of the following:</p> <ul style="list-style-type: none"> In InTrust Deployment Manager, click Manage Configure Access. In InTrust Manager, open the properties of the root node.
InTrust Server account	<ol style="list-style-type: none"> Membership in the local Administrators group on the computer where InTrust Server runs The following security settings must be turned on: <ul style="list-style-type: none"> Log on as a service Adjust memory quotas for a process Replace a process level token 	
Install an agent	Membership in the local Administrators group on the agent computer	The Admin\$ share must exist on the target computer if you are installing the agent using InTrust.
Agent account	<p>One of the following:</p> <ul style="list-style-type: none"> Membership in the local Administrators group LocalSystem account 	

Operation or Account	Permissions or Database Roles	Notes
Run InTrust services under a group managed service account (gMSA)	<p>Before you use a gMSA for running InTrust services, take the following steps:</p> <ol style="list-style-type: none"> 1. If you haven't rebooted the InTrust server since you created the gMSA, then reboot it. Otherwise, InTrust won't be able to use the gMSA. 2. Add the account to the following computer local groups on the InTrust server: <ul style="list-style-type: none"> • Builtin\Administrators • AMS Organization Servers 3. (Conditional) In the unlikely event that the InTrust server is a Windows Server 2012 R2 domain controller, note the known issues for this configuration and apply the workaround described in the Service configured to use gMSA account on a Windows Server 2012 R2-based DC doesn't start article. 	<ul style="list-style-type: none"> • For access to the configuration database, alert database and audit databases on SQL servers, use SQL Server authentication, because Windows authentication will not work for a gMSA on a SQL server. • In all sites where the computers cannot be accessed by a gMSA, override the access credentials with an explicitly specified account. This can be done at site level (in the site properties) or at job level, and so on. • You may find that the Log On tab in the properties of the Quest InTrust Server and Quest InTrust Real-Time Monitoring Server has become disabled. To enable it again, run the following in the command prompt: <pre>sc managedaccount adcrpcs false sc managedaccount itr_ svc false</pre> • Make sure the gMSA has the following user rights: <ul style="list-style-type: none"> ◦ Log on as a service (this is likely set automatically) ◦ Adjust memory quotas for a process ◦ Replace a process level token
	<p>After this, you can reconfigure the Quest InTrust Server and Quest InTrust Real-Time Monitoring Server services to run under your gMSA.</p> <p>If you decide to use a gMSA, use it on all InTrust servers. Otherwise, InTrust tasks containing jobs running on different servers will not work.</p>	

InTrust Setup: Extended Deployment Only

Operation or Account	Permissions or Database Roles	Notes
Install reports from the Knowledge Packs you select	<ol style="list-style-type: none"> 1. Membership in the local Administrators group on the computer where the reports are to be installed 2. Content Manager role for the Home folder in SQL Server Reporting Services 3. System Administrator site-level role in SQL Server Reporting Services (for creating item-level roles and shared schedule) 	<ul style="list-style-type: none"> • Use the Reporting Services Report Manager to assign the required roles with Security settings for each item you need. • To avoid possible problems, Report Packs should be installed under a local administrator account (for that, either log on with such an account, or use the runas command).
Provide automatic creation of Service Connection Point (SCP) by InTrust means	<p>Do the following before the setup: Create a container "CN=Quest InTrust, CN=System..." and assign the following permissions on this container for the account under which you will run the setup:</p> <ul style="list-style-type: none"> • Create All Child Objects • Read Permissions • Modify Permissions <p>-OR-</p> <p>Specify the following permissions on the "CN=System..." in Active Directory for the account under which you will run the setup:</p> <ul style="list-style-type: none"> • Create All Child Objects • Read Permissions • Modify Permissions • Read All Properties • Write All Properties 	
	<p>These permissions must be applied onto This object and all child objects scope. The account that performs uninstallation of InTrust Server must have the Delete All Child Objects permission on the "CN=Quest InTrust, CN=System..." container to delete the SCP. If you need to change an account after the</p>	

Operation or Account	Permissions or Database Roles	Notes
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InTrust installation, use the **adcsrvacc** command-line utility. For more details, see [Special-Purpose Commands and Utilities](#).

Repository Viewer

Operation	Permissions	Notes
Create custom search folders and scheduled reports in Repository Viewer	The account must be listed as an InTrust organization administrator.	To view and edit the list of organization administrators, do one of the following: <ul style="list-style-type: none"> In InTrust Deployment Manager, click Manage Configure Access. In InTrust Manager, open the properties of the root node.
Open a production repository in Repository Viewer	<ul style="list-style-type: none"> On the repository folder, for the account used to open Repository Viewer: <ul style="list-style-type: none"> Read file system permission If the repository folder is shared: Read share permission. InTrust Server service account must have the Read file system permission on the index folder Active Directory delegation must be enabled for the following: <ul style="list-style-type: none"> The account of the InTrust server that manages the repository The user account that Repository Viewer is running under The user account that Repository Viewer is running under must be a member of the computer local AMS Readers group on the InTrust Server that manages the repository and on the InTrust server that Repository Viewer connects to (these may be two different servers). 	<ul style="list-style-type: none"> Make sure all InTrust servers in the organization have the agent communication port (900 by default) and InTrust Server management port (8340 by default) open for inbound traffic.

Operation	Permissions	Notes
	<ul style="list-style-type: none"> If the value of the IDX_IndexAccessCheckMode is 1 (not the default 0), then the file system and share permissions required for the repository are also required for the index. This is because index access permissions are verified using a file in the repository. The InTrust Server service account should be granted Read and Modify file system permissions to the repository folder (Read and Change share permissions if the repository folder is shared). If the repository is Centera-based, the user account that Repository Viewer is running under must have the Modify share permission on the network share that this repository uses. 	<ul style="list-style-type: none"> For convenience, make an Active Directory group a member of the local AMS Readers group, and use membership in the Active Directory group to control repository access.
Open an idle repository in Repository Viewer	<p>Both on the repository folder and on the index folder, for the account used to open Repository Viewer:</p> <ul style="list-style-type: none"> Read file system permission If the repository and index folders are shared: Read share permission 	

Extended InTrust Features

Operation	Permissions or Database Roles	Notes
Use the InTrust Manager snap-in	Membership in the AMS Readers computer local group on the InTrust Server	To view InTrust configuration objects in InTrust Manager, a user must be a member of the AMS Readers local group on the InTrust Server, or an InTrust organization administrator (included in the list in the properties of the root node in InTrust Manager).
Access the configuration database	ADCCfgUser role for the configuration database	<p>This role is created by setup or by the configdb.sql script and is granted the following permissions:</p> <ul style="list-style-type: none"> CREATE TABLE (at the database level) INSERT,SELECT,DELETE,UPDATE on all user tables in the database EXECUTE on all user stored procedures in the database <p>If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server.</p>

Operation	Permissions or Database Roles	Notes
Gather events from site computers without agents	<ol style="list-style-type: none"> 1. Full control permission to the InTrust Server installation folder. 2. Access this computer from the network 3. Manage auditing and security log (required to gather the Security log only) 	To gather events from an event log with event log security through a GPO or registry settings, Read access permission must be given in the ACE of appropriate log(s) to the account used to run a job. For details refer to Microsoft KB article 323076 How to set event log security locally or by using Group Policy .
Gather events from site computers with agents	Full control permission on the InTrust Server installation folder.	
Store events in a repository	Modify share permission on the network share that the repository uses.	If a repository is accessed under the account specified explicitly (for repository, job or task account), membership in AMS Readers computer local group on the InTrust Server and Log on as a batch job right on the InTrust Server is required for that account.
Consolidate repositories	<ol style="list-style-type: none"> 1. Full control permission to the InTrust Server installation folder. 2. Read permission to the source repository 3. Modify permission to the target repository 4. Permissions to log on to the InTrust server that indexes the source repository. 	
Import data from a repository	<ol style="list-style-type: none"> 1. Full control permission to the InTrust Server installation folder. 2. Read permission to the repository 	
Clean up a repository	Modify permission to the repository	
Store events in an audit database (gathering or import)	InTrust Gathering role for the Audit Database	<p>This role is created by setup or by the auditdb.sql script.</p> <p>If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server.</p>
Clean up an audit database	<p>To clean up all events db_owner role for the audit database</p> <p>To clean up part of the events (for specific time periods) InTrust AuditDB Cleanup role for the audit database</p>	<p>This role is created by setup or by the auditdb.sql script.</p> <p>If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a</p>

Operation	Permissions or Database Roles	Notes
Run reporting job or work with reports in Knowledge Portal (without using Report Builder)	<ol style="list-style-type: none"> 1. Content Manager role for the QKP\SharedDataSources folder and for the folder where the report is located (under QKP folder) in SQL Reporting Services. 2. Browser role for the Home folder in SQL Reporting Services. 3. Reporting Console User role for the account that will be used to connect to the database. 4. Read permission for the %WinDir%. 	<p>SQL server.</p> <ul style="list-style-type: none"> • For a reporting job, this account is specified when setting the Credentials in the job properties. • For account that will be used to work with the Knowledge Portal, use Data Source properties to assign the required credentials. • If you use a gMSA for running your InTrust services: <ul style="list-style-type: none"> ◦ SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server. ◦ Make sure the gMSA has sufficient permissions on your reporting server; for example, add it to the BUILTIN\Administrators group. <p>Note that this account must belong to the same domain where SSRS (hosting Knowledge Portal) is installed, otherwise membership in the Authenticated Users group (for SRS' domain) is required.</p>
Add reports to a reporting job	<ol style="list-style-type: none"> 1. Read permission for the %WinDir%. 2. db_datareader role for the database selected as the data source for reporting. 3. For the Home folder in Reporting Services: Browser role. 	
Run reporting job using Import objects from the repository option	Rights and permissions required for both import and reporting jobs, sufficient rights for connection to the audit database.	For detailed list of rights and permissions required and security settings their usage depends on, refer to the Reporting Job topic.
Create reports interactively using Report Builder	System User or System Administrator role for the web site where the Knowledge Portal application runs.	This role can be assigned using SQL Reporting Services Report Manager (site-level security settings).
Store alerts in an alert database	InTrust Real-Time Monitoring role for the alert database	This role is created by setup or by the

Operation	Permissions or Database Roles	Notes
		alertdb.sql script. If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server.
Clean up an alert database	InTrust AlertDB Cleanup role for the Alert Database	This role is created by setup or by the alertdb.sql script. If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server.
Manage alerts from InTrust Monitoring Console	InTrust Monitoring Console role for the alert database	This role is created by setup or by the alertdb.sql script. If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server.
Create and edit a profile in Monitoring Console	On the computer where Monitoring Console runs: <ul style="list-style-type: none"> • Administrator role for COM+ System Application • Membership in the InTrust Alerting Admins local group <p>If you are using a computer with User Account Control turned on to open the Monitoring Console Administration page, Internet Explorer must be started using the Run as administrator command.</p>	To check if you have the Administrator role, open the Component Services MMC snap-in on the computer with Monitoring Console, and view the Computers My Computer COM+ Applications System Application Roles Administrator Users node.
Connect to an alert database or audit database using SQL Server authentication	For a profile to use SQL Server authentication when connecting to the alert database, the Run As account should be included into local Administrators group on the computer where the Monitoring Console is installed.	If you use a gMSA for running your InTrust services, then SQL Server authentication is the only authentication option. Windows authentication will not work for a gMSA on a SQL server.
Perform indexing of idle repository with standalone IndexingTool.exe	Both on the repository folder and on the index folder, for the account that perform indexing: <ul style="list-style-type: none"> • Read and Modify file system permissions • If the repository and index folders are shared: Read and Change share permissions 	

Operation	Permissions or Database Roles	Notes
Perform indexing of a production repository	<ul style="list-style-type: none"> • On the index folder, for the InTrust Server account: Read and Modify file system permissions. If the index folder is shared: Read and Change share permissions. • On the repository folder, for the indexing account: Read and Modify file system permissions. If the repository folder is shared: Read and Change share permissions. • Active Directory delegation must be enabled for the following: <ul style="list-style-type: none"> • The account of the InTrust server that manages the repository • The user accounts that perform indexing • The user account that performs indexing must be a member of the computer local AMS Readers group on the InTrust Server that manages the repository and on the InTrust server that Repository Viewer connects to (these may be two different servers). • If the value of the IDX_IndexAccessCheckMode is 1 (not the default 0), then the file system and share permissions required for the repository are also required for the index. This is because index access permissions are verified using a file in the repository. The InTrust Server service account should be granted Read and Modify file system permissions to the repository folder (Read and Change share permissions if the repository folder is shared). 	

For information on specifying the accounts, permissions and database roles, see the [Deployment Guide](#). For details about configuration scripts, see the [Upgrade Guide](#).

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Net-SNMP

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zlib

/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.1.4

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