Hardware and Software Prerequisites

The Integriti suite consists of Server and Client software. Integriti software installation files contain all of the client and server software in one package for easy deployment. The entire software suite can be installed on a single machine for typical installations or as one server and *n* clients.

We recommend the use of a dedicated computer for the purpose of running the Integriti server.

Controller/Panel Requirements:

- Inner Range Integriti controllers (Integriti Security Controllers or Integriti Access Controllers).

Supported platforms:

- Microsoft Windows 10
- Microsoft Windows 8 & 8.1
- Microsoft Windows 7 (Professional / Enterprise / Ultimate)
- Microsoft Windows Server 2016
- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2012
- Microsoft Windows Server 2008 R2

Note: Where available, x64 (64 bit) operating systems are preferred
        All operating systems should be maintained with the latest service packs

Supported MS SQL versions:

- SQL Server 2008
- SQL Server 2008 R2
- SQL Server 2012 (all editions)
- SQL Server 2014 (all editions)
- SQL Server 2016 (all editions)

Server Hardware Requirements

Installations of the Inner Range Integriti system range from small, low traffic single controller/single computer installations to enterprise wide systems that need to cope with millions of events every week.

To determine your hardware requirements, choose your "Installation type"

Type	To be classified as a "Small" or "Medium" installation, you must be able to answer YES to ALL of the questions for that type.
Small	• Number of controllers: 1 – 3 • Average review rate (including all controllers): Less than 5,000 per day • Highest Burst review rate: 100 per minute • Number of concurrent Integriti Clients: 1 – 3
Medium	• Number of controllers: 1 – 8 • Average review rate (including all controllers): Less than 25,000 per day • Highest Burst review rate: 200 per minute • Number of concurrent Integriti Clients: 1 – 6
Large	• Number of controllers: 1 – 50 • Average review rate (including all controllers): Less than 200,000 per day • Highest Burst review rate: 500 per minute • Number of concurrent Integriti Clients: 1 – 20
Enterprise	Please contact Inner Range to further discuss your requirements.

Client workstation specifications:

At the time of writing, almost any PC purchased today should easily run the Integriti client software.
These specifications are also suitable for installations where there is one PC and one Controller in use.

- Any of the operating systems listed above.
- 2GHz or higher quad core processor.
- 4GB DDR II memory or higher.
- 500GB SATA HDD or higher.
- Gigabit Ethernet adaptor.

Server workstation specifications:

Please refer to the table in Server Hardware Requirements to determine the "installation type".

SMALL SITES:

The following specifications are suitable for a PC used as a dedicated Integriti server. Additional client workstations should have specifications equal to or better than the client workstation specifications listed above.

Processor	A core i5 family or higher processor
Memory Capacity	8GB Minimum Recommended
Hard Drives	1TB SATA HDD or higher
Network Adapter	Gigabit Ethernet Adapter
Operating System	Microsoft Windows 7, 8 or 10
SQL	Microsoft SQL Express 2008

MEDIUM SITES:

The following specifications are suitable for a PC used as a dedicated Integriti server. Additional client workstations should have specifications equal to or better than the client workstation specifications listed above.

Processor	A core i7 family or higher processor
Memory Capacity	16GB Minimum Recommended
RAID Controller	Hardware RAID Controller
Hard Drives - Raid 1	2x 1TB SATA HDD or higher
Network Adapter	Gigabit Ethernet Adapter
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1)
Operating System	Microsoft Windows Server 2012R2 or Greater
SQL	Microsoft SQL Express 2008 or SQL Server 2012

LARGE SITES:

The following specifications are suitable for a PC used as a dedicated Integriti server. Additional client workstations should have specifications equal to or better than the client workstation specifications listed above.

Processor	Intel® Xeon® Processor – Minimum of 6 Cores
Memory Capacity	32GB Minimum Recommended
RAID Controller	Hardware RAID Controller
Hard Drives - Raid 1 (OS)	2x 10K RPM SAS 6Gbps Hot-plug Hard Drive
Hard Drives - Raid 5 (Integriti)	3x 10K RPM SAS 6Gbps Hot-plug Hard Drive
Network Adapter	Intel Ethernet Server Grade Adapter
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1)
Operating System	Microsoft Windows Server 2012R2 or Greater
SQL	Microsoft SQL Server 2012 or Greater

Integriti specifications

Approximate disk usage:

- ~100MB   -   Integriti software management suite
- 550MB – 10GB   -   SQL Express 2008[1]

Running processes:

- ~120MB   -   IntegritiSystemDesigner.exe
- ~42MB   -   IntegritiControllerServer.exe
- ~35MB   -   IntegritiApplicationServer.exe

There will also be additional SQL processes running. Memory usage and process names will vary depending on the SQL instance name, database size and version of SQL server. For more information please refer to the Microsoft SQL documentation.

Ports used:

- 44000   - TCP   Client ↔ Application server communications
- 4711   - TCP   Controller ↔ Controller server communications

By default, Integriti uses the Microsoft SQL 2008 R2 Express database engine, which limits the database to 10 GB of data.

Whilst the installation itself only takes approximately 600MB of hard disk space, the SQL Express database can grow to 10GB over time with the storage of your controllers' historic review data. If up to 4 or 5 million review events are expected over a 12 month period and SQL Express is required to host the Integriti database, then 5GB of free hard disk space is recommended. The 10GB database will allow room for more than 6 million review events, but note that a moderate to busy site could easily generate that number of events every year. For large / busy sites, (more than 6 million review events per year) you may need to purchase the full version of SQL Server 2008 (or newer).

Contact the manufacturer for hardware specifications when the recommended number of review events will be exceeded.

> *To ensure any sized site continues to operate smoothly, Scheduled Tasks should be setup to purge / archive old review.*

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[1] Database size can vary dramatically due to a number of factors such as the version of MS SQL or number of Integriti controllers and Integriti controller activity.