

ellucian.

ELLUCIAN HARDWARE  
RECOMMENDATIONS  
– COLLEAGUE  
December 16, 2013



## ***Ellucian Hardware Recommendations-Colleague***

Banner®, Colleague®, PowerCampus™, and Luminis® are trademarks of Ellucian Company L.P. or its affiliates and are registered in the U.S. and other countries. Ellucian®, Ellucian Advance™, Ellucian Degree Works™, Ellucian Course Signals™, Ellucian SmartCall™, and Ellucian Recruiter™ are trademarks of Ellucian Company L.P. or its affiliates. Other names may be trademarks of their respective owners

© 2014 Ellucian. All rights reserved.

Ellucian, Inc.

4375 Fair Lakes Court

Fairfax, VA 22033

(703) 968-9000

(800) 328-2835

[www.ellucian.com](http://www.ellucian.com)

# Table of Contents

---

<b>Ellucian Support Statements .....</b>	<b>5</b>
<b>Ellucian Product Certification Database.....</b>	<b>5</b>
<b>Ellucian Remote Access Statement .....</b>	<b>5</b>
<b>Ellucian Certifies the Following Hardware Platforms .....</b>	<b>5</b>
<b>Ellucian Clustering Statement .....</b>	<b>6</b>
<b>Ellucian Test Server Statement .....</b>	<b>6</b>
<b>Ellucian Virtual Machine Statement .....</b>	<b>6</b>
<b>Clarification of 3<sup>rd</sup> Party Software Support Policy .....</b>	<b>7</b>
<b>Required Hardware for Colleague – SQL Database .....</b>	<b>8</b>
<b>Required Hardware for Colleague – Oracle Database .....</b>	<b>10</b>
<b>Required Hardware for Colleague – UniData Database.....</b>	<b>12</b>
<b>Required Configuration for Colleague Reporting and Operating Analytics</b>	
<b>14</b>	
<b>Required Configuration for Datatel Performance Analytics .....</b>	<b>16</b>
<b>Required Configuration for CompuSoft Synoptix.....</b>	<b>19</b>
<b>Required Hardware for Colleague UI Server .....</b>	<b>20</b>
<b>Required Configuration for Colleague WebAdvisor Server .....</b>	<b>21</b>
<b>Required Configuration for Colleague Self-Service Server .....</b>	<b>22</b>

<b>Required Configuration for Colleague Web API Server .....</b>	<b>23</b>
<b>Required Configuration for Colleague Core Services Server .....</b>	<b>24</b>
<b>Required Configuration for the Payment Gateway Server .....</b>	<b>25</b>
<b>Minimum Required Hardware for Colleague’s Staff UI Client .....</b>	<b>26</b>
<b>Required Configuration for SA Valet.....</b>	<b>27</b>
<b>Required Configuration for Colleague Studio .....</b>	<b>28</b>

# Ellucian Support Statements

---

## Ellucian Product Certification Database

To see what Ellucian products are certified with what software, please visit the Product Certification page at:

[http://clients.datatel.com/solution\\_updates/certifications\\_cessations/certifications\\_search.cfm](http://clients.datatel.com/solution_updates/certifications_cessations/certifications_search.cfm)

## Ellucian Remote Access Statement

Remote Connectivity between Ellucian and the client servers must be provided via a Virtual Private Network (VPN) connection that is supplied by Cisco.

## Ellucian Certifies the Following Hardware Platforms

- Windows operating system (OS) using Intel and AMD using 32-bit and 64-bit processors (not Itanium)
- RedHat Linux using Intel and AMD using 32-bit and 64-bit processors (not Itanium)
- Oracle Solaris using SPARC M Series only, T series or CMT / Coo threads based processors are not supported.
- HP-UX using Itanium and PA RISC processors.
- IBM AIX using 64-bit PowerPC processors.

## Ellucian Clustering Statement

- Ellucian products are certified with Microsoft SQL Server clustering. (This solution is a failover solution, not true active-active clustering solution.)
- Ellucian products are certified with Oracle Data Guard, which maintains standby databases. Each standby database is a real-time copy of the production database, whose purpose is to help protect against threats such as corruptions, data failures, human errors, and disasters.
- Ellucian products are certified with Operating System (OS) level failover from one machine to another.

*The failover solution must have the following functionality:*

- Detects failure of the active node
- Passes an IP address from the active node to the passive node on failure detection
- Runs a script (shell script or Windows based batch) on the passive node when failover occurs

## Ellucian Test Server Statement

Ellucian strongly recommends that clients purchase a separate Test server. Minimally, you need a server similar to the Specs of your Colleague Application server with Added Disk Space for additional software and environments. A distributed test environment (separate Application and Database servers) is recommended for SQL and Oracle clients but not mandatory.

## Ellucian Virtual Machine Statement

- To achieve satisfactory performance when running Colleague in virtual servers, please ensure the same (or greater) minimum memory and CPU requirements are allocated to the configured virtual server. Ellucian does not conduct performance tests in virtualized environments, nor does Ellucian provide hardware recommendations based on virtualized technology.

## Clarification of 3<sup>rd</sup> Party Software Support Policy

Ellucian supports its software in virtual server technologies embedded in the operating systems provided by the OS vendors (e.g., LPARs, VPARs), as well as in VMware. Support is contingent upon the compatibility and support statements provided by the respective vendors. It is the OS vendor's responsibility to ensure 100% compatibility to the native environment, so Colleague and other applications can run successfully.

- Ellucian does not provide technical support for virtualization technology itself. It is recommended that clients establish support arrangements directly with their operating system vendors and/or virtualization providers.
- Example: Ellucian does not provide support for instances of VMware server crashes, VMware scripting, or VMware configuration. Technical support for such incidents is provided by VMware.
- Please be aware that Ellucian does not certify its software to run on any particular versions of virtualization technology. Again, it is the responsibility of the operating system vendor and/or virtualization provider to ensure forward and backward compatibility to the native environment for all releases of their respective product(s).

## Required Hardware for Colleague – SQL Database

	Colleague Database Server	Application Server
<b>Operating System</b>	Ellucian-certified Windows OS 64-bit required for new deployments and migrations	Ellucian-certified Windows OS 64-bit required for new deployments and migrations
<b>Processors</b>	4 processor cores (100 users) Nehalem 5570 or better Add an additional processor core for every 40 users	4 processor cores (100 users) Nehalem 5570 or better Add an additional processor core for every 40 users
<b>RAM</b>	2 GB + 60 MB per concurrent user	2 GB + 40 MB per concurrent user
<b>Network Adapter</b>	1 Gb	1 Gb
<b>Software</b>	Ellucian-certified SQL Server software Ellucian-certified Java JDK	Ellucian-certified UniData VM Ellucian-certified Java JDK
<b>Disk Configuration</b>		
<b>Disk 1 Size</b>	36 GB (minimum)	36 GB (minimum)
<b>Disk 1 Purpose</b>	OS and SQL Binaries.	OS
<b>Disk 1 Recommended Configuration</b>	RAID 1	RAID 1
<b>Disk 2 Size</b>	72 GB (minimum)	
<b>Disk 2 Purpose</b>	Index files	
<b>Disk 2 Recommended Configuration</b>	RAID 1+0 or RAID 5 (preferred)	
<b>Disk 3 Size</b>	72 GB (minimum)	20 GB (per application environment)
<b>Disk 3 Purpose</b>	SQL Server MDF files and TempDB	Colleague Application Volume
<b>Disk 3 Recommended Configuration</b>	RAID 1 or RAID 1+0 (preferred)	RAID 1
<b>Disk 4 Size</b>	72 GB (minimum)	
<b>Disk 4 Purpose</b>	SQL Server LDF files (Logs)	
<b>Disk 4 Recommended Configuration</b>	RAID 1, RAID 5, or RAID 1+0 (preferred)	

<b>Notes</b>		
<b>Optional SAN Configuration</b>	11 Spindle SAN configuration can replace the Disk 2 - 4 configuration	4 Spindle SAN configuration can replace Disk 2 configuration
<b>Processor Notes</b>	A Quad core machine counts as 4 cores A Hex core machine counts as 6 cores A 2 Quad core processor machines counts as 8 cores	

# Required Hardware for Colleague – Oracle Database

	Colleague Database Server	Application Server
<b>Operating System</b>	Ellucian-certified UNIX Platform	Ellucian-certified UNIX Platform
<b>Processors</b>	420 TPM <sup>1</sup> per Concurrent user See processor notes	420 TPM <sup>1</sup> per Concurrent user See processor notes
<b>RAM</b>	2 GB + 60 MB per concurrent user	2 GB + 40 MB per concurrent user
<b>Network Adapter</b>	1 Gb	1 Gb
<b>Software</b>	Ellucian-certified Oracle OS Ellucian-certified Java JDK	Ellucian-certified UniData VM Ellucian-certified Java JDK
<b>Disk Configuration</b>		
<b>Disk 1 Size</b>	36 GB (minimum)	36 GB (minimum)
<b>Disk 1 Purpose</b>	Software binaries and Pagefile	Software Binaries and Pagefile
<b>Disk 1 Recommended Configuration</b>	RAID 1+0 or RAID 5 (preferred)	RAID 1
<b>Disk 2 Size</b>	72 GB (minimum)	20 GB (per application environment)
<b>Disk 2 Purpose</b>	Index Files	Colleague Application Volume
<b>Disk 2 Recommended Configuration</b>	RAID 1	RAID 1
<b>Disk 3 Size</b>	72 GB (minimum)	
<b>Disk 3 Purpose</b>	UNDO, TEMP, ARCHIVE, REDO Logs	
<b>Disk 3 Recommended Configuration</b>	RAID 1 or RAID 1+0 (preferred)	
<b>Disk 4 Size</b>	300 GB (minimum)	
<b>Disk 4 Purpose</b>	SYSTEM DATA files	
<b>Disk 4 Recommended Configuration</b>	RAID 1, RAID 5, or RAID 1+0 (preferred)	

<b>Notes</b>		
<b>Optional SAN Configuration</b>	13 Spindle SAN configuration can replace the Disk 1 through Disk 3 configuration	4 Spindle SAN configuration can replace Disk 1 and Disk 2 configuration
<b>Processor Notes</b>	(1) TPM refers to the tpmC standard of measurement from <a href="http://www.tpc.org">http://www.tpc.org</a> . At that site, clients can research systems and their comparative performance based on their tpmC rankings. So, for example, if the chart shows the need for 300 TPM per user and a client has 100 users, then that client would need a server that has a tpmC of 30,000 or greater.	

# Required Hardware for Colleague – UniData Database

---

<b>Colleague Database Server</b>	
<b>Operating System</b>	Ellucian-certified Windows OS Ellucian-certified UNIX Platform
<b>Processors</b>	Windows: <ul style="list-style-type: none"> <li>• 4 processor cores (100 users) Nehalem 5570 or better</li> <li>• Add an additional processor core for every 40 users</li> </ul> UNIX: <ul style="list-style-type: none"> <li>• 420 TPM<sup>1</sup> per Concurrent user</li> <li>• See processor notes</li> </ul>
<b>RAM</b>	2 GB + 60 MB per concurrent user
<b>Network Adapter</b>	1 Gb
<b>Software</b>	Ellucian-certified UniData Software Ellucian-certified Java JDK
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	36 GB (minimum)
<b>Disk 1 Purpose</b>	OS
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Disk 2 Size</b>	144 GB (minimum)
<b>Disk 2 Purpose</b>	Application and Database Volume
<b>Disk 2 Recommended Configuration</b>	RAID 1+0 (preferred) or RAID 5

<b>Notes</b>	
<b>Optional SAN Configuration</b>	5 Spindle SAN configuration can replace Disk 2 configuration
<b>Processor Notes</b>	<p>Windows:</p> <ul style="list-style-type: none"><li>• A Quad core machine counts as 4 cores</li><li>• A Hex core machine counts as 6 cores</li><li>• A 2 Quad core processor machines counts as 8 cores</li></ul> <p>UNIX:</p> <p>(1) TPM refers to the tpmC standard of measurement from <a href="http://www.tpc.org">http://www.tpc.org</a>. At that site, clients can research systems and their comparative performance based on their tpmC rankings. So, for example, if the chart shows the need for 300 TPM per user and a client has 100 users, then that client would need a server that has a tpmC of 30,000 or greater.</p>

# Required Configuration for Colleague Reporting and Operating Analytics

Colleague Reporting and Operating Analytics 2.0 and higher

	Database Server	Application Server
<b>Operating System</b>	Windows Server 2008 32- or 64-bit (preferred)	Windows Server 2008 64-bit
<b>Processors</b>	(2) x64 Dual Core Processors	(4) x64 Quad Core Processor  CPU performance of at least 8000 SAPS  Please refer to the BI 4 Sizing Companion Guide located at <a href="http://www.sap.com/bisizing">www.sap.com/bisizing</a> and also your SAP representative to convert the SAPS and find the processor that can meet this performance.
<b>RAM</b>	4+ GB	16 GB minimum
<b>Network Adapter</b>	1 Gb	1 Gb
<b>Supported Software Configuration</b>	<ul style="list-style-type: none"> <li>• Ellucian-certified SQL Server software</li> <li>• Microsoft ODBC MDAC 2.8</li> <li>• Microsoft ODBC SNAC (Native Client)</li> </ul>	<ul style="list-style-type: none"> <li>• BusinessObjects BI 4.0 SP5</li> <li>• Any required BusinessObjects patches</li> <li>• Ellucian-certified IIS software (Installed with OS)</li> <li>• Tomcat 6.0.20, 7.0 (Installed with BO)</li> <li>• Java JDK 1.7_xx (Installed with BO)</li> </ul>
<b>Databases</b>	DataOrchestrator Business Objects Repository	

<b>Disk Configuration</b>		
<b>Disk 1 Size</b>	36 GB (minimum)	36 GB (minimum)
<b>Disk 1 Purpose</b>	OS and SQL Binaries	OS
<b>Disk 1 Configuration</b>	RAID 1	RAID 1
<b>Disk 2 Size</b>	36 GB (minimum)	150 GB (minimum)
<b>Disk 2 Purpose</b>	Index Files	Business Object software and File Store
<b>Disk 2 Configuration</b>	RAID 1 or RAID 5 (preferred)	RAID 1
<b>Disk 3 Size</b>	72 GB (minimum)	
<b>Disk 3 Purpose</b>	SQL Server MDF files and TempDB	
<b>Disk 3 Configuration</b>	RAID 1, RAID 5, or RAID 1+0 (preferred)	
<b>Disk 4 Size</b>	72 GB (minimum)	
<b>Disk 4 Purpose</b>	SQL Server LDF files (Logs)	
<b>Disk 4 Configuration</b>	RAID 1, RAID 5, or RAID 1+0 (preferred)	
<b>Notes</b>		
<b>Notes</b>	11 Spindle SAN configuration can replace Disk 2 – 4 configuration above	
	For more detailed information refer to: <a href="http://www.sdn.sap.com/irj/boc/go/portal/prtroot/docs/library/uuid/60cdb229-d874-2b10-18ac-ed2f46873753?QuickLink=index&amp;overridelayout=true">http://www.sdn.sap.com/irj/boc/go/portal/prtroot/docs/library/uuid/60cdb229-d874-2b10-18ac-ed2f46873753?QuickLink=index&amp;overridelayout=true</a>	

# Required Configuration for Datatel Performance Analytics

	Database Server	Application Server
<b>Operating System</b>	Windows Server 2008 server 32- or 64-bit (preferred)	Windows Server 2008 server 32- or 64-bit (preferred)
<b>Processors</b>	Up to 5000 students (4) processors 5001 – 10,000 students (4-8 32/64-bit) processors 20,000+ students (4-8, 64-bit) processors	Up to 5000 students (2) processors 5001 – 10,000 students (2-4) processors 20,000+ students (2-4) processors
<b>RAM</b>	Up to 5000 students 8 GB 5001 – 10,000 students 8-16 GB 20,000+ students 12-16 GB	Up to 5000 students 4 GB 5001 – 10,000 students 4-8 GB 20,000+ students 4-8 GB
<b>Network Adapter</b>	1 Gb	1 Gb
<b>Software</b>	<p><b>Database Software/Services:</b></p> <ul style="list-style-type: none"> <li>Microsoft SQL Server Enterprise Edition <ul style="list-style-type: none"> <li>2008 (recommended)</li> <li>Connection to ERP Database via Linked Server (component of SQL Server)</li> </ul> </li> <li>Microsoft Integration Services (1) – Scheduling of ETL Process</li> <li>Microsoft Analysis Services (1) – OLAP Database Server</li> </ul> <p><b>Application Software/Services:</b></p> <ul style="list-style-type: none"> <li>Microsoft ProClarity Server (2) – Analytic Reporting</li> <li>Microsoft IIS Web Server – Required for ProClarity, Reporting Services and Performance Point</li> </ul> <p><b>Optional Reporting Software (no additional cost for tools):</b></p> <ul style="list-style-type: none"> <li>Microsoft Reporting Services (1) – Relational &amp; OLAP Report Server</li> <li>Microsoft Performance Point Server (2) – Dashboards, Scorecards, Analytics</li> </ul> <p>Microsoft SharePoint Server (2) – required if using Performance Point, but not required for ProClarity</p>	
<b>Databases</b>	DataOrchestrator Blackboard Analytics Repository Blackboard Analytics database	

Disk Configuration		
	Database Server	Application Server
	36 GB (minimum)	36 GB (minimum)
Disk 1 Example	OS	OS and Application software
Disk 1 Recommended Configuration	RAID 1	RAID 1
Disk 2 Size	200 GB (minimum)	
Disk 2 Example	Student Count: 20,000 # of Years in Warehouse: 10 DW Table Space: 30 GB Log File: 20 GB Program and Other Files: <u>34 GB</u> Minimum Required: 84 GB Recommended Minimum Disk: <b>200 GB</b>	
Disk 2 Recommended Configuration	No specific RAID or drive setup is required since the database is not highly transactional; however, the faster the disk the better.	

## Notes

(1) Included w/ SQL Server Enterprise License at no additional cost

(2) ProClarity and PerformancePoint are included with SharePoint Enterprise Server and CAL Licenses (Note: ProClarity and PerformancePoint cannot be separately licensed). Installation of SharePoint is not required to run ProClarity, but is required to use Performance Point.

ProClarity requires that IIS run in 32-bit mode. As such, when running Windows 2003, Reporting Services and ProClarity cannot run on the same 64-bit server. This issue does not apply to Windows 2008.

MS Reporting Services requires a SQL Server license for the specific server on which it is installed.

For customers using an Oracle ERP source database, the Oracle Client Tools pack must also be installed on the DW database server.

All software components require the latest Microsoft service pack installed.

## Required Configuration for CompuSoft Synoptix

	Database Server	Application Server
<b>Operating System</b>	Windows Server (32- or 64-bit)	Windows Server (32- or 64-bit)
<b>Processors</b>	(2) Dual Core processor	(1) Dual Core Processor
<b>RAM</b>	1 GB Available	1 GB Available Memory
<b>Network Adapter</b>	1 Gb	1 Gb
<b>Supported Software Configuration</b>	Microsoft SQL Server <ul style="list-style-type: none"> <li>• Microsoft SQL Server 2005 Backwards Compatibility Components</li> <li>• Microsoft SQL Server 2008 Command Line Utilities</li> <li>• Microsoft Windows Installer 4.5</li> </ul>	Vendor-certified Java Virtual Machine
<b>Databases</b>	CompuSoft Sytnoptix configuration database Colleague Financials Datamart	
<b>Disk Configuration</b>		
<b>Disk 1 Size</b>	36 GB (minimum)	36 GB (minimum)
<b>Disk 1 Purpose</b>	OS and SQL Binaries.	OS
<b>Disk 1 Configuration</b>	RAID 1	RAID 1
<b>Disk 2 Size</b>	150 GB (minimum)	150 GB (minimum)
<b>Disk 2 Purpose</b>	SQL Server LDF files (Logs)	Report Storage
<b>Disk 2 Configuration</b>	RAID 1, RAID 5, or RAID 1+0 (preferred)	RAID 1
<b>Notes</b>		
	Application server can exist on the same server as the Database server. Requirement should be added together to meet minimum specifications.	

## Required Hardware for Colleague UI Server

---

	UI 4.x Server
<b>Operating System</b>	Ellucian-certified Windows OS, (64-bit preferred)
<b>Processors</b>	4 Processor Cores
<b>RAM</b>	4 GB (Minimum)
<b>Network Adapter</b>	1 Gb (preferred)
<b>Software</b>	Ellucian-certified IIS software Ellucian-certified Java JDK software
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	36 GB (minimum)
<b>Disk 1 Purpose</b>	OS
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Notes</b>	
<b>Processor Notes</b>	A Quad core machine is 4 cores A Hex core machine is 6 cores A 2 Quad core processor machines has 8 cores
	This server will accommodate up to 200 concurrent UI sessions under normal usage. This should be a separate server.

# Required Configuration for Colleague WebAdvisor Server

---

WebAdvisor Server	
<b>Operating System</b>	Ellucian-certified Windows OS, <i>64-bit preferred</i> Ellucian-certified UNIX platform
<b>Processors</b>	4 Processor Cores
<b>RAM</b>	2 GB (Minimum)
<b>Network Adapter</b>	1 Gb
<b>Software</b>	Ellucian-certified IIS software and Ellucian-certified ServletExec software <b>or</b> Ellucian-certified Tomcat software
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	36 GB (minimum)
<b>Disk 1 Purpose</b>	OS
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Notes</b>	
<b>General Notes</b>	<b>Notes:</b> This server will accommodate up to 200 concurrent users under normal usage.

# Required Configuration for Colleague Self-Service Server

---

<b>Operating System</b>	Windows Server 2008 (64-bit preferred, 2008 R2 Preferred)
<b>Processors</b>	4 Processor Cores
<b>RAM</b>	2 GB (Minimum)
<b>Network Adapter</b>	1 GB
<b>Software</b>	<p>Ellucian - certified IIS software (IIS 7+)                      Ellucian - certified .NET version</p> <p>Make sure (via Server Manager) that the following role services on Windows Server 2008 Server are defined:</p> <ul style="list-style-type: none"> <li>• Management Tools</li> <li>• Management Service</li> <li>• IIS 6 Management Compatibility</li> <li>• IIS 6 Metabase Compatibility</li> <li>• IIS 6 WMI Compatibility</li> <li>• IIS 6 Scripting Tools</li> <li>• IIS 6 Management Console</li> </ul>
<b>Server Certificates</b>	Yes (128-bit signed by a trusted root certification authority)
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	36 GB (minimum)
<b>Disk 1 Purpose</b>	Operating System and Software Binaries
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Notes</b>	
	<b>Notes:</b> This server will accommodate up to 400 concurrent users under normal usage.

# Required Configuration for Colleague Web API Server

---

<b>Operating System</b>	Windows Server 2008 (64-bit preferred, 2008 R2 Preferred)
<b>Processors</b>	4 Processor Cores
<b>RAM</b>	2 GB (Minimum)
<b>Network Adapter</b>	1 GB
<b>Software</b>	<p>Ellucian - certified IIS software (IIS 7+)            Ellucian - certified .NET version</p> <p>Make sure (via Server Manager) that the following role services on Windows Server 2008 Server are defined:</p> <ul style="list-style-type: none"> <li>• Management Tools</li> <li>• Management Service</li> <li>• IIS 6 Management Compatibility</li> <li>• IIS 6 Metabase Compatibility</li> <li>• IIS 6 WMI Compatibility</li> <li>• IIS 6 Scripting Tools</li> <li>• IIS 6 Management Console</li> </ul>
<b>Server Certificates</b>	Yes (128-bit signed by a trusted root certification authority)
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	36 GB (minimum)
<b>Disk 1 Purpose</b>	Operating System and Software Binaries
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Notes</b>	
<b>General Notes</b>	<b>Notes:</b> This server will accommodate up to 400 concurrent users under normal usage.

# Required Configuration for Colleague Core Services Server

---

## NOTE

Web Services can be installed on an existing internal Web Server that meets the minimum requirements; this server should not be exposed directly to the outside world, but may need to communicate with an external facing server.

	<b>Core Services Server</b>
<b>OS</b>	Ellucian-certified Windows OS, <i>64-bit preferred</i>
<b>Processors</b>	Pentium 4 – 2.1 GHz processor (minimum)
<b>RAM</b>	1 GB available memory (minimum)
<b>Network Adapter</b>	1 Gb
<b>Software</b>	<p>Ellucian-certified IIS software .NET 3.51 SP1</p> <p>Make sure (via Server Manager) that the following role services on Windows Server 2008 Server are defined:</p> <ul style="list-style-type: none"> <li>• Management Tools</li> <li>• Management Service</li> <li>• IIS 6 Management Compatibility</li> <li>• IIS 6 Metabase Compatibility</li> <li>• IIS 6 WMI Compatibility</li> <li>• IIS 6 Scripting Tools</li> <li>• IIS 6 Management Console</li> </ul>
<b>Disk 1 Size</b>	5 GB Available (minimum)
<b>Disk 1 Purpose</b>	OS
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Notes</b>	
<b>General Notes</b>	Web Services can be installed on an existing internal Web Server that meets the minimum requirements; this server should not be exposed directly to the outside world, but may need to communicate with an external facing server

# Required Configuration for the Payment Gateway Server

---

## NOTE

The Payment Gateway can be installed on an existing external Web Server that meets the minimum requirements; this server needs to be exposed to the outside world and have access to internal servers as well.

	Payment Gateway Server
<b>Operating System</b>	Ellucian-certified Windows OS, <i>(64-bit preferred)</i> Ellucian-certified UNIX platform
<b>Processors</b>	Pentium 4 – 2.1 GHz processor (minimum)
<b>RAM</b>	1 GB available memory (minimum)
<b>Network Adapter</b>	1 Gb
<b>Software</b>	Ellucian-certified IIS software .NET 3.51 SP1 ASP .NET 2.0.x
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	5 GB available (minimum)
<b>Disk 1 Purpose</b>	OS
<b>Disk 1 Recommended Configuration</b>	RAID 1
<b>Notes</b>	
<b>General Notes</b>	The Payment Gateway can be installed on an existing external Web Server that meets the minimum requirements; this server needs to be exposed to the outside world and have access to internal servers as well.

# Minimum Required Hardware for Colleague's Staff UI Client

---

	UI Client Requirements
<b>Operating System</b>	Ellucian-certified Windows OS Ellucian-certified MAC OS
<b>Processors</b>	2.0 GHz Pentium 4 process or higher (preferred)
<b>RAM</b>	2 GB (minimum)
<b>Network Adapter</b>	1 Gb
<b>Software</b>	Ellucian-certified Web Browser software Ellucian-certified Silverlight software
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	500 MB Free disk space
<b>Disk 1 Purpose</b>	OS and software
<b>Disk 1 Recommended Configuration</b>	n/a

# Required Configuration for SA Valet

---

Colleague's Management tool for System Administrator

	SA Valet Requirements
<b>Operating System</b>	Ellucian-certified Windows OS
<b>Processors</b>	2.0 GHz Pentium 4 process or higher (preferred)
<b>RAM</b>	126 MB of free memory
<b>Network Adapter</b>	100 MB or higher
<b>Software</b>	Ellucian-certified Java JDK
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	64 MB free disk space
<b>Disk 1 Purpose</b>	OS and software
<b>Disk 1 Recommended Configuration</b>	n/a
<b>Notes</b>	
<b>General Notes</b>	<p><b>Make sure the PC/Server you install SA Valet on also meet the following requirements:</b></p> <ul style="list-style-type: none"><li>• TCP/IP connection to the Internet (to retrieve licensing information and software from Ellucian)</li><li>• Network Connections to:<ul style="list-style-type: none"><li>○ Application server</li><li>○ Database server</li><li>○ Any other server with a Datatel Daemon installed</li></ul></li></ul>

# Required Configuration for Colleague Studio

---

The Integrated Development Environment for Colleague

	<b>Colleague Studio Requirements</b>
<b>Operating System</b>	Ellucian-certified Windows OS
<b>Processors</b>	2.0 GHz Pentium 4 process or higher (preferred)
<b>RAM</b>	126 MB of free memory
<b>Network Adapter</b>	100 MB or higher
<b>Software</b>	Ellucian-certified Java JDK
<b>Disk Configuration</b>	
<b>Disk 1 Size</b>	64 MB free disk space
<b>Disk 1 Purpose</b>	OS and software
<b>Disk 1 Recommended Configuration</b>	n/a
<b>Notes</b>	
<b>General Notes</b>	<p><b>Make sure the PC/Server you install Colleague Studio on also meet the following requirements:</b></p> <ul style="list-style-type: none"><li>• TCP/IP connection to the Internet (to retrieve licensing information and software from Ellucian)</li><li>• Network Connections to:<ul style="list-style-type: none"><li>○ Application server</li><li>○ Database server</li></ul></li></ul>