This appendix includes a number of reference URLs associated with System Center 2012 Operations Manager (OpsMgr). URLs do change. Although the authors have made every effort to verify the references here as working links, there is no guarantee they will remain current. Sometimes the Wayback Machine (http://www.archive.org/index.php) can rescue you from dead or broken links. This site is an Internet archive, and it will take you back to an archived version of a site—sometimes.

These links are also available “live” at Pearson’s InformIT website with the online content for this book at http://www.informit.com/store/system-center-2012-operations-manager-unleashed-9780672335914, under the Downloads tab. Look for Appendix D, “Reference URLs.”

General Resources
A number of websites provide excellent resources for OpsMgr, as follows:


▶ Gartner Group placed Operations Manager 2007 R2 in the Leader’s or “Magic” quadrant for IT Event Correlation and Analysis in December 2010 (this quadrant was retired in 2011; you can get the 2010 report at http://www.idgconnect.com/view_abstract/7198/gartner-magic-quadrant-it-event-correlation-analysis). OpsMgr 2012’s application performance monitoring (APM) feature is in the Challenger’s quadrant for Application


▶ OpsMgr 2012 removes the root management server (RMS) feature. The RMS emulator is used to provide backward compatibility and support for legacy management packs. Read about the RMS emulator at


▶ Kevin Greene presents an overview of APM at http://kevingreeneitblog.blogspot.com/2012/03/scom-2012-configuring-application.html. For additional readings on this feature, check out the following:


  ▶ **VIACode blog on Application Monitoring**: VIACode Consulting LLC worked on the AVIcode product prior to its acquisition by Microsoft. After the acquisition, most of the employees relocated to Microsoft, although some stayed with VIACode to continue working with Microsoft as contractors and consultants. The blog is located at http://viacode.com/blog.


The ReSearch This! management pack troubleshooting tool is hosted by System Center Central. It provides a way to quickly research OpsMgr alerts. You can download the management pack at http://www.systemcentercentral.com/PackCatalog/PackCatalogDetails/tabid/145/IndexID/21716/Default.aspx.


For a whitepaper on auditing using ACS and optimizing that experience with Secure Vantage, see http://www.securevantage.com/security-auditing-with-microsoft-system-center-bridging-the-gap/.


Maarten Goet (System Center Data Center and Cloud Management MVP) has several ACS “deep dive” articles at System Center Central. Written in the OpsMgr 2007 timeframe, they are still applicable:


When creating company knowledge, one of the required pieces of software is the Visual Studio 2005 Tools for Office Second Edition Runtime. This is available at http://www.microsoft.com/downloads/details.aspx?familyID=F5539A90-DC41-4792-8EF8-F4DE62FF1E81&displaylang=en. (Microsoft Word is also required.)


Here are some additional resources regarding gateway servers:


▶ Mutual authentication takes one of two forms in Operations Manager—Kerberos or certificate authentication. http://www.systemcentercentral.com/BlogDetails/tabid/143/IndexID/32926/Default.aspx is Pete Zerger's master list of mutual authentication related errors. While written for OpsMgr 2007, there are only several new events in OpsMgr 2012, so it is still basically current.

Pete also has a three-part series on PKI and gateway scenarios here, updated for Operations Manager 2012:


Ready to dig into MP authoring? Check out Chapter 22, “Authoring Management Packs and Reports.” As the chapter discusses, you can still use the OpsMgr 2007 R2 Authoring console for MP authoring. Read Pete Zerger’s discussion of the OpsMgr 2007 R2 Authoring console at http://www.systemcentercentral.com/Details/tabid/147/IndexID/24878/Default.aspx. (You must be logged into System Center Central to download the article.)


Check out the Management Pack University at http://74.52.12.162/~microsoft/conference_agenda.php?cid=19; this contains some great videos developed in the OpsMgr 2007 timeframe.

Tools for MP authors include the following:


- **OpsMgr Community Toolkit**: A complete list of community-authored tools for OpsMgr is at http://systemcentercentral.com/tools. (Depending on when you view this site, some of the tools may only work with OpsMgr 2007.)

Looking for community-authored management packs? For a complete list, see http://www.systemcentercentral.com/mps.


Read about how you can have explicit and dynamic members in a group at http://blogs.catapultsystems.com/cfuller/archive/2012/01/07/a-quick-question-about-groups-in-opsmgr-scom.aspx.

Looking for training? This is not an exhaustive list, but here are several places that offer courses on OpsMgr 2012:

Information on InFront Consulting Group’s training is at http://www.infrontconsulting.com/training.php. Course offerings include migration from OpsMgr 2007, helping operators use the console to work with alerts, and a boot camp.

http://learning.microsoft.com/Manager/Catalog.aspx?nav=trainingtype%3aClassroom+Training&qry=sys+tem+center+2012 will get you a listing of Microsoft-developed training for System Center 2012.

Training videos are available at http://technet.microsoft.com/en-us/opsmgmt/bb498237.aspx. This page is updated as new material becomes available.


There is also http://www.kalliance.com/microsoft-it/scom12.htm.


Source Solutions offers a five-day course on OpsMgr 2012 implementation and administration. See http://www.sourcesolutionsco.com/current-courses/scom2012/ for information.

CIO Insight documents the cost of downtime at http://www.cioinsight.com/c/a/Infrastructure/IT-Downtime-Carries-a-High-Pricetag-448122/.


Tao Yang discusses his update of Steve Rachui’s group maintenance mode script at http://blog.tyang.org/2012/11/22/group-maintenance-made-powershell-script-updated/. This update uses the OpsMgr software development kit (SDK) rather than the 2007 PowerShell snap-in, so the script works for both OpsMgr 2007 and 2012. For a PowerShell example of how to do this in 2012, see the “OpsMgr Shell” section.


To troubleshoot the discovery wizard, see the articles at http://thoughtsonopsmgr.blogspot.com/2010/08/discovery-wizard-is-running-for-ever.html and http://go.microsoft.com/fwlink/?LinkId=128940.


Troubleshooting agent installation? Check these out:

- **Troubleshooting installation of the System Center Operations Manager agent:** http://support.microsoft.com/kb/2566152
- **Console-based agent deployment troubleshooting table:** http://www.systemcentercentral.com/BlogDetails/tabid/143/IndexId/60047/Default.aspx


Several VMM dashboard views based on the new OpsMgr 2012 dashboard views were created by the OpsMgr Unleashed authoring team. These are described and are available for download from http://opsmgrunleashed.wordpress.com/2012/07/13/
free-opsmgr-2012-virtual-machine-manager-dashboards-from-the-opsmgr-unleashed-team-scom/. They are also available on the InformIT page for this book; see Appendix E for details.

- For examples of Live Maps and using them to display OpsMgr information, see:
  - Savision has a gadget designed to provide state information, available as part of its Live Maps product at http://www.savision.com/resources/blog/sneak-preview-live-maps-vista-gadget


- For ideas on how to make AEM reports more useful, consult these resources:
  - http://contoso.se/blog/?p=537


- Michael Pearson has an excellent article discussing SQL Server Reporting Services (SSRS) Recovery Planning, available online from the SQL Server Central community at http://www.sqlservercentral.com/columnists/mpearson/recoveryplanningforsqrsreportingservices.asp. You must register with SQLServerCentral to view the full article.

Here’s some information on setting up SQL Server clusters:

Coauthor Cameron Fuller wrote a (humorous) piece on the Clustering MP at http://www.systemcentercentral.com/BlogDetails/tabid/143/IndexId/51752/Default.aspx, emphasizing major steps to remember when working with clustered resources in OpsMgr.


Have an interesting experience when trying to delete an agentless system? This happens if you first install agentless and then install as a managed agent without first deleting the agentless configuration. This information, written for OpsMgr 2007 but still applicable, is available at http://opsmgrunleashed.wordpress.com/2007/06/04/unable-to-delete-agentless-systems/.


Steve Rachui has a two-part series on understanding monitors:

Trying to put systems into maintenance mode? Chapter 23, “PowerShell and Operations Manager,” includes a PowerShell solution for this. Several individuals have also done some work to help you put computers into maintenance mode in batch. These were written during the OpsMgr 2007 timeframe, so require some tweaking for OpsMgr 2012.


▶ For tips on OLE DB queries, see
  ▶ http://www.systemcentercentral.com/PackCatalog/PackCatalogDetails/tabid/145/IndexID/19773/Default.aspx


▶ Kevin Holman discusses self-tuning thresholds (STTs) and how they are created and tuned correctly at http://blogs.technet.com/b/kevinholman/archive/2008/03/19/self-tuning-thresholds-love-and-hate.aspx.

▶ Recalculating health does not work for more than 95% of all monitors in Operations Manager 2012. This is due to how on-demand recalculation works. To understand on-demand detection, read Boris Yanushpolsky’s article at http://blogs.msdn.com/b/boris_yanushpolsky/archive/2008/06/03/on-demand-detection.aspx.


▶ To find out if an alert was created by a rule or a monitor, see http://blogs.catapultsystems.com/cfuller/archive/2012/01/30/quicktrick-find-alerts-from-a-monitor-or-rule-in-opsmgr-2012-scom.aspx.

▶ If you can’t get your reports to send email subscriptions, check out http://blogs.msdn.com/ketaanhs/archive/2005/09/05/461055.aspx on how to configure the PermittedHosts entry in the RSReportServer.config file.


To enable instant messaging in OpsMgr 2012, see http://opsmgrunleashed.wordpress.com/2012/02/24/enabling-instant-messaging-notifications-in-system-center-2012-operations-manager/.


Want to create a web application synthetic transaction? For registry changes to use the web recorder on 64-bit Windows systems, see http://social.technet.microsoft.com/wiki/contents/articles/1307.scom-howto-use-the-webrecorder-on-windows-64bit.aspx.


To learn about global service monitoring, newly available with SP 1, see http://blogs.technet.com/b/momteam/archive/2012/06/19/global-service-monitor-for-system-center-2012-observing-application-availability-from-an-outside-in-perspective.aspx.

Interested in writing reports? Here are ways to get started:


▶ Here are some examples of how to query SQL and use the results in OpsMgr, including how to perform checks for a SQL full or differential backup and how to monitor the default management pack:


▶ Boris Yanushpolsky of the OpsMgr product team developed several utilities to assist with viewing management pack content. These have been updated for OpsMgr 2012 by Daniele Muscetta and can be downloaded from http://blogs.msdn.com/b/dmuscett/archive/2012/02/19/boris-s-toolsUPDATED.aspx.

Microsoft’s OpsMgr Resources

The following list includes some general Microsoft resources available for OpsMgr 2012:

- For links to OpsMgr 2012 product documentation and getting started, see http://technet.microsoft.com/en-us/systemcenter/hh285243.
- You can find the official support documentation for OpsMgr 2012 in the following locations:
- What’s OpsMgr all about, anyway? Microsoft has published a key concepts document. This document, which includes a discussion of modeling, can be downloaded at http://www.microsoft.com/downloads/details.aspx?familyID=3a633532-1dde-49b6-930f-7df50b69b77b&displayLang=en.
http://technet.microsoft.com/en-us/library/ms156421.aspx discusses moving the SSRS databases to another computer. You may also want to read about best practices for moving the SSRS databases in Chapter 12, “Backup and Recovery.”


The SQL query to run against the operational database to clean up the Localizedtext table and the Publishmessage table after upgrade can be copied from http://technet.microsoft.com/en-us/library/8c2dbaf4-2966-45e3-a72d-5de90ff4f495#BKMK_VerifyUpgrade.


For recommendations and best practices when creating overrides, see http://support.microsoft.com/kb/943239.


The Operations Manager Management Pack Development Kit is discussed at http://msdn.microsoft.com/en-us/library/jj130093.aspx. This provides the information necessary to build and design an OpsMgr management pack.


Here are some articles on Audit Collection Services (ACS):


For information on connecting management groups in Operations Manager, see http://technet.microsoft.com/en-us/library/hh230698.aspx.


If you have a requirement to monitor VMware, check out Veeam's monitoring for System Center at http://www.veeam.com/vmware-microsoft-esx-monitoring.html.


Microsoft’s System Center Pack Catalog is located at the System Center Marketplace site at http://systemcenter.pinpoint.microsoft.com/.

Find the Operations Manager management pack guides at http://go.microsoft.com/fwlink/?LinkId=85414.


If you want to learn about Service Modeling Language (SML), see http://www.w3.org/TR/sml/. For additional technical information on SML from Microsoft, visit http://technet.microsoft.com/en-us/library/bb725986.aspx.


System requirements for System Center 2012 Operations Manager are at http://technet.microsoft.com/en-us/library/hh205990.aspx. This includes information about the initial release as well as Service Pack 1.


The OpsMgr 2007 resource kit is at the System Center Operations Manager TechCenter (http://go.microsoft.com/fwlink/?LinkId=94593). This is not yet updated for OpsMgr 2012.


Blogs

There has been an explosion of blogs with information regarding OpsMgr and System Center. Here are some blogs the authors have used. Some are more active than others, and new blogs seem to spring up overnight!

A number of OpsMgr folks blog at System Center Central (http://www.systemcentercentral.com).


If you’re interested in keeping up with VMM, the VMM team has a blog at http://blogs.technet.com/scvmm/.

http://www.contoso.se/blog/ is the System Center blog by Anders Bengtsson, now a Microsoft premier field engineer (PFE) and formerly an MVP.
See a blog by Stefan Stranger (former MVP and now at Microsoft) at http://blogs.technet.com/stefan_stranger/.

Kevin Sullivan’s Management blog is at https://blogs.technet.com/kevinsul_blog/. (Kevin is a Technology Specialist at Microsoft focusing on management products.)

http://blogs.technet.com/kevinholman is Kevin Holman’s System Center blog. Kevin is the technical editor for this book.

http://blogs.msdn.com/srlaten is a blog by Russ Slaten, a Microsoft Escalation Engineer supporting System Center products.

http://blogs.msdn.com/steverac is Steve Rachui’s manageability blog. Steve is a PFE at Microsoft, concentrating on OpsMgr and ConfigMgr.

http://blogs.technet.com/mgoedtel/ is a blog by Matt Goedtel, a Microsoft MCS consultant focusing on Operations Manager.

http://discussitnow.wordpress.com/ is by Blake Mengotto, a former MVP and self-described “MOM dude.”

http://blogs.msdn.com/eugenebykov/ is a great source of information on authoring OpsMgr reports by Eugene Bykov, an OpsMgr developer responsible for the reporting user interface.


http://www.scom2k7.com/, by Timothy McFadden, is titled “Everything System Center 2012 Operations Manager.”

http://www.techlog.org/ is all about everything Microsoft, by Maarten Goet, Kenneth van Surksum, Steven van Loef, and Sander Klaassen in the Netherlands.

http://blog.advisec.com/ is by Bjorn Axell, a System Center Datacenter and Cloud Management MVP currently working at Dell. Previous entries are at http://advisec.wordpress.com/.

www.systemcenterguide.com is a System Center blog by Duncan McAlynn.

Gordon McKenna’s blog is available at http://wmug.co.uk/blogs/gordons_blog/default.aspx. Gordon is a System Center Datacenter and Cloud Management MVP, has worked with the Operations Manager software since its Mission Critical Software days, and is extremely knowledgeable on the product.


Ian Blyth, previously a Lead Technical Specialist in Microsoft UK, blogs at http://ianblythmanagement.wordpress.com/ on System Center Technologies.


www.authoringfriday.com is MVP Oskar Landman’s blog on authoring management packs and integration packs. Oskar is a contributor to this book.


http://thoughtsonopsmgr.blogspot.com is maintained by MVP Marnix Wolf, a contributor to this book.

Here are our own blogs:

- http://www.networkworld.com/community/meyler is a blog by Kerrie, with more general discussion topics, but concentrating on OpsMgr and Microsoft management.
- Check out http://www.techrepublic.com/topics/john+joyner for thoughts by John Joyner.
- http://www.systemcentercentral.com/tabid/150/tag/Blog+ByExample/Default.aspx is the OpsMgr by Example series on System Center Central, maintained by the OpsMgr Unleashed authors.

**OpsMgr Shell**

An extension to PowerShell, the Operations Manager Shell (known as the Command Shell prior to the OpsMgr 2007 R2 release), enables you to do most everything you would ever want to for OpsMgr in a batch or scripted mode. Here are some useful links:

- The PowerShell cmdlets for OpsMgr 2012 have been renamed. For more information about the new naming standards as well as cmdlet naming collisions, see http://blogs.msdn.com/b/powershell/archive/2009/09/20/what-s-up-with-command-prefixes.aspx.
For information about configuring agent failover in PowerShell or a script to bulk-set this configuration for a group of servers, see http://www.teknoglot.se/code/powershell/opsmgr-2012-agent-failover-simple-script-with-wildcards-opsmgr-powershell/.

http://blogs.msdn.com/scshell/ is about getting started with the OpsMgr Shell. Robert Sprague, a PowerShell guru on the OpsMgr team, maintains this site.

http://www.systemcentercentral.com/BlogDetails/tabid/143/IndexID/93897/Default.aspx discusses using Get_SCOMManagementPack to bulk delete management packs, where the non-English management packs are deleted.


You can update agent failover settings in bulk as described in the article on updating agent failover settings from a spreadsheet with PowerShell at http://www.systemcentercentral.com/tabid/143/indexid/95393/default.aspx.


Here’s a four-part series on creating a two-state PowerShell script monitor using the OpsMgr 2007 R2 Authoring console by Stefan Koell (code4ward.net). The series comes with a sample MP you can use to check your work and see the intended end result (http://www.systemcentercentral.com/tabid/144/IndexId/50087/Default.aspx). (The PowerShell code, written for OpsMgr 2007, can be used with OpsMgr 2012 with some modifications. See Chapter 23 for further information.):


Here’s a posting on how to create a PowerShell task for OpsMgr using the Authoring console by Andreas Zuckerhut, at http://www.systemcentercentral.com/BlogDetails/tabid/143/IndexID/41687/Default.aspx.

PowerShell Information

You can find information on PowerShell itself at the following sites:

- The official PowerShell site is at http://www.microsoft.com/powershell.
- http://social.technet.microsoft.com/Forums/en-US/operationsmanagerextensibility/thread/a3d09372-1a93-418a-a93c-9bc9dd075b9 is an unofficial PowerShell FAQ by former PowerShell MVP Marco Shaw. Marco updates this FAQ on an as-needed (“irregular”) basis.
- You may want to check all the PowerShell webcasts by the Scripting Guys at http://www.microsoft.com/technet/scriptcenter/webcasts/ps.mspx.
- Direct from the PowerShell guy himself (Marc van Orsouw, PowerShell MVP), is located at http://thepowershellguy.com/blogs/posh/default.aspx.
If Windows PowerShell is new to you, check out this TechEd session at http://channel9.msdn.com/Events/TechEd/NorthAmerica/2012/WSV321-R. You may also want to check out Chapter 23 of this book if you haven’t already.

Here are resources that discuss using Microsoft’s certificate creation tool, makecert.exe, to generate certificates to create self-signed PowerShell scripts:


PowerShell+ is a free PowerShell editing and debugging environment. You can get a free personal copy at http://www.powershell.com/downloads/psp1.zip.

Even more about PowerShell and examples of some of the constructs are available in an article by Don Jones at http://www.microsoft.com/technet/technetmag/issues/2007/01/Powershell/default.aspx.

Cross Platform

One of the most visible enhancements in the R2 version of OpsMgr 2007 was its integrated monitoring of cross platform environments, which continues to have improvements in OpsMgr 2012. Here are some references on cross platform monitoring:


To copy files to a UNIX or Linux system using SSH, see the instructions at http://www.garron.me/linux/scp-linux-mac-command-windows-copy-files-over-ssh.html.

If you need to manually discover JEE application servers, see Chris Crammond's article at http://blogs.technet.com/b/random_happy_dev_thoughts/archive/2012/05/21/manually-discovering-jee-application-servers-with-scom-2012.aspx.

Here are some articles specific to UNIX/Linux agent installation:

- **Troubleshooting UNIX/Linux Agent Discovery in System Center 2012 - Operations Manager**: http://social.technet.microsoft.com/wiki/contents/articles/4966.aspx

- **Installing sudo on Solaris**: http://sysinfo.bascomp.org/solaris/installing-sudo-on-solaris/

- **Enable ssh root login in Solaris 10**: https://blogs.oracle.com/sunrise/entry/enable_ssh_root_login_in


For platforms not supported by the OpsMgr 2012 release, Microsoft has published the providers on CodePlex (http://scx.codeplex.com).

**System Center**

Here are some references and articles regarding other components of Microsoft’s System Center:
A great source of information for all things System Center-related including Operations Manager is System Center Central (http://www.systemcentercentral.com).

The System Center Virtual User Group is dedicated to providing educational resources and collaboration between users of System Center technologies worldwide. Bi-monthly meetings present topics from industry experts, including Microsoft engineers. These sessions are recorded for your convenience. To join the user group, go to http://www.linkedin.com/groupRegistration?gid=101906.

http://www.myITforum.com is a community of worldwide Information Technology (IT) professionals and a website established in 1999 by Rod Trent. myITforum includes topics on System Center and Information Technology.


The System Center Support page is at http://support.microsoft.com/ph/16340


System Center is all about ITIL and MOF. Learn about the Information Technology Information Library (ITIL) 2011 update to ITIL v3 at http://www.itilnews.com/ITIL_v4_Simply_CSI_for_ITIL_v3.html.


Not officially in System Center, but definitely part of Microsoft’s management story, is Windows Intune. Here are some links about Intune 4 (“Wave D”):

- http://www.windowsitpro.com/article/cloud-computing2/microsoft-releases-windows-intune-4-145042
- http://www.techlog.org/2012/12/31/configmgr-and-windows-intune-better-together/


Windows IT Pro is an online publication including articles about System Center and other topics. See http://www.windowsitpro.com/ for information.

Public Forums

If you need an answer to a question, the first place to check is the Microsoft public forums. Here’s a list of the current OpsMgr forums:

- **AVIcode 5.7**: http://social.technet.microsoft.com/Forums/en-US/operationsmanageravi/code/