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SBA
FOR
GOVT

MIDSIZE

DATA CENTER

ScienceLogic Network Management Guide



● ● ● SBA FOR GOVERNMENT

Revision: H2CY10

The Purpose of This Guide





This guide is a concise reference on the ScienceLogic EM7 Network Management appliance.

It will introduce you to the product's features and benefits. Then, it will guide you through the deployment process.

Related Documents

Before reading this guide

-  Data Center Deployment Guide
-  Data Center Configuration Guide

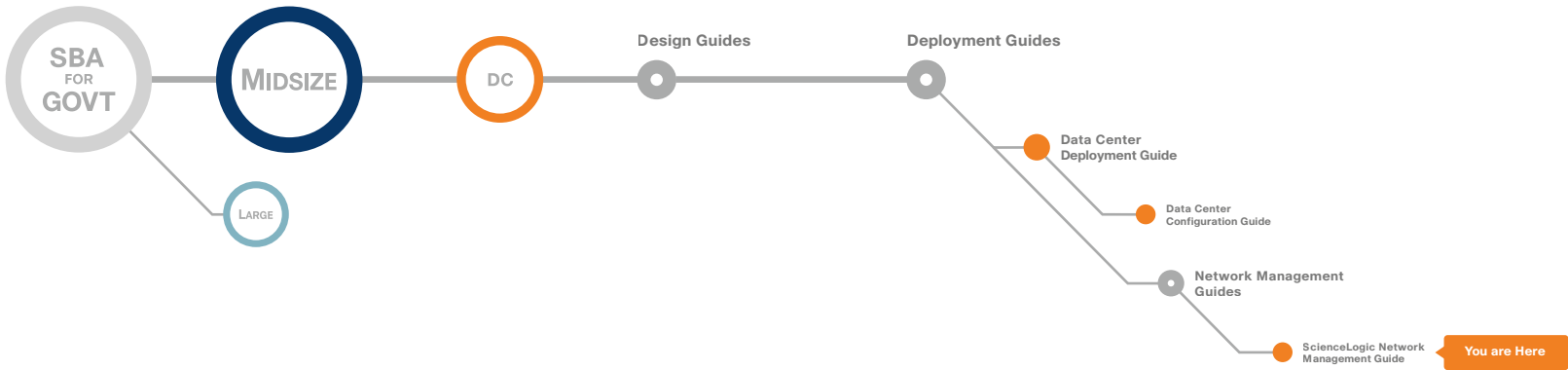


Table of Contents



- SBA Overview 1
 - Guiding Principles 1
- Introduction..... 2
- Agency Overview..... 4
 - Value on Day 0 4
 - Value on Day 1 4
 - Value on Day 2+..... 4
- Technology Overview 6
 - Deployment Requirements 7
- Deploying EM7..... 8
- Appendix A: Contact Information 9
- Appendix B: SBA for Midsize Agencies Document System..... 10

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SBA Overview

The Cisco® Smart Business Architecture (SBA) for Government is a comprehensive design for networks with up to 1000 users. This out-of-the-box design is simple, fast, affordable, scalable, and flexible.

The Cisco SBA for Midsize Agencies incorporates LAN, WAN, wireless, security, WAN optimization, and unified communication technologies tested together as a solution. This solution-level approach simplifies the system integration normally associated with multiple technologies, allowing you to select the modules that solve your agency's problems rather than worrying about the technical details.

We have designed the Cisco SBA to be easy to configure, deploy, and manage. This architecture:

- Provides a solid network foundation
- Makes deployment fast and easy
- Accelerates ability to easily deploy additional services
- Avoids the need for re-engineering of the core network

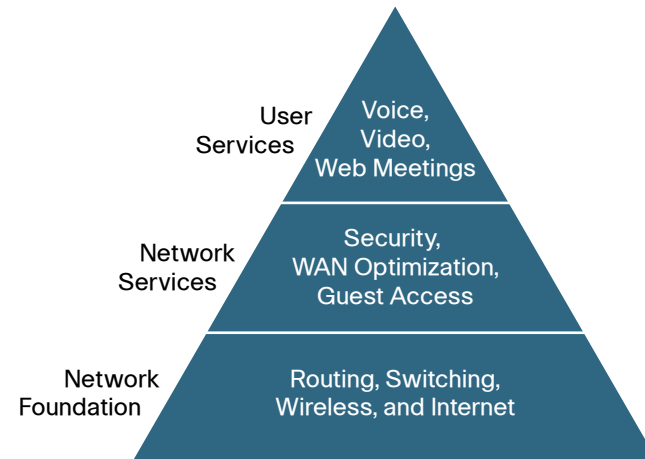
By deploying the Cisco SBA, your agency can gain:

- A standardized design, tested and supported by Cisco
- Optimized architecture for midsize agencies with up to 1000 users and up to 20 remote sites
- Flexible architecture to help ensure easy migration as the agency grows
- Seamless support for quick deployment of wired and wireless network access for data, voice, teleworker, and wireless guest
- Security and high availability for agency information resources, servers, and Internet-facing applications
- Improved WAN performance and cost reduction through the use of WAN optimization
- Simplified deployment and operation by IT workers with CCNA® certification or equivalent experience
- Cisco enterprise-class reliability in products designed for midsize agencies

Guiding Principles

We divided the deployment process into modules according to the following principles:

- **Ease of use:** A top requirement of Cisco SBA was to develop a design that could be deployed with the minimal amount of configuration and day-two management.
- **Cost-effective:** Another critical requirement as we selected products was to meet the budget guidelines for midsize agencies.
- **Flexibility and scalability:** As the agency grows, so too must its infrastructure. Products selected must have the ability to grow or be repurposed within the architecture.
- **Reuse:** We strived, when possible, to reuse the same products throughout the various modules to minimize the number of products required for spares.



The Cisco SBA can be broken down into the following three primary, modular yet interdependent components for the midsize agency.

- **Network Foundation:** A network that supports the architecture
- **Network Services:** Features that operate in the background to improve and enable the user experience without direct user awareness
- **User Services:** Applications with which a user interacts directly

Introduction

Network management systems allow you to automate configuration tasks and monitor network health, giving you the visibility you need to quickly troubleshoot issues.

Deploying the configuration modules outlined in the *Cisco SBA for Midsize Agencies—Borderless Networks Foundation Deployment Guide* in an efficient manner, while simultaneously maintaining the availability and performance of the network infrastructure, when everything is constantly changing is not an easy challenge to solve without the right tools.

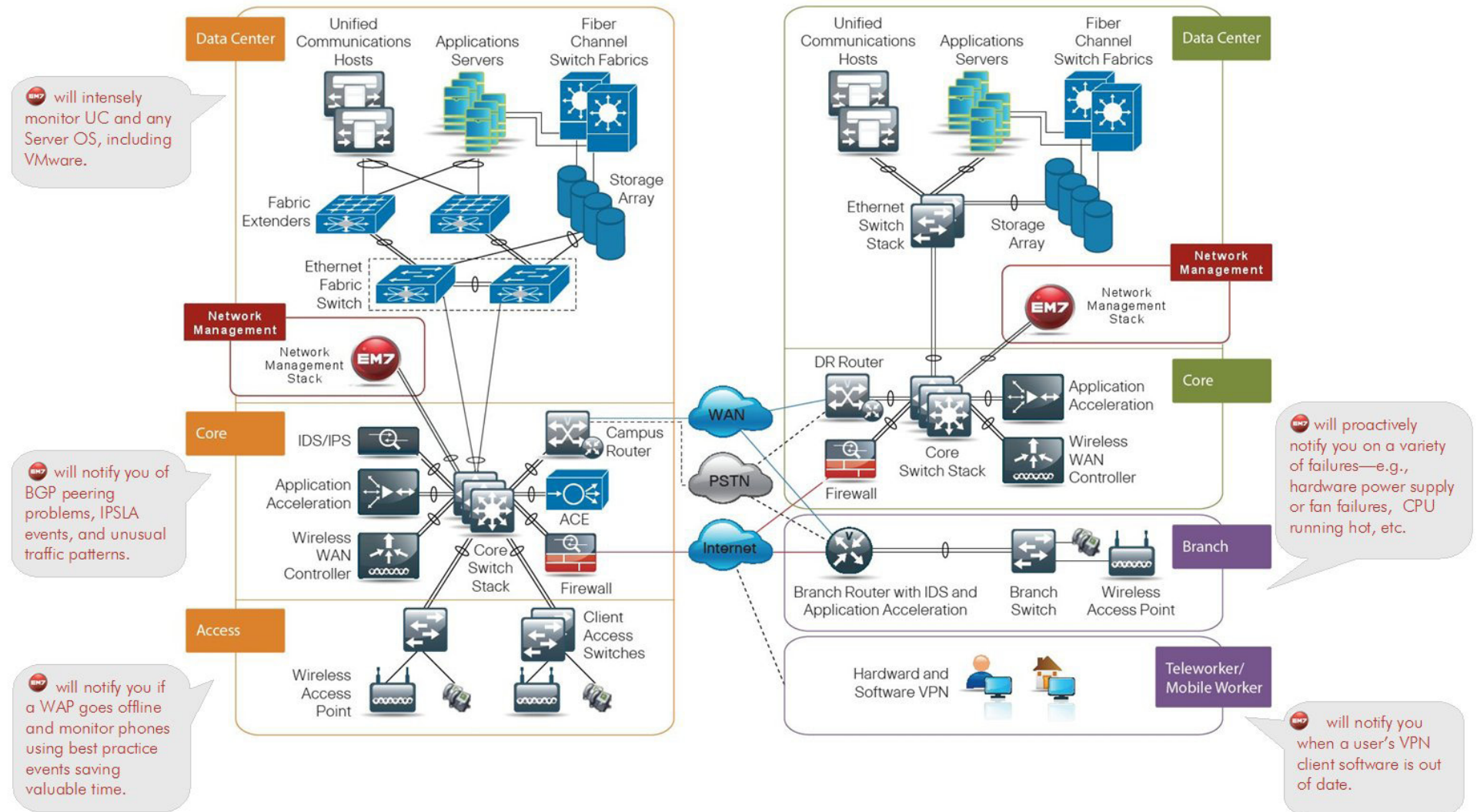
Cisco offers a number of options to provide network management capabilities. This guide is focused on our partnership with ScienceLogic and their EM7 product, which is their highly scalable, easy-to-use network management solution for the Cisco data center.

Figure 1. ScienceLogic EM7



Notes

Figure 2. EM7 in the Cisco SBA Data Center



Agency Overview

EM7 was selected by Cisco as a network management module in the Cisco SBA Data Center for Midsize Agencies based on ScienceLogic's vision to provide a comprehensive suite of monitoring solutions in a single, easy-to-deploy and cost-effective solution. All functionality is delivered in an easy-to-install/easy-to-use appliance model and already integrated to support automated workflow of daily IT operations—from performance and fault management to ticketing and service desk functions to asset management and capacity planning. Typically, our appliance-based solution replaces from 3 to 5 existing solutions, delivering immediate ROI and lowering the total cost of ownership. One solution simplifies and consolidates the tools needed to get the job done and provides a “single pane of glass” view across all Cisco network gear and applications.

EM7 can easily be deployed to support redundant monitoring and business continuity requirements in the SBA Data Center configuration.

With the Cisco SBA for Midsize Agencies Data Center, you can increase your profits and reduce the time you spend selling to customers whose Server Farm will have a combined total of up to 250 physical and virtual servers. This architecture is simple, fast to deploy, affordable, scalable, and flexible. It is designed to be easy to install, configure and manage.

The Data Center for Midsize Agencies is a “snap-in” replacement for the Server Room Module of the SBA. The Data Center for Midsize Agencies offers partners a valuable network design and deployment best practices, helping you grow a profitable Cisco practice and deliver a superior end-user experience that includes switching, routing, wireless, WAN optimization, and security technologies, combined with comprehensive management capabilities for the entire system. It also includes modular components that allow you to build in unified communications and data center components for advanced customer requirements.

EM7's benefits include:

- **Ease of use.** It starts working out-of-the-box.
- **Customization.** You can customize it with your own monitoring policies.
- **Scalability.** A single monitoring solution is designed to easily extend to new Cisco devices, services and technologies as your data center operations grow.

You'll start to realize the benefits right away.

Value on Day 0

The Cisco SBA for Midsize Agencies was designed for ease of deployment. At ScienceLogic, we share this ease-of-deployment goal. After the Network Foundation is installed, EM7 can be operational within just a few hours because the appliance model eliminates the need to buy separate hardware, install and secure the operating system, configure and performance tune a database and integrate disparate tools. This saves you time and money and delivers operational efficiency for your agency.

Value on Day 1

EM7's patent-pending discovery technology automatically detects and applies pre-defined best practice-based monitoring policies for all of the components of the Cisco SBA for Midsize Agencies. This allows you to easily monitor availability, performance, and faults across all the components of the network foundation, network service, and user services layers in a single solution.

Value on Day 2+

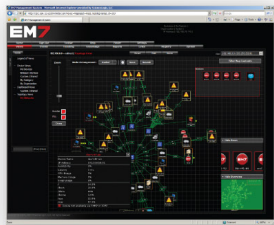
EM7 ships with hundreds of pre-defined best-practice monitoring templates for detailed data collection and reporting against key performance indicators for each of the components specified in the Cisco SBA for Midsize Agencies.

EM7 provides many Event Policies designed to alert you to any problems with the components of the Cisco SBA for Midsize Agencies.

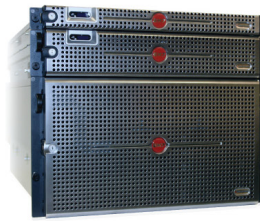
As you add services like voice and video, EM7 is ready to grow with you with pre-loaded and customizable monitoring templates and event policies customized for Cisco User Services. As technologies change and evolve, we continue to innovate and provide the necessary updates to your EM7 solution that will support monitoring everything on your network today and tomorrow.

Figure 3. Comprehensive Feature Set

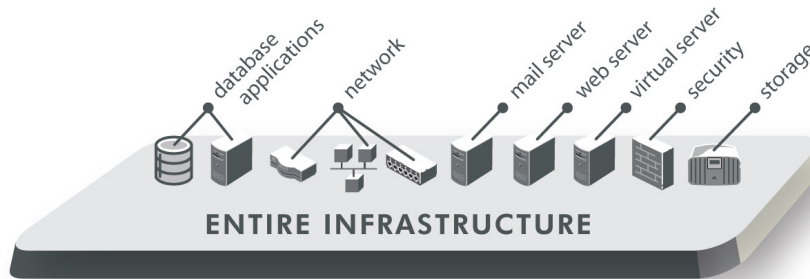
▼ Fault Management



▼ Performance Management



- Fault
- Performance
- Service Desk
- Asset & Configuration



▼ Asset & Config Management



▼ Service Desk



Next-generation auto-discovery provides intelligent automation by matching known agents, devices, applications and systems with best-practice monitoring rules, thresholds, events and alerts. EM7 ships with Dynamic Applications monitoring templates (data collection via SNMP, SQL queries, XML and SOAP) for Cisco and other leading manufacturers and devices or you can create your own custom monitoring templates that are automatically applied in the Dynamic Discovery process.

EM7 includes an embedded performance-tuned database, providing a single IT operations management data store—pre-loaded, pre-tested and pre-configured for optimal performance in the appliance and with all EM7 management applications. Acting as an operational CMDB, the centralized data repository stores both fault and performance data, configuration data, asset information and more—providing built-in data integration for better troubleshooting and reporting across the infrastructure. The data store is self-managed and self-healing; EM7 does not require additional DBA resources to operate.

Views, Reports and Executive Dashboards: A customizable Web-based portal gives you access to EM7 anytime, anywhere. Views and access can be customized for an agency, department or even a user making it easy to create executive dashboards that show application or IT process performance at a glance. In addition, hundreds of pre-set reports are included with the EM7 system along with tools that make it simple to create more of your own. Many reports can be downloaded as an Adobe PDF file or as a Microsoft Excel file for further analysis.

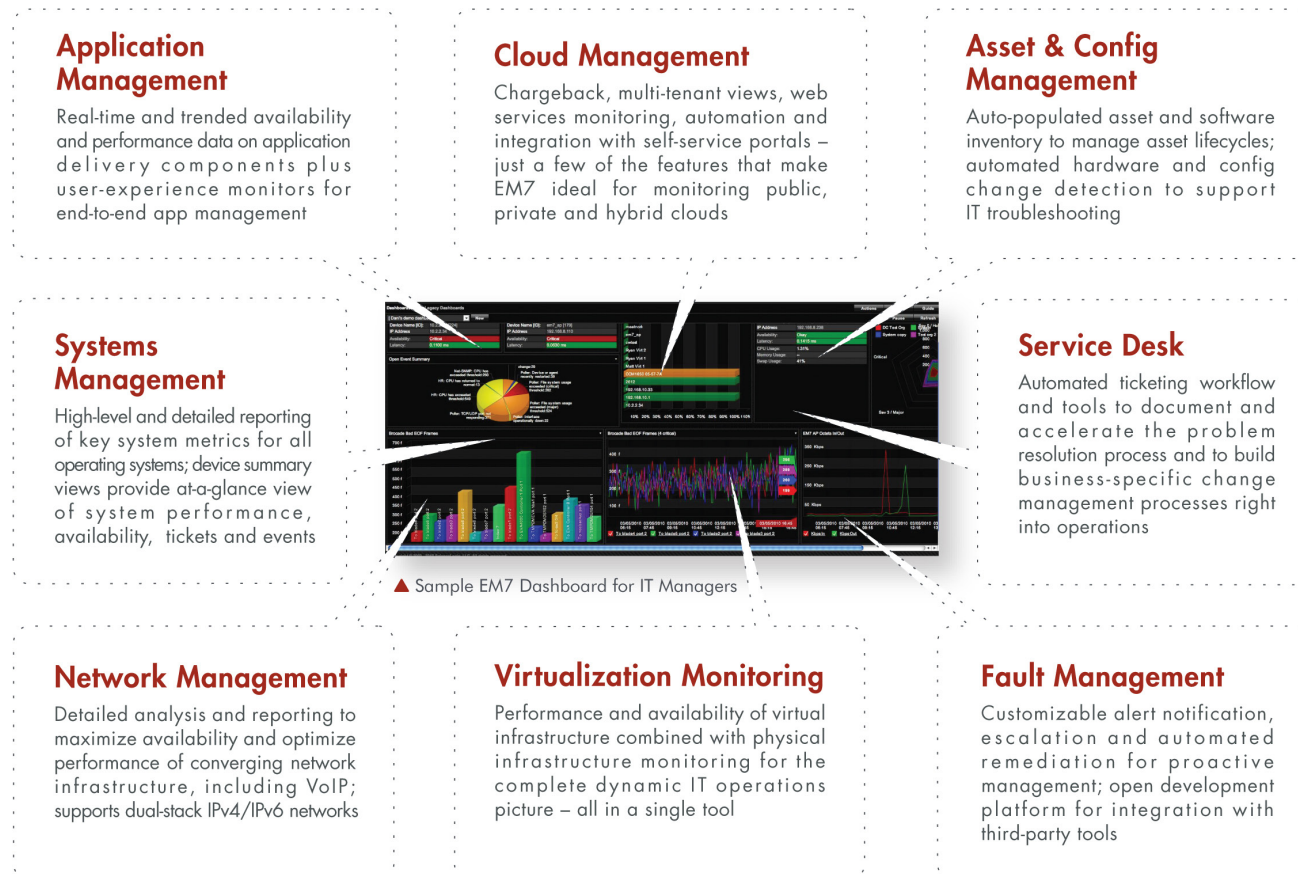
EM7 network management appliances are designed for quick and easy setup. Appliances come pre-installed, pre-configured and pre-tested with operating system, EM7 management applications, firewall and database. Simply follow the steps below and you will be up and running within a few hours.

Technology Overview

EM7 is pre-configured with a centralized data repository, integrated management applications, and Cisco co-developed best practice-based default settings, reports and automated alerts for a wide range of devices and systems. As appliances, EM7 can be installed and operational within a few hours. The result is a complete data center management solution designed to work out of the box yet flexible and powerful enough to handle new Cisco gear and technologies as they are added to the data center to meet growing operational demands.

EM7 is available in a highly scalable, distributed architecture ideally suited for the Cisco SBA Data Center. It supports application growth on the network, availability and business continuance requirements and optimization of the investment in server resources via technologies such as virtualization, all in a single solution that is easy to install, configure and utilize for proactive Day 2 management.

Figure 4. EM7 Features



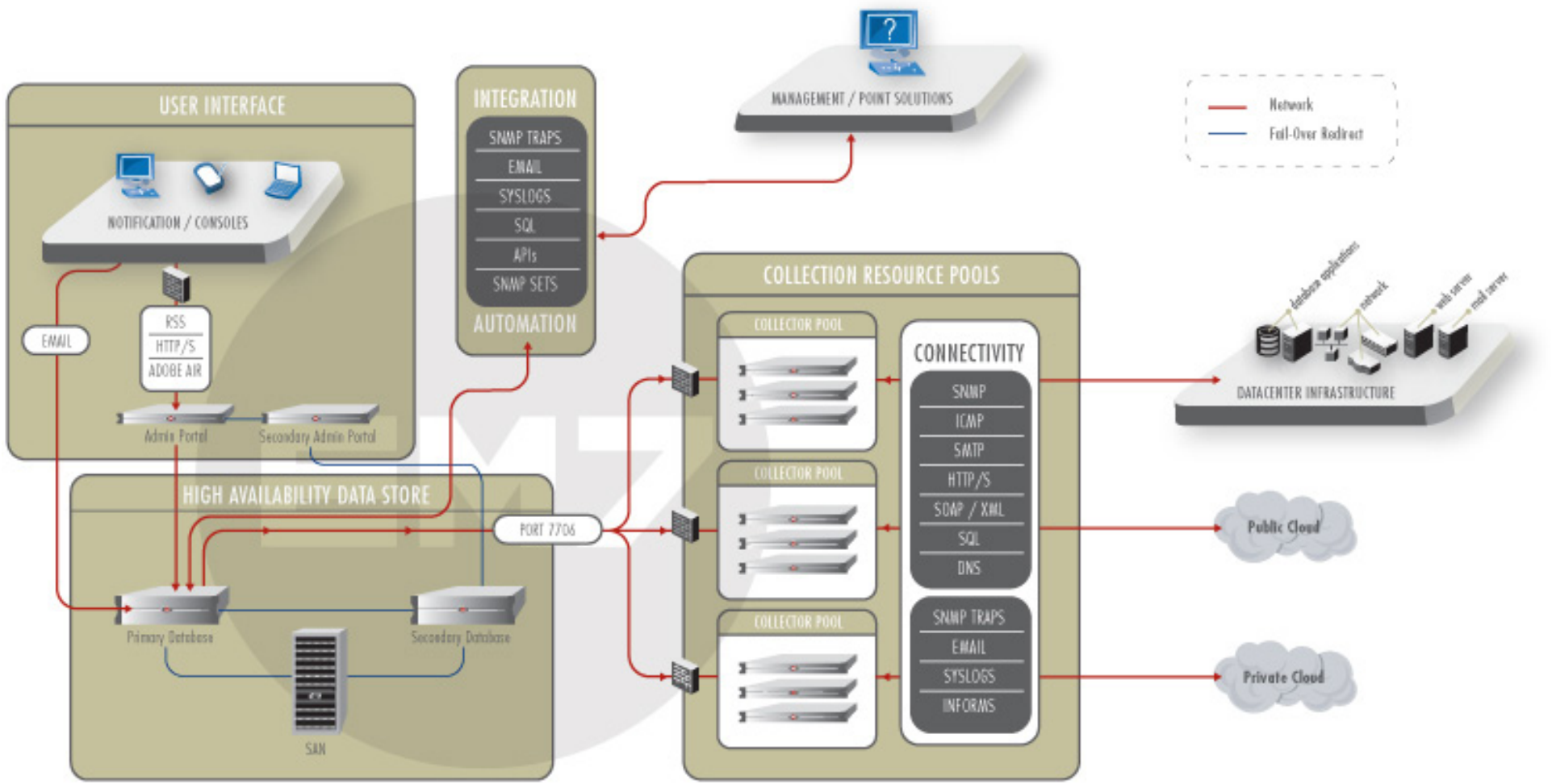
Unlike traditional monitoring solutions, there are no additional licenses to buy to add more users, devices, virtual servers and applications—making it easy and affordable to scale network monitoring as your data center operations grow.

Deployment Requirements

EM7 network management appliances include all the hardware and software required to take full advantage of the integrated capabilities and is ready to manage your network out-of-the-box.

As with any management tool, access to the devices to be managed is required. EM7 uses the Simple Network Management Protocol (SNMP) to collect information from the devices on your network. Your network and the devices will need to be configured to allow EM7 to access SNMP. Most of the configuration files included in the Data Center Configuration Guide have SNMP enabled by default. If you wish to send asynchronous messages, like Syslog and SNMP traps, your devices will also need to be configured to send these messages to the EM7 appliance.

Figure 5. Distributed Architecture for Data Center Requirements



Deploying EM7

Process

Deploying EM7

1. Deploy EM7

Procedure 1 **Deploy EM7**

Step 1: Install the appliance in any server rack using the provided rails, make the power and network connections, and power on the device.

Step 2: After the appliance is powered up, login and step through the Setup Wizard. The Setup Wizard will require basic network information like Hostname, Password, IP Address, Subnet Mask, Gateway, and Name Servers. After you have completed the Setup Wizard the appliance will reboot.

Step 3: After the appliance has rebooted, access the EM7 user interface using a Web browser to enter the software license key.

Step 4: From the EM7 User Interface, launch a discovery session of your network by providing the IP Address range and the SNMP community string used on your network.

Tech Tip

The configurations files provided in the Deployment Guide use a default SNMP read-only community string of Cisco and a default SNMP read-write community string of cisco123.

Notes

Appendix A: Contact Information

Visit the Cisco Partner Page on our website for more information:

http://www.sciencelogic.com/cisco_partner.htm

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Phone: (800) SCI-LOGIC

For Sales inquiries:

- Email: sales@sciencelogic.com
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For information on becoming a ScienceLogic Partner:

- Visit: <http://www.sciencelogic.com/partners.htm>
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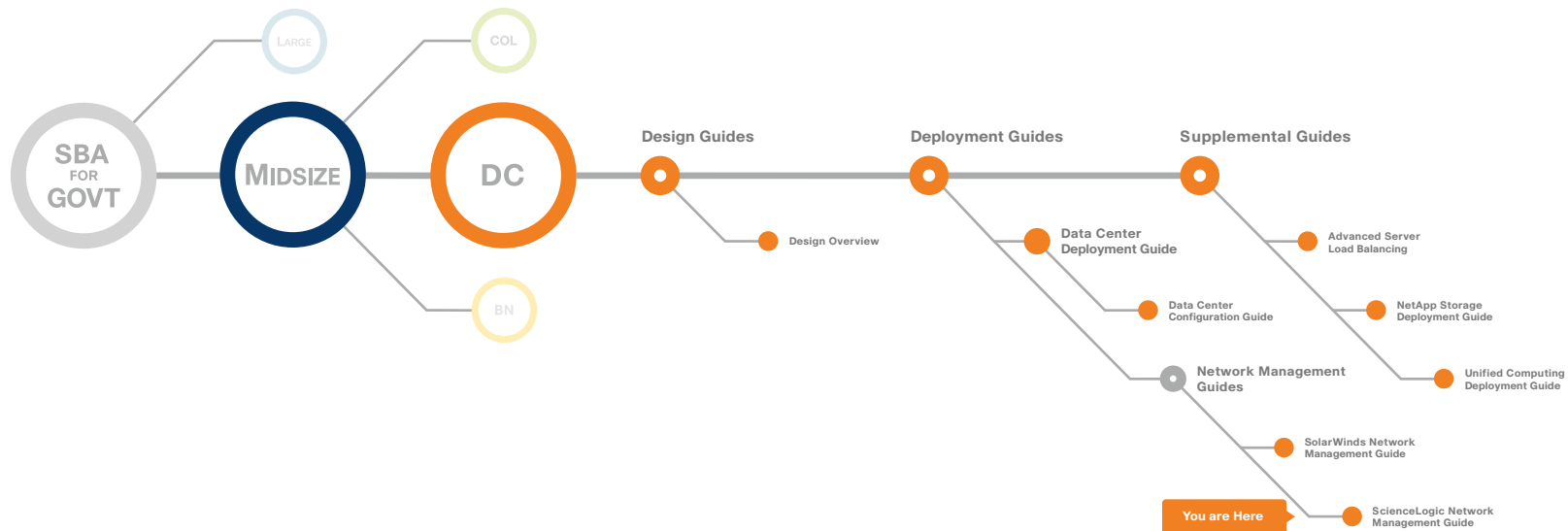
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Notes

Appendix B: SBA for Midsize Agencies Document System





SMART BUSINESS ARCHITECTURE



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Singapore

Europe Headquarters
Cisco Systems International BV
Amsterdam, The Netherlands

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