

# vFoglight™ **5.2.4**

**Getting Started Guide** 





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# Introduction to this Guide

This chapter provides information about what is contained in the Getting Started Guide. It also provides information about the vFoglight documentation suite and Vizioncore.

#### This chapter contains the following sections:

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### About vFoglight

vFoglight helps IT organizations understand the virtual infrastructure by managing the relationships and interaction between all the components in the environment, including data centers, data stores, clusters, resource pools, hosts and virtual machines. With vFoglight, administrators can quickly determine the root-cause of an incident or problem, track virtual machine (VM) movements and understand their impact, and identify contention for resources between virtual machines.

### About this Guide

The *Getting Started Guide* introduces you to vFoglight concepts and components. It provides a high-level overview of the installation and setup procedures and suggests starting points in the vFoglight browser interface.

In addition, it provides instructions for getting started with SupportLink and downloading vFoglight.

This guide is intended as an overview for any user getting started with vFoglight. Users who are new to vFoglight can use this guide as an introduction to the topics and procedures described above. New users may want to consult this guide prior to following the procedures described in the *Installation and Setup Guide*, the *Administration and Configuration Guide*, and the *Foglight User Guide*.

More experienced users can use this guide as a high-level outline of these topics and procedures or as a supplement to the *Installation and Setup Guide*, the *Administration and Configuration Guide*, and the *Foglight User Guide*.

The Getting Started Guide is organized as follows:

**Chapter 1, Introducing vFoglight**—Introduces vFoglight by discussing how vFoglight works, defining key concepts and terms, and describing vFoglight components.

**Chapter 2, First Steps**—Includes instructions on downloading vFoglight software packages and documentation.

**Chapter 3, Installation and Setup Overview**—Provides an overview of the vFoglight installation and setup process and acts as a preface or supplement to the *Administration and Configuration Guide* and the appropriate part of the *Installation and Setup Guide* set.

This chapter summarizes the main steps involved in installing (or upgrading) and configuring vFoglight. As well, this chapter directs you to the appropriate instructions in the *Administration and Configuration Guide* and in the *Installation and Setup Guide* set.

**Chapter 4, Starting Points in vFoglight**—Provides an overview of several dashboards that can be used as starting points in the vFoglight browser interface: two of the monitoring dashboards listed by default under Homes and three administration dashboards. This chapter also includes examples of next steps that you can take.

In addition, this chapter provides getting started tips on common elements in the browser interface and features that can affect how you see data in the monitoring dashboards.

vFoglight offers a wide range of functionality through its customizable dashboards. Consult this chapter to learn about some of the starting points, next steps, and workflows that are available to users with different roles and needs.

**Appendix A, vFoglight Client Reference**—Contains material drawn from the chapters Introducing vFoglight, Installation and Setup Overview, and Starting Points in vFoglight for users who continue to use the vFoglight Client.

### vFoglight Documentation Suite

The vFoglight documentation suite is made up of the core documentation set, plus the documentation set for each vFoglight cartridge that you deploy. Documentation is provided in a combination of online help, PDF and HTML.

• Online Help: You can open the online help by selecting the Help tab from vFoglight's action panel.



• PDF: The Getting Started Guide, What's New Guide, System Requirements and Platform Support Guide, Installation and Setup Guide set, Administration and Configuration Guide, vFoglight User Guide, Command-Line Reference Guide, Web Component Guide, and Web Component Tutorial, are provided as PDF files. The PDF guides are included in the zip file downloaded from Vizioncore. Adobe® Reader® is required.

**HTML**: Release Notes are provided in HTML.

#### **Core Documentation Set**

The core documentation set consists of the following files:

- Release Notes (HTML)
- Getting Started Guide (PDF)
- What's New Guide (PDF)
- System Requirements and Platform Support Guide (PDF)
- Installation and Setup Guide set (all in PDF format):
  - Installation and Setup Guide—Installing on Windows with an Embedded MySQL Database
  - Installation and Setup Guide—Installing on Windows with an External MySQL Database

- Installation and Setup Guide—Installing on Windows with an External Oracle Database
- Administration and Configuration Guide (PDF and online help)
- *vFoglight User Guide* (PDF and online help)
- Advanced Configuration Guide set
  - Command-Line Reference Guide (PDF and online help)
  - Web Component Guide (PDF and online help)
  - Web Component Tutorial (PDF and online help)
  - Web Component Reference (online help)

### **Cartridge Documentation Sets**

When you deploy a cartridge, the documentation set for the cartridge is installed. The online help for the cartridge is integrated automatically with the core vFoglight help. When you open the help, the name of the cartridge is displayed in a top level entry within the table of contents.

Some cartridges include additional PDF guides, which may be one or more of the following: a *Getting Started Guide*, an *Installation Guide*, a *User Guide*, and a *Reference Guide*.

#### Feedback on the Documentation

We are interested in receiving feedback from you about our documentation. For example, did you notice any errors in the documentation? Were any features undocumented? Do you have any suggestions on how we can improve the documentation? All comments are welcome. Please submit your feedback to the following email address:

info@vizioncore.com

Please do not submit Technical Support related issues to this email address.

### **Text Conventions**

The following table summarizes how text styles are used in this guide:

Convention	Description
Code	Monospace text represents code, code objects, and command- line input. This includes:  • Java language source code and examples of file contents  • Classes, objects, methods, properties, constants, and events  • HTML documents, tags, and attributes
Variables	Monospace-plus-italic text represents variable code or command-line objects that are replaced by an actual value or parameter.
Interface	Bold text is used for interface options that you select (such as menu items) as well as keyboard commands.
Files, components, and documents	Italic text is used to highlight the following items:  • Pathnames, file names, and programs  • The names of other documents referenced in this guide

### About Vizioncore Inc.

Vizioncore was formed in July 2002 as a consulting and software-development company with the mission to create easy-to-use software solutions that performed reliable and repeatable automation of datacenter functions specifically for the Citrix platform. A main corporate goal was to enable business partners to offer solutions that targeted real-world IT issues and provided the best possible installation and automation for their clients' systems.

Vizioncore's solutions have proved successful in organizations from small to mid-sized businesses to large enterprises, in a wide variety of vertical industries, including Financial Services, Government, Healthcare, Manufacturing, and High Tech. Vizioncore, Inc. can be found in offices around the globe and at www.vizioncore.com.

## **Contacting Dell**

Note: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

- 1 Visit http://support.dell.com.
- 2 Verify your country or region in the Choose A Country/Region drop-down menu at the bottom of the page.
- 3 Click Contact Us on the left side of the page.Note: Toll-free numbers are for use within the country for which they are listed.
- 4 Select the appropriate service or support link based on your need.
- 5 Choose the method of contacting Dell that is convenient for you.

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International Access		Local Numbers, and
Code		Toll-Free Numbers
Country Code		Web and E-Mail Addresses
City Code		
Anguilla	Web Address	www.Dell.com/ai
· ·	E-Mail Address	<u>la-techsupport@dell.com</u>
	Technical Support., Customer Service, Sales	toll-free: 800-335-0031
Antigua and Barbuda	Web Address	www.Dell.com.ag
	E-Mail Address	<u>la-techsupport@dell.com</u>
	Technical Support., Customer Service, Sales	1-800-805-5924
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	Optiplex <sup>TM</sup> , Dell Lattitude <sup>TM</sup> , and Dell	0800-105
	Precision <sup>™</sup> Servers and Storage	4-11
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Code: 00	E-Mail Address for Servers and EMC® Storage	la enterprise@dell.com
Country Code: 54	Products	toll-free: 0-800-444-0730
City Code: 11	Customer Service	4.11 6 0.000 444 0722
	Technical Support	toll-free: 0-800-444-0733
	Technical Support Services	toll-free: 0-800-444-0724
	Sales	0-800-444-3355
Aruba	Web Address	www.Dell.com/aw
	E-Mail Address	la-techsupport@dell.com
A       (C     )	Technical Support., Customer Service, Sales Web Address	toll-free: 800-1578
Australia (Sydney)	Contact Dell Web Address	support.ap.dell.com
International Access Code: 0011	Technical Support., Customer Service, Sales	support.ap.dell.com/contactus 13DELL-133355
Country Code: 61 City Code: 2		

Austria (Vienna)	Web Address	Support.euro.dell.com
	E-Mail Address	Tech support central europe@dell.com
International Access	Home/Small Business Sales	0820 240 530 00
Code: 900	Home/Small Business Fax	0820 240 530 49
Country Code: 43	Home/Small Business Customer Service	0820 240 530 14
City Code: 1	Home/Small Business Support	0820 240 530 17
	Preferred Accounts/Corporate Customer	0820 240 530 16
	Service Preferred Accounts/Corporate Customer	0820 240 530 17
	Switchboard	0820 240 530 00
Bahamas	Web Address	www.dell.com/bs
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	Corporate Sales	02 481 91 00
	Fax	02 481 91 99
	Switchboard	02 481 91 00
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	Technical Support., Customer Service, Sales	toll-free: 800-10-0238
Brazil	Web Address	www.dell.com/br
International Access	E-Mail Address	BR TechSupport@dell.com
Code: 00	Customer Service and Tech Support	0800 970 3355
	Technical Support Fax	51 2104 5470
Country Code: 55	Customer Service Fax	51 2104 5480
City Code: 51	Sales	0800 722 3498
British Virgin Islands	Technical Support, Customer Service, Sales	toll-free: 1-866-278-6820
Brunei	Technical Support (Penang, Malaysia)	604 633 4966
	Customer Service (Penang, Malaysia)	604 633 4888
Country Code: 673	Transaction Sales (Penang, Malaysia)	604 633 4955
Canada (North York,	Online Order Status Web Address	<u>www.dell.ca/ostatus</u>
Ontario)	AutoTech (automated Hardware and Warranty	
International Access	Support)	support.ca.dell.com
	Customer Service	toll-free:1-800-247-9362
Code: 011	Home/Home Office	toll-free:1-800-847-4096
	Small Business	toll-free:1-800-906-3355
	Medium/Large Business, Government, Education	
	Hardware Warranty Phone Support	
	•	toll-free:1-800-847-4096
	Computers for Home/Home Office	toll-free:1-800-387-5757
	Computers for Small/Medium/Large Business	ton nee.1 000 307 3737
	Government	1-877-335-5767
	Printers, Projectors, Televisions, Handheld,	1-077-333-3707
	Digital	tall frag:1 800 000 2255
	Jukebox, and Wireless Sales	toll-free:1-800-999-3355
	Home and Home Office Sales	toll-free:1-800-387-5752
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	Medium/Large Business, Government	1 866 440 3355
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Cayman Islands	E-Mail Address	<u>la-techsupport@dell.com</u>
	Technical Support, Customer Service, Sales	1-877-262-5415

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Country Code: 86	Customer Service E-Mail Address	customer cn@dell.com
City Code: 592	Technical Support Fax	592 818 14350
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	Technical Support – OptiPlex, Lattitude and Dell	toll-free: 800 858 0950
	Precision	
	Technical Support – Servers and Storage	toll-free: 800 858 0960
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	Large Corporate Accounts North	toll-free: 800 858 2929
	Large Corporate Accounts North Government and	toll-free: 800 858 2999
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	Technical Fax	22537 2728
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	Switchboard Fax – Relational	3287 1201
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	Switchboard Fax – Home/Small Business	3287 5001
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Country Code: 33	Switchboard	0825 004 700
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	Sales	0825 004 700
	Fax	0825 004 701
	Fax (calls from outside of France)	04 99 75 40 01
	Corporate	
	Technical Support	0825 004 719
	Customer Service	0825 338 339
	Switchboard	55 94 71 00
	Sales	01 55 94 71 00
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Country Code: 49	Global Segment Customer Service	069 9792-7320
City Code: 69	Preferred Accounts Customer Service	069 9792-7320
•	Large Accounts Customer Service	069 9792-7320
	Public Accounts Customer Service	069 9792-7320
	Switchboard	069 9792 7320
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Code: 00	Gold Service Technical Support	00800-44 14 00 83
	Switchboard	2108129810
Country Code: 49	Gold Service Switchboard	2108129811
	Sales	2108129800
	Fax	2108129812
Grenada	Web Address	www.dell.com/gd
	E-Mail Address	<u>la-techsuppo@dell.com</u>
	Technical Support, Customer Service, Sales	toll-free: 1-866-540-3355
-		•

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	-W	toll-free: 1-877-270-460
Hong Kong	Web Address	support.ap.dell.coi
International Access	Technical Support E-mail Address	support.dell.com.cn/ema
Code: 001	Technical Support - Dimension and Inspiron	00852-2969 318
Country Code: 852	Technical Support - OptiPlex, Latitude, and Dell	00852-2969 319
•	Precision	000
	Technical Support - Servers and Storage	00852-2969 319
	Technical Support - Projectors, PDAs, Switches,	00852-3416 090
	Routers, etc.	
	Customer Service	00852-3416 091
	Large Corporate Accounts	00852-3416 090
	Global Customer Programs	00852-3416 090
	Medium Business Division	00852-3416 091
	Home and Small Business Division	00852-2969 310
India	Dell Support Website	support.ap.dell.co
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	Desktop Support E-mail Address	india_support_desktop@dell.com
	Portable Support E-mail Address	india support notebook@dell.com
	Phone Numbers	080-25068032 or 080-25068034 o
		your city STD code + 60003355
		toll-free: 1-800-425-804
	Server Support	
	E-mail Address	india_support_Server@dell.com
	Phone Numbers	080-25068032 or 080-25068034
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	Phone Numbers	080-25068033 or your city STD code
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Country Code: 353 City Code: 1	E-mail Address	dell direct support@dell.com
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•	Home computers	1850 543 543
	At Home Support	1850 200 889
	Sales	
	Home	1850 333 200
	Small Business	1850 664 656
	Medium Business	1850 200 646
	Large Business	1850 200 646
	E-mail Address	Dell IRL Outlet@dell.com
	Customer Service	
	Home and Small Business	204 4014
	Business (greater than 200 employees)	1850 200 982
	General	
	Fax/Sales fax	204 0103
	Switchboard	204 4444
	U.K. Customer Service (dealing with U.K.only)	0870 906 0010
	Corporate Customer Service (dial within U.K.	0870 907 4499
	only)	
	U.K. Sales (dial within U.K. only)	0870 907 4000
Italy (Milan)	Web Address	Support.euro.dell.com
International Access	Home and Small Business	
Code: 00	Technical Support	02 577 826 90
Country Code: 39	Customer Service	02 696 821 14
City Code: 02	Fax	02 696 821 13
eny coue. 02	Switchboard	02 696 821 12
	Corporate	
	Technical Support	02 577 826 90
	Customer Service	02 577 825 55
	Fax	02 575 035 30
	Switchboard	02 577 821
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	(dial from within Jamaica only)	

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Code: 001 Country Code: 81 City Code: 44	Technical Support outside of Japan - Dimension and Inspiron	81-44-520-1435
	Technical Support - Dell Precision, OptiPlex, and Latitude	toll-free: 0120-198-433
	Technical Support outside of Japan - Dell Precision, OptiPlex, and Latitude	81-44-556-3894
	Technical Support - Dell PowerApp <sup>TM</sup> , Dell PowerEdge <sup>TM</sup> , Dell PowerConnect <sup>TM</sup> , and Dell PowerVault <sup>TM</sup> ,	toll-free: 0120-198-498
	Technical Support outside of Japan - PowerApp, PowerEdge, PowerConnect, and PowerVault	81-44-556-4162
	Technical Support - Projectors, PDAs, Printers, Routers	toll-free: 0120-981-690
	Technical Support outside of Japan - Projectors, PDAs, Printers, Routers	81-44-556-3468
	Faxbox Service	044-556-3490
	24-Hour Automated Order Status Service	044-556-3801
	Customer Service	044-556-4240
	Business Sales Division - up to 400 employees	044-556-1465
	Preferred Accounts Division Sales - over 400 employees	044-556-3433
	Public Sales - government agencies, educational institutions, and medical institutions	044-556-5963
	Global Segment Japan	044-556-3469
	Individual User	044-556-1657
	Individual User Online Sales	044-556-2203
	Individual User Real Site Sales	044-556-4649
	Switchboard	044-556-4300
Korea (Seoul)	Web Address	Support.ap.dell.con
International Access	Technical Support, Customer Service	toll-free: 080-200-380
Code: 001 Country Code: 82	Technical Support - Dimension, PDA, Electronics, and Accessories	toll-free: 080-200-380
City Code: 2	Sales	toll-free: 080-200-3600
•	Fax	2194-6202
	Switchboard Customer Technical Support (Austin, Texas,	2194-6000
Latin America	U.S.A.)	512 728-4093
	Customer Service (Austin, Texas, U.S.A.)	512 728-3619
	Fax (Technical Support and Customer Service)	512 728-3883
	(Austin, Texas, U.S.A.) Sales (Austin, Texas, U.S.A.)	512 728-4397
	SalesFax (Austin, Texas, U.S.A.)	512 728-4600 or 512 728-3772
Luxemborg	Web Address	Support.euro.dell.com
International Access	Support	3420808075
Code: 00	Home/Small Business Sales	+32 (0)2 713 15 96
Country Code: 352	Corporate Sales	26 25 77 81
Country Code. 332	Customer Service	+32 (0)2 481 91 19
	Fax	26 25 77 82
Macao	Technical Support	toll-free: 0800 105
Country Code: 83	Customer Service (Xiamen, China)	34 160 910
2041117 2040.00	Transaction Sales (Xiamen, China)	29 693 115

Malaysia (Penang)	Web Address	Support.ap.dell.com
-	Technical Support - Dell Precision, OptiPlex, and	11 1
International Access	Latitude	ton nee. 1000 000 173
Code: 00	Technical Support - Dimension, Inspiron, and	toll-free: 1800 881 306
Country Code: 60	Electronics and Accessories	ton-nec. 1800 881 300
City Code: 4	Technical Support - PowerApp, PowerEdge,	toll-free: 1800 881 386
		ton-nee. 1800 881 380
	PowerConnect, and PowerVault	(a) 11 faces 1000 001 206 (and an 6)
	Customer Service	toll-free: 1800 881 306 (option 6)
	Transaction Sales	toll-free: 1800 888 202
	Corporate Sales Web Address	toll-free: 1800 888 213 www.dell.com/mx
Mexico	E-mail Address	
International Access		la-techsupport@dell.com
Code: 00	Customer Technical Support	001-877-384-8979 or 001-877-269-3383
Country Code: 52	Sales	50-81-8800 or 01-800-888-3355
·	Customer Service	001-877-384-8979 or 001-877-269-3383
	Main	50-81-8800 or 01-800-888-3355
Montserrat	E-mail Address	<u>la-techsupport@dell.com</u>
	Technical Support, Customer Service, Sales	T. 11 6 1 066 250 6022
N. 11 1 1	E-mail Address	Toll-free: 1-866-278-6822
Netherlands	Web Address	la-techsupport@dell.com
Antilles		support.euro.dell.com
Netherlands	Technical Support	020 674 45 00
(Amsterdam)	Technical Support Fax	020 674 47 66
International Access	Home/Small Business Customer Service	020 674 42 00
Code: 00	Relational Customer Service	020 674 43 25
Country Code: 31	Home/Small Business Sales	020 674 55 00
City Code: 20	Relational Sales	020 674 50 00
,	Home/Small Business Sales Fax	020 674 47 75
	Relational Sales Fax	020 674 47 50
	Switchboard	020 674 50 00
	Switchboard Fax	020 674 47 50
New Zealand	Web Address	Support.ap.dell.com
International Access	E-mail Address	Support.ap.dell.com/contactus
Code: 00	Technical Support, Customer Service, Sales	0800 441 567
Country Code: 64		
Nicaragua	Web Address	www.dell.com/ni
Micaragua	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	001-800-220-1377
Norway (Lysaker)	Web Address	Support.euro.dell.com
	Technical Support	671 16882
International Access	Relational Customer Service	671 17575
Code: 00	Home/Small Business Customer Service	231 62298
Country Code: 47	Switchboard	671 16800
	Fax Switchboard	671 16865
Panama	Web Address	www.dell.com/pa
i dilama	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	011-800-507-1264
Peru	Web Address	www.dell.com/pe
. 0/6	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	0800-50-669
		0000 20 007

Poland (Warsaw)	Web Address	support.euro.dell.com
International Access	E-mail Address	pl_support_tech@dell.com
Code: 011	Customer Service Phone	57 95 700
	Customer Service	57 95 999
Country Code: 48	Sales	57 95 999
City Code: 22	Customer Service Fax	57 95 806
	Reception Desk Fax	57 95 998
	Switchboard	57 95 999
Portugal	Web Address	Support.euro.dell.com
ŭ	Technical Support	707200149
International Access	Customer Service	800 300 413
Code: 00	Sales	800-300-410 or 800-300 -411 or
Country Code: 351	~	800-300-412 or 21-422-07-10
	Fax	21-424-01-12
Puerto Rico	Web Address	www.dell.com/pr
T del to Rico	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	1-877-537-3355
St. Kitts and Nevis	Web Address	www.dell.com/kn
	E-mail Address	<u>la-techsupport@dell.com</u>
	Technical Support, Customer Service, Sales	toll-free: 1-866-540-3355
St. Lucia	Web Address	www.dell.com/lc
o.: _uo.u	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 1-866-464-4352
St. Vincent and the	Web Address	www.dell.com/vc
Grenadines	E-mail Address	<u>la-techsupport@dell.com</u>
<b>5.</b> 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	Technical Support, Customer Service, Sales	toll-free: 1-866-464-4353
Singapore	NOTE: The phone numbers in this section should	
International Access	be called from within Singapore or Malaysia only.	
Code: 005		
Country Code: 65	Web Address	support.ap.dell.com
Country Code. 03	Technical Support - Dimension, Inspiron, and	toll-free: 1 800 394 7430
	Electronics and Accessories	
	Technical Support - OptiPlex, Latitude,	toll-free: 1 800 394 7488
	and Dell Precision	
	Technical Support - PowerApp, PowerEdge,	toll-free: 1 800 394 7478
	PowerConnect, and PowerVault	
	Customer Service	toll-free: 1 800 394 7430 (option 6)
	Transaction Sales	toll-free: 1 800 394 7412
	Corporate Sales	toll-free: 1 800 394 7419
Slovakia (Prague)	Web Address	support.euro.dell.com
	E-mail Address	czech dell@dell.com
International Access	Technical Support	02 5441 5727
Code: 00	Customer Service	420 22537 2707
Country Code: 421	Fax	02 5441 8328
	Tech Fax	02 5441 8328
	Switchboard (Sales)	02 5441 8328
	Switchoodid (Sales)	02 5441 7585
South Africa	Web Address	support.euro.dell.com
	E-mail Address	dell za suppor@dell.com
(Johannesburg)	Gold Queue	011 709 7713
International Access	Technical Support	011 709 7713
Code: 09/091	Customer Service	011 709 7710
Country Code: 27		011 709 7707
City Code: 11	Sales	011 /09 / /00

Home and Small Business	Spain (Madrid)	Web Address	Support.euro.com
Code: 00         Technical Support         902 118 540           Country Code: 31         Sales         902 118 541           City Code: 91         Switchboard         902 118 541           Fax         902 118 541           Fax         902 118 541           Fax         902 118 541           Fax         902 118 543           Fax         902 100 30           Corporate         902 101 326           Fax         902 101 326           Switchboard         91 722 98 32           Switchboard         91 722 98 32           Yeaby         Enhicial Support         902 115 236           Switzendi (Upplands)         Web Address         support.euro.dell.com           Vesby)         Eclational Customer Service         08 590 05 194           Country Code: 40         Home/Small Business Customer Service         08 590 05 94           Country Code: 41         Technical Support Fax         08 590 05 594           Code: 00         Technical Support Fax         Support.euro.dell.com           Code: 04         Technical Support Poprate         0844 811 411           City Code: 24         Technical Support Apples         90 844 821 411           City Code: 24         Technical Support Apples         90 844 821	•	Home and Small Business	
Country Code: 34         Customer Service         902 118 540           City Code: 91         Switchboard         902 118 541           Fax         902 118 541           Fax         902 118 539           Corporate         Technical Support         902 115 236           Switchboard         91 722 92 08           Sweden (Upplands)         Web Address         support-euro-dell-com           Vasby)         Technical Support         08 590 05 199           International Accessorics         Echnical Support Small Business Customer Service         08 587 05 527           Code: 00         Employee Purchase Program (EPP) Support         020 140 14 44           City Code: 8         Email Address         Support-euro-dell-com           Fountry Code: 40         Technical Support Fax         Support-euro-dell-com           International Accessories         E-mail Address         Support-euro-dell-com           Country Code: 41         Technical Support - Home and Small Business         Support-euro-dell-com           Country Code: 42         Technical Support - Corporate         0844 812 414           City Code: 22         Technical Support - Corporate         0844 82 284           City Code: 25         Technical Support - Corporate         0848 802 102           International Accessories		Technical Support	902 100 130
Sales		Customer Service	902 118 540
Switchboard	<u> </u>		
Fax	City Code: 91		
Corporate   Technical Support   902 100 130   130			
Technical Support			702 110 337
Customer Service   902 115 236   Switchboard   91 722 92 00			002 100 120
Switchboard Fax         91 722 92 00 91 722 95 83           Sweden (Upplands         Web Address         91 722 95 83           Sweden (Upplands Vasby)         Web Address         support.euro.edle.com           Vasby)         Technical Support         08 590 05 199           International Access Code: 00         Come/Small Business Customer Service         08 590 05 594           Gity Code: 46 City Code: 8         Technical Support Fax         Support.euro.del.com           Switzerland (Geneva)         Technical Support Fax         Support.euro.del.com           Code: 00         Technical Support — Corporate         Tech support central Europe@dell.com           Code: 01         Technical Support — Corporate         Support.euro.dell.com           Code: 02         Technical Support — Corporate         Support.euro.dell.com           Customer Service — Home and Small Business         0844 811 411           Tawa         Web Address         Support.euro.dell.com           International Access         Customer Service — Corporate         Support.euro.dell.com           Country Code: 46         E-mail Address         Support.euro.dell.com           Code: 002         Dimension, and Electronics and Accessories         Technical Support — CoptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories         Technical Support — CoptiPlex, Latitude, Inspiron, Dimension, an			
Sweden (Upplands         Fax         9 1 722 95 83           Sweden (Upplands         Web Address         support.curo.dell.com           Vasby)         Technical Support         08 590 05 199           International Accesses (Code: 00         Relational Customer Service         08 590 05 199           Country Code: 46 (City Code: 8         Technical Support Evertace Program (EPP) Support         020 140 14 44           Code: 00         Web Address         Support.euro.dell.com           International Accesses         E-mail Address         Support.euro.dell.com           Code: 00         Technical Support – Home and Small Business         0844 811 41           City Code: 22         Technical Support – Home and Small Business         0844 811 41           Customer Service – Corporate         0844 88 802 202           Customer Service – Corporate         0848 821 721           Fax         022 799 01 01           Taiwan         Web Address         support.ap.dell.com           Code: 002         E-mail Address         support.ap.dell.com.cn/email           Country Code: 886         Technical Support - OptiPlex, Latitude, Inspiron,         toll-free: 0080 186 1011           Country Code: 886         Technical Support - Servers and Storage         toll-free: 0880 160 1250 (option 5)           Tokacion Sales         toll-			
Sweden (Upplands Vasby)         Web Address         support.euro.dell.com           Vasby)         Technical Support         08 590 05 199           International Access Code: 00         Relational Customer Service         08 590 05 642           Country Code: 46 City Code: 8 Switzerland (Geneva)         Employee Purchase Program (EPP) Support         020 140 14 44           Switzerland (Geneva)         Web Address         Support.euro.dell.com           International Access         E-mail Address         Support.euro.dell.com           Code: 00         Technical Support – Home and Small Business         0844 811 411           City Code: 22         Technical Support – Corporate         0844 822 844           Customer Service – Home and Small Business         0844 8821 721           Fax         022 799 01 90           Switchboard         022 799 01 90           International Access         E-mail Address         support.dell.com           Code: 002         Dimension, and Electronics and Accessories         rechnical Support – OptiPlex, Latitude, Inspiron,         toll-free: 0080 160 1250           Country Code: 866         Technical Support – Servers and Storage         toll-free: 0080 160 1250           Customer Service         Technical Support (OptiPlex, Latitude, and Dell         Trechnical Support (OptiPlex, Latitude, and Dell           Tochnical Support			
Vasby)         Technical Support         08 590 05 199           International Access Code: 00         Relational Customer Service         08 590 05 642           Country Code: 46 City Code: 8         Employee Purchase Program (EPP) Support         020 140 14 44           City Code: 8         Web Address         Support.euro.dell.com           Code: 00         Technical Support – Home and Small Business         0844 811 411           Country Code: 41         Technical Support – Home and Small Business         0844 811 411           City Code: 22         Technical Support – Home and Small Business         0844 811 411           City Code: 24         Technical Support – Corporate         0848 802 202           Customer Service – Home and Small Business         0844 812 814           Cutstomer Service – Home and Small Business         0848 821 721           Fax         022 799 01 01           International Access         E-mail Address           Code: 002         Technical Support – OptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories         support.ap.dell.com.cm/email           Code: 002         Technical Support – Servers and Storage         toll-free: 0080 160 1256           Country Code: 86         Technical Support (PotiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories         toll-free: 0080 165 1227           Tode: 001	0 1 (11 1 1	- ****	
Relational Access			* *
Transactional Access   Code: 00	Vasby)		
Employee Purchase Program (EPP) Support	International Access		
City Code: 8 Switzerland (Geneva) International Access Code: 00 Country Code: 41 City Code: 22 Customer Service – Home and Small Business Technical Support – Corporate Country Code: 24 Customer Service – Home and Small Business Code: 00 Taiwan International Access Code: 002 Country Code: 886 Country Code: 888 Code: 886 Country Code: 886 Country Code: 886 Country Code: 886 Country Code: 886 C	Code: 00		
City Code: 8         Technical Support Fax         08 599 08 599           Switzerland (Geneva)         Web Address         Support.euro.dell.com           International Access         Code: 00         Technical Support − Home and Small Business         0844 811 411           Coutry Code: 41         Technical Support − Corporate         0844 821 481           Cuty Code: 22         Customer Service − Home and Small Business         0848 821 721           Fax         022 799 01 90           Switchboard         022 799 01 90           International Access         E-mail Address           Code: 002         E-mail Address         support.ap.dell.com           Code: 002         E-mail Address         support.ap.dell.com           Country Code: 886         E-mail Address         support.ap.dell.com           Technical Support - OptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories         toll-free: 0080 160 1250 (option 5)           Technical Support - Servers and Storage         toll-free: 0080 160 1250 (option 5)           Transaction Sales         toll-free: 0080 165 1228           Code: 001         Web Address         Support.ap.dell.com           Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)         toll-free: 1800 006 009           Technical Support, Customer Service         toll-free: 1800 006 007	Country Code: 46		
Switzerland (Geneva) International Access Code: 00 Country Code: 41 City Code: 22 Fax Code: 002 	•	Technical Support Fax	08 590 05 594
Technical Support - Home and Small Business   Code: 00   Technical Support - Corporate   Customer Service - Home and Small Business   Code: 20   Customer Service - Home and Small Business   Customer Service - Corporate   Customer Service   Support Service   Customer Service   Customer Service   Customer Service   Support Service   Customer		Web Address	Support.euro.dell.com
Technical Support - Home and Small Business   O844 811 411	•	E-mail Address	
Country Code: 41   Technical Support – Home and Small Business   0844 817 411			
Country Code: 41   Technical Support - Corporate   0844 822 844		Technical Support – Home and Small Business	0844 811 411
Customer Service - Home and Small Business   0848 802 202   Customer Service - Corporate   0848 821 721	<u> </u>		
Customer Service - Corporate   Fax   022 799 01 90	City Code: 22		
Fax         022 799 01 90           Switchboard         022 799 01 01           Taiwan         Web Address         support.ap.dell.com           International Access         E-mail Address         support.dell.com.cn/email           Code: 002         Technical Support - OptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories         toll-free: 0080 160 1256           Country Code: 886         Technical Support - Servers and Storage         toll-free: 0080 160 1250 (option 5)           Transaction Sales         toll-free: 0080 165 1228           Corporate Sales         toll-free: 0080 165 1227           Thailand         Web Address         Support.ap.dell.com           International Access         Technical Support (OptiPlex, Latitude, and Dell Precision)         Technical Support			
Taiwan         Web Address         support.ap.dell.com           International Access Code: 002 Country Code: 886         E-mail Address         support.dell.com.cn/email           Technical Support - OptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessories         toll-free: 0080 160 1250 (option 5)           Technical Support - Servers and Storage         toll-free: 0080 160 1250 (option 5)           Transaction Sales         toll-free: 0080 165 1228           Corporate Sales         toll-free: 0080 165 1227           Thailand         Web Address         Support.ap.dell.com           Technical Support (OptiPlex, Latitude, and Dell         toll-free: 1800 0060 07           Precision)         Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)         toll-free: 1800 006 007 (option 7)           Corporate Sales         toll-free: 1800 006 007 (option 7)         Transaction Sales           Trinidad/Tobago         Web Address         www.dell.com/te           E-mail Address         la-techsupport@dell.com           Turks and Caicos Islands         Web Address         www.dell.com/te           E-mail Address         la-techsupport@dell.com/te           E-mail Address         la-techsupport@dell.com/te           E-mail Address         www.dell.com/te           E-mail Address         la-techsupport@dell.com/te		•	
Taiwan Web Address support.ap.dell.com International Access Code: 002 Country Code: 886 Corporate Sales Corporate Sales Corporate Sales Corporate Sales Corporate Sales Code: 001 Country Code: 66 Country Coption Country Code: 66			
International Access Code: 002E-mail Addresssupport.dell.com.cn/emailCountry Code: 886Technical Support - OptiPlex, Latitude, Inspiron, Dimension, and Electronics and Accessoriestoll-free: 0080 160 1256Country Code: 886Technical Support - Servers and Storagetoll-free: 0080 160 1250 (option 5)Customer Servicetoll-free: 0080 165 1228Corporate Salestoll-free: 0080 165 1227ThailandWeb AddressSupport.ap.dell.comInternational Access Code: 001Technical Support (OptiPlex, Latitude, and Delltoll-free: 1800 0060 07Country Code: 66Precision)Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)toll-free: 1800 066 007 (option 7)Customer Servicetoll-free: 1800 006 007 (option 7)Corporate Salestoll-free: 1800 006 006 006Trinidad/TobagoWeb Addresswww.dell.com/ftE-mail Addressla-techsupport@dell.comTurks and Caicos IslandsWeb Addresswww.dell.com/ftLurks and Caicos IslandsWeb Addresswww.dell.com/ftE-mail Addresswww.dell.com/ftE-mail Addresswww.dell.com/ft	Taiwan		
Code: 002 Country Code: 886 Corporate Sales Corporate Sales Corporate Sales Corporate Sales Code: 001 Country Code: 66 Country Code: 60 Country Code: 66 Country Code:			
Country Code: 886  Country Code: 886  Country Code: 886  Coustomer Service  Coustomer Service  Corporate Sales  Corporate Sales  Code: 001  Country Code: 66  Country Code: 66  Coustomer Service  Corporate Sales  Corporate Sales  Corporate Sales  Corporate Support (OptiPlex, Latitude, and Dell Precision)  Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)  Coustomer Service  Corporate Sales  Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)  Customer Service  Corporate Sales  Transaction Sales  Transaction Sales  Tennical Support, Customer Service, Sales  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Web Address  Www.dell.com/ft  E-mail Address  Www.dell.com/ft  E-mail Address  La-techsupport@dell.com  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Web Address  Www.dell.com/ft  La-techsupport@dell.com  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Web Address  Www.dell.com/fc  La-techsupport@dell.com			
Technical Support - Servers and Storage  Customer Service  Customer Service  Transaction Sales  Corporate Sales  Corporate Sales  Technical Support (OptiPlex, Latitude, and Dell toll-free: 1800 0060 07 Precision)  Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)  Customer Service  Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)  Customer Service  Transaction Sales  Tinidad/Tobago  Web Address  Technical Support (Speech Sales)  Transaction Sales  Turks and Caicos Islands  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Technical Support (Service, Sales)  Turks and Caicos Islands  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Technical Support (Service, Sales)  Turks and Caicos Islands  Technical Support (Service, Sales)  Turks and Caicos Islands  Turks and Caicos Islands  Technical Support (Service)  Turks and Caicos Islands  Technical Support (Service)  Turks and Caicos Islands  Turks and Caicos Islands  Turks and Caicos Islands  Turks and Caicos Islands	Code: 002		1011-1166. 0080 180 1011
Customer Service toll-free: 0080 160 1250 (option 5) Transaction Sales toll-free: 0080 165 1228 Corporate Sales toll-free: 0080 165 1227  Thailand Web Address Support.ap.dell.com Technical Support (OptiPlex, Latitude, and Dell Precision) Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault) Customer Service toll-free: 1800 006 007 (option 7) Corporate Sales toll-free: 1800 006 009 Transaction Sales toll-free: 1800 006 009 Transaction Sales toll-free: 1800 006 006  Trinidad/Tobago Web Address www.dell.com/tt E-mail Address lands Web Address Turks and Caicos Islands Web Address E-mail Address La-techsupport@dell.com/tc	Country Code: 886	· · · · · · · · · · · · · · · · · · ·	4-11 f 0000 100 1250
Transaction Sales Corporate Sales toll-free: 0080 165 1228 toll-free: 0080 165 1227  Thailand Web Address Technical Support (OptiPlex, Latitude, and Dell toll-free: 1800 0060 07  Precision) Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault) Customer Service Corporate Sales Transaction Sales Trinidad/Tobago Technical Support (PowerApp, PowerEdge, toll-free: 1800 006 007 (option 7) Corporate Sales Trinidad/Tobago Transaction Sales Technical Support, Customer Service, Sales Turks and Caicos Islands Web Address Technical Support, Customer Service, Sales Turks and Caicos Islands Web Address E-mail Address E-mail Address Technical Support, Customer Service, Sales Turks and Caicos Islands Web Address E-mail Address La-techsupport@dell.com/tc			
Thailand Web Address Support.ap.dell.com  International Access Code: 001 Country Code: 66 PowerConnect, and PowerVault) Corporate Sales Transaction Sales Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault) Customer Service Transaction Sales Transaction Sales Trinidad/Tobago Technical Support, Customer Service, Sales Turks and Caicos Islands Web Address E-mail Address E-mail Address E-mail Address E-mail Address E-mail Address E-mail Address  E-mail Address  E-mail Address  E-mail Address  E-mail Address  E-mail Address  E-mail Address  E-mail Address  La-techsupport@dell.com/tc			
Thailand Web Address Support.ap.dell.com International Access Code: 001 Country Code: 66 Co			
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Code: 001 Country Code: 66 Code: 67	Thailand		
Country Code: 66  Technical Support (PowerApp, PowerEdge, PowerConnect, and PowerVault)  Customer Service toll-free: 1800 006 007 (option 7)  Corporate Sales toll-free: 1800 006 009  Transaction Sales toll-free: 1800 006 009  Trinidad/Tobago Web Address E-mail Address la-techsupport@dell.com  Technical Support, Customer Service, Sales toll-free: 1-888-799-5908  Turks and Caicos Islands Web Address E-mail Address la-techsupport@dell.com/tc	International Access		toll-free: 1800 0060 07
Country Code: 66 PowerConnect, and PowerVault) Customer Service toll-free: 1800 006 007 (option 7) Corporate Sales toll-free: 1800 006 009 Transaction Sales toll-free: 1800 006 006  Trinidad/Tobago Web Address www.dell.com/tt E-mail Address la-techsupport@dell.com Technical Support, Customer Service, Sales toll-free: 1-888-799-5908  Turks and Caicos Islands Web Address www.dell.com/tc E-mail Address la-techsupport@dell.com	Code: 001	,	. 11.6 1000.0500.00
Customer Service toll-free: 1800 006 007 (option 7) Corporate Sales toll-free: 1800 006 009 Transaction Sales toll-free: 1800 006 006  Trinidad/Tobago Web Address E-mail Address la-techsupport@dell.com Technical Support, Customer Service, Sales toll-free: 1-888-799-5908  Turks and Caicos Islands Web Address E-mail Address la-techsupport@dell.com/tc	Country Code: 66		toll-free: 1800 0600 09
Corporate Sales Transaction Sales toll-free: 1800 006 009 toll-free: 1800 006 006  Trinidad/Tobago Web Address E-mail Address Technical Support, Customer Service, Sales  Turks and Caicos Islands Web Address E-mail Address E-mail Address La-techsupport@dell.com/tc E-mail Address La-techsupport@dell.com/tc	•		
Transaction Sales  Transaction Sales  toll-free: 1800 006 006  Web Address  E-mail Address  Technical Support, Customer Service, Sales  Turks and Caicos Islands  Web Address  E-mail Address  E-mail Address  La-techsupport@dell.com/tc  E-mail Address  La-techsupport@dell.com/tc			· •
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City Code: 1344	Home and Small Business Sales	0870 907 4000
	Corporate/Public Sector Sales	01344 860 456
	Customer Service	01344 800 430
	Home and Small Business	0870 906 0010
	Corporate Corporate	01344 373 185
	Preferred Accounts (500-5000 employees)	0870 906 0010
	Global Accounts	01344 373 186
	Central Government	01344 373 180
	Local Government & Education	01344 373 190
	Health	01344 373 199
		01344 373 194
	Technical Support Corporate/Preferred Accounts/PCA (1000+	0.000 0.000
	*	0870 908 0500
	employees) Other Dell Products	0970 252 0900
	General	0870 353 0800
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Uruguay	Home and Small Business Fax Web Address	0870 907 4006 <u>www.dell.com/uy</u>
uruguay	E-mail Address	la-techsupport@dell.com
	Technical Support, Customer Service, Sales	toll-free: 000-413-598-2521
U.S.A. (Austin, Texas)	Automated Order-Status Service	toll-free: 1-800-433-9014
•	AutoTech (portable and desktop computers)	toll-free: 1-800-247-9362
International Access	Hardware and Warranty Support (Dell TV,	toll-free: 1-877-459-7298
Code: 011	Printers, and Projectors ) for Relationship	
Country Code: 1	customers	
	Consumer (Home and Home Office) Support for	toll-free: 1-800-624-9896
	Dell products	
	Customer Service	toll-free: 1-800-624-9897
	Employee Purchase Program (EPP) Customers	toll-free: 1-800-695-8133
	Financial Services Web Address	www.dellfinancialservices.com
	Financial Services (lease/loans)	toll-free: 1-877-577-3355
	Financial Services (Dell Preferred Accounts	toll-free: 1-800-283-2210
	[DPA])	1000 11000 1000 1000 1100
	Business	
	Customer Service	toll-free: 1-800-624-9897
	Employee Purchase Program (EPP)	toll-free: 1-800-695-8133
	Customer's Support for printers, projectors, PDAs,	toll-free: 1-877-459-7298
	and MP3 players	ton nec. 1 6// 15/ 12/0
	Public (government, education, and healthcare)	
	Customer Service and Support	toll-free: 1-800-456-3355
	Employee Purchase Program (EPP) Customers	toll-free: 1-800-695-8133
	Dell Sales	toll-free: 1-800-289-3355 or
	Dell Sales	toll-free: 1-800-879-3355
	Dell Outlet Store (Dell refurbished computers)	toll-free: 1-888-798-7561
	Software and Peripherals Sales	toll-free: 1-800-671-3355
	Spare Parts Sales	toll-free: 1-800-357-3355
	Extended Service and Warranty Sales	toll-free: 1-800-247-4618
	Fax	toll-free: 1-800-247-4618 toll-free: 1-800-727-8320
		toll-free: 1-800-727-8520
	Dell Services for the Deaf, Hard-of-Hearing, or Speech-Impaired	
-	Speccii-iiipaiicu	(1-877-335-5889)

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	Technical Support, Customer Service, Sales	toll-free: 1-877-702-4360
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	Technical Support, Customer Service, Sales	0800-100-4752

# Introducing vFoglight

This chapter discusses how vFoglight works, defines key concepts and terms, and describes vFoglight components.

#### This chapter contains the following sections:

Welcome to vFoglight	26
Key Concepts and Terms	27
How vFoglight Works	27
vFoglight Components	35

### Welcome to vFoglight

### What is vFoglight?

vFoglight is an application management solution that reduces or eliminates service disruptions to unify IT and the business. Unlike other solutions, it provides a correlated, 360 degree view of your applications from end user to database and from service levels to infrastructure—to source the root cause of every incident impacting your business and fix them quickly. vFoglight correlates data from multiple perspectives into a single version of the truth to provide deep insight into the service relationships that exist between end users, the business and infrastructure components. Its unique adaptive technology rapidly adjusts to change for improved application performance and service levels, reduced operational cost and risk, and enhanced visibility for all stakeholders.

### How vFoglight Organizes and Presents Data

One of the key features of vFoglight is its ability to dynamically create unique data structures based on any data from any source. Rather than store data based on how it is collected by agents, vFoglight can organize data based on your perception of the data. In many cases, vFoglight is able to draw pictures of your monitored infrastructure that match what you would draw. This includes high-level abstractions like applications and services. All this is accomplished using a dynamic data transformation capability.

### How vFoglight Helps

vFoglight helps application and information technology managers understand user service levels, notify stakeholders when those service levels are violated, and assign problem resolution tasks.

# **Key Concepts and Terms**

# **How vFoglight Works**

Term	Definition
Monitored environment	The hosts, server instances, databases, and other systems in your environment that are monitored by vFoglight agents.  The data collected from your environment is used in the Foglight Management Server, where it populates model instances, drives rules, and can be rendered in views.
Topology	A representation of—and a way of understanding—the logical and physical relationship between items in your monitored environment. At run-time, vFoglight dynamically builds topology model instances based on data about your system that is collected by vFoglight agents. Topology models provide the context for the metrics sent by the agents to the vFoglight Management Server.
Model	The organizing principle used by vFoglight for data about your monitored environment.  At run-time, vFoglight transforms monitoring data into model instances. A model instance is a set of objects and relationships designed to represent a monitored resource and its parts. Each model instance is a representation of that model type. For example, the HostModel type is a collection of Host objects; each host object is one representation of the HostModel type. vFoglight model instances hold collected data and transform it into nodes, adding configuration data to each node as properties, and attaching metric data to appropriate nodes as metrics.  There are different types of models, including collection models defined in vFoglight cartridges and models that you build, such as applications and services.

Term	Definition
Collection model	A model type for which the definitions are included with a vFoglight cartridge. The cartridge can be one that is installed by default with the Management Server or can be a cartridge for monitoring a particular domain. A model instance of this type is created from the collection of data from your monitored environment.  Collection model instances include:  • Internal model instances, which represent data that vFoglight collects about itself.
	<ul> <li>Monitoring model instances, which represent data collected from your monitored environment for a particular domain.</li> </ul>
Collection Domain	A specific domain you are interested in monitoring and for which vFoglight collects data and builds model instances. vFoglight models have been built for domains including Java, .NET, and custom applications (Siebel, PeopleSoft, Oracle E-Business). vFoglight collects data for four categories of domains: application management, database, end-user, and infrastructure. For example, you might collect end-user data as well as data for an application domain such as WebLogic, a database domain such as Oracle DB, and for an infrastructure domain such as Windows.  There are vFoglight cartridges available for different collection
Monitoring Data	domains. See "Cartridges" on page 37 for a list of cartridges.  Data that is collected from your monitored environment by the agents and transformed into a standard format for use by the vFoglight Management Server.  Monitoring data includes both metrics and topology object properties.
Topology Object Property	Monitoring data that describes a topology object, for example, a host name.

Term	Definition
Observation	An observation taken over time, for example, a Metric, StringObservation, or TopNList. In vFoglight, every observation is linked to a specific part of the topology model, for example, CPU utilization on a particular monitored host.
Metric	A simple value observation measured over time, for example, a count, rate, or percentage.
Service	In vFoglight, a service is defined as any grouping of meaningful or interesting things in your monitored environment, for example, a business process or an application. A service is often governed by a Service Level Agreement (SLA). Foglight allows you to define a new service and edit existing services. See "Services" on page 32 for more information.
Service Levels	In vFoglight, service levels are availability measurements on services. See "Service Levels, Alarms, and State" on page 33 for more information.
Service Level Agreement (SLA)	An agreement between information technology managers and end-users on the availability of system and application resources.
Application	A set of tiers in which each tier contains a set of monitored elements, for example, hosts and servers. A tier has a defined flow that represents data moving from the user to back-end systems.  Foglight allows you to build models that represent your monitored applications in a way that makes sense to you. A new service is automatically created for each new application. See "Applications" on page 34 for more information.
vFoglight Management Server	The central component of vFoglight. The Management Server receives information from agents, stores and processes data, and makes it available in the browser interface. See "vFoglight Management Server" on page 35 for more information.

Term	Definition
vFoglight Agent Manager	A component that manages agents installed on monitored hosts. See "vFoglight Agent Manager" on page 37 for more information.
Cartridge	A unit that is added to the vFoglight Management Server. Cartridges contain components that extend the functionality of vFoglight, such as agents, rules, and views. See "Cartridges" on page 37 for more information.
Agent	A vFoglight component that monitors a specific part of your environment, such as an operating system, application, or server.  Agents collect data from your monitored environment and send it to the Management Server. See "Agents" on page 38 for more information.
Rule	A piece of business logic that links a condition with a result. vFoglight evaluates rule conditions against monitoring data. If a condition evaluates to true, the results that are configured for that condition occur, for example, an alarm is fired and an email is sent.
Registry Variable	A variable stored in the vFoglight registry that can be used in rule conditions, actions, and expressions. The value of a vFoglight registry variable can be configured to change over time.

Traditional monitoring systems collect metrics from agents and present them to you. The context for these metrics (for example, host from which data is collected or the name of the database) is gathered at the same time as the metrics and is associated with them. This is an expensive way to store information: context tends to remain static over time, but there are often multiple metrics for a single context. In addition, when you store context this way, it makes it difficult to determine when the context changes—which in itself may be something you are interested in monitoring. Traditional systems also do not allow you to correlate metrics from different nodes in a system, or to derive cluster data from individual server data.

vFoglight monitoring uses a different approach. vFoglight builds model instances from collected data. A model instance is a set of objects and relationships designed to represent a monitored resource and its parts. Each model instance is a representation of

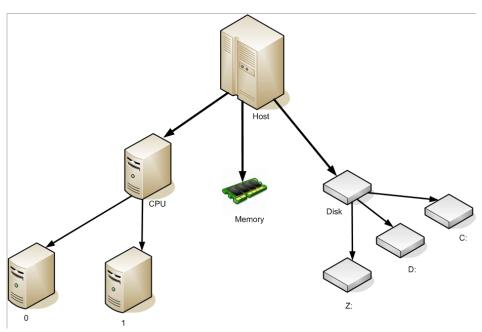
that model type. For example, the HostModel type is a collection of Host objects; each host object is one representation of the HostModel type.

vFoglight models provide context for the metrics collected from your monitored environment. The model instances are dynamic and can change and expand automatically as the resources you are monitoring change. This approach allows you to correlate data from different nodes and to derive cluster data.

vFoglight model instances are similar to organizational charts whose nodes contain properties: metrics and alarms are attached to the nodes, and a node can be connected to one or more other nodes.

Creating a vFoglight model establishes a hierarchical relationship among the nodes that represents information about the collected data. Nodes can represent physical elements of the system, such as CPU or memory, or logical elements such as EJBs (Enterprise Java Beans) or JSPs (Java Server Pages).

A simple host model instance is illustrated in the diagram below:



This diagram illustrates a collection model instance created using monitoring data for a particular domain (for example, an infrastructure domain such as Windows), and which is a representation of a collection model type.

In this collection model instance, a host is represented by a node. It has three child nodes, which represent the CPU, memory, and disk of the host. The CPU and disk nodes also have child nodes that represent the individual processors and file systems, respectively.

The monitoring data that populates this collection model instance is a mix of configuration data (host name, OS, patch level, CPU brand, clock speed, amount of memory) and metrics (CPU usage, allocated memory). Each piece of data is stored only once, but no context is lost. You can know the host name from the CPU or memory nodes, even though the host name is not stored along with the CPU or memory information. Metric data is also stored as part of the context. For example, if there are two hosts, the CPU usage for Host A would be stored with the Host A instance.

What is truly innovative about vFoglight is that these models can be built for any domain at any time. A model instance can be built at the click of a button in the browser interface (using the service builder or application builder), or as a result of new data arriving in the vFoglight Management Server. vFoglight models have been built for multiple domains, including Java, .NET, database, and custom applications (Siebel, PeopleSoft, Oracle E-Business). More importantly, models can be built that represent anything in your monitored environment—your organizational structure, the physical layout of your server room, or the geographical distribution of your data centers.

Once built, the artifacts that are part of a model are packaged into a cartridge (a .car file) and installed on the vFoglight Management Server.

#### Services

In the context of vFoglight, a service can be any component or group of components that you want to monitor. Typically, a service is a grouping of meaningful or interesting things. Some services are created automatically—for example, for monitored hosts—but most services are created by you to reflect what you find interesting and are responsible for monitoring. Examples of services include:

- An application, including its web servers, application servers, and databases.
- A collection of related systems, such as all Windows machines in your monitored environment.
- A business process, such as retail banking.

A service is often governed by a Service Level Agreement (SLA).

vFoglight allows you to define a new service; you can also make changes to existing services, such as renaming a service while preserving the history for that service.

When you define a service, a corresponding service level is automatically created. You can also use Alarm Filters to decide what alarms are relevant to a given service and can impact the availability of that service. See Services and availability below for more information.

Using the Dynamic Managed Components feature, you can define a set of components that will be automatically included in a service when certain data arrives.

The monitoring dashboards in Foglight are organized around the theme of services.

See the *Foglight User Guide* for more information about working with services.

#### Service Levels, Alarms, and State

In vFoglight, service levels are availability measurements on services. Default service levels measure availability based on the state of individual nodes in a model instance.

A vFoglight rule evaluates a series of conditions designed to create an alarm if a performance problem—an exception condition—has occurred. The alarm has one of three severity levels: Warning, Critical, or Fatal. Rules are associated with nodes in the model. When one of the conditions of a rule evaluates to true, an alarm is attached to the node in the model instance with which the rule is associated.

A state is set for each node in a model instance. If there have been no exception conditions, the node's state is set to the default state Normal. However, if an alarm is attached to a node, then the state of the node is set to the severity level of the alarm (Warning, Critical, or Fatal). In general, the state of a node reflects the most severe alarm attached to that node.

In addition to having an individual state, each node also has an aggregate state. By default, the aggregate state of a node represents the state of itself and all its children. Though there are some exceptions, in general, vFoglight calculates a node's aggregate state by evaluating the state of each of its child nodes and setting the aggregate state to be equal to the most severe child node state. In this way, state is propagated up the model instance.

#### Services and availability

The availability of a service is, by default, established based on a rollup of all the alarms fired for the monitored components added to that service.

However, there can be cases in which you do not want this type of alarm rollup to be performed. Often, only a subset of the alarms fired for a monitored component are relevant to a given service.

For example, an alarm fired by a rule called CPU Trending (which monitors the CPU usage over the last 12 months) may be relevant to your Management Planning service, but not to your Billing Application service. In this case, you would not want Fatal alarms fired by this rule for a component of the Billing Application service to signal a service outage.

vFoglight allows you to specify the alarms that are relevant to a given service by means of Alarm Filters. See "Filtering Alarms" in the *Foglight User Guide* for more information.

#### **Applications**

An application is a set of tiers. Each tier contains a set of monitored elements, such as hosts and servers. A tier has a defined flow that represents the data moving from the user to the back-end systems.

vFoglight allows you to build application models using components from existing collection models. Application models represent data in a way that makes sense to you by defining a business process, including user transactions, application tiers, and locations of servers and hosts.

Application models summarize the relationship between your experience of your monitored applications and the information technology infrastructure. vFoglight builds this type of model by gathering data from the perspective of business functions rather than from isolated pieces of the infrastructure.

A new service is automatically created for a new application. See the *Foglight User Guide* for more information.

### vFoglight Structure

vFoglight is offered in two editions - vFoglight Standard (SE) and vFoglight Pro.

- vFoglight SE is designed to help organizations monitor the performance of their virtual infrastructures.
- **vFoglight Pro** includes all the features of vFoglight SE and adds advanced capabilities for Chargeback, Physical Operating System (OS) Monitoring, Third-Party Integration and more.

The table below illustrates the different features included in both versions. For more information, contact a Vizioncore Sales representative (*sales@vizioncore.com*).

vFoglight Features	SE	Pro
VMware ESX Server Monitoring	•	•
Management Server	•	•
Guest Process Investigation •		
Chargeback		
Physical OS Monitoring		•
High Availability Management Serv	er	•
Federation		•
Third-Party Integration		•

### vFoglight Components

### vFoglight Management Server

The vFoglight Management Server is the central component of vFoglight. The Management Server receives information from agents and makes it available in the browser interface.

The vFoglight database stores all system, application, and performance data. Over time, it becomes an invaluable source of historical information for planning future system capacity requirements and for doing point-in-time analysis. The information in the database can also be made available for use in external systems.

The Management Server performs continuous internal monitoring on itself and other vFoglight components, as well as on the Java Virtual Machine (JVM) and the database.

### vFoglight browser interface

vFoglight has a browser interface that displays data collected by vFoglight agents in your monitored environment. It allows you to view this data in various formats and levels of detail.

You can also use this interface to perform administrative tasks such as managing agents, users, security, data, rules, and cartridges.

The browser interface also includes the Administration home page, which allows you to navigate to all Administration dashboards and presents a summary of information about vFoglight from an administrative perspective.

The browser interface consists of three areas:

- A navigation panel that:
  - Lists all of the dashboards that are available for viewing in the display area by the current user.
  - Provides access to the Administration home page and to the pages where you perform administrative tasks.
- A display area in which you can view and create dashboards and reports.
- An action panel that:
  - Lists the various actions that you can perform on the dashboard that is currently displayed.
  - Contains views and data that can be added to a dashboard or report that you
    are creating.
  - Provides access to the online help.

**Note** The action panel is referred to as the page panel in the Web Component Framework documentation, for example in the Web Component Reference.

See the Foglight User Guide and the Administration and Configuration Guide for more information.

#### Customizable Dashboards

vFoglight also includes the Web Component Framework, which allows you to create and populate your own custom interface views on top of the dynamic data schemas generated by the Foglight Management Server. See the *Web Component Guide* and the *Web Component Tutorial* for more information.

### vFoglight command-line interface

vFoglight provides commands that allow you to manage and work with vFoglight components without having to use the browser interface. These commands allow you to perform tasks such as managing the vFoglight Management Server, the vFoglight Agent Manager, agents, cartridges, and licences, as well as work with entities such as metrics, monitoring policies, and schedules.

For example, this interface allows you to automate component-management tasks using scripts or to use regular expressions to select multiple entities.

See the Command-Line Reference Guide for more information.

## vFoglight Agent Manager

New in the 5.2.4 release of vFoglight, the vFoglight Agent Manager is the next generation vFoglight component for managing and communicating with agents.

The vFoglight Agent Manager manages certain types of agents installed on monitored hosts. It provides a centralized communications link between the vFoglight Management Server and these agents and manages the agents' life cycles. The vFoglight Agent Manager also provides a number of support services such as deployment, upgrade, and the ability to configure agents.

See the *Administration and Configuration Guide* for more information.

## Cartridges

Cartridges extend the functionality of vFoglight and are installed on the vFoglight Management Server. A cartridge contains one or more components, such as agents for deployment, communication capabilities, and modifications to the way that data is transformed or handled, as well as rules, reports, and views.

The following vFoglight cartridges are available for **vFoglight Pro**:

- vFoglight Cartridge for VMWare
- vFoglight Cartridge for Chargeback
- vFoglight Cartridge for Guest Process Investigation
- vFoglight Cartridge for Operating Systems
- vFoglight Cartridge for Integration

The following vFoglight cartridges are available for **vFoglight SE**:

- vFoglight Cartridge for VMWare
- vFoglight Cartridge for Guest Process Investigation

When a cartridge is installed and enabled, all of its components become part of the Management Server.

Adding cartridges to the vFoglight Management Server allows you to monitor additional operating systems, processes, databases, applications, and servers in your environment.

See the *Administration and Configuration Guide* for more information about managing cartridges. See the cartridge documentation for information about each cartridge.

## **Agents**

Agents are deployed on machines in your monitored environment and send data to the vFoglight Management Server. Agents can monitor the availability and performance of many aspects of your environment, including network services, operating systems, databases, virtual hosts, log files, file systems, disk space and utilization, top processes, custom applications, application servers, and Web servers.

There are several types of agents. One or more instances of each type of agent managed by the vFoglight Agent Manager can be deployed per host. For example, there is an agent that collects metrics from the operating system of the host machine. vFoglight also includes internal agents that monitor vFoglight components and services.

See the *Administration and Configuration Guide* for more information about managing and configuring agents. See the documentation for the cartridge in which the agent was included for details about each agent.

## First Steps

This chapter includes instructions on downloading vFoglight documentation and software packages. Follow these instructions if you want to download vFoglight 5.2.4.

This chapter contains the following sections:

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Next Steps	40

## Downloading vFoglight

The vFoglight application and documentation can be easily downloaded from the Downloads page at www.vizioncore.com..

To download vFoglight:

- 1 Access the Vizioncore web page at http://www.vizioncore.com/.
- 2 On the navigation bar, click **Downloads**.

The Downloads page appears.

3 Select **vFoglight** from the list of available software.

Note If you have purchased or are evaluating vFoglight Pro, the components for the Cartridge for Operating Systems must also be downloaded from the Vizioncore Downloads page.

- 4 Under Download Queue, in the upper right, click Download Now.
- 5 In the E-mail field, enter a valid e-mail address. Click Continue.

If you have previously downloaded software with this e-mail address, you will receive a "Success . . ." message.

If you have not previously downloaded software, or are using a different e-mail address than used previously, you will be prompted to provide some basic information before downloading. Complete the information, and click **Continue**.

- 6 Access your e-mail client and open the mail from "downloads".
- 7 Click the link for the software package (a .*zip* file) that you want to download. A file download dialog appears.
- 8 Click **Save** to proceed with downloading the documentation or software package.

## **Next Steps**

Once you have downloaded the vFoglight v.5.2.4 documentation and software package, you can get started with the installation and setup process. See Installation and Setup Overview for summaries of the main steps involved in installing (or upgrading) and configuring vFoglight.

# **Installation and Setup Overview**

#### This chapter contains the following sections:

Getting Started with the Installation and Setup Process	42
Part 1: Installing or Upgrading the vFoglight Management Server	43
Part 2: Initializing the Database, Starting the vFoglight Management Server, and Logging In	44
Part 3: Installing or Upgrading Cartridges	45
Part 4: Installing, Configuring, and Starting the vFoglight Agent Manager	46
Part 5: Deploying and Creating Agents	48
Next Steps	50

## Getting Started with the Installation and Setup Process

This chapter provides an overview of the vFoglight installation and setup process. It summarizes the main steps involved in installing (or upgrading) and configuring vFoglight and contains directions to the appropriate instructions in the *Administration and Configuration Guide* and in the *Installation and Setup Guide* set. This chapter is intended as a preface or supplement to these guides.

## References to the Installation and Setup Guide Set

The vFoglight documentation suite comprises a multi-guide *Installation and Setup Guide* set. The database- and platform-specific guides included in this set are listed in "vFoglight Documentation Suite" on page 7.

Throughout this guide, instructions direct you to the *Installation and Setup Guide* where the same type of chapter or section exists in all guides in the set. In these cases, refer to the *Installation and Setup Guide* for the database and platform you are running.

Where a chapter or section exists only in a subset of the guides, those guides are referred to specifically, either by name or type.

#### **Before You Get Started**

Before you install or upgrade vFoglight, review the components you plan to install (or upgrade) and ensure that you have the necessary information, such as port numbers and server names or the target installation locations. In addition, before you begin, you need to:

• Determine if you are going to set up and run the vFoglight Management Server in High Availability (HA) mode or as a standalone server.

**Note** HA mode is only available in vFoglight Pro.

• Decide whether to use an embedded or external database.

The System Requirements and Platform Support Guide contains information you should review prior to installation, such as:

- Supported platforms and Web browsers.
- · Installation recommendations.
- Hardware requirements for the vFoglight Management Server and database.
- · JRE requirements.

The *Installation and Setup Guide* also contains a brief overview of hardware requirements and installation recommendations.

Prior to installing vFoglight, review the *System Requirements and Platform Support Guide* as well as "Before Installing vFoglight" and "Preparing to Install" in the *Installation and Setup Guide*.

# Part 1: Installing or Upgrading the vFoglight Management Server

The vFoglight 5.2.4 installer allows you either to install a new instance of the vFoglight Management Server or upgrade an existing installation of the Management Server.

- 1 **Before you begin:** Review the sections of the *System Requirements and Platform Support Guide* and the *Installation and Setup Guide* described in "Before You Get Started" on page 42.
- 2 Install or upgrade the vFoglight Management Server:

**If you are performing a new installation:** Run the installer by following the appropriate set of instructions in "Installing vFoglight" in the *Installation and Setup Guide*.

**If you are upgrading an existing installation:** Consult the *vFoglight 5.2.4 Upgrade Field Guide* for detailed upgrade instructions.

3 Configure the vFoglight Management Server and database:

**Configuring the vFoglight Management Server:** Once you install the Management Server, you may need to configure it, change its settings, or perform other additional setup steps.

In addition, if you want to set up vFoglight Management Server Federation, post-installation changes to configuration files are necessary.

Note vFoglight Federation is an advanced feature, which requires separate dedicated vFoglight Management Servers. Contact Vizioncore Sales for implementation guidance. This feature is only available with the Pro edition of vFoglight.

For more information, see "vFoglight Settings" in the *Installation and Setup Guide* for the platform and database you are running.

**Configuring the database:** Depending on the type of database you are running, you may need to configure it or change its settings. For example:

- If you are using an external database and chose the installer option to manually set up the database later, see "Manual Database Configuration" in the Installation and Setup Guide for your platform and external database.
- If you are using an external MySQL database, see "External MySQL Database Access for Remote Users" in the *Installation and Setup Guide* for using an external MySQL database on your platform.
- If you are using an external MySQL database and want to set up an encrypted database connection, see "Setting Up an Encrypted Database Connection with SSL" in the *Installation and Setup Guide* for using an external MySQL database on your platform.

For more information, see "vFoglight Settings" in the *Installation and Setup Guide* for the platform and database you are running.

Consult the "Installation Troubleshooting" section in the vFoglight *Release Notes* if you encounter problems when performing the steps listed above.

# Part 2: Initializing the Database, Starting the vFoglight Management Server, and Logging In

The steps outlined in this section assume that you have already installed the vFoglight Management Server. If you have not, refer to Part 1: Installing or Upgrading the vFoglight Management Server for more information before proceeding.

1 **Before you begin:** If you are running a MySQL database (either embedded or external) and want to migrate data to it from an existing MySQL database, follow the instructions in "Migrating Data from an Existing Database" in the *Installation and Setup Guide* for your platform and type of MySQL database (embedded or external).

#### 2 Initialize the Database:

- If you are using an external database, the database must be initialized successfully before you can run vFoglight.
- If you are using the embedded database, the initialization is performed when you start the vFoglight Management Server.
- 3 Start the vFoglight Management Server: The vFoglight Management Server can be run in stand-alone mode, in High Availability (HA) mode (if you are using an external database), or as a Windows service.

See "Starting and Stopping the vFoglight Management Server" in the *Installation* and Setup Guide for information about starting and stopping the Management Server.

For information about running the Management Server as a Windows service, see "Starting the vFoglight Management Server as a Windows Service" in the version of *Installation and Setup Guide — Installing on Windows* for the database you are using.

For information about running the Management Server in HA mode, see "High Availability Mode" and "Starting and Stopping the Server in High Availability Mode" in the version of the *Installation and Setup Guide* for the external database and platform you are using.

See "Running the vFoglight Management Server" in the *Command-Line Reference Guide* for the full set of options available for starting the Management Server from the command line in either stand-alone or HA mode.

**4 Log in to vFoglight:** See "Logging in to vFoglight" in the *vFoglight User Guide* for more information.

## Part 3: Installing or Upgrading Cartridges

In addition to cartridges that contain components for monitoring additional parts of your environment, vFoglight also comes with a cartridge that contains the vFoglight Agent Manager installers for all supported platforms. The cartridge is called *FglAM-all-5\_2\_4.car*. In addition, *FglAM-<platform>-5\_2\_4.car* files that contain platform-specific vFoglight Agent Manager installers.

Once the cartridge for the vFoglight Agent Manager is installed, you can download or retrieve the installer for your platform and install the vFoglight Agent Manager as described below in Part 4: Installing, Configuring, and Starting the vFoglight Agent Manager.

You can install and manage cartridges using either the command-line interface or the browser interface. In addition, you can download agent installers using the browser interface. The instructions below assume that you are using the browser interface. See "Managing Cartridges" in the *Command-Line Reference Guide* for information about performing cartridge-management tasks from the command line.

#### 1 Before you begin:

 Review the cartridge documentation for information about cartridge installation prerequisites.

- Ensure that the vFoglight Management Server is running and that you have logged in to vFoglight.
- Ensure that you are granted the required permissions by your vFoglight administrator to access the dashboards under the Administration module.

#### 2 Install or upgrade the cartridge:

**If you are installing a new cartridge:** Install the cartridge by following the instructions in "Installing and Managing Cartridges" in the *Administration and Configuration Guide*.

**If you are upgrading a cartridge:** Install the cartridge by following the instructions for that cartridge in the *vFoglight 5.2.4 Upgrade Field Guide*.

**Caution** Do *not* disable the older cartridge before installing the new one. vFoglight automatically disables the older cartridge as part of the upgrade process.

Once the new cartridge is enabled, you can then uninstall the older cartridge if you choose.

# Part 4: Installing, Configuring, and Starting the vFoglight Agent Manager

The steps outlined in this section assume that you have already installed the cartridge that contains the vFoglight Agent Manager installers. If you have not, refer to Part 3: Installing or Upgrading Cartridges for more information before proceeding.

You can download vFoglight Agent Manager installers from the Components for Download dashboard using your browser. Additionally, in situations where unauthenticated or headless access to the installers is required, you can access a URL for direct download using a browser or a file retrieval tool (for example, Wget).

#### 1 Before you begin:

- Ensure that the vFoglight Management Server is running and that you have logged in to vFoglight.
- Ensure that you have the required permissions from your vFoglight administrator for the dashboards under the Administration module.
- Identify the host name and Management Server port of each vFoglight
   Management Server with which the vFoglight Agent Manager is supposed to
   communicate.

- 2 Download or retrieve the vFoglight Agent Manager installer: The different ways to obtain the installer for your platform (fglam-<platform>.[bin/exe]) are described below. See the table in "vFoglight Agent Manager Platform Support Matrix" in the *Installation and Setup Guide* for the name of the installer for your platform.
  - Download the installer from the Components for Download dashboard in vFoglight to each machine where you want to install the vFoglight Agent Manager: For instructions on navigating to and downloading installers from this dashboard, see "Using the Components for Download Dashboard" in the *Installation and Setup Guide* for your platform.
  - Download or retrieve the installer from a URL to each machine where you want to install the vFoglight Agent Manager: In situations where unauthenticated or headless access to the installers is required, you can access a URL for direct download using a browser or a file retrieval tool (for example, Wget). No login to vFoglight is required. For instructions on navigating to and downloading installers from this URL, see "Using the vFoglight Agent Manager Installer Servlet" in the *Installation and Setup Guide* for your platform.

#### 3 Install the vFoglight Agent Manager:

If you are installing a new vFoglight Agent Manager: There are different ways to install the vFoglight Agent Manager: using the installer GUI, from the command-line, or using the silent (non-interactive) installer. Follow the appropriate set of instructions in "Installing the vFoglight Agent Manager" in the *Installation and Setup Guide* for your platform.

If you are upgrading from the vFoglight Client to the vFoglight Agent Manager: Consult the *vFoglight 5.2.4 Upgrade Field Guide* for detailed upgrade instructions.

- 4 Configure the vFoglight Agent Manager: Some configuration of the vFoglight Agent Manager can be performed during installation. In addition, the vFoglight Agent Manager can be configured after installation, for example to set items such as:
  - The host display name (the host name reported by the vFoglight Agent Manager instance). This setting can be used in situations where the host name is not sufficient, such as when a host machine is configured with multiple IP addresses or hostnames.
  - HTTP proxy server URL and authentication information.
  - A special SSL override option (for using a self-signed server SSL certificate).

See the file *fglam.config.xml* in the directory in which the vFoglight Agent Manager is installed for details about these and other configuration options. See also "Configuring the vFoglight Agent Manager" in the *Installation and Setup Guide* for information about a vFoglight Agent Manager configuration interface that you can run after installation.

The vFoglight Agent Manager automatically detects HA-enabled Management Servers and configures itself for them. However, you might need to perform some additional configuration if, for example, a Management Server in the HA cluster has special SSL certificate requirements or if it is using a proxy.

Depending on the platform on which the vFoglight Agent Manager is installed and the mode in which vFoglight is running, you may need to perform additional configuration steps. For example:

- If you are running vFoglight in HA mode, see "Getting Started with Server Commands" (in the chapter "Managing the vFoglight Management Server") in the Command-Line Reference Guide for information about configuring the Remote Monitor utility.
- 5 Start the vFoglight Agent Manager: See "Running the vFoglight Agent Manager" in the *Installation and Setup Guide* for information about starting the vFoglight Agent Manager.

See "Running the vFoglight Agent Manager" in the *Command-Line Reference Guide* for information about starting the vFoglight Agent Manager using the command-line interface.

## Part 5: Deploying and Creating Agents

You must install and configure the vFoglight Agent Manager before deploying agents that are installed on a monitored host. The steps outlined in this section assume that you are deploying agents managed by the vFoglight Agent Manager. In addition, they assume that you have already installed and (if necessary) configured the vFoglight Agent Manager on each host where you want to deploy agents. If you have not, refer to Part 4: Installing, Configuring, and Starting the vFoglight Agent Manager before proceeding.

#### 1 Before you begin:

- Review the documentation for the cartridge in which the agent is included for information about agent installation prerequisites.
- Ensure that the vFoglight Management Server is running and that you have logged on to vFoglight.
- Ensure that you are granted the required permissions by your vFoglight administrator to access the dashboards under the Administration module.
- Ensure that the vFoglight Agent Manager is running on the machine(s) where you want to deploy agents.

#### 2 Deploy agents and create agent instances:

First, agent packages need to be deployed to the vFoglight Agent Manager running on the host that you want to monitor. Once you have deployed agents, you can create agent instances on that host.

There are two ways to deploy and create agents: from the browser interface or from the command line:

- See "Deploying Agent Packages to a Monitored Host" and "Creating Agent Instances on a Monitored Host" in the Administration and Configuration Guide for instructions on deploying and creating agents from the Agent Status dashboard.
  - See "Deploying Agent Packages to Multiple Hosts" and "Creating Agent Instances on Multiple Hosts" in the *Administration and Configuration Guide* for instructions on deploying agents to multiple hosts and creating agents on multiple hosts from the Agent Hosts dashboard.
- See "Using the command line to deploy agent packages" and "Using the command line to create agent instances" in the *Administration and Configuration Guide* for instructions on deploying and creating agents from the command-line.
  - See "Managing Agents" in the *Command-Line Reference Guide* for details about the commands available for deploying and creating agents from the command-line.
- 3 Configure agents: After you deploy and create agents, you may need to edit the agents' properties. See "Managing Agent Properties by Type" in the Administration and Configuration Guide for information about agent properties. See the documentation for the cartridge in which the agent is included for information about the specific configuration options that are available for each agent.

4 Manage agents: You can perform agent-management tasks like starting, stopping, activating, deactivating, deleting, and setting blackout periods for agents from the browser interface and from the command line. See "Accessing the Agent Status Dashboard" and "Assigning Blackouts to Agent Instances" in the Administration and Configuration Guide for instructions on managing agents from the browser interface. See "Managing Agents" in the Command-Line Reference Guide for details about the commands available for managing agents from the command line.

## **Next Steps**

Once you have completed the installation and setup process, you can get started using vFoglight. See Starting Points in vFoglight for descriptions of default views and dashboards where you may want to begin.

## **Starting Points in vFoglight**

vFoglight offers a wide range of functionality through its customizable dashboards. This means that there are multiple starting points and workflows available for users with different roles and needs—administrators in charge of managing vFoglight, operational users interested in troubleshooting problems throughout their monitored environment, users focused on monitoring a specific domain or system, or users interested in services management.

When you log in to vFoglight, several monitoring dashboards are initially selected as starting points and listed under Homes in the navigation panel. This chapter provides an overview of dashboards that can be used as starting points in vFoglight: two monitoring dashboards listed by default under Homes and one administration dashboard in the Administration module (**Dashboards** > **Administration**), which can be accessed from the Administration home page (**Homes** > **Administration** > **Navigation** > **Explore**).

Terminology specific to the vFoglight browser interface is used throughout this chapter; see "Introducing the Browser Interface" in the *vFoglight User Guide* for more information about these terms.

**Note** This chapter uses a facing page layout: details about the numbered items shown in the images are provided on the following page. Select one of the facing page layout options in your PDF viewer before proceeding.

#### This chapter contains the following sections:

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## Before You Get Started

The section below provides getting started tips on common elements in the browser interface and features that can affect how you see data in the monitoring dashboards.

## Working in a Current or a Diagnostic Time Range

This getting started tip helps you understand whether you are working in a real time range or a diagnostic time range and how to switch from one to the other.

**Note** Some pages do not take a time range input and so do not display a time range.

By default, the time range at the top of a dashboard is in real time. When the time range is in real time, the icon and the word *Now* are shown in the time range display.

G+ Tuesday, August 12, 2008 7:44 AM - Now 4.0 hours

Hovering over the real time range icon displays a message that identifies the time range as real and informs you how to freeze the time range.

The time range is real time click to freeze

If you drill down on an alarm, vFoglight disconnects from real time and enters a diagnostic time range. The diagnostic time range spans the same length of time as the current time range did prior to the drill down.

Within a diagnostic time range, vFoglight typically sets three-quarters of this span to occur prior to the alarm being fired and one-quarter to occur after. For example, if the current time range spans four hours, when you drill down on an alarm, the diagnostic time range also covers a four-hour interval, from three hours prior to when the alarm fired to one hour after it fired (as shown in the image below).



In some cases, however, the alarm might have occurred close enough to the current moment that the last quarter of the diagnostic time range would cover a span of time that is in the future. If that is the case, vFoglight sets the diagnostic time range to end at the current moment (shown as *Now* in the time range display).

When you are working in a diagnostic time range, no new data is displayed in the views on the dashboard. vFoglight indicates that you have frozen the time range and entered a diagnostic time range by presenting a frozen time range icon in the time range display.

```
[6] Tuesday, August 12, 2008 7:41 AM - 11:41 AM 4.0 hours
```

Hovering over the icon displays a message that identifies the time range as frozen and informs you how to switch to real time.

```
The time range is in the past, click to switch to real time
```

Until you unfreeze the time range, all drilldowns and navigation to views that use the global time range are frozen in this diagnostic time range.

Unfreezing the time range causes it to revert to the last monitoring time range that you used. For more information on current and diagnostic time ranges, see "Time Range" in the *vFoglight User Guide*.

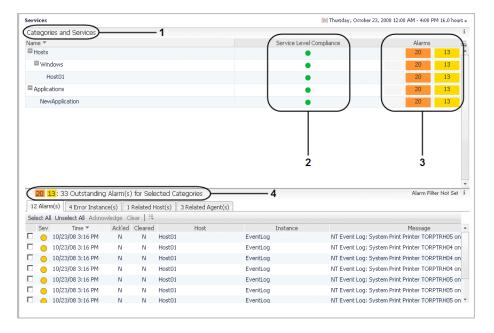
## Services Dashboard

This section provides an introduction to the Services dashboard. For details about this dashboard, see "Monitoring Services" in the *vFoglight User Guide*. For more information about services, see "Services" on page 32.

A service can be any grouping of monitored components. vFoglight creates default services and allows you to create custom services structured around what you want to monitor, enabling you to tailor the way data is presented to suit your specific needs.

You can use the Services dashboard to view the state of your services. From this dashboard, you can drill down to find out more information about a service and its monitored components.

If you are monitoring services, this dashboard is a good one to use: you can filter the list of services to show only the ones of greatest interest to you, and see the state of the SLAs for each of those services. You can also use this dashboard as the starting point in a service-oriented workflow. See the *vFoglight User Guide* for details about the drilldowns available from the Services dashboard.



- 1 Categories and Services view: lists monitored services by category. For example, the screen on page 54 shows two categories of monitored services, *Hosts* and *Applications*. The services in these categories were created automatically for the monitored host *Host01* and for the user-created application model *AppGroup1*. You can filter the categories displayed in this view using the Category Selector dialog (General > Actions > Category Selector from the action panel); see "Filtering the Categories and Services List" in the *vFoglight User Guide* for details.
- **Tip** Click the name of a category or service to display a popup with details about that item and links to more detailed views. See the table in "Viewing Details about a Service" in the *vFoglight User Guide* for more information about these links.
- **2**—**Service Level Compliance column:** shows the service level for the category or for a specific service. vFoglight automatically creates a service level for each service. The level of compliance is determined by the component in the most severe state. See "Service Levels, Alarms, and State" on page 33 for more information.
- Tip Click an icon in this column to display a popup with more information about the Service Level Agreement for the category or service. Follow the Explore > Service Level Agreement(s) link in the popup to navigate to the Service Levels dashboard populated with information specific to that category or service. See "Viewing Service Levels" in the *vFoglight User Guide* for more information about the Service Levels dashboard.
- **3** Alarms column: shows the number of alarms for the category or service. Clicking one of the icons in this column causes an Outstanding Alarm(s) view to appear with a list of alarms specific to that category or service.
- **4 Outstanding Alarm(s) for Selected Categories view:** lists all outstanding alarms and alarms cleared within the time range displayed at the top of the dashboard for the categories shown in the Categories and Services view. You can filter the alarms displayed in this view using the Alarm Filter Applied/Not Set dialog (click **Alarm Filter Applied** or **Alarm Filter Not Set** in the title bar to launch this dialog); see "Filtering the Alarms View" in the *vFoglight User Guide* for details. In addition, you can change the perspective on alarms by selecting one of the tabs at the top of the table; see "Alarm List" in the *vFoglight User Guide* for details.

**Tip** Click anywhere in the row for an alarm to display a popup with details about that alarm and links to drilldowns. See "Alarm Details" in the vFoglight User Guide for details.

## Hosts Dashboard

This section provides an introduction to the Hosts dashboard and the views and dashboards to which you can drill down from it.

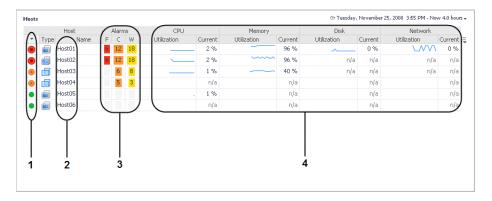
You can use the Hosts dashboard to monitor problems in your environment by focusing on a set of hosts. From this dashboard, you can drill down to different dashboards and views, depending on the host type (physical or virtual). The icons in the Host > Type column identify the host as physical or virtual: physical hosts are identified by the icon , VMWare images by the icon , and ESX servers by the icon ...

You can drill down on a physical host (monitored by Cartridge for Operating Systems agents) to see a real-time monitor for a particular host, details about its alarms, or details about its CPU, memory, disk, or network-related performance.

You can drill down on a virtual host (monitored by Cartridge for VMWare agents) to see a vmMonitor Virtual Machine dashboard (if the host is a VMWare image); a vmMonitor ESX Server dashboard (if the host is an ESX server); details about its alarms or details about its CPU, memory, disk, or network-related performance. Note that this functionality will be available as of the 5.2.4 release of the Cartridge for VMWare.

If you are responsible for the availability of a set of hosts and prefer to think in terms of systems, this dashboard can be helpful as it allows you to view a summary of the state and performance of those hosts.

In addition, you can filter the list of hosts to show all hosts, only active hosts, or only the hosts associated with a particular service (**General > Actions > Host Filter** from the action panel). You can also use this dashboard as the starting point in a host-oriented workflow.



- 1 State indicators: allow you to see at a glance the state of the listed hosts. Each indicator shows the aggregate alarm state of the host, which is determined by the most severe alarm for the host. In this dashboard, the indicator represents a state rollup from the host and its children, excluding the state of agents on that host.
- 2 Host name: clicking the host name allows you to drill down to a real-time monitor that provides you with an overview of that host's health. Drill down to this monitor if you want to see detailed information about how a host is functioning for the time range displayed at the top of the dashboard. A different monitor appears depending on whether the host is physical (identified by the Host Type indicator ) or virtual (identified by the Host Type indicator ) for a VMWare image). For example, drilling down on a physical host displays a monitor with information such as the number of processes running on it and the top consumers of various metrics.
- Tip You can drill down on items in the monitor. For example, if you are interested in investigating memory consumption on a physical host and drill down the monitor for that host, click the Memory button to view memory-related metric charts and tables, such as charts for the top memory consumers on that host.
- **3 Alarms column:** shows the number of alarms for each host. If you are investigating alarms for a host, click one of the icons in this column to cause an Outstanding Alarm(s) view to appear with a list of alarms specific to that host. You can filter the alarms displayed in this view using the Alarm Filter Applied/Not Set dialog (click **Alarm Filter Applied** or **Alarm Filter Not Set** in the title bar to launch this dialog); see "Filtering the Alarms View" in the *vFoglight User Guide* for details. In addition, you can change the perspective on alarms by selecting one of the tabs at the top of the table; see "Alarm List" in the *vFoglight User Guide* for details. In the Outstanding Alarm(s) view, click anywhere in the row for an alarm to display a popup with details about that alarm and links to drilldowns. See "Alarm Details" in the vFoglight User Guide for details.
- 4 CPU, Memory, Disk, and Network columns: each column displays recent and current values for that category of metrics. These columns allow you to obtain a concise overview of CPU-, memory-, disk-, and network-related performance for each host. The values displayed in the sparkline change in accordance with the time range selected at the top right of the dashboard.

**Tip** If you want to perform further investigation on CPU-, memory-, disk-, and network-related performance for a host, click either the sparkline or current value to drill down to a dashboard with more detailed information for that metric category.

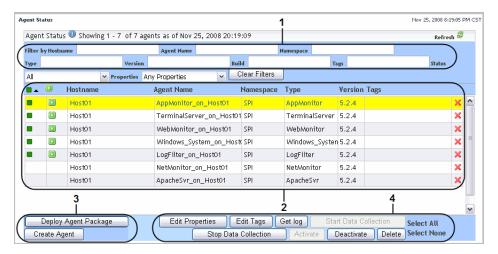
## Agent Status Dashboard

This section introduces the Agent Status dashboard, which can be accessed from the Administration module (**Dashboards** > **Administration** > **Agents** > **Agent Status**) and from the Administration home page (**Homes** > **Administration** > **Navigation** > **Explore** > **Agents** > **Status**). For details about this dashboard see "Accessing the Agent Status Dashboard" in the *Administration and Configuration Guide*.

An agent monitors a specific part of your environment, such as an operating system, application, or server. Agents collect data from your monitored environment and send that data to the vFoglight Management Server.

If you are assigned the Administrator role, you can use this dashboard to activate and deactivate vFoglight agents, cause agents to start and stop collecting data, and view information about agents. If you are responsible for monitoring a large number of agents, you can tag agents using the Edit Tags dialog accessible from this page. The agent tagging feature allows you to form logical groups of agents (for example, subsets of agents of the same type) by applying tags and then editing and managing the agents' properties based on their tag(s).

The Agent Status dashboard lets you see whether agents are deployed, activated, and collecting data, or take the appropriate action if this is not the case. It can also be used as the starting point in a workflow focused on agent administration.



- 1 Filter by <parameter> boxes: allow you to filter the list of agents by one or more of the following parameters: Host Name, Agent Name, Namespace, Type, Version, Build, Tags, Status, and Properties.
- **Tip** The agent list can be filtered by whole or partial parameters. Simply start typing the parameter in the appropriate **Filter by** field to cause vFoglight to filter the list.
- 2 List of agents: displays the created agents, listing for each instance details such as its name, version, type, and the name of the host on which it is running. The Activated 
  ■, Data Collection Started □, and Data Collection Stopped ⊚ icons indicate the status of each agent. Any tags applied to the agents are also listed in this table. See "Editing Agent Tags" in the *Administration and Configuration Guide* for more information.
- **Tip** In the list of agents, click a column header to sort the table by that parameter.
- 3 Deploy Agent Package and Create Agent buttons: allow you to deploy agents to a host where the vFoglight Agent Manager is running and create new agent instances. See "Using the Agent Status dashboard to deploy an agent package" and "Using the Agent Status Dashboard to create agent instances" in the Administration and Configuration Guide for more information.
- Tip If you want to deploy and create agents on multiple hosts, use the Deploy Agent Package and Create Agent dialogs accessible from the Agent Hosts dashboard (Administration > Agents > Agent Hosts > Deploy Agent Package and Create Agent). See "Deploying agent packages to multiple hosts" and "Creating agent instances on multiple hosts" in the Administration and Configuration Guide for more information.
- **4 Button array:** allows you to perform various actions related to the selected agent. The set of buttons that are enabled depends on the state of the selected agent. This set also varies if you have selected more than one agent. See "Accessing the Agent Status Dashboard" in the *Administration and Configuration Guide* for more information about the actions you can perform after clicking these buttons.

## Next Steps

Your next steps depend on how you are using this guide and the way you want to use vFoglight. Some examples are provided below.

- If you read this guide prior to installing vFoglight: select the appropriate platform- and database-specific *Installation and Setup Guide* and follow the instructions for installing and configuring vFoglight.
- If you are an operator responsible for monitoring a large environment: you can follow a service- or host-oriented workflow. For example, if you are responsible for ensuring the availability of all Windows hosts in your monitored environment, you can follow a service-oriented workflow based around the **Hosts** > **Windows** service that begins in the Services dashboard.

Alternatively, if you prefer a less abstract approach, you can follow a hostoriented workflow that begins in the Hosts dashboard.

- If you are a technical expert interested in monitoring a specific domain: start with the documentation included with the vFoglight cartridge for monitoring that domain.
- If you are interested in monitoring services: you can follow a service-oriented workflow. See the v*Foglight User Guide* for details about the drilldowns available from the Services dashboard.
- If you want to customize aspects of the vFoglight browser interface: begin by following the instructions in "Customizing vFoglight" in the vFoglight User Guide.
- If you are a vFoglight administrator: consult the *Administration and Configuration Guide* and the *Command-Line Reference Guide* for information about performing administrative tasks (in addition to those described above) from the vFoglight browser interface and from the command line.
- If you want to create custom dashboards: review the information in "Creating a Custom Dashboard" in the *vFoglight User Guide*. You could then learn more about creating dashboards by following "Tutorial 1: Creating a Dashboard" in the *Web Component Tutorial*.
- If you want to create custom views: begin by following "Tutorial 3: Adding Views" in the *Web Component Tutorial*. After this tutorial, consult the *Web Component Guide* and the HTML *Web Component Reference* pages. These resources can help you create new views using the Web Component Framework technology.

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