# **NetAtlas Access EMS**

Windows Version

# **Quick Start Guide**

Version 2.10 Edition 1 7/2006



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## Overview

The NetAtlas Access Element Management System ("EMS") retrieves management information from IP DSLAMs using Simple Network Management Protocol (SNMP, RFC 1901). See section 2 for a list of specific IP DSLAMs the EMS supports.

The EMS consists of the EMS Server and the EMS Remote Client. You must install the EMS Server, which provides everything you need to use the EMS. The EMS Remote Client is optional. You can install this on other computers if you want to use the EMS on them as well.

The relationship between the EMS Server and the EMS Remote Client is illustrated below.



The EMS Server runs on server **B**, and it uses SNMPc to communicate with the IP DSLAMs (**C**). The EMS Remote Client, if installed, runs on computer(s) **A** and interacts with the EMS Server.

See the EMS User's Guide for more information about the EMS. For information about SNMPc Network Manager, see your SNMPc User's Guide or go to www.castlerock.com.

## 1 System Requirements

These are the system requirements for the Windows version of the EMS.

HARDWARE	SOFTWARE
<ul> <li>CPU: Intel Pentium IV, 1.6 GHz or above</li> <li>Memory (RAM): 1 GB or more</li> <li>Hard Disk free space: 10 GB or more</li> <li>Screen Resolution: 1024 x 768 pixels or better</li> <li>Ethernet Adaptor: 10/100 Mbps</li> </ul>	<ul> <li>Operating System: Windows 2000 (with service pack 1), Windows XP or Windows 2003 Server</li> <li>Database: MySQL 4.0.18 with ODBC 3.51.05</li> <li>Castle Rock's SNMPc Network Manager 7.0.14a (Enterprise or Workgroup edition)</li> </ul>
	Web Server: Apache 2.0.55

# 2 Supported IP DSLAMs and Firmware Versions<sup>1</sup>

IES-2000/3000	R2.00.00	R2.01.00				
MSC1000	3.50(DS.4)	3.50(DS.6)				
MSC1000A	3.50(DS.4)	3.50(DS.6)				
ALC1024-61	2.04(DV.2)	2.04(DV.2)				
ALC1024-63	2.04(DW.2)	2.04(DW.2)				
SLC1024-22	2.04(DX.1)	2.04(DX.2)				
IES-2000/3000	R3.00.00	R3.01.00	R3.02.00	R3.03.00	R3.04.00	R3.04.01
MSC1000	3.60(DS.0)	3.60(DS.1)	3.60(DS.2)	3.60(DS.3)	3.60(DS.4)	3.60(DS.5)
MSC1000A	3.60(DS.0)	3.60(DS.1)	3.60(DS.2)	3.60(DS.3)	3.60(DS.4)	3.60(DS.5)
ALC1024-61	2.04(DV.2)	2.05(DV.0)	2.05(DV.1)	2.05(DV.1)	2.05(DV.1)	2.05(DV.2)
ALC1024-63	2.04(DW.2)	2.05(DW.0)	2.05(DW.1)	2.05(DW.1)	2.05(DW.1)	2.05(DW.2)
SLC1024-22	2.04(DX.2)	2.05(DX.0)	2.05(DX.1)	2.05(DX.1)	2.05(DX.1)	2.05(DX.2)
ALC1224-71	3.50(LK.0)	3.50(LK.4)	3.50(LK.5)	3.50(LK.5)	3.50(LK.5)	3.50(LK.6)
ALC1224-73		3.50(LV.0)	3.50(LV.1)	3.50(LV.1)	3.50(LV.1)	3.50(LV.2)
SLC1224-22				3.50(ABH.0)	3.50(ABH.0)	3.50(ABH.1)
ALC-1224-51					3.50(ABW.0)	3.50(ABW.0)
ALC-1224-53					3.50(AIA.0)	3.50(AIA.0)
IES-5000/5005	R1.01.00	R1.02.00 <sup>a</sup>				
MSC1000G	3.50(LU.1)	3.52(LU.0)				
AL 040400 E4			1			

100000	5.50(LO.1)	5.52(L0.0)
ALC1248G-51	3.50(ABD.1)	3.52(ABD.0)
ALC1248G-53	3.50(ABE.1)	3.52(ABE.0)
SLC1248G-22	3.50(ABF.1)	3.52(ABF.0)

a. The current version of the EMS does not support MSTP for the IES-5000/5005 R1.02.00.

IES-1248-51/51A/53	R4.2	
IES-1248-51/51A	3.52(ABQ.0)	
IES-1248-53	3.52(ABR.0)	
IES-1248-71/71A/73	R4.0	R4.0.2
<b>IES-1248-71/71A/73</b> IES-1248-71/71A	<b>R4.0</b> 3.50(LS.0)	<b>R4.0.2</b> 3.52(LS.0

1. The list of IP DSLAMs and firmware versions may change without notice.

## **3 EMS Server Installation Overview**

This section explains how to install the EMS Server for the first time and how to upgrade from a previous version.

#### Install the EMS Server for the First Time

Follow these steps to install the EMS Server for the first time.

- 1 Install SNMPc Network Manager.
- 2 Install MySQL Server on the same computer.
- **3** Install Apache Web Server on the same computer.
- 4 Install the EMS Software Server, including the MySQL driver, on the same computer.
- **5** Configuring MySQL ODBC Driver to connect to the MySQL database.
- 6 Compile MIB Files in SNMPc.
- 7 Set up IP DSLAMs in SNMPc that you want the EMS to manage.
- 8 Start the EMS.

Each step is explained in the numbered sections below.

#### Upgrade the EMS Server for a Previous Version

If you want to upgrade the EMS from a previous version, uninstall the previous version of the EMS Server, and then follow steps 3-8 above. You do not have to re-install SNMPc Network Manager or MySQL Server.

#### 3.1 Install SNMPc Network Manager

You must have SNMPc Network Manager properly installed before you can use the EMS.

**Note:** Make sure you are using SNMPv2c. If you are not using SNMPv2c, you must uninstall any previous versions and install SNMPv2c.

#### 3.2 Install MySQL Server

Please see www.mysql.com for more information about MySQL.

- 1 Find and unzip the mysql-4.0.18-win.zip file on your CD.
- 2 Find and double-click the setup.exe file.

**3** A **Welcome** screen displays. Click **Next** to continue.



- 4 An Information screen displays. Click Next to continue.
- **5** In the next screen, click **Browse** if you want to install MySQL to a destination folder other than the default destination shown. Then, click **Next**.
- 6 In the following screen, select a **Typical** setup, and click **Next** to continue.

Setup Type		X
	Click the type o	f Setup you prefer, then click Next.
	Typical	Program will be installed with the most common options. Recommended for most users.
8	C Compact	Program will be installed with minimum required options.
	C Custom	You may choose the options you want to install. Recommended for advanced users.
		<back next=""> Cancel</back>

- 7 In the next screen, click Finish to complete the MySQL installation.
- 8 Restart Windows to activate MySQL.

MySQL should start automatically when you restart Windows. If it does not, click **Start, Settings, Control Panel, Administrative Tools, Services**. Then, right-click on **MySql**, and click **Start**. MySQL should start.

🖏 Services					_	<u> </u>
Action View	→   🛍 💽   🗗 🔮 🗟	) 😫 ] 🕨		·		
Tree	Name 🛆	Description	Status	Startup Type	Log On As	<b></b>
Services (Local)	COM+ Event System	Provides a	Started	Manual	LocalSystem	
5 <b>1</b> 3	Computer Browser	Maintains a	Started	Automatic	LocalSystem	
	CHCP Client	Manages n	Started	Automatic	LocalSystem	
	🖏 Distributed Link Tra	Sends notif	Started	Automatic	LocalSystem	
	🖏 Distributed Transac	Coordinate		Manual	LocalSystem	
	🖏 DNS Client	Resolves a	Started	Automatic	LocalSystem	
	🖏 Event Log	Logs event	Started	Automatic	LocalSystem	
	🖓 Fax Service	Helps you		Manual	LocalSystem	
	🖏 Indexing Service			Manual	LocalSystem	_
	🐐 Internet Connectio	Provides n		Manual	LocalSystem	
	IPSEC Policy Agent	Manages I	Started	Automatic	LocalSystem	
	🦓 Logical Disk Manager	Logical Disk	Started	Automatic	LocalSystem	
	🦓 Logical Disk Manage	Administrat		Manual	LocalSystem	
	Messenger	Sends and	Started	Automatic	LocalSystem	
	MySql	-			LocalSystem	
	🖏 Net Logon	Supports p.	Start		LocalSystem	
	NetMeeting Remote	Allows aut	- Stop		LocalSystem	
	Network Connections	Manages o	Pause		LocalSystem	
	Network DDE	Provides n	Resum	ie .	LocalSystem	
	Network DDE DSDM	Manages s	Restar	°С	LocalSystem	
	MT LM Security Sup	Provides s	All Tas	iks 🕨	LocalSystem	-
Start service MySql on Local	Computer		Dofros			

### 3.3 Install Apache Web Server

Follow the steps below to install Apache Web Server on a computer.

- 1 Find and double-click apache\_2.0.55-win32-x86-no\_ssl.msi on your CD.
- 2 A Welcome screen displays. Click Next to continue.



**3** Read the license agreement. Select **I accept the terms in the license agreement** to accept the agreement. If you do not accept it, you cannot install Apache Web Server. Then, click **Next**.



4 Read the information about Apache Web Server. Then, click Next.

🛃 Apache HTTP Server 2.0 - Installation Wizard	×
Read This First	<b>1</b>
Read this Before Running Apache on Windows.	
	_
Apache HTTP Server	
What is it? The Apache HTTP Server is a powerful and flexible HTTP/1.1 compliant web server. Originally designed as a replacement for the NCSA HTTP Server, it has grown to be the most popular web server on the Internet. As a project of the Apache Software Foundation, the developers aim to collaboratively develop and maintain a robust, commercial-grade, standards-based server with freely available source code.	]
The Latest Version Details of the latest version can be found on the Apache HTTP server project page under: <u>http://httpd.apache.org/</u>	
InstallShield	
< Back Next > Cancel	

5 In the following screen, enter any values you want (in the specified format) for Network Domain, Server Name, and the Administrator's Email Address. This information is not used by the EMS. Select for All Users, on Port 80, as a Service. Then, click Next.

🙀 Apache HTTP Server 2.0 - Installation Wizard	×
Server Information Please enter your server's information.	
Network <u>D</u> omain (e.g. somenet.com)	
Server Name (e.g. www.somenet.com):	1
Administrator's Email Address (e.g. webmaster@somenet.com): 	1
Install Apache HTTP Server 2.0 programs and shortcuts for: for <u>All</u> Users, on Port 80, as a Service Recommended.	
C only for the Current User, on Port 8080, when started Man Install5hield	ually.
< <u>B</u> ack <u>N</u>	ext > Cancel

#### 6 Select Typical, and click Next.

👹 Apache HTTP 🤉	Server 2.0 - Installation Wizard	×
Setup Type Choose the set	tup type that best suits your needs.	8
Please select a	setup type.	
• Typical	Typical program features will be installed. (Headers and Libraries for compiling modules will not be installed.)	
C <u>C</u> ustom	Choose which program features you want installed and where they will be installed. Recommended for advanced users.	
InstallShield	< <u>Back N</u> ext > Cancel	

- 7 In the next screen, click **Change...** if you want to install Apache Web Server to a destination folder other than the default destination shown. Then, click **Next**.
- 8 In the next screen, click Install.
- **9** The wizard installs the software. In the next screen, click **Finish** to close the Installation Wizard.

Apache should start automatically after you install the software. You can verify this by checking the Apache service. See the end of section 3.2 for steps to look at services.

#### 3.4 Install the EMS Software Server

Follow the steps below to install the EMS Server on a computer.

Note: You must install SNMPc and MySQL first.

- 1 Find and double-click NetAtlasAccess\_S210c0.exe on your CD.
- 2 A Welcome screen displays. Click Next to continue.



**3** Read the license agreement. Click **Yes** to accept the agreement.



4 Type your name and company name in the following screen. Click **Next** to continue.

ZyXEL NetAtlas Access Setup	×
Customer Information Please enter your information.	
Please enter your name and the name of the co	mpany for whom you work.
User Name:	
joho	
Company Name:	
zyxel	
InstallShield	< <u>B</u> ack <u>N</u> ext > Cancel

5 Select NetAtlas Access Server to set up the management server.

ZyXEL NetAtlas Ac	cess Setup
Select Compone Select the comp	ents onent you want to install.
Please select the	e component that you want to install.
	Install once on your management server with SNMPc Server. Includes EMS Server, Daemon Poller.
	NetAtlas Access Remote Client Install on one or more LAN-connected systems with SNMPc Remote Console , so multiple users can log into the EMS Server at the same time.
InstallShield ———	< Back Next> Cancel

- 6 In the next screen, you must select the directory where you installed MySQL. Click **Browse** if you did not install MySQL database in the default folder shown. Click **Next**.
- 7 In the next screen, you must select the directory where you installed Apache. Click **Browse** if you did not install Apache web server in the default folder shown. Click **Next**.
- 8 In the next screen, click **Next** to begin the installation and start copying files.

9 When a Welcome screen displays, click Next to install the MySQL ODBC driver.



**10** Read the license agreement. Click **Next** to accept the agreement.



11 In the next screen, click Next again to begin the MySQL ODBC driver installation.

12 In the next screen, click Finish to complete the MySQL ODBC installation.

13 In the next screen, click **Finish** to complete the installation.

### 3.5 Configuring MySQL ODBC Driver

**Note:** Make sure MySQL is running. If it is not running, follow the directions at the end of section 3.2.

The MySQL ODBC driver should be installed during the EMS installation. You must configure the MySQL ODBC driver for the EMS to connect to the MySQL database successfully.

Follow the steps below to configure the ODBC driver in Windows XP. The steps may be a little different for other Windows versions.

- 1 Click start, Settings, Control Panel, Administrative Tools and click Data Sources (ODBC).
- 2 Click the User DSN tab and select AccessEMS from the User Data Sources list.



3 Click Configure.

**4** The MySQL ODBC DSN Configuration screen displays as shown next. Specify your MySQL database settings as shown below, and click **OK**.

MySQL ODBC 3.51 Driver - DSN Configuration, Version 3.51.05		
This dialog helps you	in configuring the ODBC Data Source Name, that you can use to connect to MySQL server	
DSN Information		
Data Source Name:	AccessEMS	
Description:	MySQL ODBC 3.51 DSN	
- MySQL Connection Parame	ters	
Host/Server Name(or IP):	localhost 6	
Database Name:	accessems MuSQU	
User:	root	
Password:		
Port (if not 3306):	3306	
SQL command on connect:		
	el Options >> Test Data Source Help	

5 Click OK to close the ODBC Data Source Administrator window.

#### 3.6 Compile MIB Files

The Management Information Base (MIB) is designed for holding management information on systems that the standard MIB does not include.

- 1 In the SNMPc Network Manager main screen, click Config, MIB Database.
- 2 Click Compile in the Compile Mibs... screen.

Miths To Compile: rdc1742.mib rdc1253.mib rdc1268.mib rdc1268.mib rdc1864.mib rdc1854.mib rdc1658.mib rdc1658.mib rdc1654.mib rdc1660.mib rdc1381.mib rdc1382.mib		Compile Stat Entries: Warnings: Errors: Compiling:	us 0 0 0 Compile	Abort
rfc1382.mib	~		Compile	

3 Click Yes when asked to confirm.

4 When SNMPc Network Manager finishes compiling the MIBs, click **OK** to close the message box, and click **OK** to close the **Compile Mibs** screen.

### 3.7 Set up IP DSLAMs in SNMPc

The SNMPc Network Manager can find new IP DSLAMs automatically using auto-discovery (enabled by default), or you can add new IP DSLAMs manually. Auto-discovery may take a long time in large networks or with slow connections.

#### 3.7.1 Use Auto-Discovery

- 1 To enable auto-discovery and then find your IP DSLAM, click Config, Discovery/Polling.
- 2 Select the Enable Discovery check box and click OK.

Address localhost	Status connected	General Proto Seeds Comm Filters
		Finable Discovery Restart
		✓ Use Subnet Broadcasts
		Ping Scan Subnets
		Auto Restart Time (hours): 1
		Polling Config
		Enable Status Polling
ayout Top L	.evel/Complete 🔄	Enable Service Polling
Use full DN	Sname	
Enable Pol	l After Layout	Delete OK Cancel Help

You should find your IP DSLAM in the Device List panel. If not, try setting up your IP DSLAM manually.

#### 3.7.2 Add IP DSLAMs Manually

If you have disabled auto-discovery, follow the steps below to add your IP DSLAM(s) manually.



2 Fill in the General and Access tabs as specified below.

Map Object Properties	Map Object Properties
Map Object Properties     Image: Comparison of the second se	Map Object Properties         General Access Attributes Dependencies         Name:         Value:         Value:         Attrib:         Read Access Mode         SIMP V2c         Read/Write Access Mode         SIMP V2c         Read/Write Access Mode         SIMP V2c         Read/Write Community         public         Trap Community         V3 No-Auth Security Name         V3 No-Auth Security Name         V3 Auth Prix Security Name         V3 Auth Passwd         V3 Prix Passwd         V3 Prix Passwd
OK Cancel Help	OK Cancel Help

FIELD	VALUE
Label	Type a descriptive name for identification purposes. If you do not configure this field, the default label is "New Object".
Address	Type the IP address of the IP DSLAM.
FIELD	VALUE
Read Access Mode	"SNMPV2c"
Read/Write Access Mode	"SNMPV2c"
Read Community	For initial configuration, "public" is the default for most IP DSLAMs. After initial
Read/Write Community	configuration, you assign this field.
Trap Community	

**Note:** For security purposes, we strongly recommend you change the **Read Community**, **Read/Write Community**, and **Trap Community** defaults. Write down this information and store it in a secure place so you will not forget it later.

3 Click OK.

4 After the IP DSLAM has been found, the IP DSLAM icon and label appear in the network manager view window. Right-click on the icon, and click **Properties** to verify the information you entered in the previous step.



#### 3.8 Start the EMS

1 In SNMPc Network Manager, double-click the IP DSLAM icon to open the EMS main screen.





## 4 EMS Remote Client Installation Overview

Note: You must install the EMS Server first.

Follow these steps to install the EMS Remote Client on other computers. You need the IP address of the MySQL database.

- 1 Install SNMPc Login Console.
- 2 Install the EMS Remote Client, including the MySQL driver, on the same computer.

- **3** Configuring MySQL ODBC Driver to connect to the MySQL database.
- 4 Compile MIB Files in SNMPc.
- **5** Set up IP DSLAMs in SNMPc that you want the EMS to manage.
- 6 Start the EMS.

Steps 3-6 above are the same as steps 5-8 when you Install the EMS Server for the First Time. Follow the directions in sections 3.5-3.8.

#### 4.1 Install SNMPc Login Console

You must have SNMPc Login Console properly installed before you can use the EMS Remote Client. SNMPc Login Console is part of SNMPc Network Manager.

**Note:** Make sure you are using SNMPv2c. If you are not using SNMPv2c, you must uninstall any previous versions and install SNMPv2c.

#### 4.2 Install the EMS Remote Client

Follow the steps below to install the EMS Remote Client on a computer.

- 1 Find and double-click NetAtlasAccess\_S210c0.exe on your CD.
- 2 A Welcome screen displays. Click Next to continue.



3 Read the license agreement. Click Yes to accept the agreement.

yXEL NetAtlas Access Setup	X
License Agreement Please read the following license agreement carefully.	
Press the PAGE DOWN key to see the rest of the agreement.	
Notice Information herein is subject to change without notice. Companies, names, and data used in examples herein are fictitious unless otherwise noted. No part may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, except the express written permission of ZWEL Communications Corporation. This Products include MySQL Database Server	
GNU GENERAL PUBLIC LICENSE	-
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install ZyXEL NetAtlas Access V2.10, you must accept this agreement.	
< <u>B</u> ack <u>Y</u> es <u>No</u>	

4 Type your name and company name in the following screen. Click **Next** to continue.

ZyXEL NetAtlas Access Setup			×
Customer Information Please enter your information.			
Please enter your name and the name of the	company for whom	you work.	
<u>U</u> ser Name:			
joho			
Company Name:			
zyxel			
ากระยุแอกเซเน	< <u>B</u> ack	<u>N</u> ext >	Cancel

5 Select NetAtlas Access Remote Client to set up the EMS Remote Client.



6 Enter the IP address of the computer where MySQL Server is installed. Then, click Next.

ZyXEL NetAtlas Access Setup		X
Server IP		
Please enter MySQL server IP address:		
Server: <b>192:168.0.1</b>		
InstallShield	< Back Next >	Cancel

7 In the next screen, click Next to begin the installation and start copying files.

8 When a Welcome screen displays, click Next to install the MySQL ODBC driver.



**9** Read the license agreement. Click **Next** to accept the agreement.



10 In the next screen, click Next again to begin the MySQL ODBC driver installation.

**11** In the next screen, click **Finish** to complete the MySQL ODBC installation.

12 In the next screen, click Finish to complete the installation.

Follow the directions in sections 3.5-3.8 to complete the installation and start the EMS Remote Client.

## Troubleshooting

PROBLEM	CORRECTIVE ACTION
I cannot install SNMPc Network Manager, MySQL, or Apache Web Server.	Make sure that the computer where you want to install this software meets the system requirements. See section 1.
	Stop any services for SNMPc Network Manager, MySQL, or Apache Web Server.
	Uninstall any previous versions of this software.
The EMS will not install properly	Make sure that the computer where you want to install this software meets the system requirements. See section 1.
	Uninstall any previous versions of this software.
I cannot find my IP DSLAM in SNMPc Network Manager.	Make sure the MySQL driver is correctly configured, you have compiled the MIBs, and the map object properties are correct. See sections 3.5, 3.6, and 3.7.2, respectively.
	Make sure that MySQL and Apache Web Server are running.
	Make sure that you restarted your computer after you installed MySQL.
	Make sure that the computer is connected to the network where the IP DSLAM is located.
	Make sure the computer's Ethernet card is working properly.
I cannot access the EMS.	Shutdown and restart SNMPc Network Manager, MySQL, and Apache Web Server.
	The EMS may already be running. Check your Windows task bar.
	If the problem still persists, uninstall and re-install the EMS.