

Lite Management Console

design overview

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Concepts



- **Light Weight**
 - Low resource usage
 - Appropriate for SOHO and Groupware
- **Easy to use**
 - Windows GUI , use common usability design
 - LaunchPad Icon
- **Simple**
 - Simple/quick installation
- **Flexible**
 - User extendable design to manage various devices
 - Multi-vendor, multi-device, multi-OS support
 - Devices such as Server, Note, Desktop HUB/Router, Printer, UPS and Network Storage
- **Multi-language support**
 - Internationalized design

Key technologies



■ XML

- Collected device information and received events are stored in XML file

Advantage:

- No database engine is required such as MSDE
- All information to build user view are scripted in XML file

Advantage:

- Provides flexibility and expandability for user's environment and purpose
- Provides views using stylesheet for XML

Advantage:

- View for device and event information can be transformed as viewer's preferences
- Data is exchangeable
- String data definition

Advantage:

- Easy to handle multi-language in single XML with utf-8 format

Key technologies



■ WinSNMP

- Allow customer to run other SNMP management console

Advantage:

ProLiant provides powerful management capability

■ WMI

- Allow customer to manage device in higher security environment

■ ESMTTP

- ESMTTP support is more important when using ISP's SMTP server

■ Windows GUI

- Enhanced control of MFC class provides easy to use environment

Prerequisites & Restrictions



■ Prerequisites

- Operating System
 - Microsoft Windows 2000 and XP
 - NOTE: No legacy OS support as running platform**
- Additional components
 - WMI and SNMP installed and configured
- Recommended components
 - HP Management Agents on target server

■ Restrictions

- SNMP via IPX
 - **Focusing on IP based networks only**
- Auto Device Discovery
- Device's detail information/control
 - Use IM7 and Agents to manage detail

User Interface

Icons, Dialog Box, Browser

Icon

- Indicates overall status
- main menu as well as Ttray Icon

Launch Pad

- Quick access to more tools

IconTray

- Main menu
- Service status indication

MIB Walker

- MIB Browser

Main Dialog

- Device Status overview
- Event status overview
- Configuration and settings

Device List

- Device status
- Component tree
- Component information and status
- Device inventory and status view

Configuration/Settings

- Device list property
- Notice property
- Global settings

Web Browser

- Device inventory and status view
- Event detail list view
- XML

Event Notification List

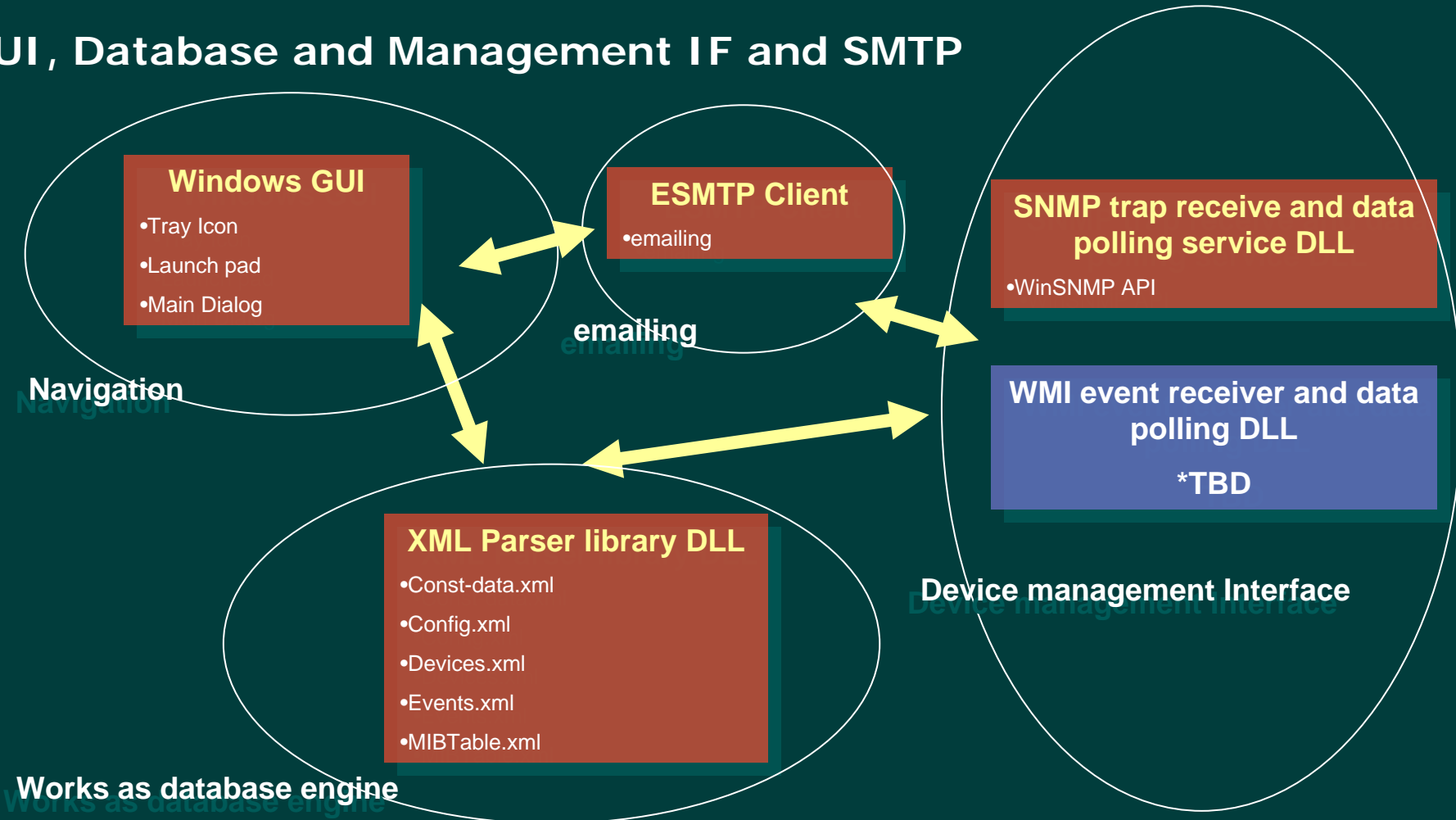
- Alert severity
- Alert status
- Email notice/mark/delete
- event detail list view

*Refer to backup pages for UI sample

Module architecture

Base Functions

UI, Database and Management IF and SMTP



Features



■ UI design

- Tree in ListCtrl and Styled List provide user friendly navigation and look & feel
 - Device View, Event Notification View
 - Status Icons
 - Control navigation
- Browser like design
- Audio Support
 - Indicates Alert with audio sound
 - Indicates critical device with audio sound

■ LaunchPad

LaunchPad is designed to provide quick view of all managed device status, allow user to control managed device and allow user to launch device specific application such as Web based Management Agents from it

- Quick access to Device Detail view
- Device controls
 - Server reboot (SNMP)
 - Shut down (WMI)
 - WOL (MagicPacket)
- Quick launch to HP Insight Agents Web page and others
- Works as alert and device status indicator
- Transform between Icon view and LaunchPad view
- Audio sounds
 - When receiving alert
 - When discovered critical device

Features



■ email notification

- Supports **ESMTP** (SMTP-AUTH with CRAM-MD5)
- User able to customize the notification format (HTML)
- Automatic sending received events
 - Sending to preset configured member
 - Filtering by event severity
- Manual sending Device Information XML
 - Sending to any person (ex. technical support)
- Manual sending Event information XML
 - Sending to any person (ex. technical support)
- Filtering
 - Allow user to receive all traps or traps only from managed device

■ Scripting

Managed items are defined in script XML

- User able to customize the script
- Component, component's object
- Icon for components
- Predefined script XML is well designed for ProLiant servers
- Threshold definition
- Calculation and Referencing

■ MIB table xml

- Provides translations
- Provides alert detail
- Defines alert's severity

- XML style sheet
 - Provides user friendly UI and navigation to read information stored in XML
 - Provides more styles per purpose (fault investigation view, inventory view..)
- MIBTable.xml MIB database XML
 - Defines MIB object information in original designed xml file
 - Provides severity, translation
- Device inventory and status view/Event detail view
 - Data view is provided by launching browser
 - View format is provided by xsl style sheet
 - Translation is provided by string ENTITY file
- Email notice format
 - User is able to customize email notice format using HTML

■ Beta version is/is not

IS	IS NOT
■ Data collection script for WMI and WMI device data polling	■ WMI Event consumer to receive event via WMI ■ Device control via WMI
■ Online Help	■ Online Help – English ■ Online help with latest functionality and screen image
■ SCSI controller and Disk	■ Array, FC, IDE are not tested
■ Multi-language English and Japanese	■ Other language Language resource DLL, Entity file Email format
■ MIB Database translation	■ translation for alert trap for other vendor

Backup

LaunchPad UI

- Device status overview
- Quick link for device detail
- Remote Controls



Backup



Main Dialog UI

- Event Notification List
- Device Status List
- Configuration/Settings

Lite Management Console - Main

Last Updated: 12/13/2003 17:58:00

Device Status Icons: 4/7 (Info), 3/7 (Warning), 0/7 (Error), 0/7 (Critical)

Notice Status Icons: 10/13 (Info), 3/13 (Warning), 0/13 (Error)

Control: [Icons]

Device/Components	IP Address	Link Status	Management I/F	Location	Contact	Vendor	Uptime	Role	Description
down-server	192.168.1.99	down(0)	SNMP					Server	
HIROKOS-DELL	192.168.1.100	down(0)	SNMP	Home	Hirokos		0 days 00h:05...		Hardware: x86 Family 15 Model 2 Stepp
iv-server.houston.tx.com	192.168.1.2	up(1)	SNMP	-	Linksys	Compaq	24 days 07h:1...	Server	BEFSR81
Linksys	192.168.1.1	up(1)	SNMP	Home	Sakamoto	Linksys	-27 days -19h...	Router	Linux [none] 2.4.5 #466 Thu Jul 3 22:16
TAISUKENT	192.168.1.102	down(0)	SNMP	aa	坂本	Compaq	0 days 04h:01...	Server	Hardware: x86 Family 5 Model 2 Steppir
TAISUKES-EVO	192.168.1.101	down(0)	SNMP			Compaq		notebook	Taisuke Sakamoto evo N620c
TAISUKES-XP	192.168.1.10	up(1)	SNMP & WMI	Home	Taisuke Saka...	Compaq	0 days 03h:42...	Desktop	Taisuke's computer
System Information									
OS Name	OS ID	Description							
OS Information	OS Name	Build#	CSDVersion	Serial #					
Installed Software Information	Vendor	Version							
Running Processes Information	Version	Size							
Memory Information	Total Physical Memory	Total Virtual M...	Total Page ...	Available V...					
	261552	893520	631968	387724					
BIOS Information	Base Board Serial N...	Version	SMBIOS Ver...	Manufacturer					
	R245CCF20004	COMPAQ - 20020...	686v2 v2.11	Compaq					
Event Log Messages	Type	Source name	Logfile	Description	Type ID				
Network Subsystem									
Network Interface	IP Address	Media Type	speed	MAC address	staus				
Network Interface	Adapter Type	IP Address	MAC address						
UPD port(s)	port								
TCP port(s)	port								
Storage Subsystem									
UPS									
UPS Product Information	Manufacturer	Model	Battery Con...	Battery Sta...	Charge	Battery Po...	Estimated ...	Estimated ...	Capacity(%)
	Belkin Components	F6C800-UNV	good(0)	ok(0)	charging(1)	0	0	0	100
UPS Settings	Attached Devices	Output VA	Output Volt...	Output Fre...					
	(zero-length)	800	0	120					
Printer(s)									
Printer Information	Capability	Shared	Shared Name	Status	Port				





Lite Management Console

Backup

Device detail view

- XML Style sheet

The screenshot displays the 'LMC Device List - Microsoft Internet Explorer' window. The address bar shows the URL: `C:\Source\LiteMgmtConsole\DATA\device_TAISUKENT.xml`. The page title is 'Lite Management Console' and the device name is 'TAISUKENT', with a last update time of '2003.11.21, 12:27:06'. The main content area is divided into several sections:

- System Information:** Device ID# 2, Location aa, Description Hardware: x86 Family 5 Model 2 Stepping 5 AT/AT COMPATIBLE - Software: Windows NT Version 4.0 (Build Number: 1381 Uniprocessor Free), Uptime 0 days 12h:04m:51s.03th, Contact 坂本, Status up(1), Vendor Compaq, Role Server, Type , OS  .microsoft(311).software(1).systems(1).os(3).windowsNT(1).workstation(1) (1.3.6.1.4.1.311.1.1.3.1.1) Microsoft Windows NT Workstation 4.00 Service Pack 6 1381 Uniprocessor Free
- CPQ Asset Information:**  Serial #:6528HPH3D240 Asset Tag #:(zero-length) mini-tower(6) Compaq ProSignia 300
- CPQ Standard Equipments:**  Total Memory Size::81920B System ROM::04/02/1998, Family 386E15, Type 03 Reboot: available(2)
- System Control(s):**

Status	Type	Time	Information
corrected(2)	diagnosticError(35)	ee.47.18 (hex)	73.ed.39.03 (hex)
- Critical Error Log:**

corrected(2)	pciBusParityError(34)	4d.18.18 (hex)	00.c2.60.00 (hex)
corrected(2)	pciBusParityError(34)	4d.18.18 (hex)	00.c2.60.00 (hex)
corrected(2)	diagnosticError(35)	ae.f2.17 (hex)	17.14.3a.03 (hex)
- Correctable Memory:**

Status	Condition	Errors
enabled(4)	ok(2)	0
- Thermal Condition:**

Status	Condition	Action
other(1)	other(1)	other(1)
- IP Address:** other(1) 127.0.0.1 192.168.1.102

Issues & Concerns



■ Current issues

- Requires more testing under several environments
- More Gif files

■ Concerns

- Status indication consistency between Agents?
- More functions in Launch Pad?
 - remote reboot/WONLAN
- More 3rd party product support?
 - HP servers, HUBs
- More management API?
 - WMI support (in progress)
- Wizard support to customize script XML?

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