What is NetVibe? A network performance reporting tool that provides utilization, health, and performance statistics on Routers, Switches, Firewalls and Hosts.

System Architecture

- 100% written in JAVA
- 160,000+ lines of code
- JBOSS J2EE Application Server
- MySQL Database Server
- Polling Engine - configured w/ multiple simultaneous polling threads
- Database management, data aggregation and daily table compression
- Application runs in two separate Windows services: NetVibe-Application Server and MYSQL (4.x) Database Server

System Requirements

- Operating System: Windows 2000/XP Professional/Vista
- CPU: Pentium 2.5GHZ or above
- Memory: Minimum 1GB
- Disk: 50GB (depends on size of network), Software installation requires 200 MB
- Hardware: can be any platform (desktop, laptop) as long as it meets requirements
- Internet Accessible for software downloads, license generation and updates

Software Features

- NetVibe Installation:
  - Easy to use software installer comes in a single executable file.
  - Provides "Start" menu folder with options to load client, start/stop server and un-install application
  - Application resides in Windows system tray after startup
- Polling Capability:
  - System can monitor at least 1,000 elements (customer tested at 1300, system could handle 2,000 limited only by polling interval)
  - Polling interval settable per element can range from 15 seconds to 30 minute
- Element Creation:
  - Auto-detection of element types provided via Easy Element Wizard populated via pre-defined "Vendorid" file.
  - Vlan Identification, Port Speed Recognition, and Interface Description for Catalyst switches
  - Bulk Add wizard allows you to populate system with multiple elements quickly using online Wizard that generates an Excel spreadsheet that can

be edited offline. System checks Exel file syntax and loads it directly into system

- Device Support:
  - Cisco Router platforms running IOS software revisions and reports on CPU, Memory and Buffer Utilization (Misses, Hits, Fails)
  - Cisco Catalyst Switch platforms running CAT-0S or IOS software with reports on available CPU, and Memory Utilization
  - Cisco PIX Firewall includes: CPU, Memory and Connections-in-Use
  - Microsoft Windows Host (2000,XP) includes: CPU, Memory and Disk
- Interface Support:
  - LAN Interfaces: 10/100/1000 (includes 64-bit High Capacity Counter Support)
  - WAN Interfaces: DS1, DS3, and OC-3
  - Frame-Relay Circuits: PVC Identification per interface
  - ATM Circuits: VPI/VCI identification per interface
- Auto-correction for IfIndex changes and interface speed changes:
  - System detects changes in IfIndex values due to card insert/delete or interface deletion
  - Interaced speed changes due to port changes on switches or router interface bandwidth settings
- MIB Support:
  - IF-MIB
  - Old-Cisco-Interfaces-MIB
  - Cisco-VLAN-Membership-MIB
  - RFC1213-MIB
  - Frame-Relay-DTE-MIB
  - Cisco-Products-MIB
  - Cisco-Process-MIB
  - CISCO-MEMORY-POOL-MIB
  - OLD-CISCO-MEMORY-MIB
  - Cisco-AAL5-MIB
  - Cisco-Firewall-MIB
  - Host-Resources-MIB
  - Cisco-Stack-MIB
- Reporting:
  - On-Demand Reporting
    - Detailed per element reports includes individual and overview reports
    - Summary reports are grouped by element type:
      - Supports All-Hours .vs. Business Hours (user-definable)
    - Auto-Refresh feature available for On-Demand Reports for troubleshooting
    - Output types supported: Excel(CSV), JPEG, and PDF (Scheduled)
  - Scheduled Reporting for detailed and summary reports
    - Scheduled Reporting Wizard used to create reports
    - Completed reports available in Report Bin
    - Electronic Mail Report Distribution available via SMTP

- Network Latency measurements using ICMP-echo protocol requests
- Uptime Reporting: Device/Interface uptime measure via SystemUptime
- Custom Element Grouping:
    - Can create group of elements by element type or a common interest such as geography or organizational control
- Supports the creation of non-administrative users with restricted access per User ID to groups or classes of elements
- Ability to support multiple separate networks on one system (Group, Company)
- Database Performance:
    - Enhanced database performance through use of separate MYSQL tables for hourly and daily storage .vs. weekly and monthly data
    - Data archiver runs every hour moving hourly data into long-term tables storing peak and average values.
- Systems Settings Area:
    - Database retention settings for real-time and long-term data
    - Email Server configuration for delivery of reports
    - Ability to support multiple separate networks on one system (Group, Company)
    - Settable polling defaults for community string and reset of polling intervals (from amounts less than 10 minutes used for troubleshooting)
    - System oriented logs generated in MYSQL database for easy access and review
- Hot Spot Alerts:
    - Provides mechanism to set thresholds based on multiple criteria:
        - Device Health: CPU, Memory, Buffer Utilization, Disk Usage, Connections-In-Use (firewall)
        - Interface Health: Link Utilization Peak/Average and Error/Discard Totals
    - Displays devices and interfaces that exceed thresholds in red