

IBM Linux and the Thin Client: New Opportunities and Solutions

November 3, 2004 Teleconference

Host: **Brian Fullington, IBM WW Linux Client Project Office**



Teleconference Agenda:

- **Thin Client Market Dynamics:**
 - Brian Fullington, IBM WW Linux Client Project Office
- **Neoware Thin Clients:**
 - Charlie Quinn – Director, IBM Business Development, Neoware
- **IBM Kiosks:**
 - Bruce Rasa – Kiosk Marketing Manager, IBM Retail Store Solutions
- **Questions and Answers**



Thin Client Market Dynamics

- Desktops predicted to be less than 50% of client devices by 2008*
 - Thin Clients, cell phone devices and PDA's
- “Because of management, security, and operational and cost issues, more enterprise customers will deploy server based solutions”*
 - Server based computing will grow 2x rate of desktops through 2007*
- Linux will account for 20% of thin client OS's by Y/E 2004**
- 54% of IBM thin client sales ship with Linux
- Thin clients are often a great alternative where end users don't need all the features and functions of a full blown office machine.

•*Gartner report “What's Ahead for Desktop PCs in 2004” – Dec. 2003

•** “IDC Enterprise Thin Client Q-View, Q2 2004”



Think Thin with Linux from Neoware



IBM/Neoware Thin Client Alliance
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Linux



Increased Adoption of Thin Client Devices

- Gartner Group – Mgmt Update 12/10/03
 - **Prediction on Thin Client Devices**
 - **Will continue to grow by addressing issues of**
 - harsh environmental conditions
 - space and power limitations
 - manageability
 - most important, security
- IDC Q1 2004 Enterprise Thin Client View
 - **Linux on 21.7% of thin client shipments in Q1**
 - **Thin Client Linux year-on-year growth at 64.9%**
 - **40% of Neoware's business is Linux, twice industry average**



Thin Clients in the IBM Sales Kit

- Complements a full line of PCD offerings
 - Servers - Notebooks - Desktops - Thin Clients
- Provides an opportunity to sell other options
 - Flat Panel Displays, Monitors
 - Keyboard
 - Software - NetVista Migration, IBM 3270/5250
- Compensates the participants
 - PCD, Client teams and Neoware compensated on IBM part numbers – Siebel input for Linux reps
- Offers fulfillment choices
 - Partner Choice, PC Direct, LE Direct
- Opens the door to new resellers
 - Server partners, Neoware resellers

HP



Thin Clients

■ Benefits of Adopting Thin Clients

- Built-in Security
 - Information access controlled at server, by administrator
- Centralized management of desktop devices
 - Controlled distribution of new apps, up-dates and snap-ins
- Minimization of desktop viruses
 - Read only file system
- Extended useful life
 - Rugged, steel case, no moving parts, upgradeability of OS
- Lower TCO
 - Lower acquisition, service/support/energy costs

■ Areas of Use

- Remote offices, multiple locations
 - retail store, insurance offices, nursing stations, banks
 - Ease of installation and support
- Structured, transaction-based environments
 - Call centers, Kiosks, Work-at-home
 - Control and availability of required information
- Fixed function environments
 - Shop floor, fax server
 - Reliability with no moving parts
- Green Screen Replacement
 - 3270/5250 emulation, x-terminal
 - Transition to windows or web-based applications
- Existing or New Citrix Customers
 - Server-based Windows applications
 - Opportunity for cost savings

■ Opportunity Segments

– Healthcare/Government/Education

- Private Hospitals, State Hospitals, VA Hospitals, Hospital Management Cos., K-12 Education, Higher Ed, County Govt's, State Corrections Facilities, State Healthcare Services, Pharmaceuticals

– Distribution Sector

- Regional, National and International Retailers, National Grocery Chain, International Airline

– Industrial Sector

- Automobile Manufacturers, Home/Garden Appliance Companies, Aviation Manufacturers, National Tire Companies, Textile Companies

– Communications Sector

- Cable Companies, Regional Telephone Companies

– Finance Sector

- Insurance Firms, Local, Regional, National and International Banking Companies



Thin Client Solutions

- Offering functionality and quality at every price point:
 - **Choice of form factor**
 - CapioOne – price/performance
 - Eon e100 – high performance
 - Eon e300 – all-in-one design
 - **Choice of operating system**
 - NeoLinux, WinCE, WinXP Embedded
 - **Disk-on-Module** (Flash, upgradeable)
 - Operating System – CE, XPe, NeoLinux
 - Browser – WinIE, Netscape, Mozilla
 - Emulators – TeemTalk, IBM 5250/3270
 - Windows Clients – ICA, RDP
 - Management – ezRemote Manager

- **New From Neoware – the 8th Fastest Growing Company (Fortune Magazine)**

- **Acquisition of Visara Thin Client**
 - Formerly known as Memorex Telex
 - Acquired thin client business
 - Thin client assets, license to intellectual property, customer lists
- **Benefit to IBM**
 - Linux-based coax technology
 - Linux-based twinax technology
 - Mobile computing tablets



Capio One



Eon e100



Eon e300

Linux



Thin Client Solutions

- **Open Management**
 - **ezRemote Manager** is based on open, industry standard protocols
 - **Neoware** is the first to extend choice, flexibility and investment protection by extending its management software to include compatibility with
 - IBM Tivoli
 - Altiris Deployment Server
 - **Neoware's Open Management** eliminates the most significant issue inhibiting enterprise customers from adopting thin client appliances



Linux



IBM/Neoware Alliance

■ IBM Brings to the Table

- A single point of contact for a complete solution offering
 - Logistics Management
 - Financing
 - Installation Services
 - Additional Service and Support capabilities; e.g. On-site, 24x7
- An entrée into additional areas of IBM to enhance the thin client solution
 - IBM Tivoli Endpoint Agent
 - IBM eSeries Servers
 - IBM Workplace
 - IBM Linux
 - IBM Kiosks

■ Neoware Brings to the Table

- Focus entirely on the thin client marketplace
 - Dedicated software development effort
 - emphasis on Linux
 - Ownership of and on-going enhancements for TeemTalk
 - the leading thin client emulation software
 - Ownership of and on-going enhancements for ThinPC
 - a software solution for converting PCs into secure, managed appliances
 - Delivery of Open Manage solutions
 - ezRemote Manager
 - IBM Tivoli
 - Altiris Deployment Solution
 - Provides the capability to tailor a specific solution to a specific account requirement





Linux in the Kiosk Market

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Kiosk Market Definition & Key Trends

- Definition –
 - *kiosk is a self-service platform to deliver info and services*
- \$7.9B WW opportunity over next 3 years, growing 12% CAGR
- IBM participation in the market – over 15 years and many thousands of deployments
- Top 5 Trends in Kiosk market -
 - 1. Self service becoming “goodness”
 - 2. Multiple consumer touchpoints in the store
 - 3. Kiosks as portals vs. single app
 - 4. Smaller, appliance-type footprint
 - 5. Open systems



Key Solution Areas Driving Smaller, Pervasive Kiosks

Solution	Description	Value Proposition
Product Preview	In-aisle solution to provide pertinent information on product or service.	<ul style="list-style-type: none"> ▪ help to make a better purchase decision ▪ improved service level ▪ faster transactions
CD/DVD Preview	In-aisle solution to enable preview and recommendation	<ul style="list-style-type: none"> ▪ entertainment ▪ upsell from deep catalog ▪ don't leave empty handed
Self Order	Enables customers to place food (or non-food) order themselves. Payment options vary.	<ul style="list-style-type: none"> ▪ improved order accuracy ▪ consistent cross/up sell ▪ faster transactions
Virtual Concierge	In room portal to promote hotel amenities and make it easier to take advantage of them.	<ul style="list-style-type: none"> ▪ communication portal to guest ▪ easier to consume property services
Hotel Guest Check-in	Enables guest to check in and receive room key.	<ul style="list-style-type: none"> ▪ speed up check in process ▪ enable simple room changes ▪ improved service level



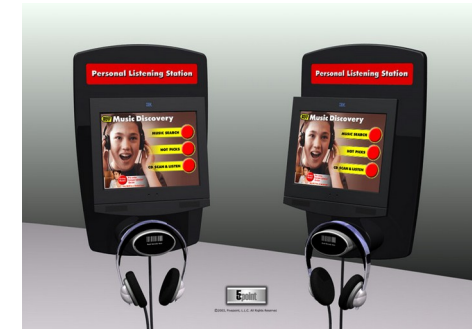
Why Linux is an ideal Kiosk solution

- Low TCO
- High reliability / availability –
 - - 24/7 operation, public access environment
- Small software footprint
- Customizable/brandable – ex. retailers
- Fewer productivity app. compatibility requirements
- Long installed life – ex. 5-7 years
- No need for frequent migration to OS upgrades
- Security



Kiosk Appliances Will Solve Many Problems

- Takes up too much space
- Costs too much to have many touchpoints
- Doesn't hold up to rough customer treatment
- Can be dead end platforms
- Destroys customer value when not functioning properly
- Isn't always closely monitored for problems by store personnel
- Difficult to install and maintain
- Based on desktop PC technology
- Hard to manage/route cables
- Costly to brand



Linux

Additional Information

- Linux ISV

- APunix www.apunix.com

- IBM's leading pure Linux kiosk provider.

- IBM

- www.pc.ibm.com/store/products/kiosk

