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Enterprise Office Desktop Usage

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Desktop Linux

- Linux on the Desktop is easy
- Office Programs are matured
 - OpenOffice, abiword, gnumeric, Koffice
- stand alone Desktop can easily be migrated
- Large corporations keen to migrate due to cost saving opportunity!
- Large corporations feature a complex IT infrastructure
- Linux Message: Migration is easy!
- what to do with the connected Office Desktop in large corporations?



Enterprise Environment

- many Data Stores
- many Application Services
- accessed by a Terminal
- one Terminal per Server Type: 3270, 5250, vt100, X
- 1990-2000: Integration in GUI on M\$ Windows
- 1990-2000: Implementing Middleware Platforms
- 1990-2000: Access by ODBC
- 2000: tight binding between
Enterprise Systems and the Access Terminal,
the Windows Desktop



Key Systems and Scenarios

- IBM Mainframes in the core: 3270 Terminal
 - x3270 is not sufficient, Java Solutions are slow
- IBM Midrange: iSERIES: 5250 Terminal
 - x5250 is not sufficient (NLS Support,...)
 - File Transfer problematic
- Unix: SSH is not available on the Servers
- Unix: Termcap problems between Linux and XXX
- TCP/IP is good; Many Systems cannot talk TCP/IP



Office Software Environment

- Enterprise Desktop \geq Calc+Writer
- Microsoft provides Infrastructure:
 - Single Driver for database access
 - Single Driver for printing & archiving
 - Single Drivers to access the Enterprise IT
 - empowering the end user
 - networking and connectivity
- Hiding the Enterprise: Most users don't know what systems they are using; they think the client PC does all the work



Components, Usage

- commercial Office Systems utilize
 - Host: LU6.2 APPC/APPN
 - 3270 Terminal
 - 3270/GUI Gateway
- Unix Tools
- GUI Clients for ODBC
- MS VBA Connectors to Middleware:
 - Access Enterprise Ressources in VBA :-(
 - -> Enterprise Utilities use VBA
 - -> memleaks, slow performance, low stability



Integration in Enterprise Architecture

- Enterprise Communications Architecture
 - Message Passing (MQSeries
Java Message Broker)
 - ODBC Gateway
- Excel-Plug Ins connect to Enterprise Data Stores
 - Excel was not made for this! Documents are limited; they need access to the Data Store to work
- custom Gateways; many customers do their own middleware; major investments in the Desktop; how to motivate migration?



Using Office as a Frontend

- Seamless Enterprise
 - Excel: custom data analysis tool for mainframe based data
 - Word: replaces terminal printer; personal printer for mainframe applications or other data
- Access: GUI for Enterprise DB
- massive VBA usage and Windows integration
- Office Tools to Access the Enterprise
- Changing Office means Changing the Enterprise Infrastructure Edge



The Desktop Service

- Desktop Service:
 - single Sign-On w/ Smartcard: often the screensaver is the Single SignOn tool
 - different Platforms integrate in the Desktop
 - Desktop connects to different Environment
 - connectors to Enterprise Systems (not only Terminal) needed
 - Workers used to post-process Enterprise Data; need Outputs from the Enterprise that match with Office Tools



Office and Desktop Infrastructure

- typical Desktop
 - Single SignOn
 - Mainframe connectivity
 - Unix Connectivity
 - ODBC/Oracle Connectivity
 - many GUI Tools
 - Internet (=WWW)
 - Email
 - Word Processor, Spread Sheet
 - most Users use “simple” WP and SS tools only a few times a week



Migrating Step-by-Step

- Migrate slowly
 - provider terminal access to midrange and mainframe servers: x5250, x3270
 - where is the Enter Key?
 - Unix Access: solve the terminfo/termcap problem
 - Use OpenOffice
 - How to connect Open Office with the Enterprise?
 - third party vendors should be motivated (e.g. Applix)



and Problems

- x3270, x5250
 - Keyboard semantics in X: Enter Key \Leftrightarrow Control
 - Keyboard Mapping insufficient
 - NLS on EBCDIC Systems not present(?)
- Intranet Problem: many Intranet Webpages only work with special Browsers
- ODBC Problem: How to access Databases
- thru OpenOffice?
- Spreadsheet and Word Processor Integration:
 - No API in x3270, x5250
 - StarBasic is not a Part of X, but of OpenOffice



How to cope with Integration

- x3270,x5250
 - use the source, Luke!
 - find special mappings
 - patch X Keyboard: “,”->”.” for numerical data
- integrate different Tools
- implement custom Clients
- make the Linux Desktop a Enterprise Client
- > This is not a M\$ Office -> OpenOffice problem!
- it is a platform problem



How to migrate integrated services

- Integrate Support for the Linux Client in the middleware
- Java Middleware and IBM products partly supported
- limited to none community support:
 - proprietary Software confidential
 - in-house systems very closed
 - no GPL-compliant company culture
- Analyze the compound application
 - change it
 - work with the Application/Middleware vendor



Free the mind: Spreadsheet, not Excel!

- motivate people to take a technical-only approach
- most managers like cost savings more than Excel
- promote the Interface (GUI)
- make the Desktop work first: Umlauts, Fonts
Printers, Keypads
- Then bring in the Enterprise connectivity
- Most People don't know where the Desktop
interface with the Enterprise: Analyze it!



Migration by Upgrade

- Upgrade to next Version of M\$ Infrastructure (Platform + Office) is complex
- Migration might be as easy as
 - Vendors need to support migration
 - Motivate Vendors to do Linux! (how?)
 - Desktop Support Staff needs Know-How
 - End-User gets little to no changes
- move to open protocols as fast as possible
- try to make Changes to the infastructure subtile and easy!



Providing Tools and Infrastructure

- Linux Desktop Environments are Community-powered
- Most Community-members are no “pro Desktop users”
- many tools seem “unfinished” for End-User-usage
- very small and easy changes can improve a lot
- don't try to change to much, but adapt



Community&Business

- Business Integrators have only limited access to community authors
- Need different skills: e.g. x5250 and X, or OpenOffice and x3270/LU6.2
- different Languages spoken: communicate
- Heterogenous platforms need heterogenous people if the machines communicate, so do we!
- Talk to middleware vendors; Linux is like Unix :-)
- Use Wine: many Windows Apps can be ported to Wine (use only Wine-supported API) easily



Unite! Bring People together!

- Desktop migration is Business
- but Business means talk to people
- Involve Experts regardless where they come from
- be open-minded!

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Thank you!

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