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# Transforming Your Business

**IBM Transcoding and XML Technologies**



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## Access determines value of data...

- Vast amounts of Enterprise data exist on legacy systems
  - ▶ Often require specialized HW / SW to access
  - ▶ Generally not accessible to the web
- New data is being generated continuously
- Cost of rewriting & maintaining multiple formats is too high
- Value of data is dependent on its accessibility
- Need a way to "re-purpose" Enterprise data to exploit its value

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# The Goals

- Simplify business to business communications by leveraging XML technologies
- Make Enterprise data accessible on the Web
- Make Web content accessible on whatever device is used
- ➔ Over 70 percent of the data on a Web page is graphical
  - ▶ This requires significant bandwidth to send over wireless networks
  - ▶ Not all devices are capable of handling graphics
  - ▶ Not all users require extensive graphics
  - ▶ Cost saving solutions are needed for those that do need high quality graphics

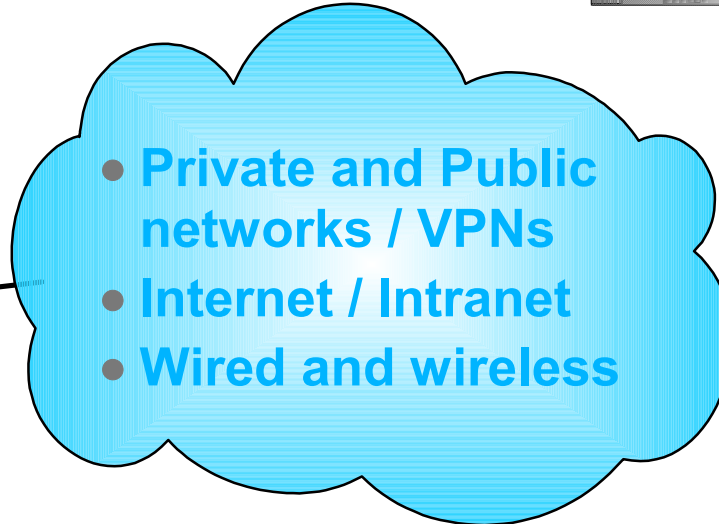
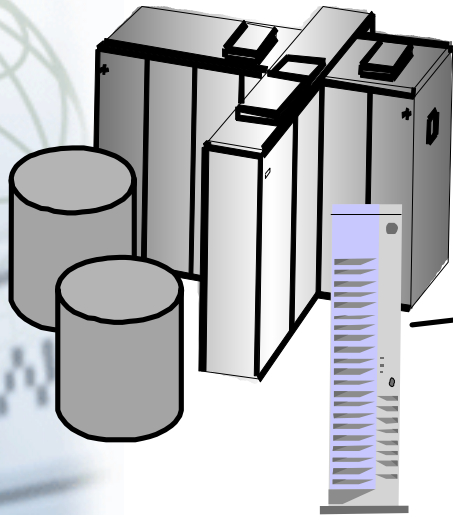
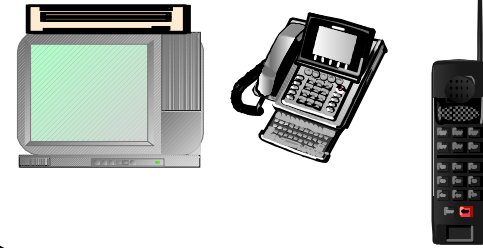
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# Universal Access: Challenges



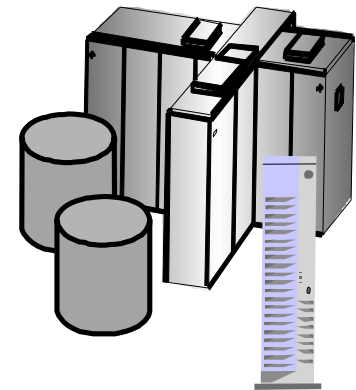
- Private and Public networks / VPNs
- Internet / Intranet
- Wired and wireless

- New formats for data (XML, WML, cHTML, SVG)
- Different graphics capabilities
- Different bandwidth requirements

Source  
Applications  
and Data



- Unique format requirements for content
- Different graphics capabilities
- Different processing capabilities



- No common format for automated communication
- Complex middleware required for communication
- Constantly evolving standards

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# The Solution

## *Transcoding*

- Software that filters, enhances, converts or reformats data (e.g., Host and Web content) to
  - ▶ Match the form factor and capabilities of the client device
  - ▶ Enable business to business communications via XML technology
  - ▶ Provide a multitude of devices and systems and their users with better access to information

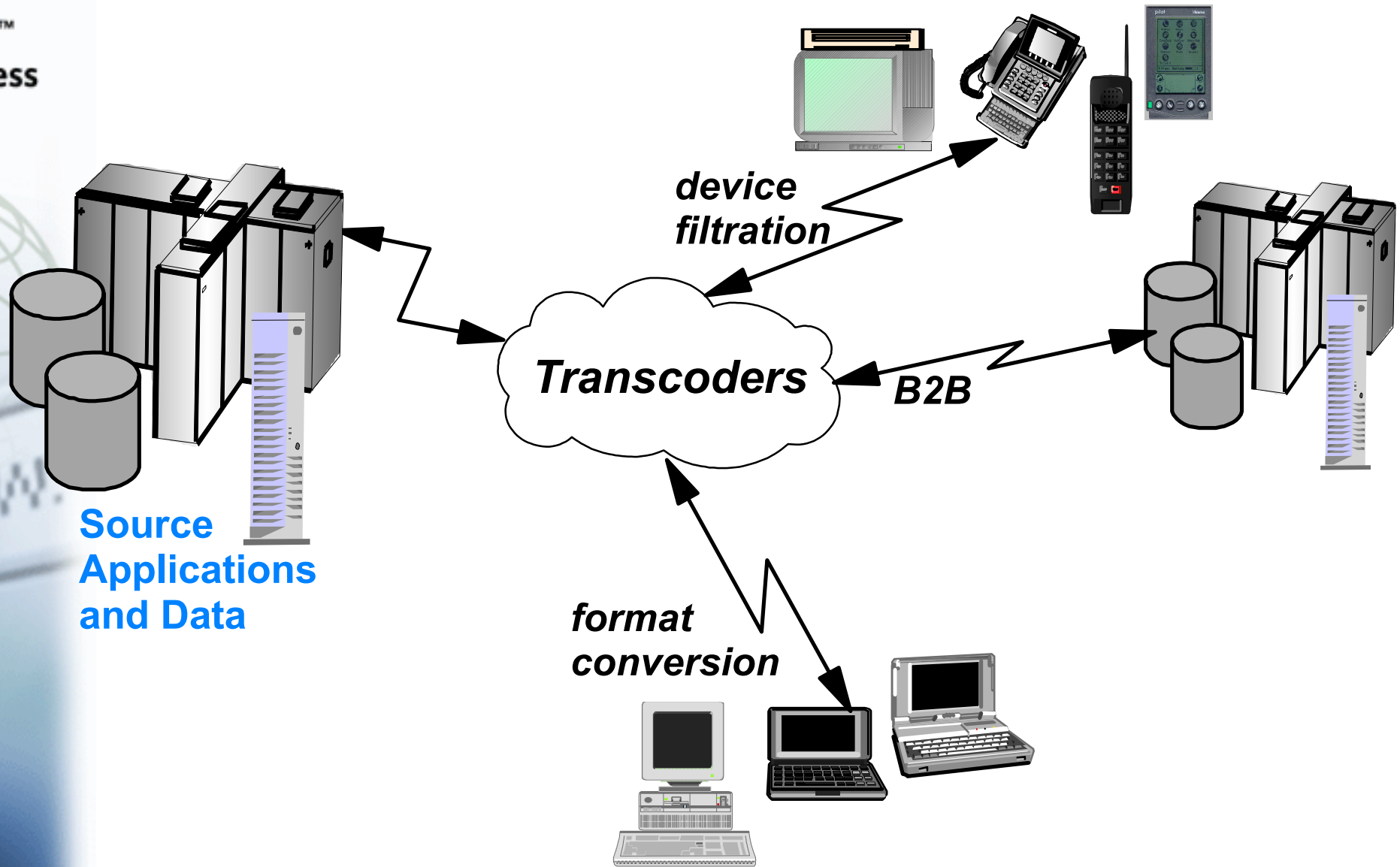
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# Transcoding and Universal Access



**IBM's *Transcoding* enables universal access**



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# Transcoding Value Proposition

*Extend the reach and exploit the value of data -  
across multiple platforms, networks, users and  
devices: provide universal, seamless access to data  
and applications.*

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# Benefits with Transcoding

## → For the Enterprise

### ★ Reduced Costs:

- Eliminates expense of re-authoring or porting data and content sources, for multiple systems and devices
- Greater choice of HW devices, better match for end-user needs, preferences AND budget

### ★ Improved Productivity

- Improve communications for mobile employee
- Location-independent, secure information access and transactions at point-of-needs

### ★ Improved customer service and competitiveness

- Create easier access for end-customers to product and services
- Reach new customers and create new business opportunities

## → For the End-User

### ★ Accessibility

- Access to data not previously available on the web

### ★ Personalization of information

- Increase user's comfort level with information and presentation format

### ★ Flexible, more productive work style

- Easier to stay in touch with smaller, lighter-weight devices - expands on the benefits provided by traditional pagers





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# Types of Transcoding

- Tailored Web Transcoding
  - ▶ Filtering & Content Reduction
  - ▶ Supported by Base Plugins
  - ▶ Sample use - tailor text & image content for specific devices
  
- Business-to-Business Transcoding
  - ▶ Transform content into an intermediate XML grammar
  - ▶ Facilitates sharing of data w/ meta informaton between Enterprises
  - ▶ Sample use - conversion of DB2 data into an XML grammar
  
- Data Format Conversion Transcoding
  - ▶ Transforming content from one language to another
  - ▶ Final Form Transcoding
    - Final layout information already present in source
    - Sample use - convert AFP to SVG (a 2D XML language for high-fidelity vector graphics)
  - ▶ Layout Transcoding
    - Layout required for conversion
    - Sample use - conversion of HTML into SVG

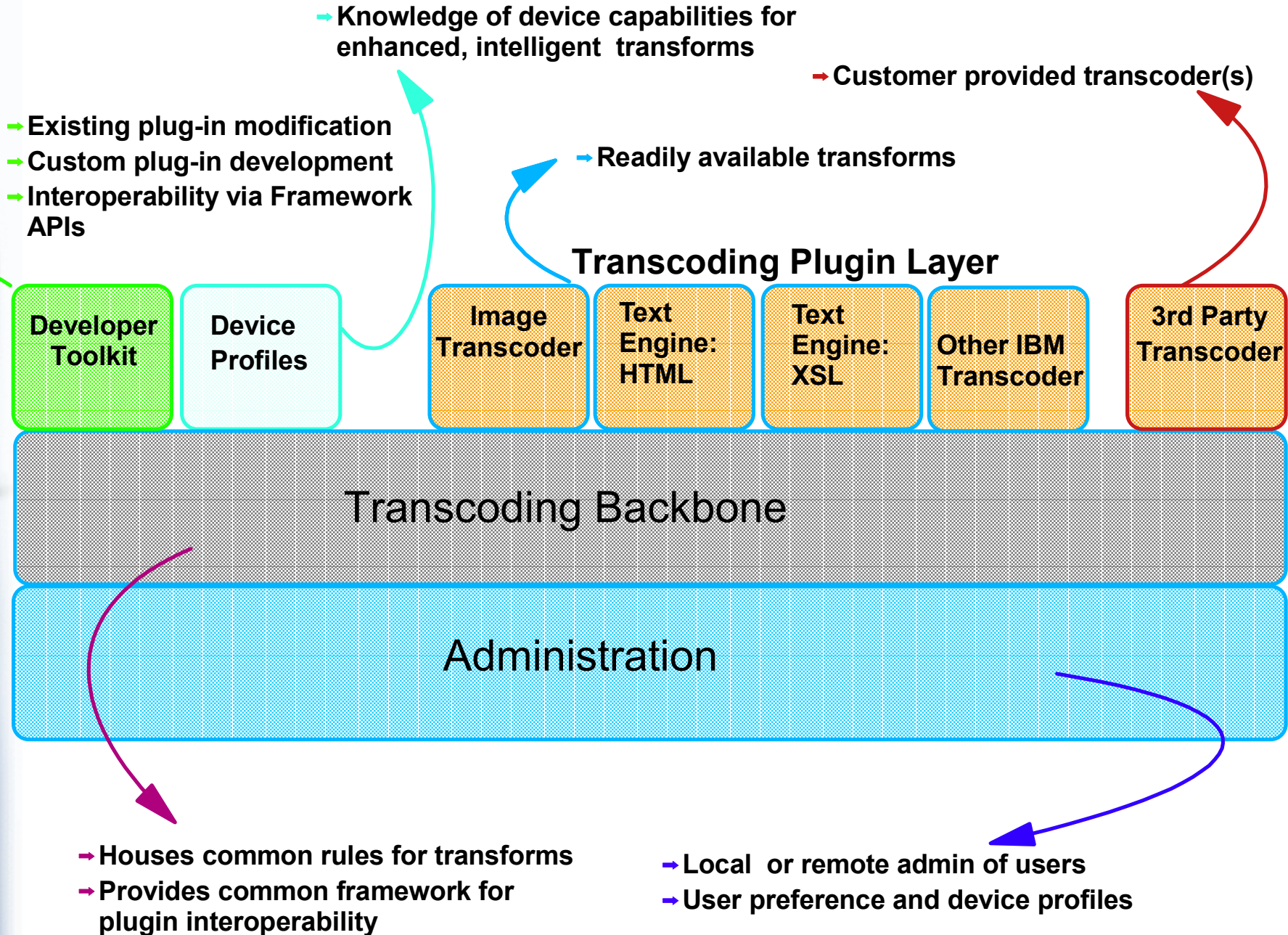
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# Transcoding Architecture

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# Target Industries and Applications

## ★ Healthcare

- Remote notification of patient alerts
- Efficient transmission of patient records
- Remote patient diagnostics

## ★ Banking, Financial and Securities

- Mobile stock transactions
- Remote banking
- Bill presentment & financial statements

## ★ Distribution

- Fleet management
- Service personnel communications

## ★ Travel and Transportation

- Update travel records from anywhere
- Update travel itinerary from anywhere
- Remote flight and hotel information
- Travel, Hotel and Restaurant updates based on individual preferences



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# Target Industries and Applications - *continued*

## ★ Enterprise Publishing

- Technical manuals
- Engineering drawings & schematics

## ★ Traditional Publishing

- Yellow pages on-line
- Publishing content delivery to multiple devices and users

## ★ Enhanced Content Providers

- Set-top Box Software providers
- Dynamic programming content filtering
- Dynamic tailoring of advertisements
- High quality interactive graphics integration w/TV
- Publishing content delivery to multiple devices and users

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# Summary

## Devices Supported

- Desktops - any OS with a browser
- Palm Pilots and Workpads with Hand Web browsers
- WinCE Devices with Pocket Internet Explorer
- WAP devices

## Examples of POSSIBLE Transcoder Plugins

- HTML to HTML (image and text transcoding)
- XML to XML variants (via stylesheets and DTDs)
- XML to WML
- XML to HTML
- AFP to HTML
- AFP to SVG
- AFP to other XML
- 3270 to XML
- CICS to XML

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