Powering The Internet With Microsoft® BackOffice™

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Agenda

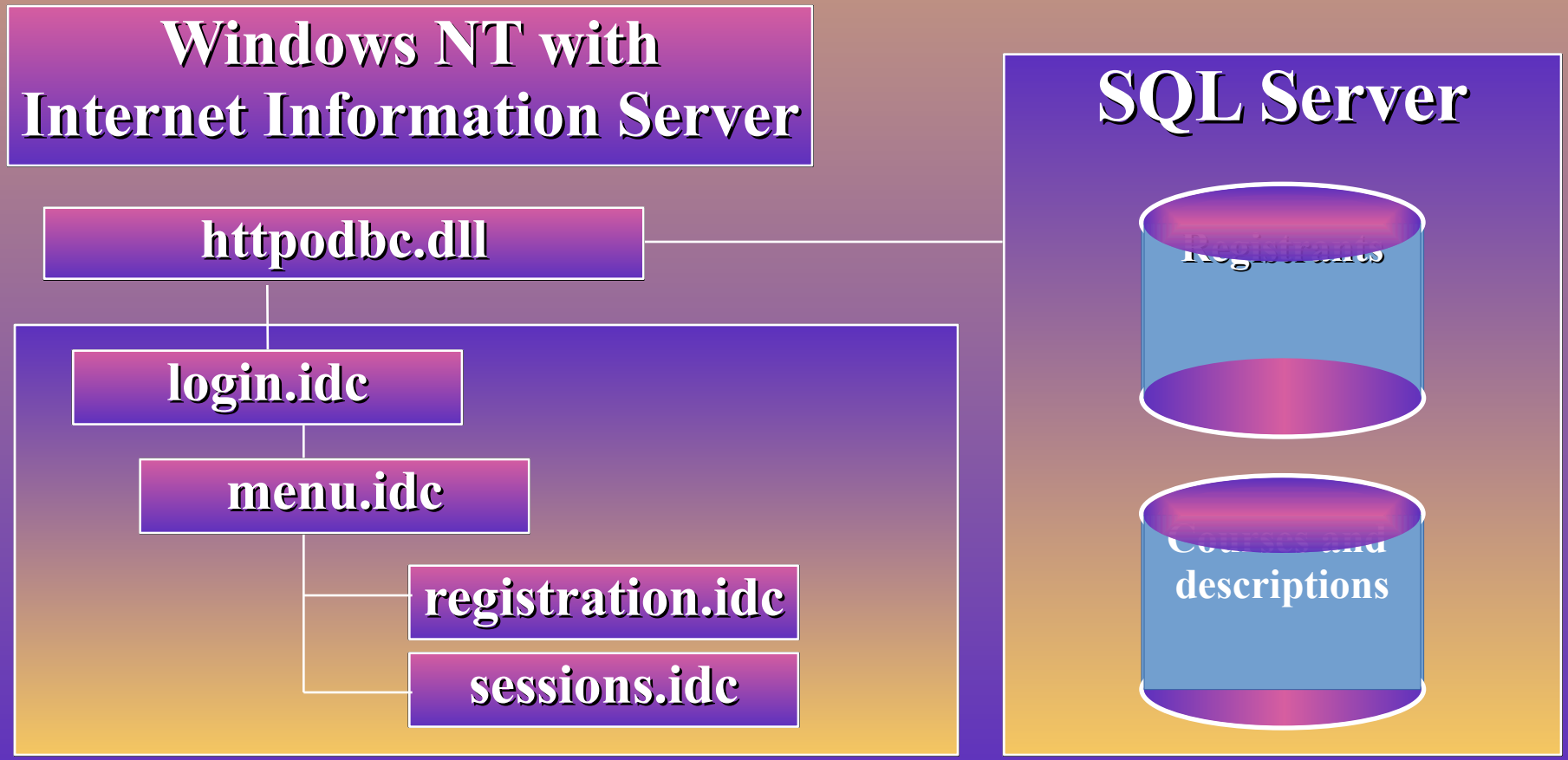
- Overview of the Lante OnSite Solution
- Specific technologies used
  - Microsoft SQL Server™ database connectivity
  - Microsoft Exchange
- Example source walk-through

Lante OnSite System

- Complete activity center for attendees at the PDC
  - Registrations and session abstracts via the Web
  - E-mail, discussion, and news groups
  - Session surveys via Microsoft Exchange
  - Access to presentations via Web
- Implemented on Internet Explorer and Microsoft BackOffice
  - SQL, Microsoft Exchange, Internet Information Server

Lante Solution Architecture: SQL

- Used for registration system and course listing



Registration System

- After user log on, most pages are created via IDC
- Permits custom user views and descriptions
- Makes it easy to adapt application to multiple uses
- Gives users live access to information

SQL Server Internet Database Connector

- High-performance live access to SQL Server data
- Runs as an ISAPI application
- Requires only configuration and template files - no coding
- Can present results from queries based on HTML forms
- Can leverage Windows NT™ security in Internet Information Server and SQL

Component Overview

- httpodbc.dll
- .htm, .map file
  - Contains hyperlink for static query, or form for user data
- .wdg file
  - Specifies ODBC data source, query properties, and parameterize SQL statement
- .htx file
  - HTML template into which the database result set is merged

Database Connector Walk-Through

- Step 1: Create an HTML document or form that initiates the query
- In the simplest case this is just a link that references your .idc file, like:

```
<A HREF="/scripts/samples/sample.idc?">Click here to run query</A>
```

  - Pass parameters after the “?”

Step 2: Create Your Data Connector File

- E.g., sample.idc
- Contains information on ODBC data source
- HTML template to use
- SQL statement to pass
- Other optional parameters
- Example…

Step 3: Create The Template File

- .htx file used for returning data from the SQL query
- Files have tags to indicate beginning and end of data returned:

```
<%begindetail%>
<column info> <column_info>
<%enddetail%>
```

- Example…

SQL Web Page Assistant

- Lightweight, multiplatform
- Not a CGI/ISAPI application
- Complementary to IDC
- Microsoft SQL Server-specific
- Two ways to set up a publication
  - User interface
  - Stored procedure

SQL Web Page Assistant

User interface

- Logon dialog
  - Can use integrated security
- Query dialog
  - Interactive query specification using the database/table hierarchy
  - Existing stored procedures
  - Free-format Transact-SQL® queries

SQL Web Page Assistant

User interface

- Scheduling dialog
  - Now, later, days of week, recurring
  - Whenever the underlying data changes
- File options dialog
  - Output file specification
  - Template file specification
  - Including URLs

SQL Web Page Assistant

User interface

- Formatting options
  - Headers, fonts, timestamp
    page, rowcount
- Stored procedure
- sp_makewebpage
  - All options are available as parameters
  - exec sp_makewebpage
    - “c:\sales_data.html”
    - “select * from sales”

SQL Web Page Assistant

Sample applications

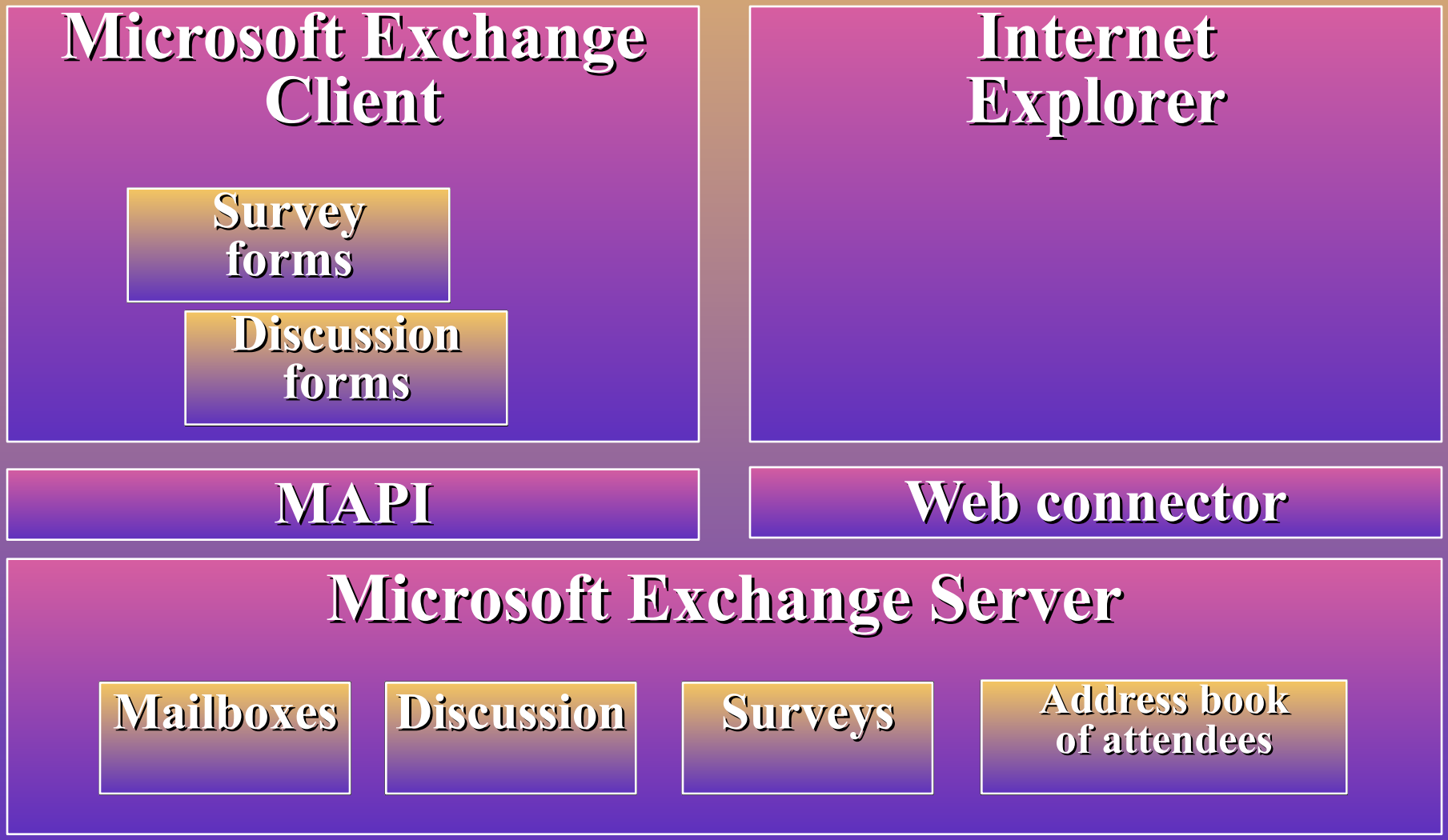
- Publishing product/inventory information
- Use system stored procedures to publish reports on server statistics
- Use extended stored procedures to publish non-SQL Server data
- Create stock ticker-type applications
- Use the table of URLs feature to update links

Connectivity

- Regular ODBC/DB-Library™ connections to SQL Server over the Internet
  - TCP/IP NetLib® (address, DNS name)
  - RPC NetLib for encrypted connections
- Working on
  - Performance enhancements
  - Additional security

Lante Solution Architecture

Mail and news



Microsoft Exchange And The Internet

- Microsoft Exchange Client sending to the Internet
  - POP provider in Microsoft Plus! forWindows® 95
  - POP provider in Windows NT 4.0
- Microsoft Exchange Server sending to the Internet
  - Internet Mail Connector (IMC)
- Both support
  - MIME Bodyparts
  - Flattened MAPI messages (TNEF)

MIME And Microsoft Exchange

- MIME mapping table kept by either IMC or POP provider
- Support three-letter extension to MIME Bodypart mapping
- File attachments determine new bodyparts

Microsoft Exchange Forms Across The Internet

- MAPI forms (messages with properties) can be sent across the Internet
- Works with Microsoft Exchange Client POP providers or Microsoft Exchange Server

Source Walk-Through

- Microsoft Exchange form and generated TNEF

Summary

- Powerful, dynamic sites can be built with the Internet Database Connector
  - User-specific data and security
- Microsoft Exchange lets structured data be easily transmitted across the Internet
- More powerful applications can be built by leveraging Microsoft BackOffice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