

Web Services: the next generation web application

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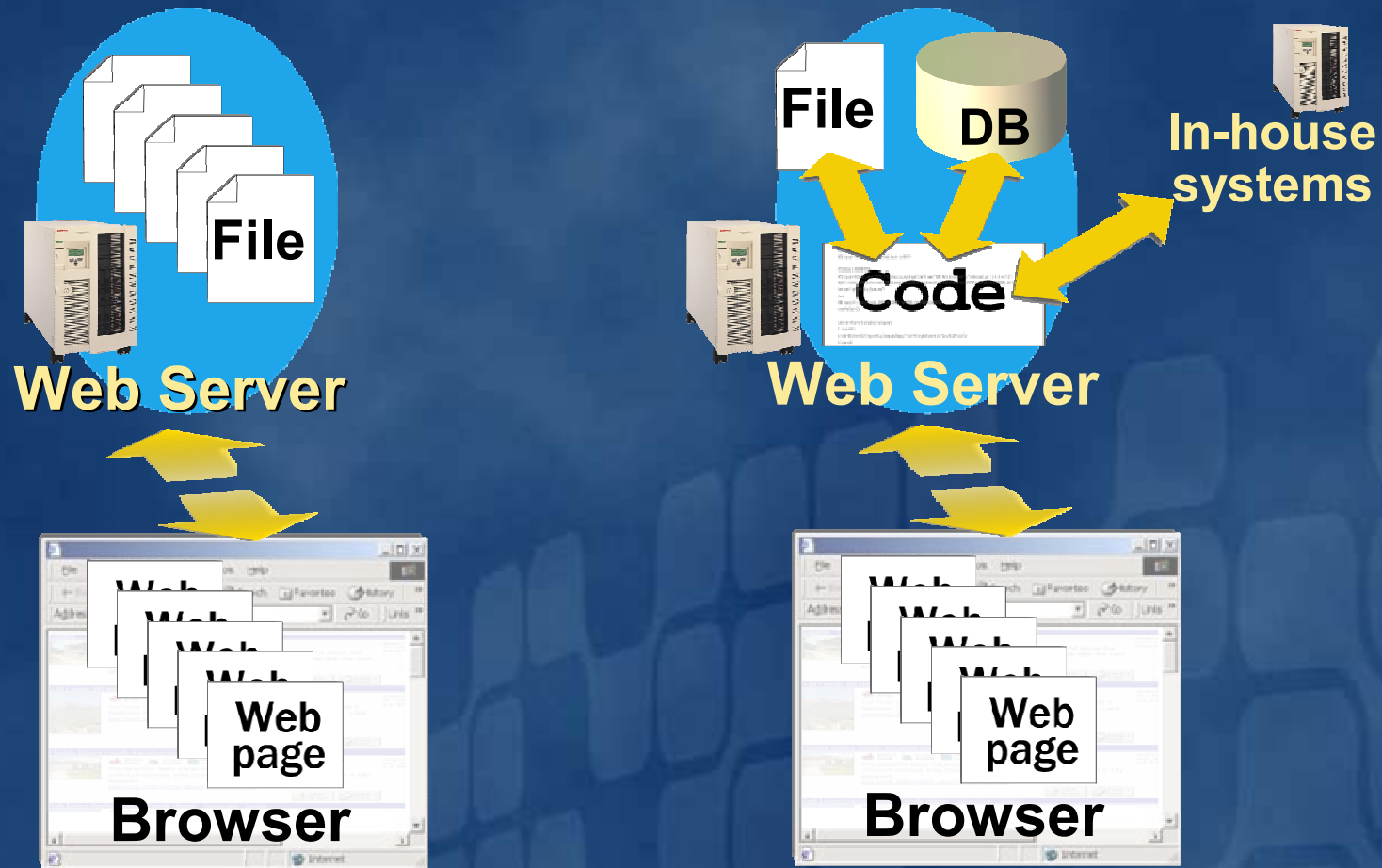
Developer Evangelist

Microsoft (Thailand) Limited

Agenda

- **Overview**
- **Building a Web Service**
- **Creating Web Service Clients**
- **Beyond the basics**

1st & 2nd Generation Web Apps



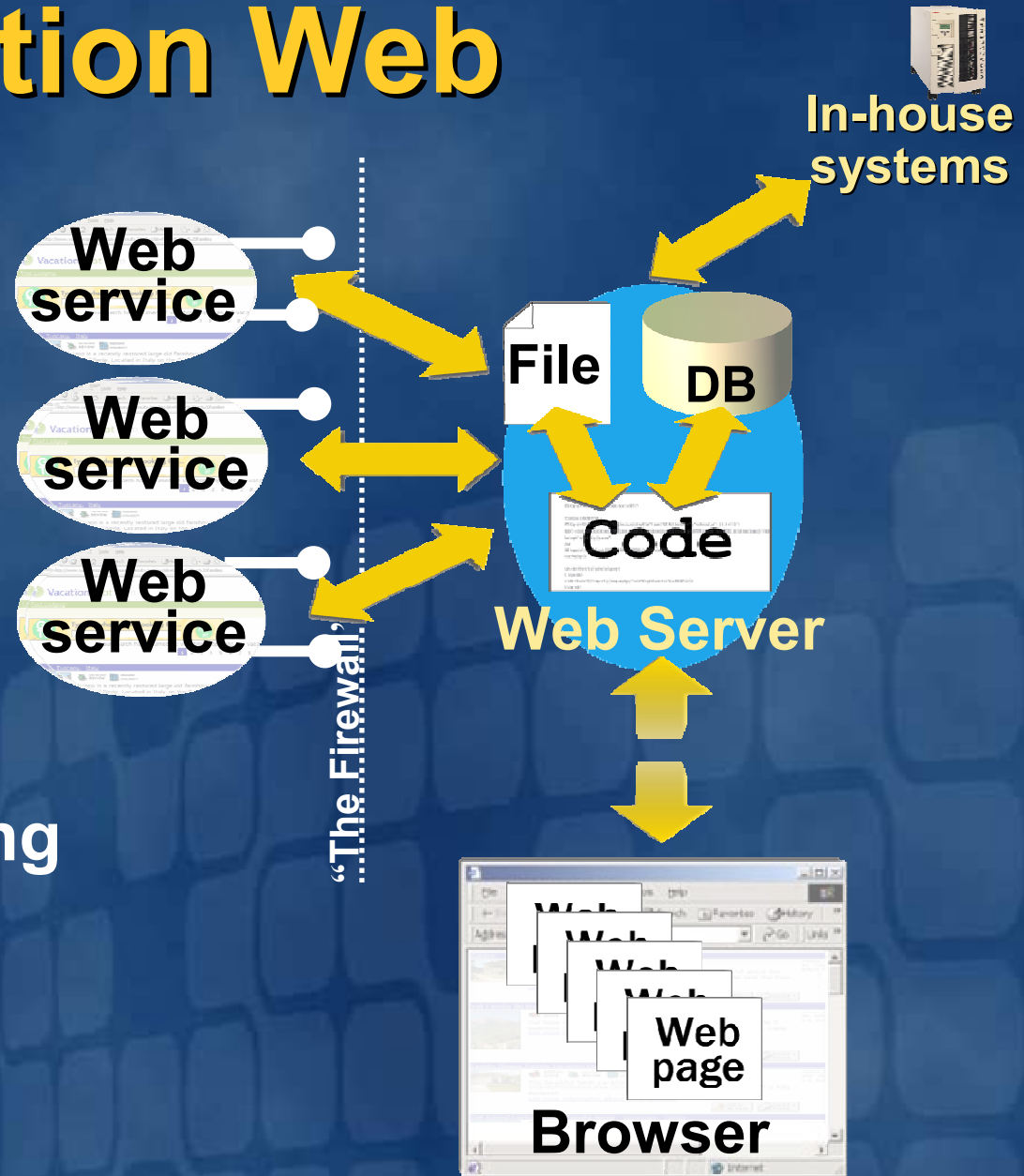
1-1 correspondence
of page to file

“Dynamic Pages”

3rd Generation Web

Accessing another site today = HTML
“screen scraping”
or “your architect calls my architect”

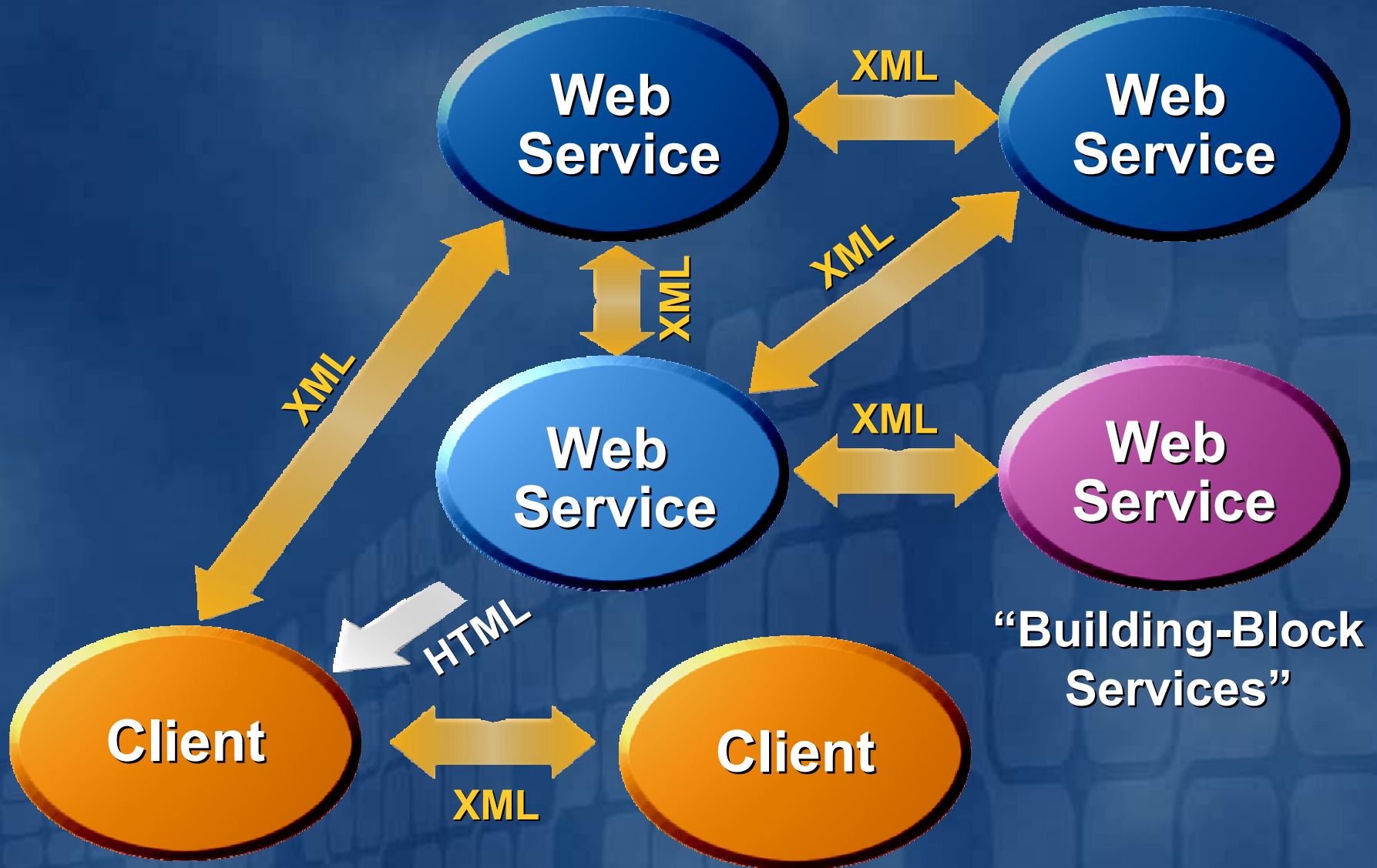
Tomorrow, external
Web sites become
building blocks using
XML Web Services



“Dynamic Pages”

Overview of Web Services

The .NET Vision



What is a Web Service?

- **A web service is programmable application logic accessible via standard Web protocols**
 - **Available to a variety of clients (platform independent)**
 - **Examples: stock quote, weather, and work flow, team collaboration**
 - **Makes building distributed applications easy**
- **A web application without a user interface**

Foundation for Web Services

Service Directory: UDDI

Service Description: WSDL

Service Interaction: SOAP

Format Description: XML Schema

Data Format: XML

Communication Protocol: HTTP

Communication Network: Internet

WSDL: Web Services Description Language

Web Services (In Practice)

Web
Service
Consumer

Find a Service

<http://www.uddi.org>

Link to WSDL document

UDDI

How do we talk? (WSDL)

<http://yourservice.com/?WSDL>

XML with service descriptions

Web
Service

Let me talk to you (SOAP)

<http://yourservice.com/svc1>

XML/SOAP BODY

Design-Time or Dynamic

Runtime

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Web Services

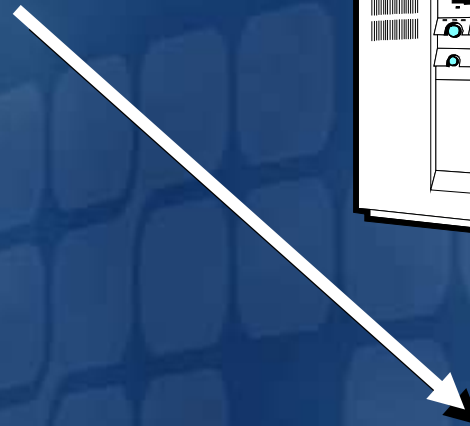
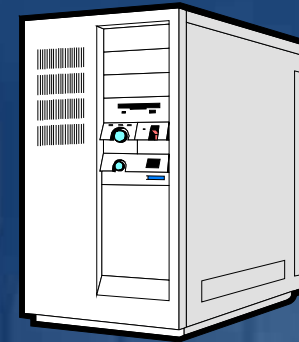
Source code

Class Courseware

webMethod

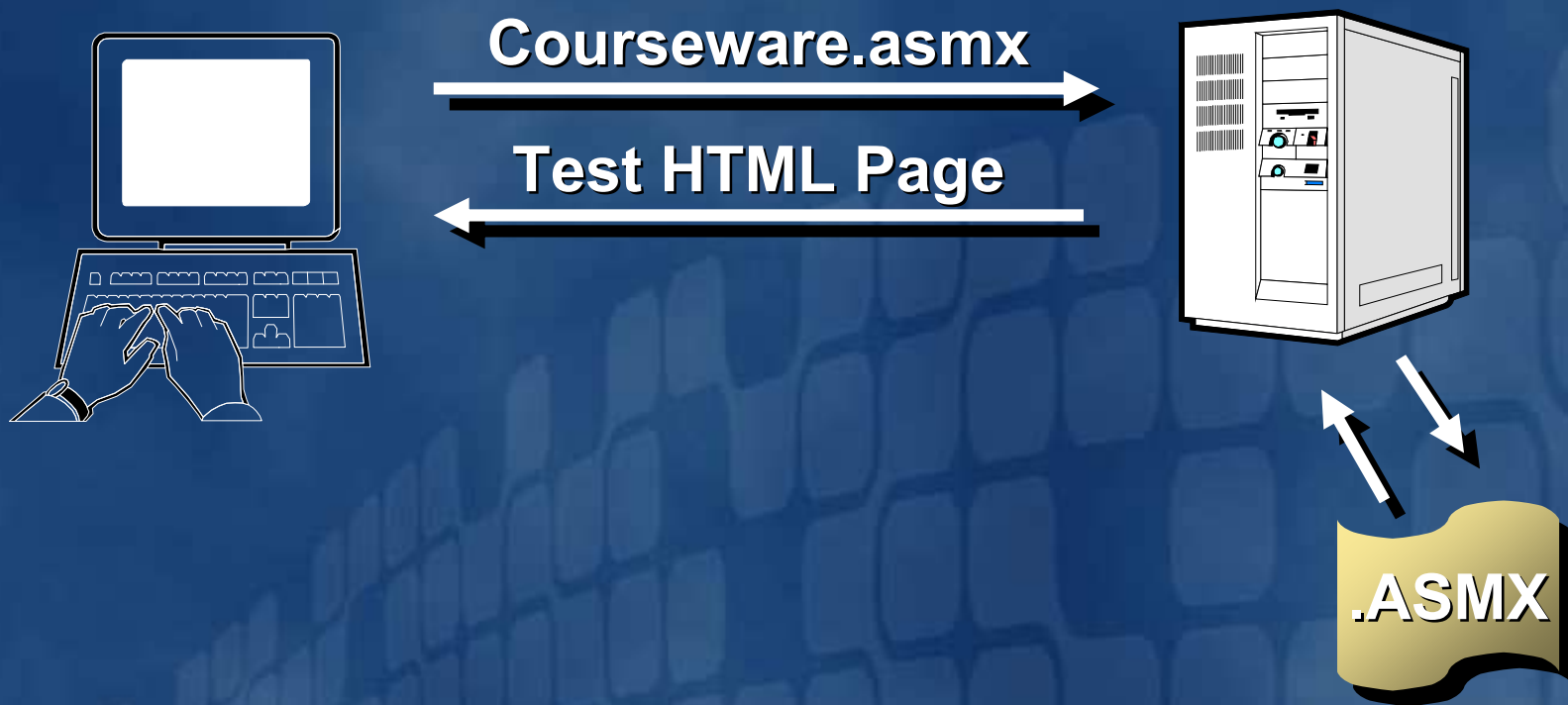
GetPrice

Purchase



Web Services

Testing



demo

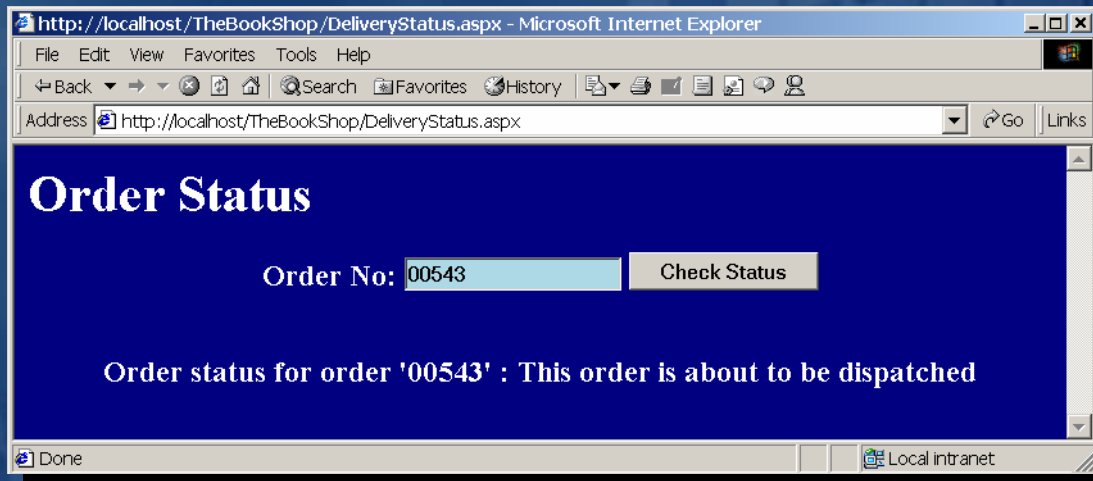
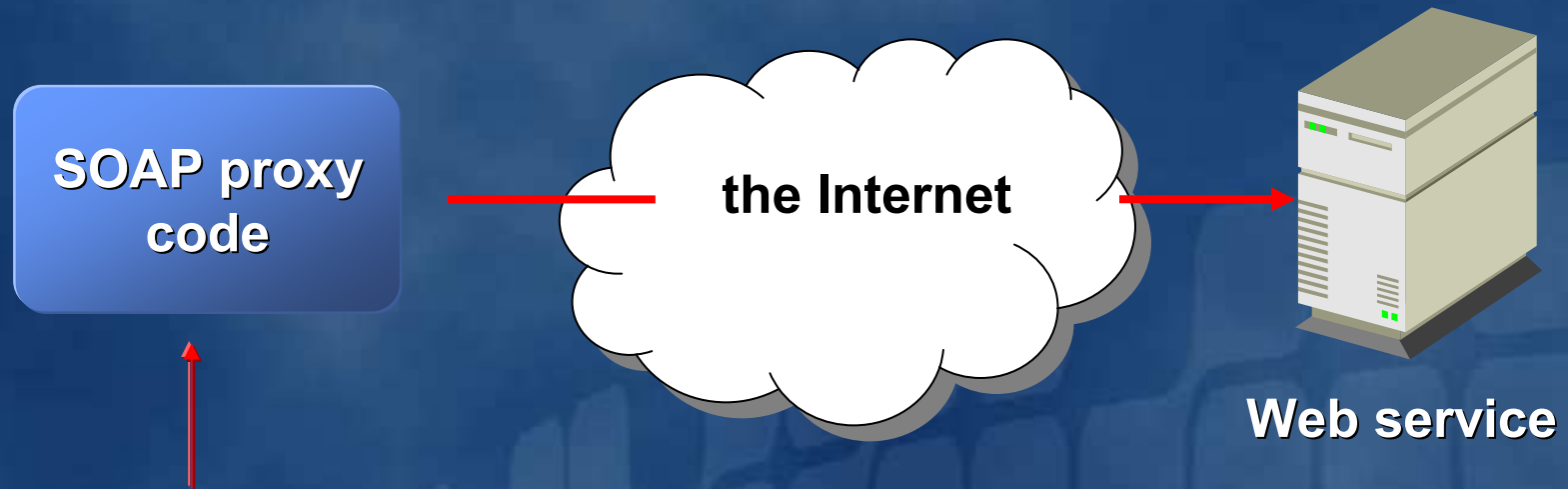
Building Web Service

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Web Service

Creating a Web Service Client



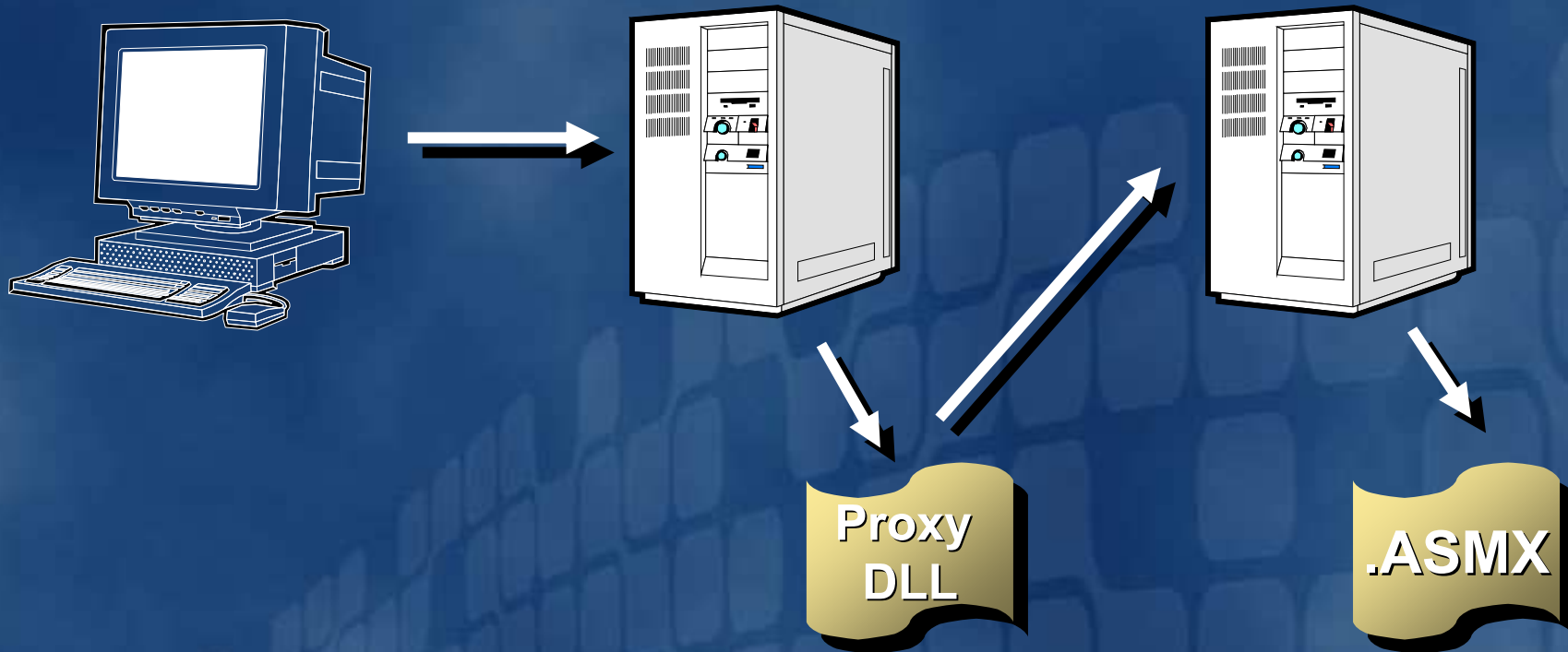
Web Services

Generating a proxy from WSDL



Web Services

Register for Course Purchase Courseware



Creating Clients

- Use either command-line tool, or Visual Studio.NET
- Builds proxy source from WSDL
 - WSDL is platform independent
 - Classes can be created in C#, VB, or managed C++
 - Any .NET language!

demo

Building a Client

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Beyond the basics

- **Dynamic URL Behavior**
- **Returning Complex Types**
- **Asynchronous Web Service**
- **SOAP Header**
- **Stateful Web Service**
- **Transfer Binary Data**

Session Summary

- **Web Services Are The Building Blocks For The Next Generation Of The Internet**
- **Gives Client Access to any kind of Data**
- **Make Business-to-Business Easy**
- **Visual Studio .NET Provides Great Tools**

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