IBM Software Group

Enterprise Modernization Made Easy with IBM Development Tools

e business on demand software

jocasey@us.ibm.com

Enterprise Modernization Agenda

- **Positioning**
- **Improve**
- **Transform**
- **Innovate**
- **Summary**

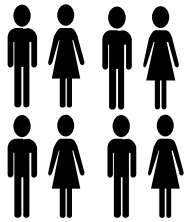
Meeting the On Demand Challenge

- **Significant business intelligence exists**
  - "200 Billion lines of COBOL code in existence" ***eWeek***
  - "5 Billion lines of COBOL code added yearly" ***Bill Ulrich, TSG Inc.***
  - "Between 850K and 1.3 Million COBOL developers" ***IDC***
  - "Majority of customer data still on mainframes" ***Computerworld***
- **Rewriting is an option but.....**
  - How long will it take?
  - Who will do it?
  - How much will it cost?

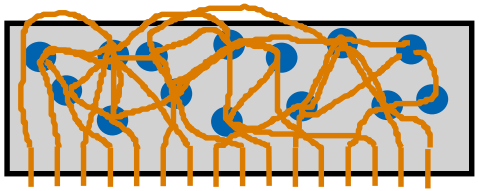
Enterprise Modernization Strategy

- **Leverage existing applications and skills**
  - reduce costs
  - "New code costs 5X reusing existing code"
    Software Productivity Research
  - achieving faster time to market

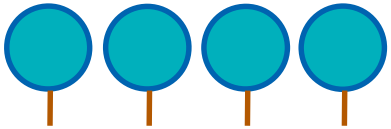
e-business transaction server



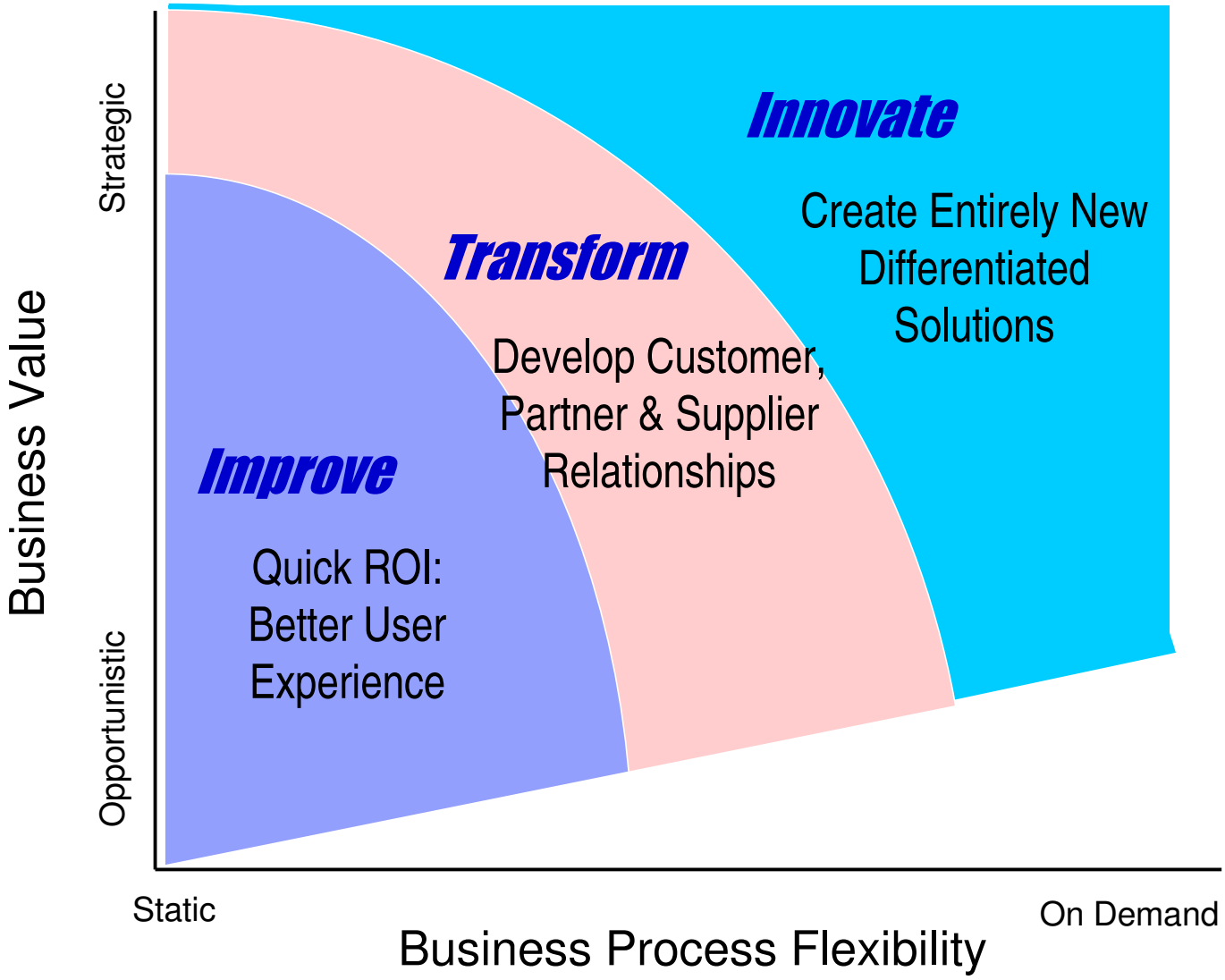
e-business component developers



e-business components



Three Styles of Modernization

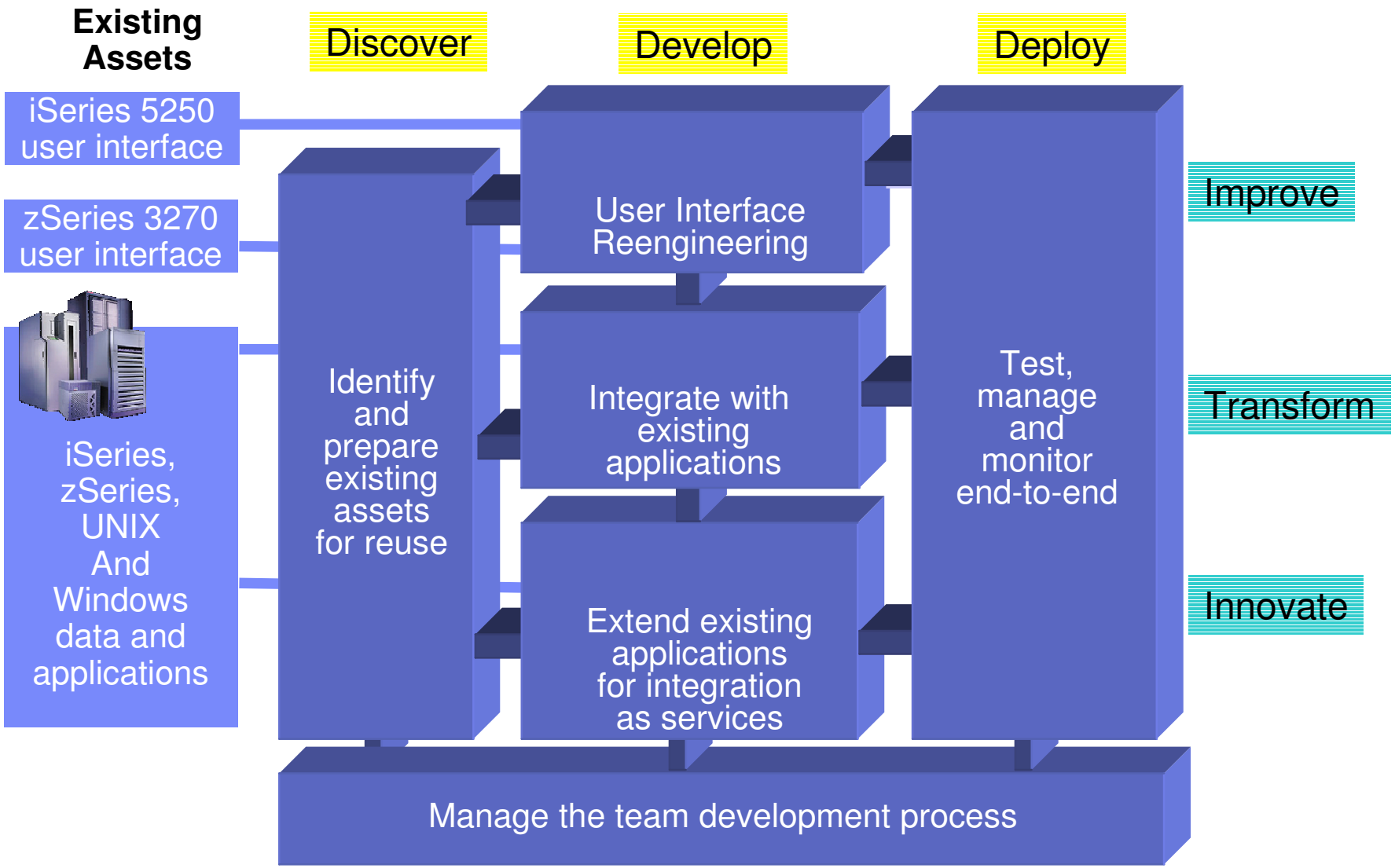


Modernization Styles: A Continuum of Solutions

A roadmap for solving problems….

Segment	Problem	What value do customers want?	Solution
Improve	Application interfaces are difficult to use, user workflows are outdated	Quick ROI: Better User Experience	**Improve the user interface** and workflows of multiple mission-critical applications to reduce training costs, increase end-user productivity and extend reach to new users
Transform	Legacy applications cannot easily be integrated into modern workflows	Develop Customer, Partner & Supplier Relationships	Transform applications to participate in **modern e-business workflows** with lower risk than replacement strategies
Innovate	Mission critical processes cannot easily be adapted to changing market conditions	Create Entirely New Differentiated Solutions	Innovate by **componentizing mission-critical applications** to enable core processes to be independently modernized and flexibly integrated – on demand

IBM's Enterprise Modernization Solution



Enterprise Program Model

Develop

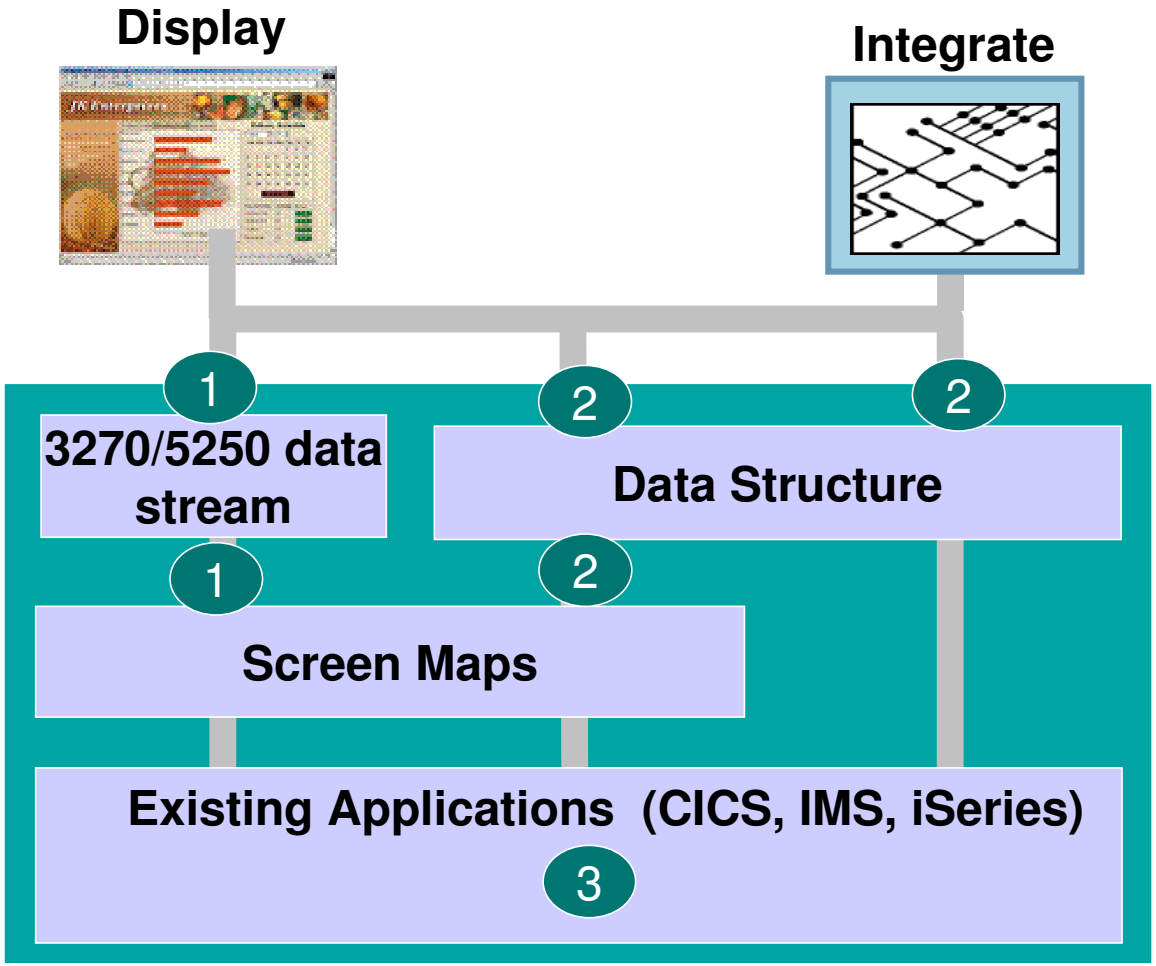
?

Value in circle = style

- **Improve**
- **Transform**
- **Innovate**

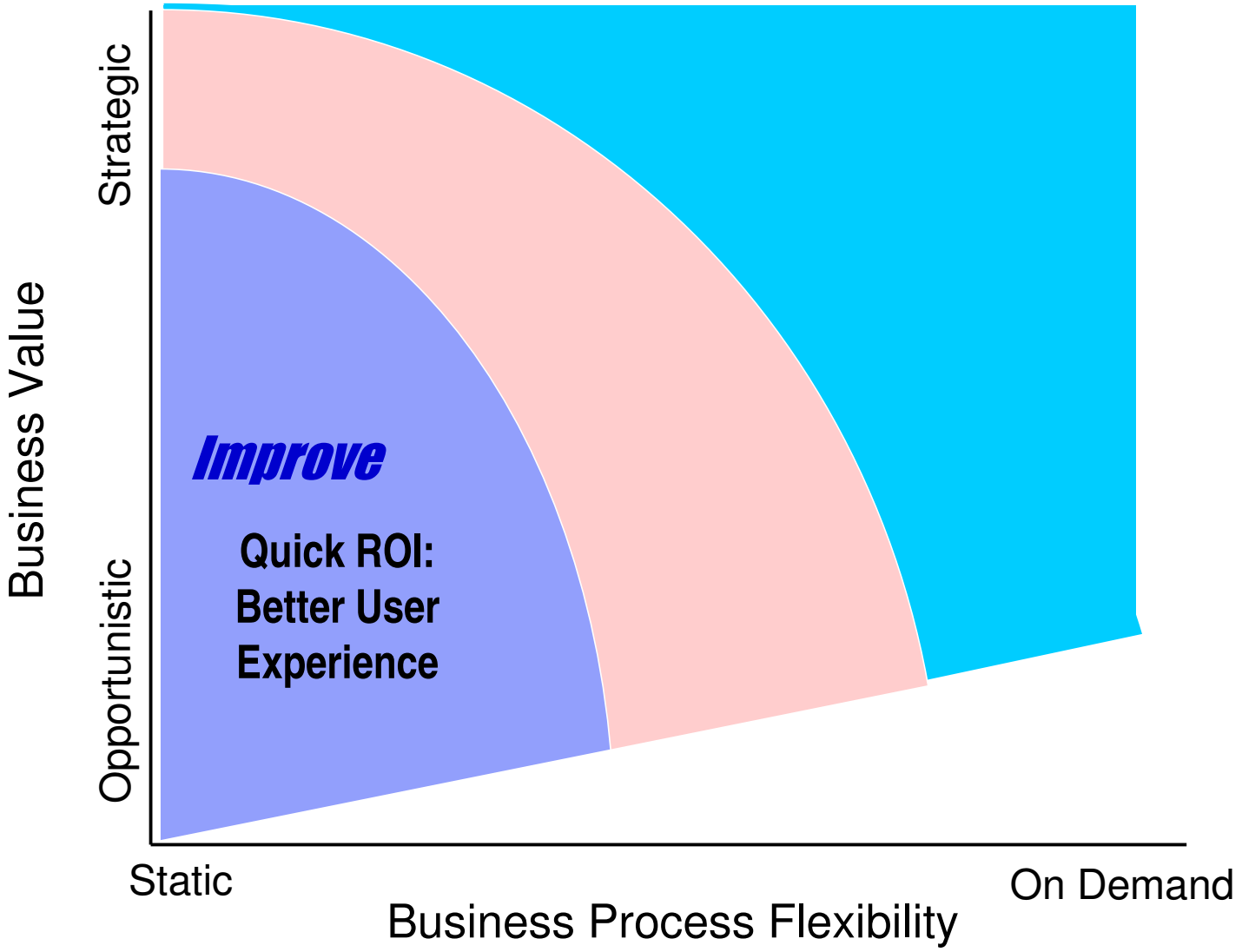
Position on diagram:

Point of interaction with a program



Three Styles of Modernization

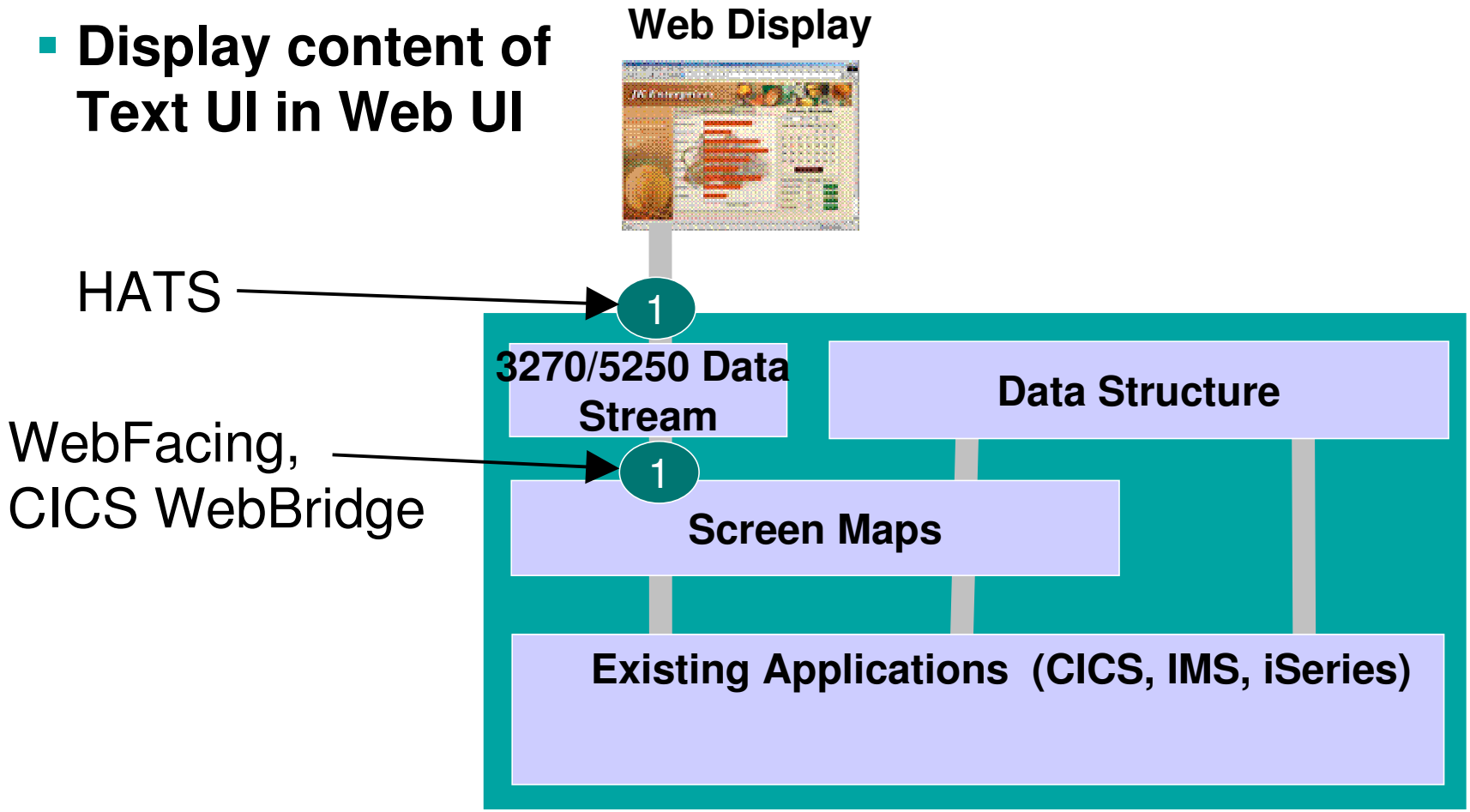
Develop



Develop

Style 1: Improve the end-user experience

- **Display content of Text UI in Web UI**



Develop

Host Access Transformation Server (HATS)

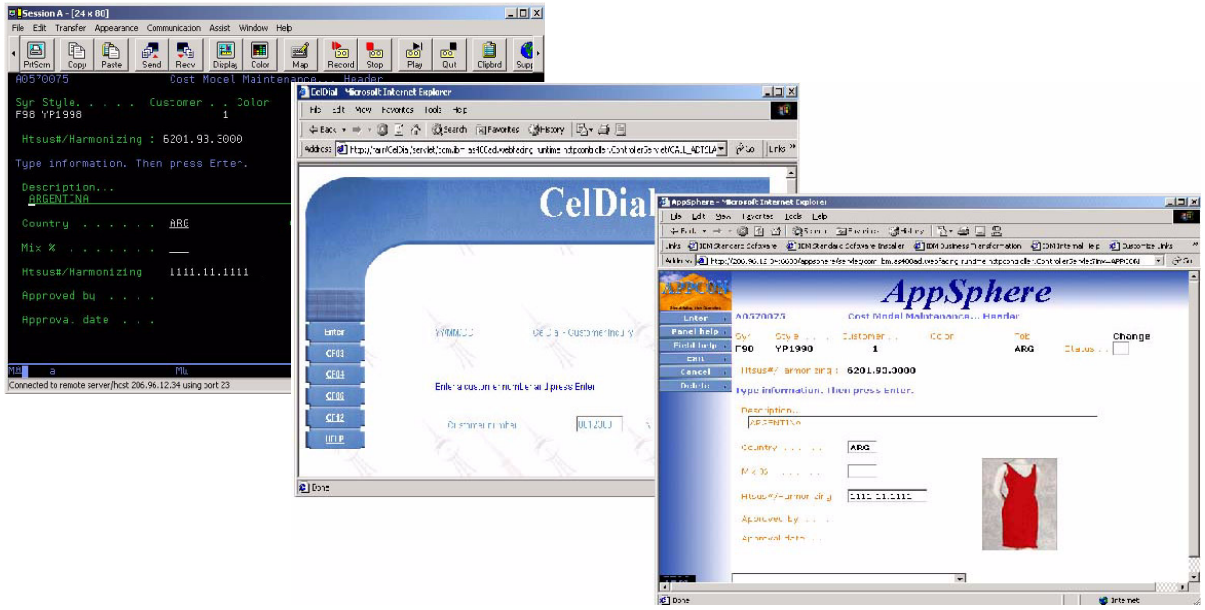
- A Web-to-host HTML emulator, with ...
- rules-based transformation engine, that...
- converts green screens to graphical user interfaces
- improves ease-of-use of host applications.

Benefit: Easily extend existing applications to the web

Develop

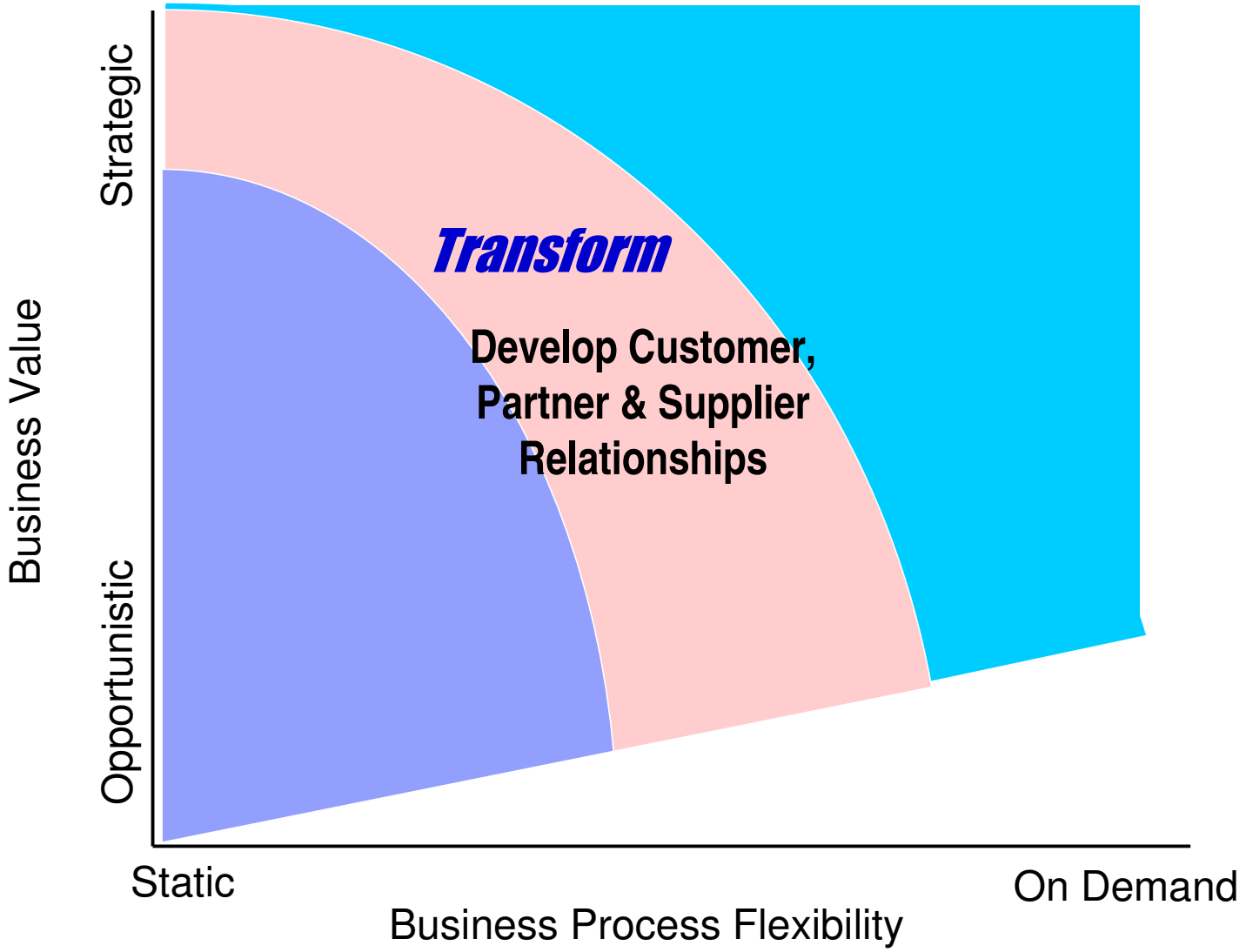
The IBM WebFacing Tool

- Part of WebSphere Development Studio for iSeries
- Supports 5250 and web interfaces
- Convert RPG/5250 applications to GUI
- End-users access applications via browser

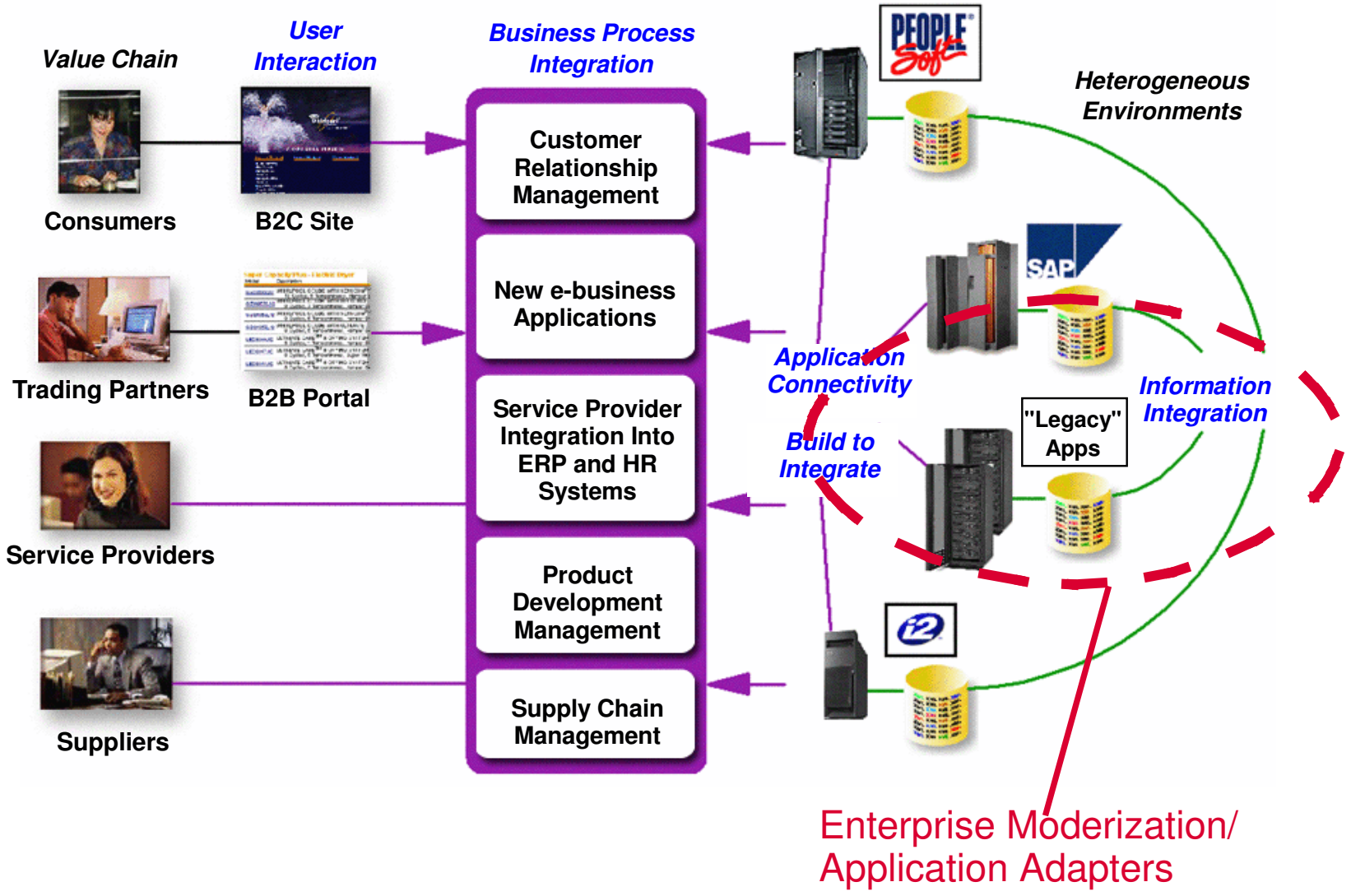


Three Styles of Modernization

Develop



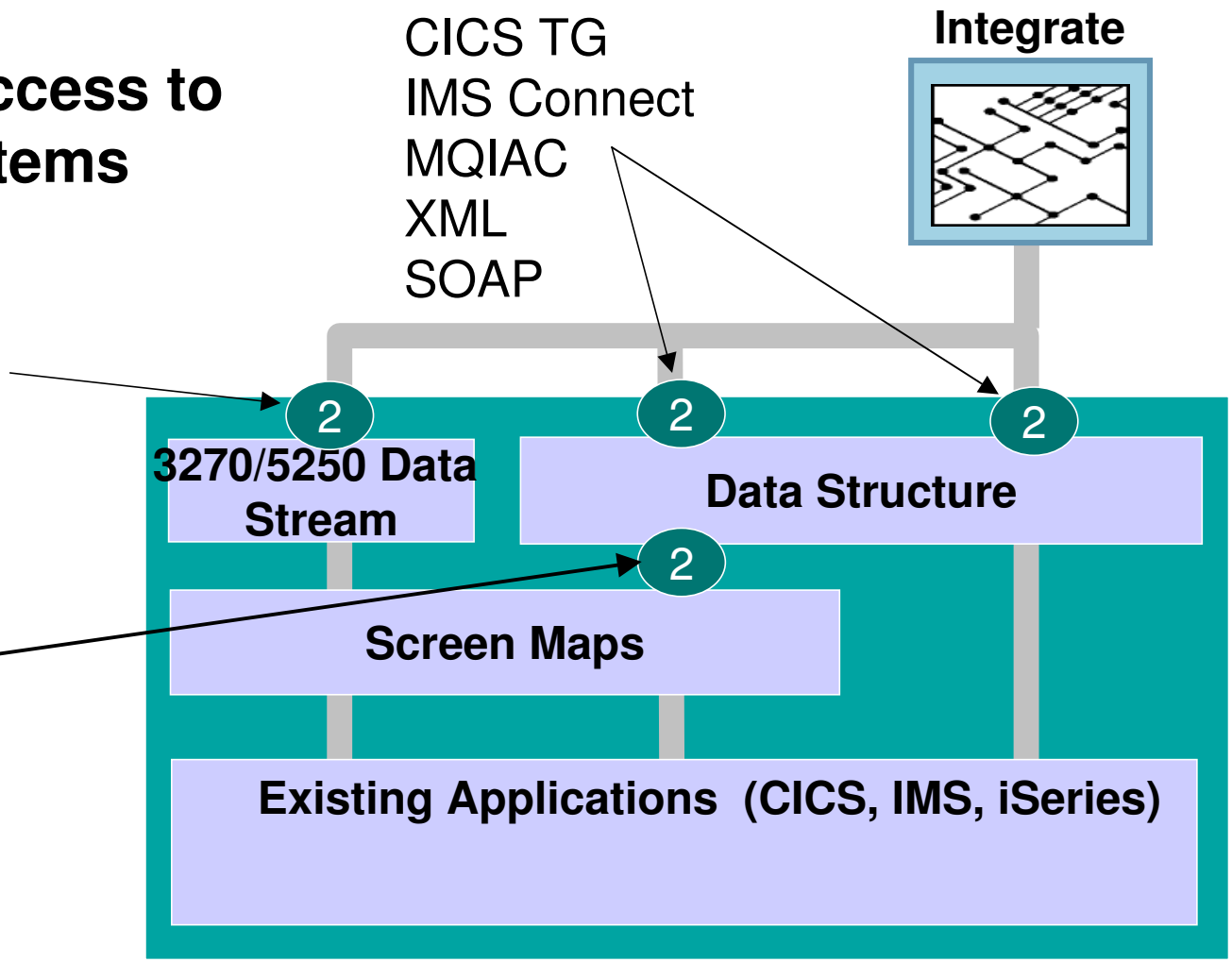
Devices | Network | Data | Develop



Develop

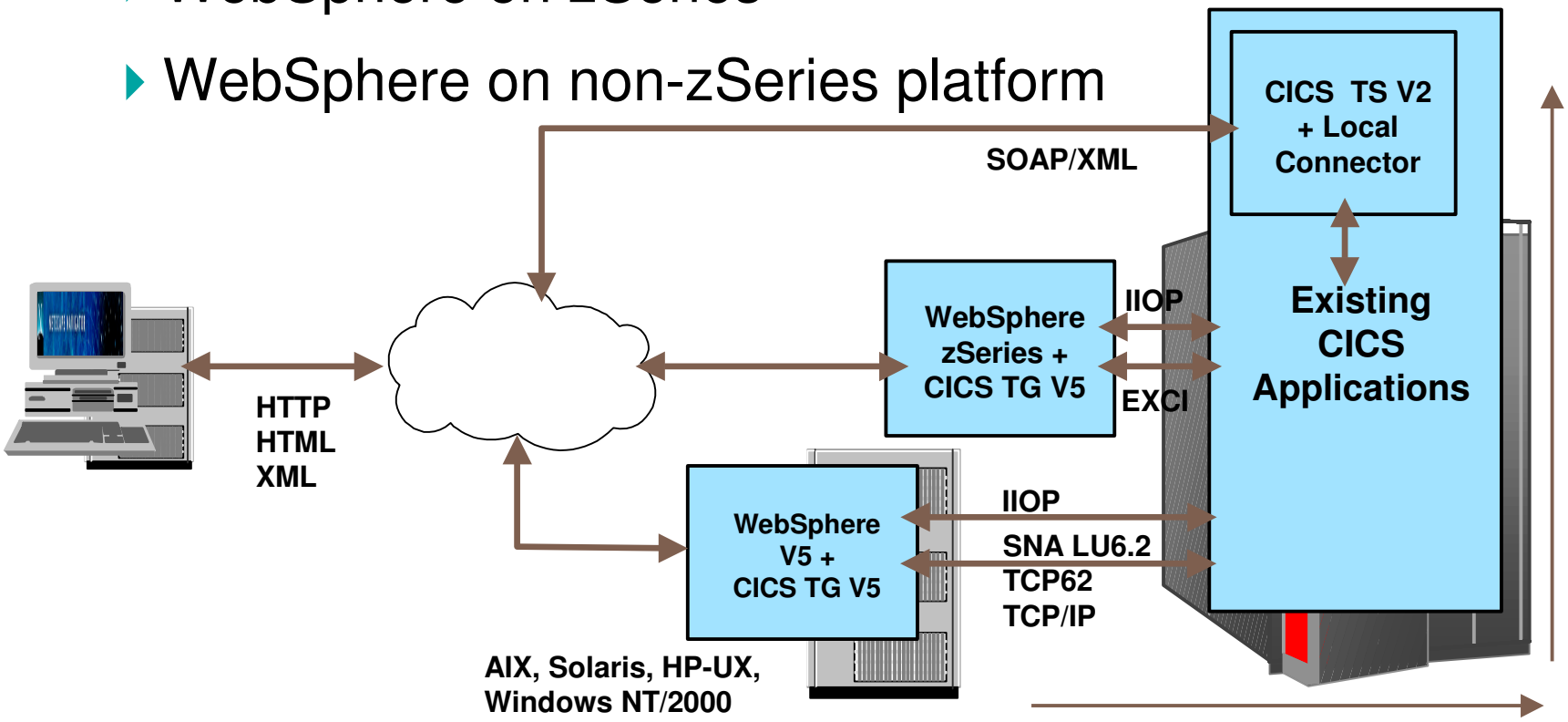
Style 2: Transform the business process

- **Program access to legacy systems**

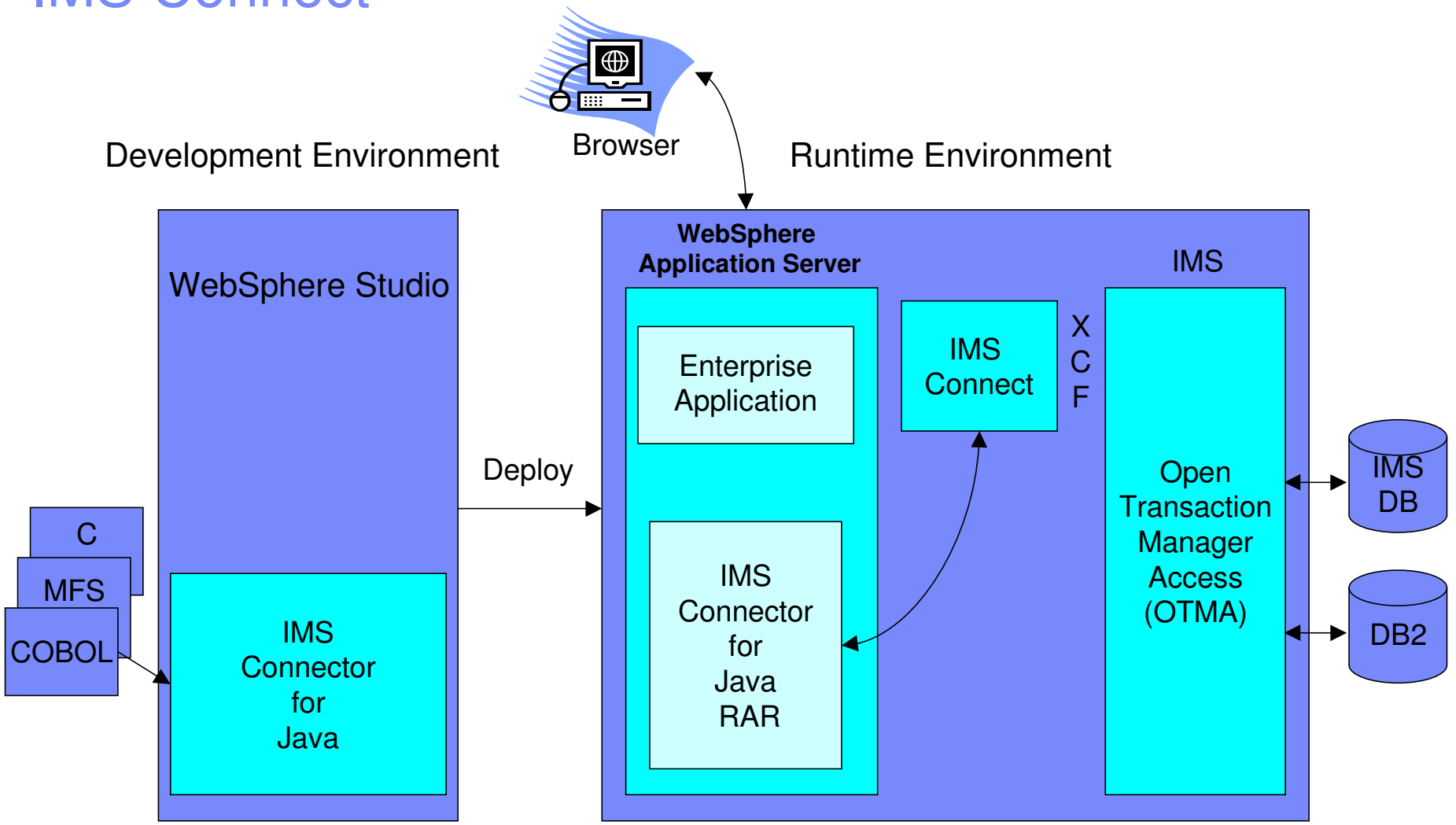


Ways to Access Existing CICS Applications

- SOAP requests over HTTP or MQ messages
- CICS Transaction Gateway
  - WebSphere on zSeries
  - WebSphere on non-zSeries platform



IMS Connect

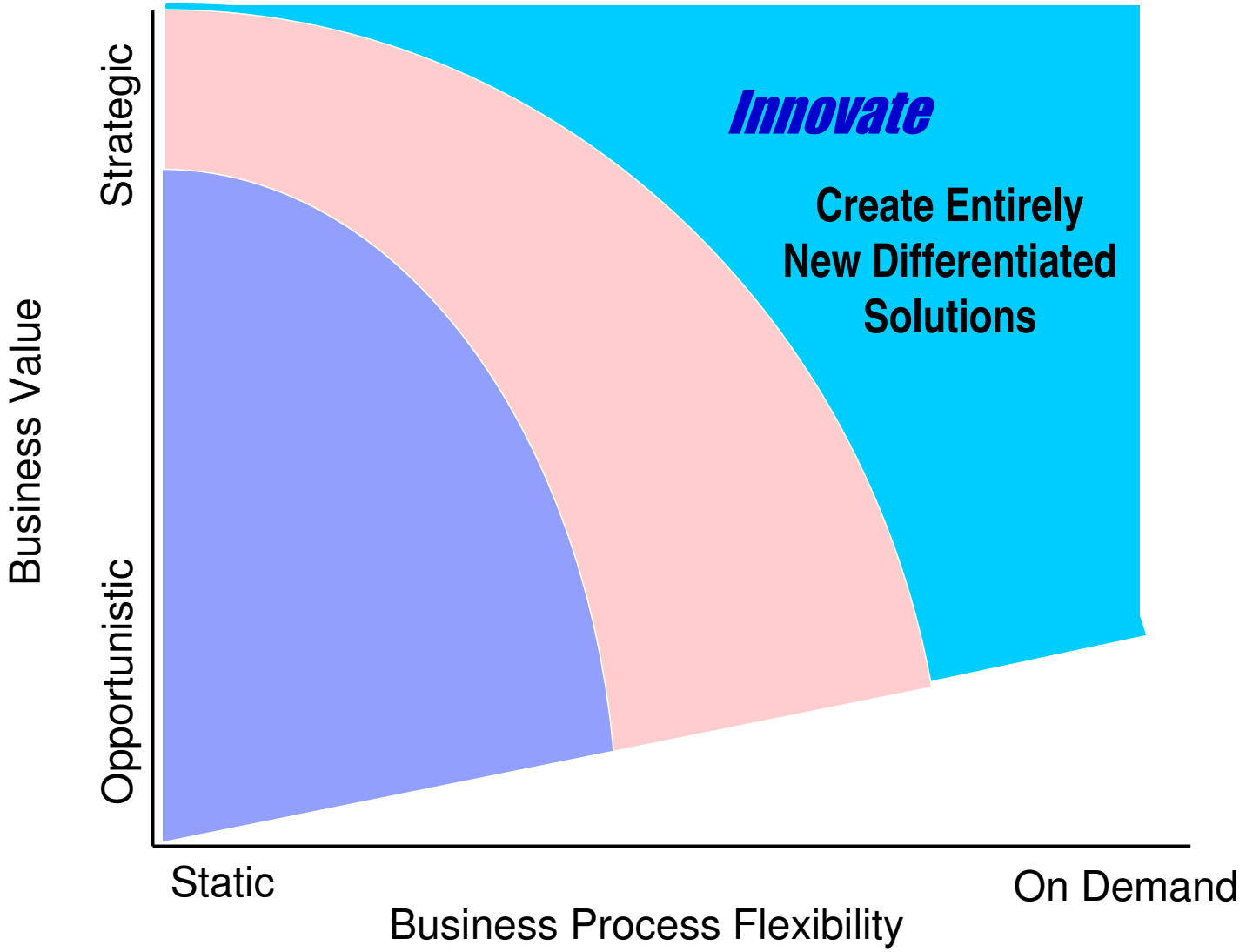

Browser
Development Environment
Runtime Environment
WebSphere Studio
C
MFS
COBOL
IMS Connector for Java
Deploy
WebSphere Application Server
Enterprise Application
IMS Connector for Java RAR
IMS Connect
XCF
IMS
Open Transaction Manager Access (OTMA)
IMS DB
DB2

MQSeries Integrator Agent for CICS Transaction Server

- **Enable middle-tier applications to access CICS, IMS, and others**
  - Adapter flow is surfaced as a "Business Service“
  - multiple transactions or applications accessed with one request from the client
  - e.g., Check Account Balance, Add Sales Order
- **Two components**
  - MQSeries Integrator Agent for CICS Adapter Builder
    - Define, model, and build adapters for application integration
  - MQSeries Integrator Agent for CICS Server Run Time
    - Execute adapters for application integration

Three Styles of Modernization

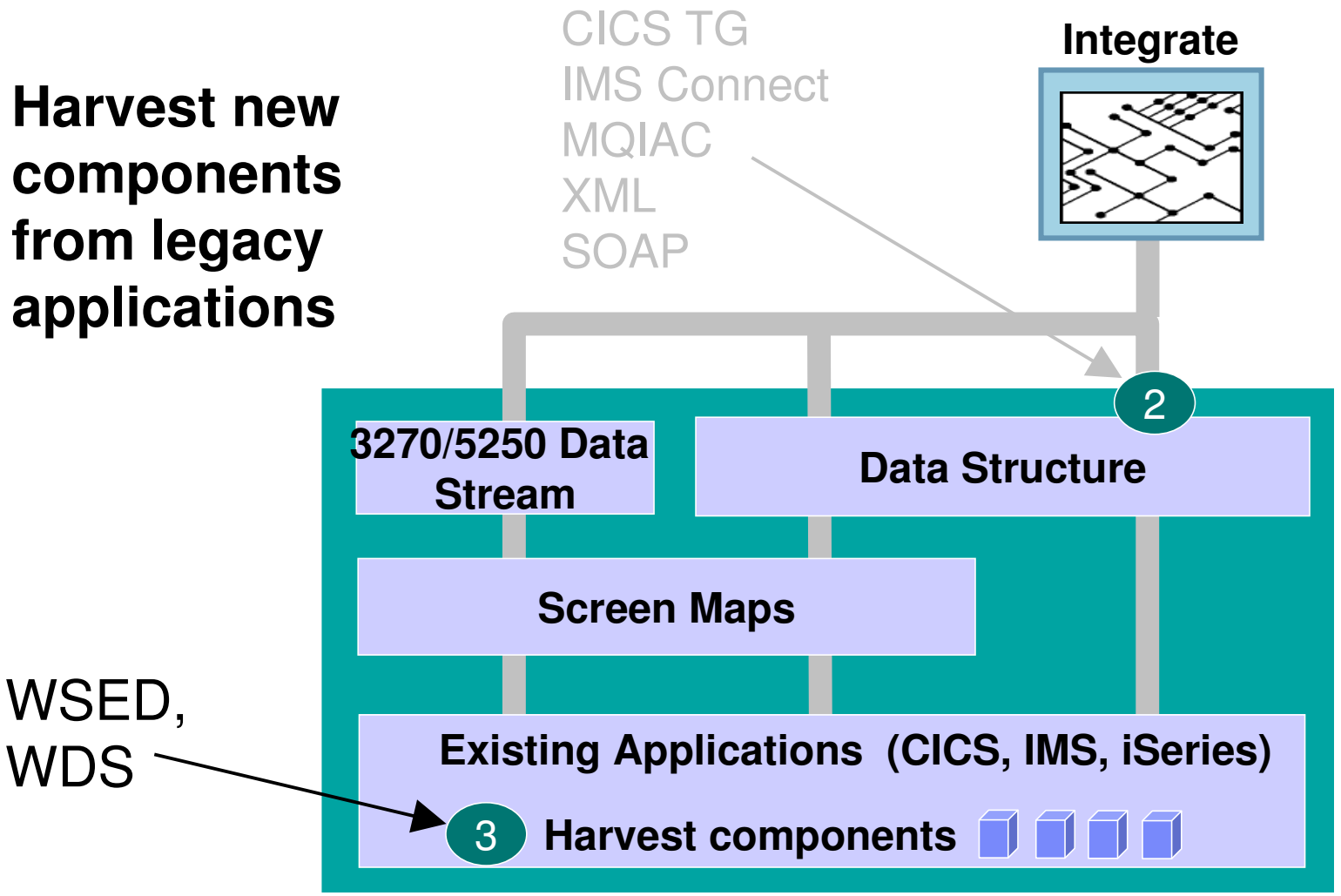
Develop



Develop

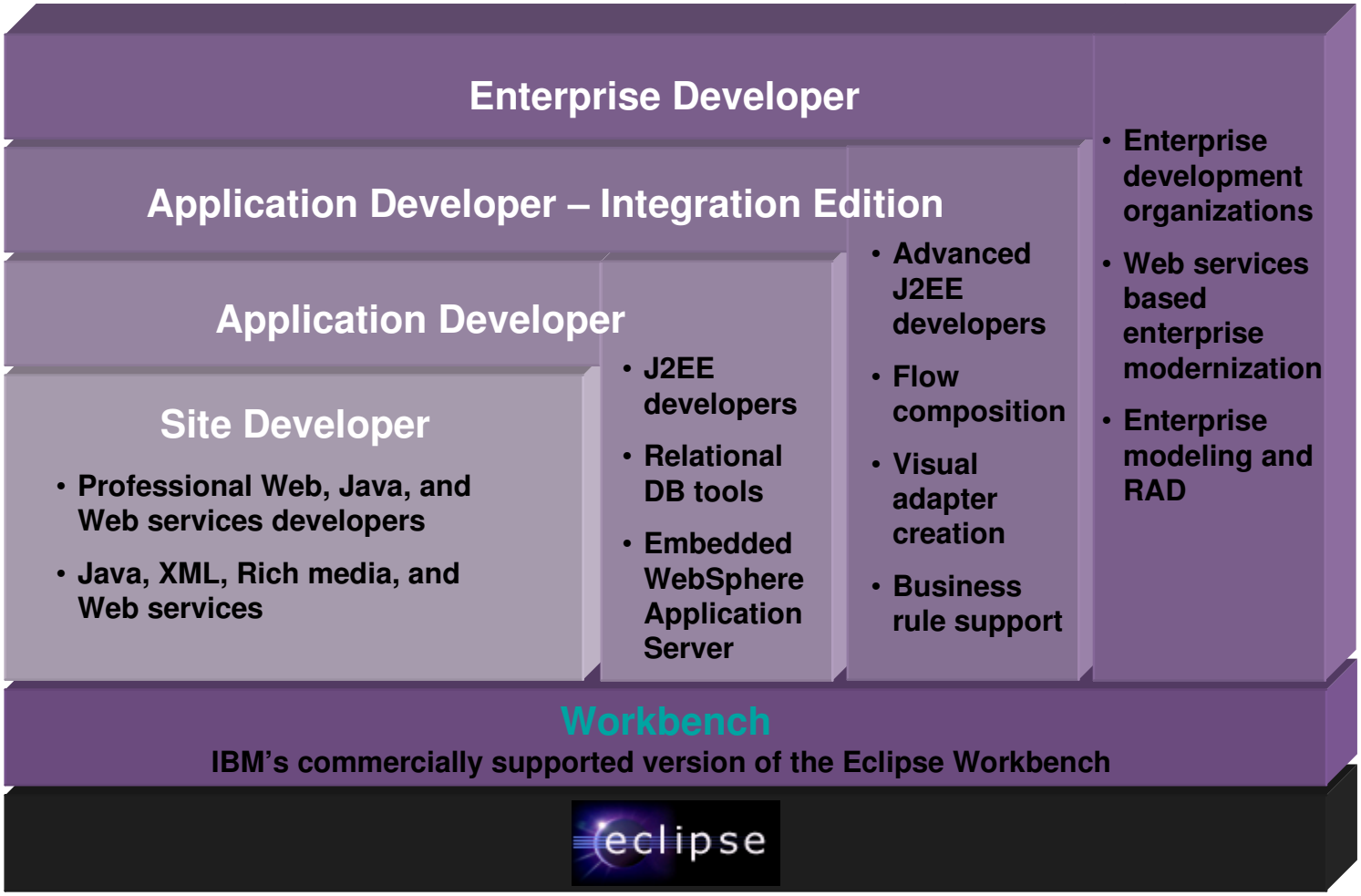
Style 3: Innovate new business components

- **Harvest new components from legacy applications**



Develop

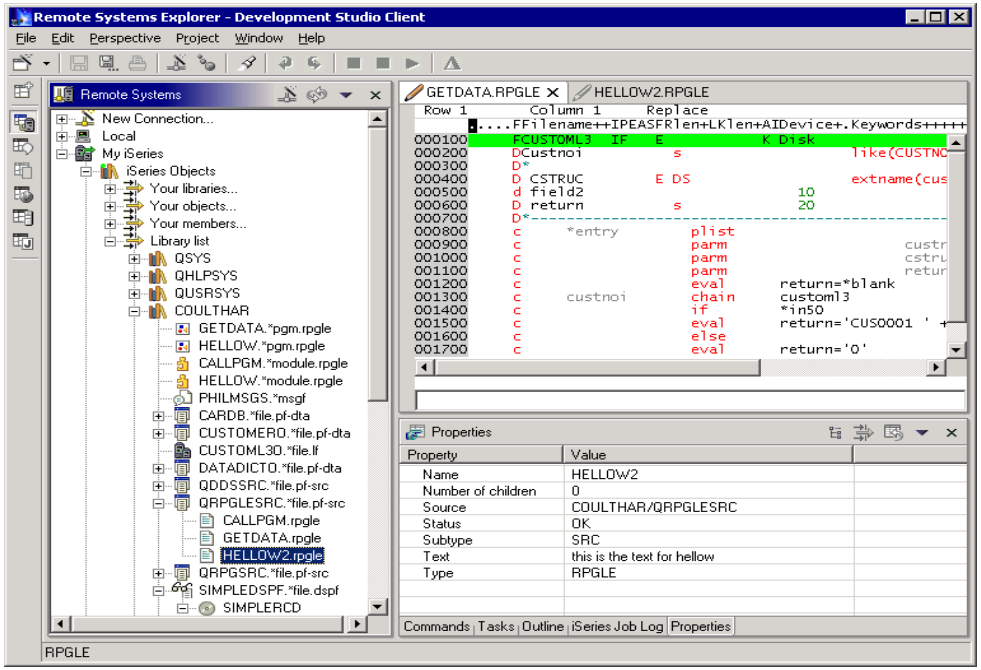
The WebSphere Studio family



Develop

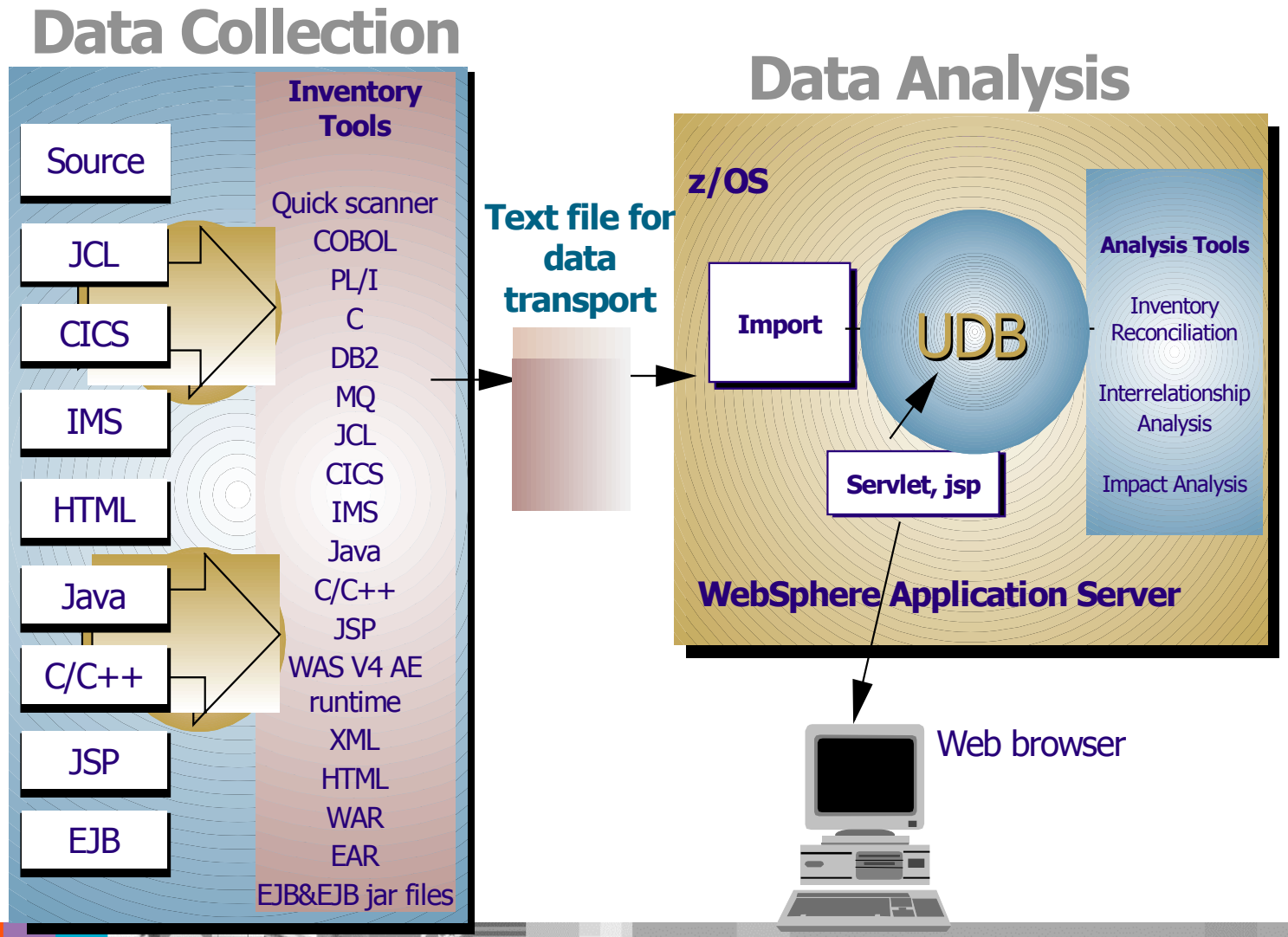
WebSphere Development Studio for iSeries

- For existing and new AS/400 web development
- “Wrapper" RPG applications as web service
- Modernize 5250 applications via WebFacing Tool



Discover

WSAA Overview



Discover

Tools

Discovery/Plan
- Understand business requirements
- Define application boundaries

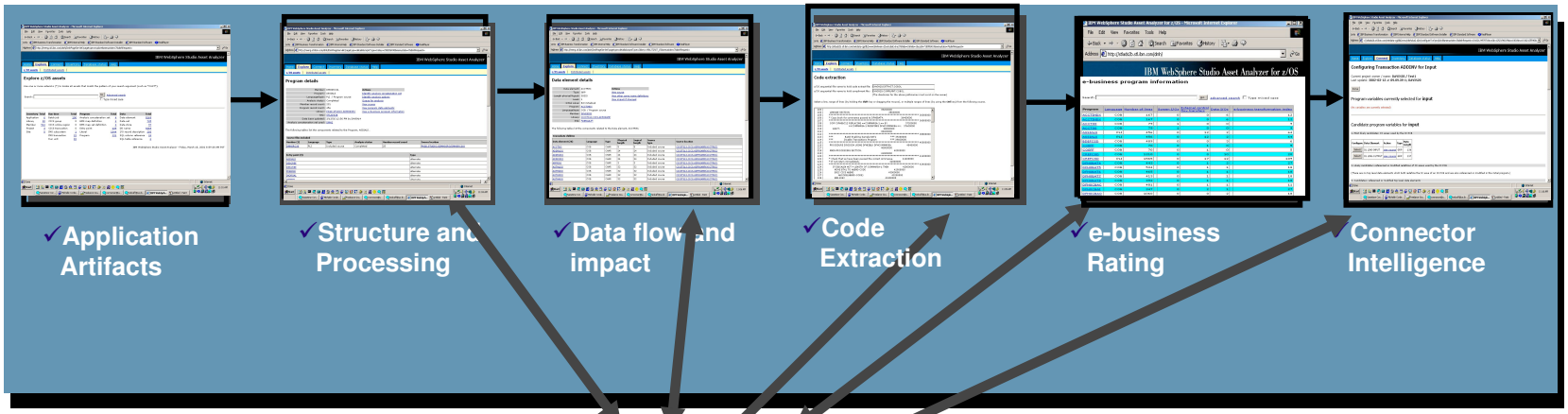
Application Knowledge
- Understand components
- Define relationships
- Find Transactions
- Find JCL
- Narrow Scope

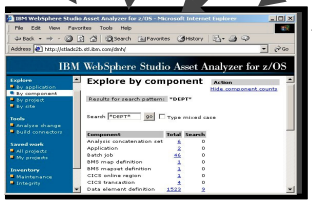
Business Knowledge
- Define program flows
- Define data items
- Create data flows

Change Knowledge
- Generate statement of work
- Create schedule

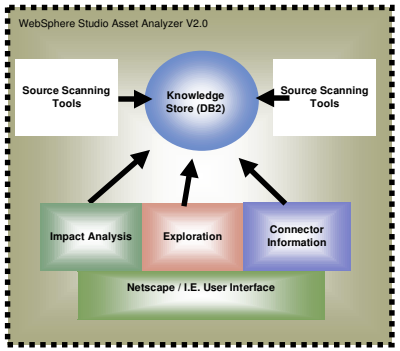
Data Knowledge
- Find Databases
- Find Files
- Find Relationships
- Generate test cases

e-business Knowledge
- Define candidate connectors
- Generate



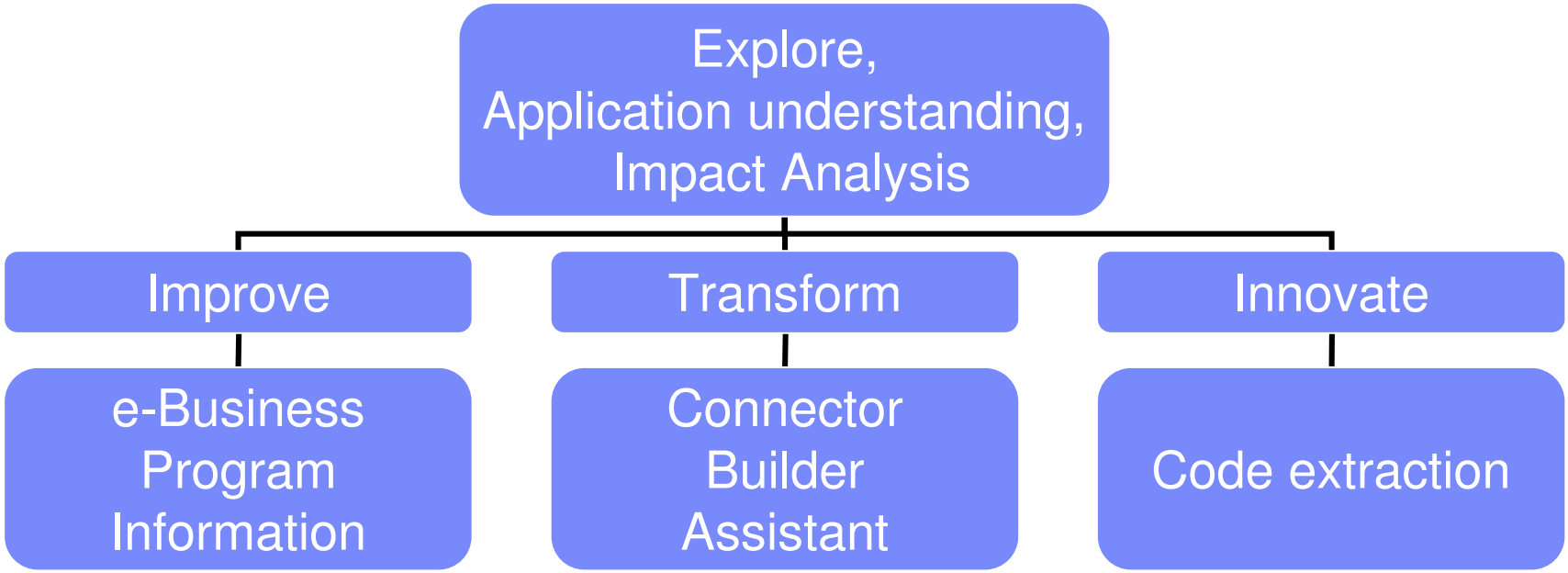


Providing End-to-End Asset Analysis for traditional, enterprise and e-business support



Discover

Using WSAA for Enterprise Modernization

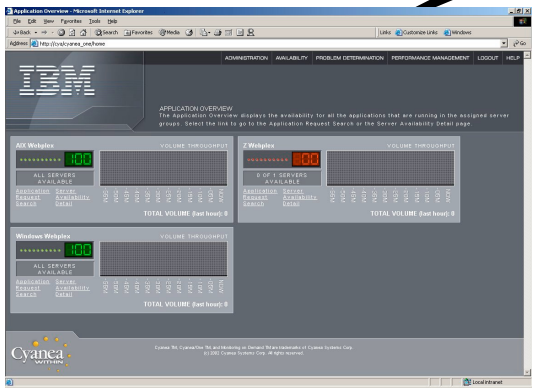


- Improve: How may screen I/O's
- Transform: Package COBOL call info for Java programmer
- Innovate: Harvest code from existing programs

Deploy

WebSphere Studio Application Monitor

- Trouble-shooting
- Performance-monitoring
- Performance analysis

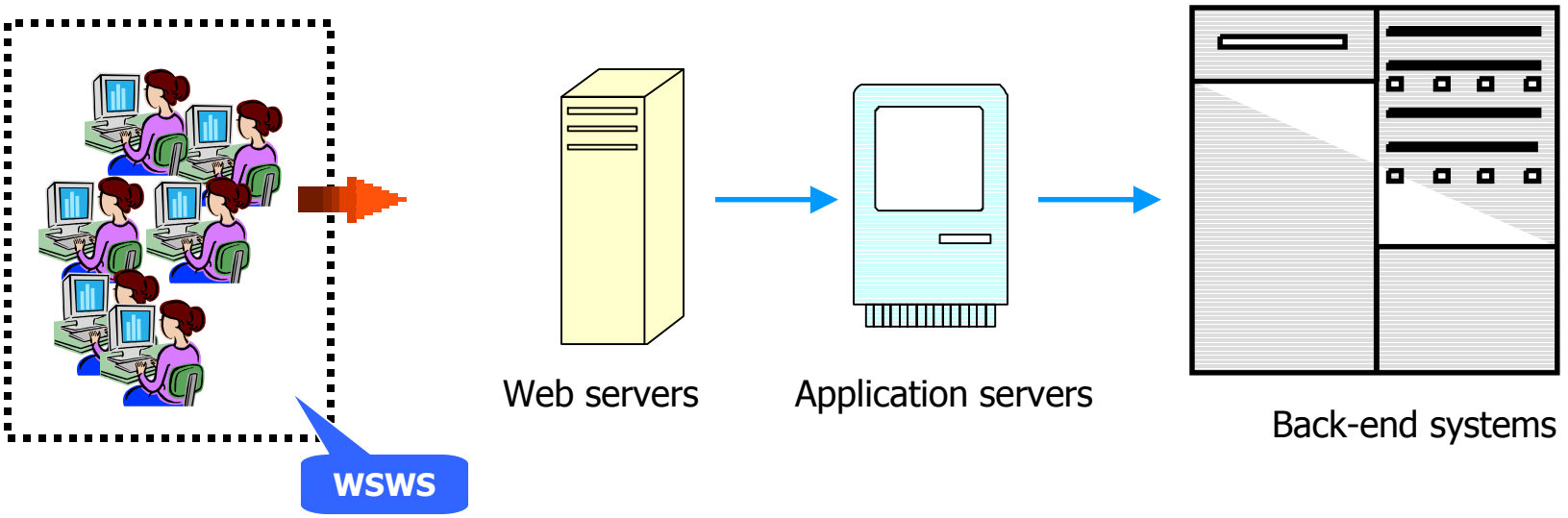


Benefit: Resolve performance problems with J2EE applications

Deploy

WebSphere Studio Workload Simulator

- Simulate a large number of web users



Benefits:

- Validate support for production loads
- Does not pre-req the WAS

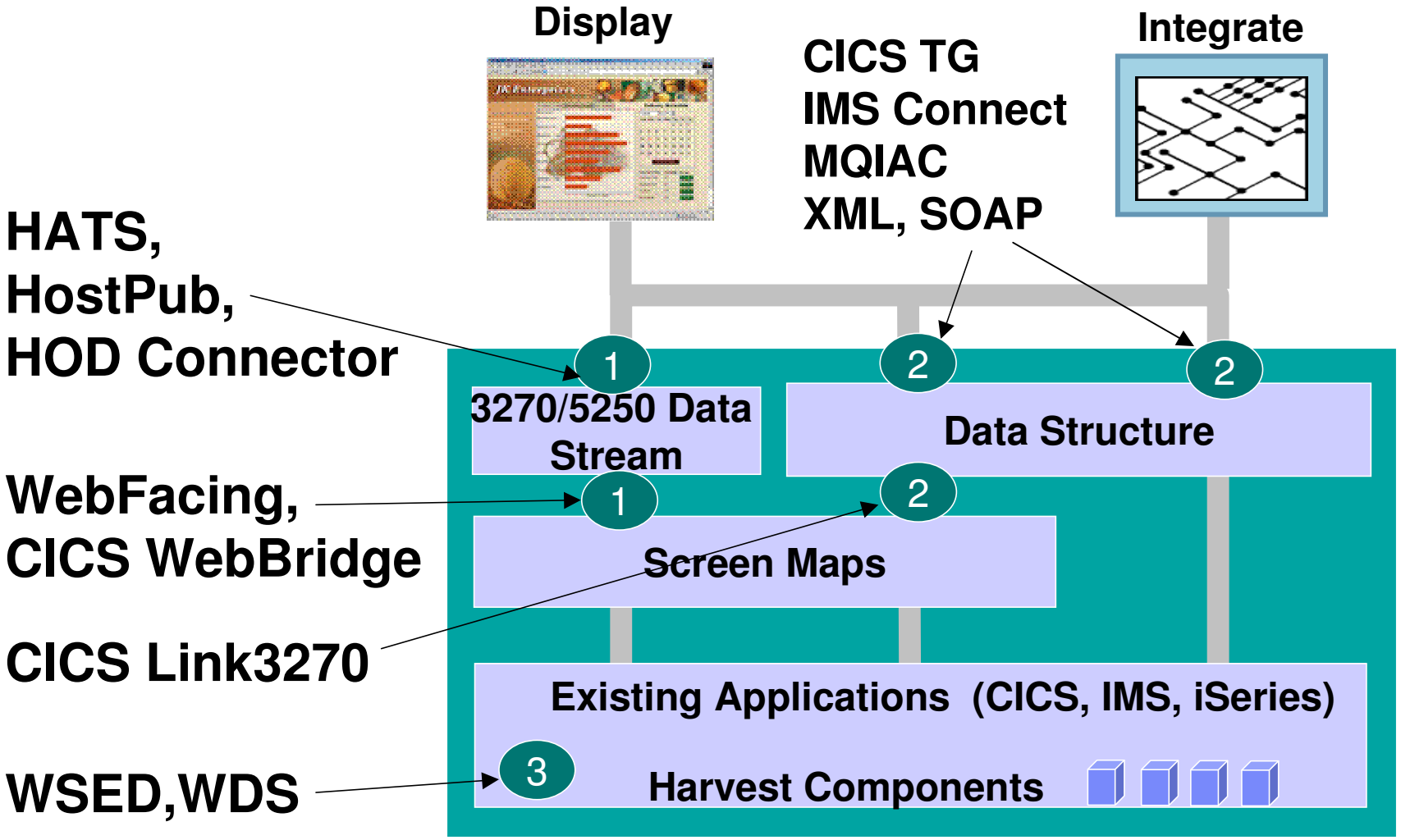
Benefit: Test drive Web applications before you deploy

Deploy

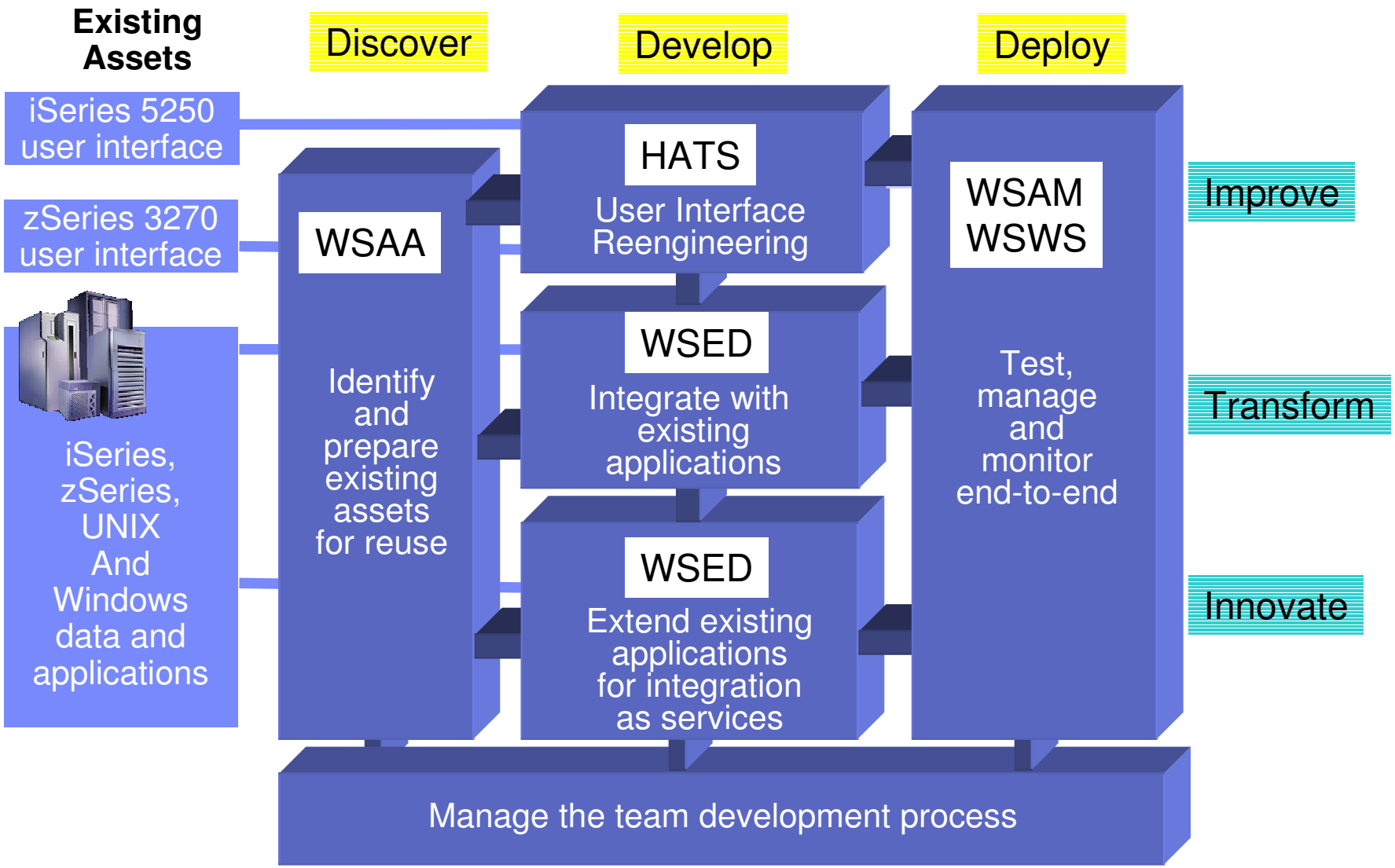
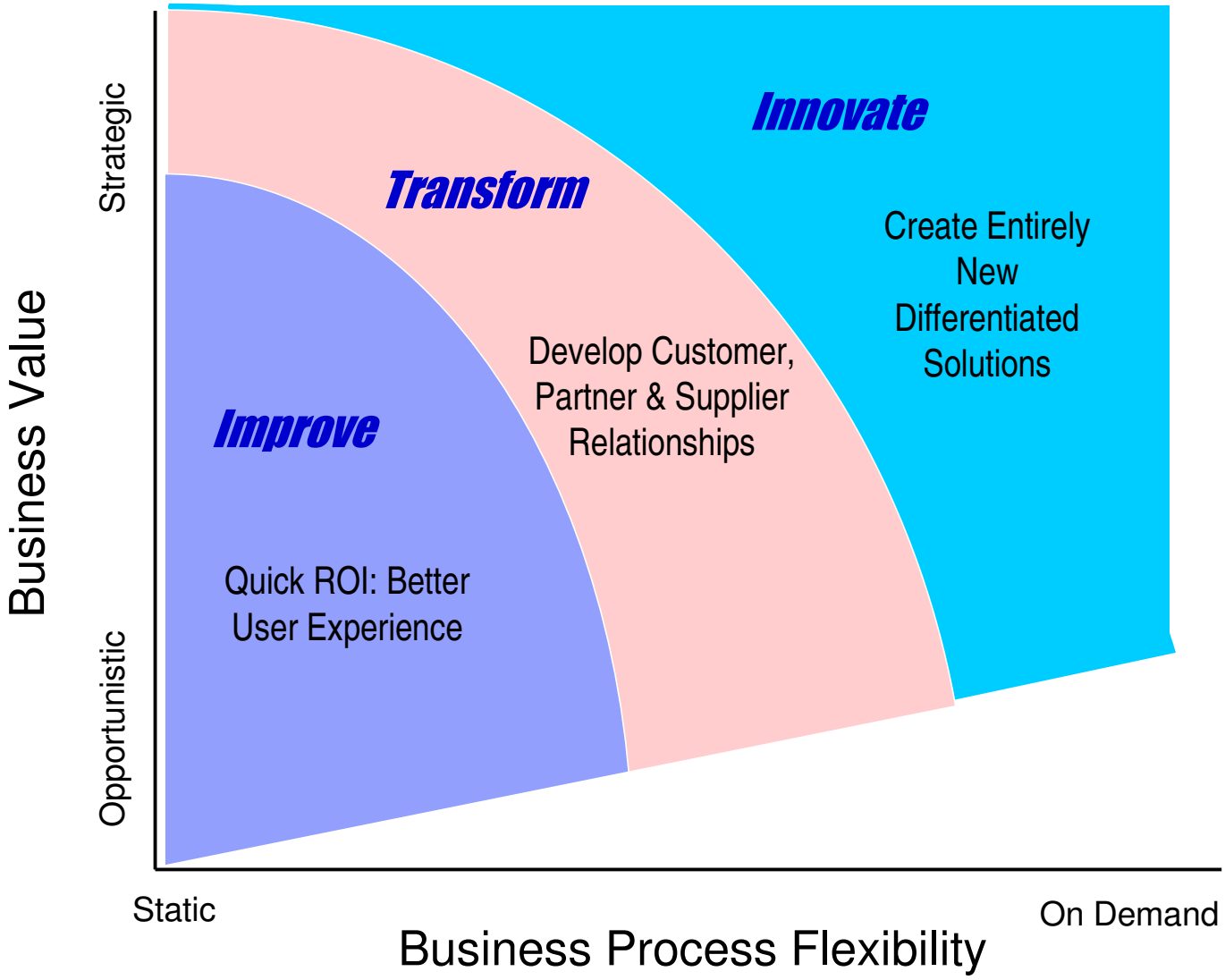
Enterprise S/390 Development Tools

- **Application Monitor**
  - real-time bottleneck analysis
- **Debug Tool**
  - source-level diagnostics
- **Fault Analyzer**
  - application failure determination and resolution assistance
- **File Manager**
  - Manipulates test and production data across multiple file formats
- **Workload Simulator**
  - Web application load testing

Points of Enterprise Modernization Today



IBM's Enterprise Modernization Solution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