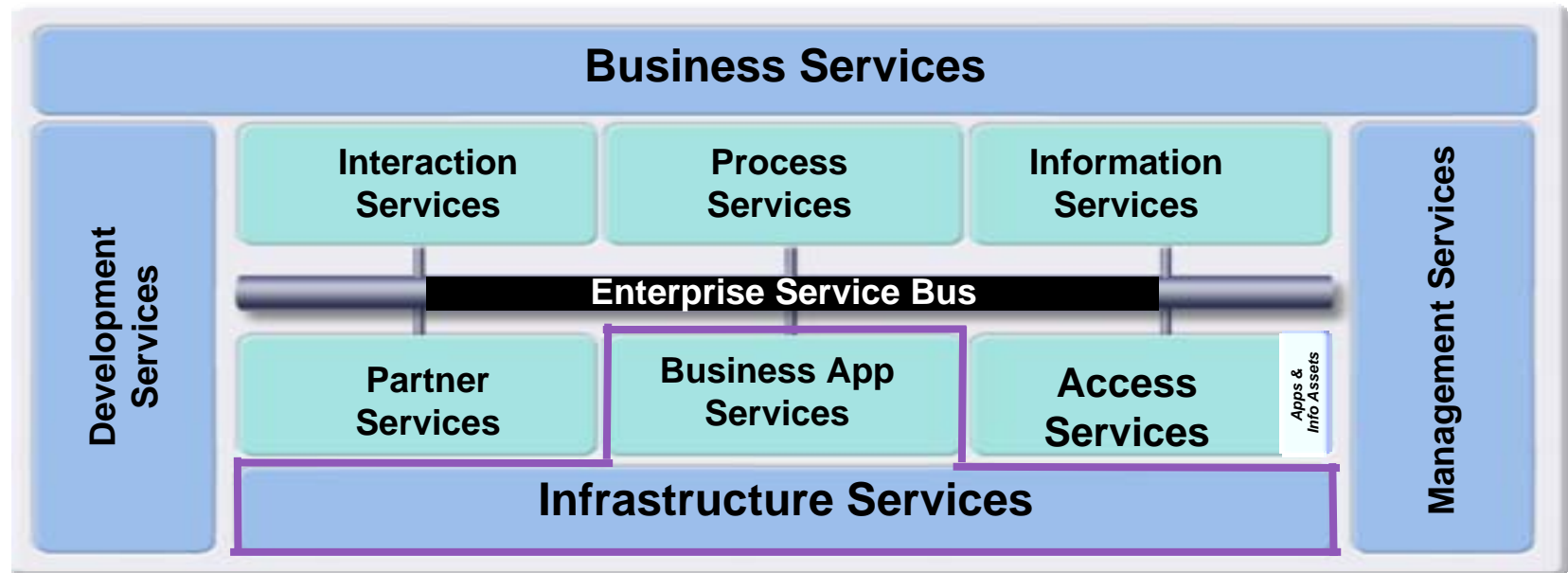


Nobody does it better...

WebSphere Application Server Version 7 brings ...

- Simplification for Developers
- High Performance SOA Environment
- Innovation that Matters



Exploiting Infrastructure for High Performance SOA ***WAS v7.0 Strengthens Your High Performance Foundation***

- **New, enhanced standards support delivers maximum flexibility and significantly improves productivity**
 - Java EE5 certification
 - Expanded Web services support
 - Web 2.0 support
 - Spring Certification
 - Portlet JSR 286
- **Security management and auditing improvements with new tools and capabilities**
 - WebSphere Security Domains, new security auditing capabilities, new DMZ-hardened Proxy, Kerberos enhancements
- **New management and administration options to help reduce cost and increase effectiveness**





Exploiting Infrastructure for High Performance SOA ***WAS v7.0 Strengthens Your High Performance Foundation***

- **New, enhanced standards support delivers maximum flexibility and significantly improves productivity**
 - Java EE5 certification including Java Development Kit (JDK) 6.0, EJB 3.0 support, and Java Persistence API (JPA)
 - Expanded Web services support
 - Web 2.0 support extending service-oriented architecture (SOA) by connecting external Web services, internal SOA services, and Java Platform Enterprise Edition (JEE) objects
 - Spring Certification
 - Portlet JSR 286





Exploiting Infrastructure for High Performance SOA ***WAS v7.0 Strengthens Your High Performance Foundation***

- **Security management and auditing improvements with new tools and capabilities.**
 - WebSphere Security Domains, new security auditing capabilities, new DMZ-hardened Proxy, Kerberos enhancements

- **New management and administration options to help reduce cost and increase effectiveness.**
 - New runtime provisioning selects only the needed function for memory and space improvements.
 - New Flexible Management feature reduces the cost of administering large deployments





Leveraging Benefits of SOA Programming Model **WAS v7 Ensures Programming Model Currency ...**

- Support for core programming model standards
 - Java EE 5.0
 - Java SE 6.0
- Support for latest Web services profiles
 - WS-I Basic Profile 1.2 and 2.0, WS-I Reliable Secure Profile
 - IBM's Federated Identity Profile
- Support for Java Portlets (JSR 286)

Programming Model Standards Increase Application Value





Leveraging Benefits of SOA Programming Model

WAS v7 Delivers Java EE 5.0 Benefits ...

- Latest specifications
 - EJB 3.0, JPA, JAX-WS 2.0, JSP 2.1, Servlet 2.5, JSF 1.2
- Improved developer experience
 - Annotations and injection support reduced complexity
 - EJBs are developed as Plain Old Java Objects (POJOs)
 - Java Persistence API (JPA) allows simpler entities to be created using annotated POJO model
- Integration with the latest Web services standards





Leveraging Benefits of SOA Programming Model

WAS v7 Supports Most Important Web Services for SOA Transaction ...

- WS-I
 - Basic Profile 1.2, 2.0, Reliable Secure Profile 1.0, Basic Security Profile 1.1
- OASIS
 - WS-ReliableMessaging (WS-RM), WS-SecureExchange (WS-Trust/WS-SecureConversation), WS-DistributedManagement (WSDM), WS-Policy
- W3C
 - SOAP 1.2, MTOM, XOP, WS-Security 1.1, WS-Addressing (WSDL)

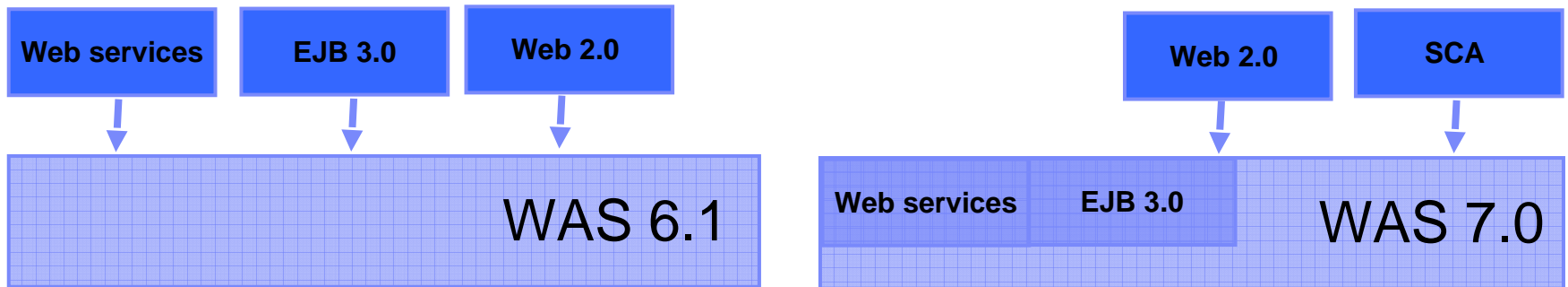




Leveraging Benefits of SOA Programming Model

WAS v7 Keeps Pace with Industry Advancements

Feature Packs enable you to selectively take advantage of new standards and features while maintaining a more stable internal release cycle.



1. Choose the application server technology you need.
2. Install additional functionality on core WAS 7
3. Build the Application Server you want without waiting for new releases.



Providing Powerful, but Simplified RAD

RAD for WebSphere Improves Programmer Productivity

RAD for WebSphere

Programming model tools:

- EJB3 productivity features
- Domain modeling (visual edit)
 - Java, EJB, XSD, WSDL, Data
- Web Development (visual edit)
- Web Services productivity features
- Portlet JSR
- Relational Data Tools

Miscellaneous:

- XML productivity features
 - Extra Debuggers (XSLT, stored procedures...)
 - WAS Test servers: v6.0, v6.1, v7.0
 - WAS n-2 support
 - J2C
 - CICS and IMS Adapters
- Licensed but supplied separately:
- RequisitePro integration
 - IBM Support Assistant
 - More...

RAD Assembly & Deploy

- Profile Management tools
- Jython Tools
- J2EE 1.4 (same level as AST 6.1)
- JEE5 XML-form based DD editors
- JEE5 application support
- WAS 7 support only
- WAS debug extensions
- Application Deployment Support (WAS 7.0)
- SIP

EIS Adapters

- SAP, Siebel, JDE, Oracle, PeopleSoft

Portal (Lotus)

- Portal Tools

SCA (Post v7.5)

- SCA 1 (Public)

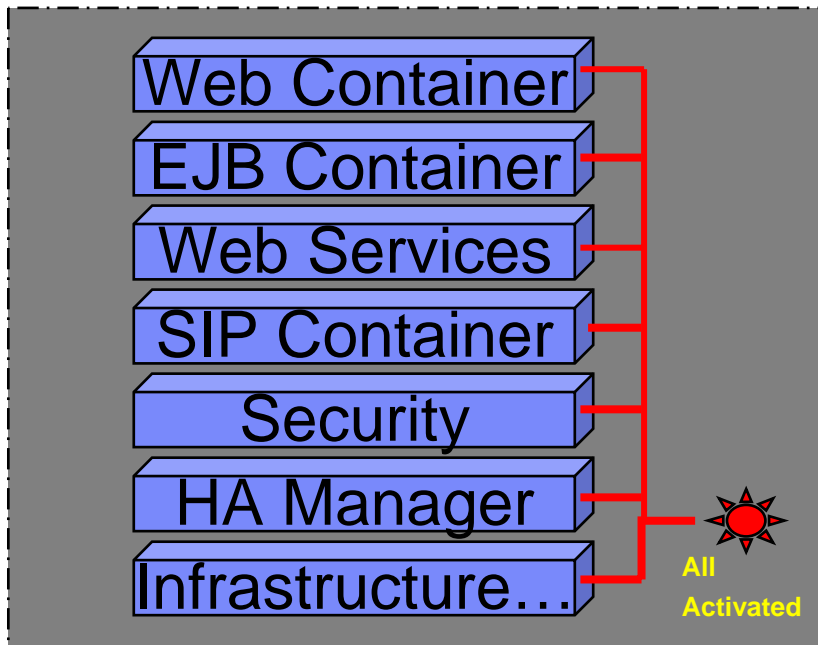


Easing Application Serving Management Burden

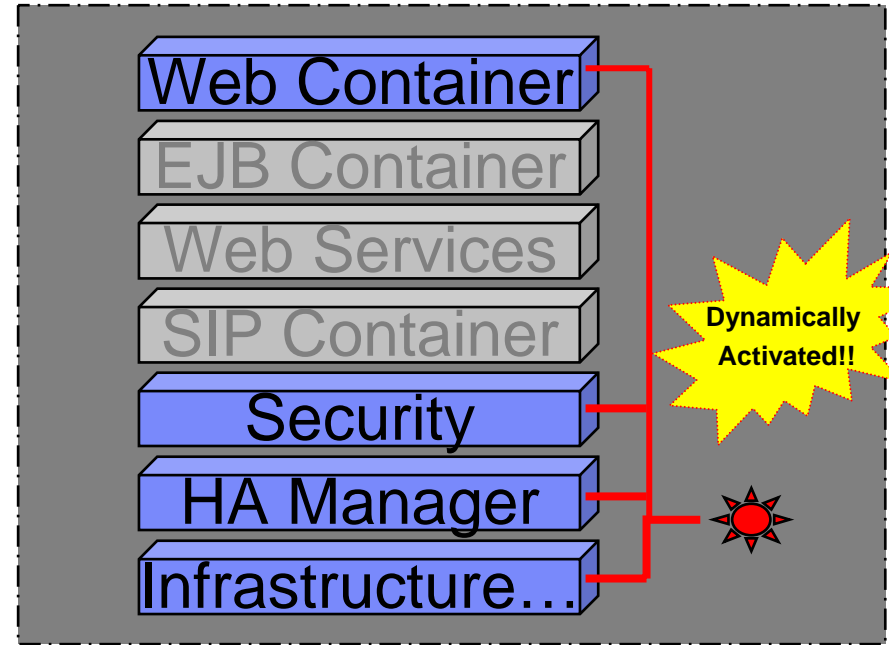
WAS v7 Provides Key Runtime Provisioning Capabilities

- Dynamic start of app server components based on application needs
- Reduces the runtime footprint – less memory required
- Can significantly reduce startup times

V6.1 Server



V7 Server





Easing Application Serving Management Burden

WAS v7 Integrates with WMQ for Strong Foundational SOA Management Support ...

- WAS 7.0 includes a WMQ JMS JCA 1.5 Resource Adapter
 - New panels and admin commands
 - MDBs can now use activation specifications
 - It's cognizant of multi-regions in WAS on zOS and supports zWLM
 - It supports WMQ v6 and v7 (v5 is not JCA compliant)
 - Existing methods are still available (e.g. generic JCA 1.5 resource, explicit WMQ using ASF or generic JMS provider (using ASF))
- WAS 7.0 also includes the new WMQ v7 JMS client

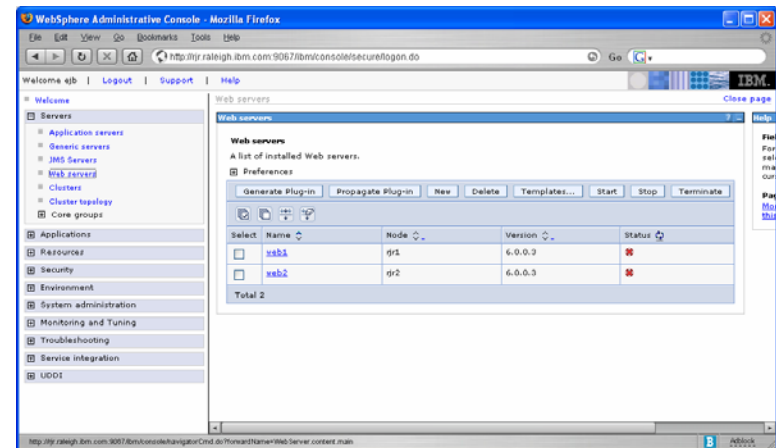


Easing Application Serving Management Burden

WAS v7 Integrates with DataPower to Expand SOA Mgt Support ...

A next step in the evolution of broader administration integration across WebSphere ...

- Single Admin interface for managing both WAS and DataPower
 - Tighter integration for management
- Admin interface for managing multiple DataPower boxes
 - Multi-box management (existing DataPower requirement)
- Single point of administration for solutions that combine WebSphere Application Server applications with the DataPower





Capitalizing on Intelligent App Server Management **WAS v7 Brings Flexible Management ...**

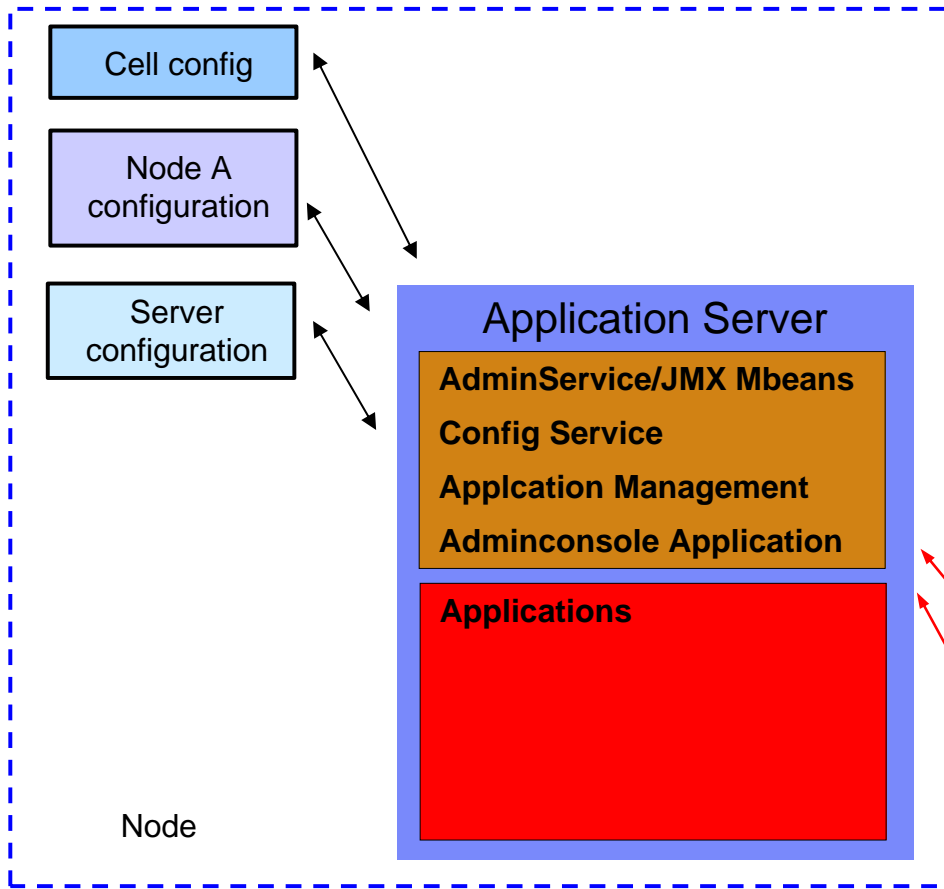
- Reduces administration overhead
 - Reduces App Server footprint related to admin functions
 - Offers new management component: Admin Agent
- Dramatically increases scale for administration
 - Remote Administration option
 - Flexible Management is “loosely coupled” management
 - Asynchronous, non-blocking admin jobs queued for agent execution on the nodes
 - Offers new management component: Job Manager
- More efficient administration of multiple application servers on a single node



Capitalizing on Intelligent App Server Management

WAS v7 Overcomes Challenges of Existing WAS (Base) Management

Current WAS (Base) Management

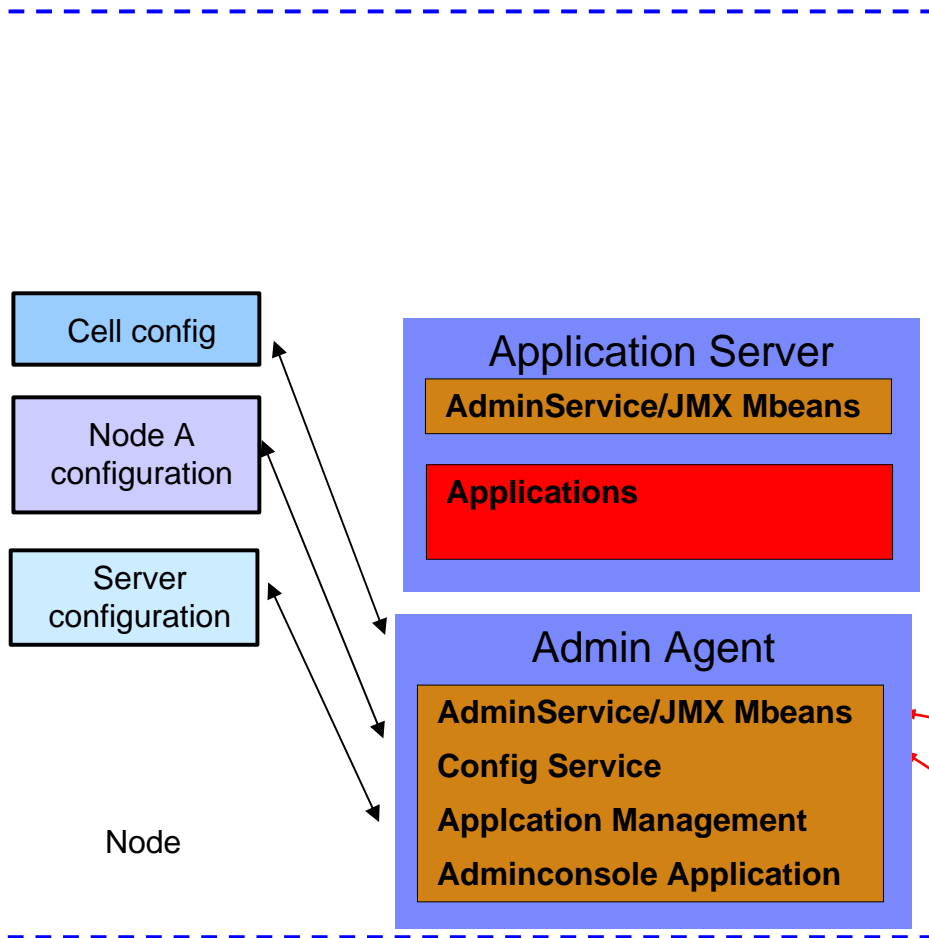


- Administrative runtime hosted in Application Server
- Adminconsole runs in Application Server
- Scripts run against Application Server
 - Cannot start/stop app server dynamically)
- Application server process has administrative overhead
- Can not manage multiple servers in a base profile

Capitalizing on Intelligent App Server Management

WAS v7 Overcomes Challenges of Existing WAS (Base) Management

New Flexible Management Option



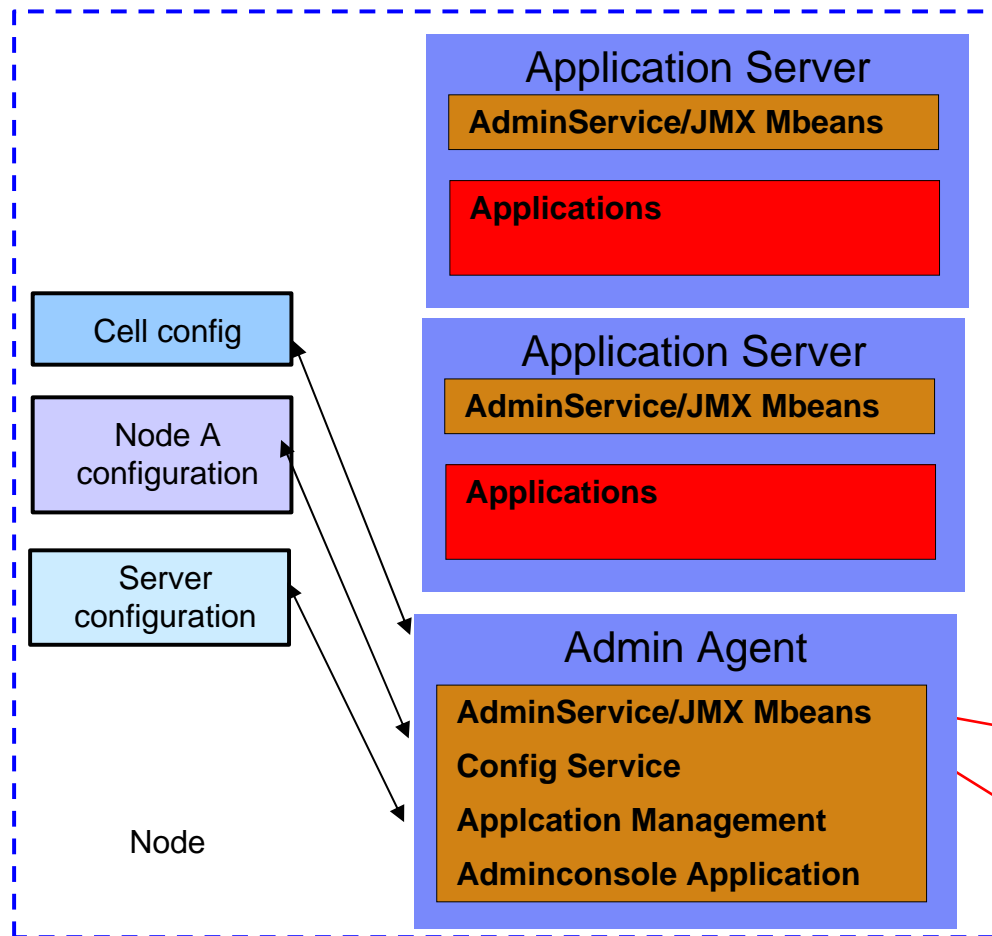
- Separate admin from application request processing
- Application server no longer central point of management
 - Reduce server footprint
- Transparency for base vs. ND configuration



Capitalizing on Intelligent App Server Management

WAS v7 Overcomes Challenges of Existing WAS (Base) Management

New Flexible Management Option



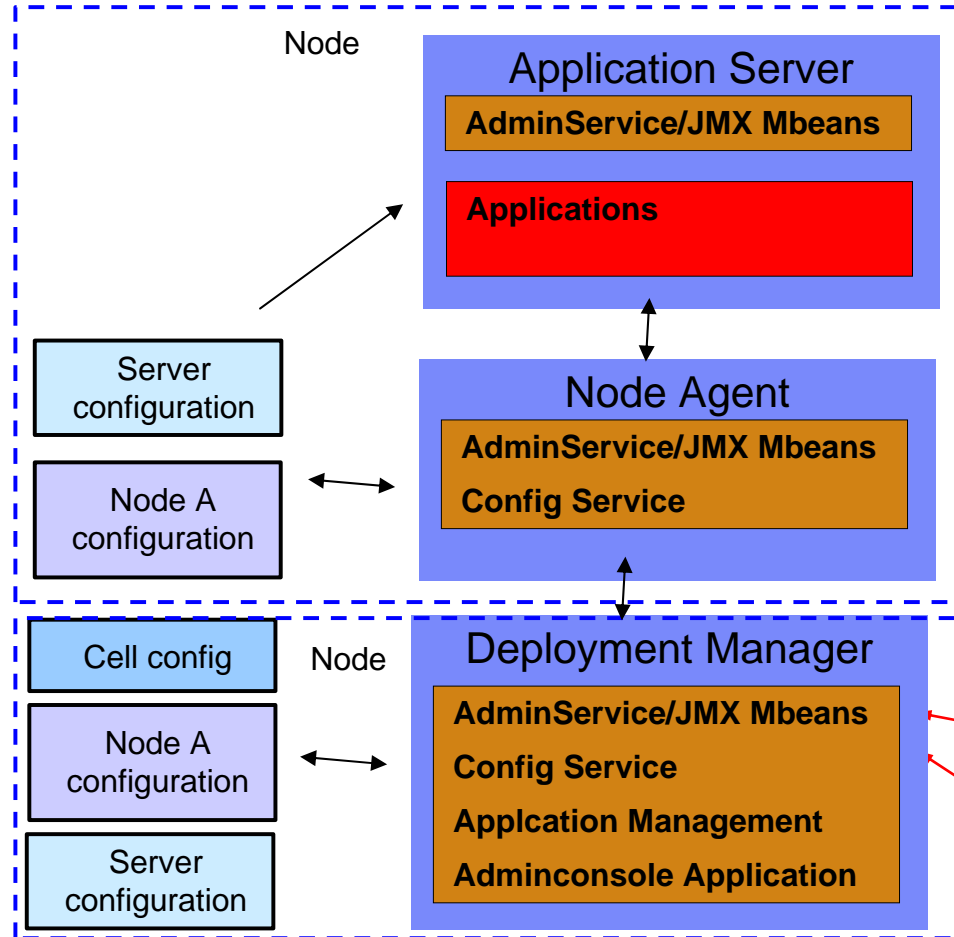
- Admin Agent can manage multiple base profiles
 - All profiles created from same WebSphere installation
 - Unique admin ports in admin agent for each managed profile
 - Administrative console provides choice of profiles to be managed



Capitalizing on Intelligent App Server Management

WAS v7 Extends Existing WAS-ND Management

Current WAS-ND Management



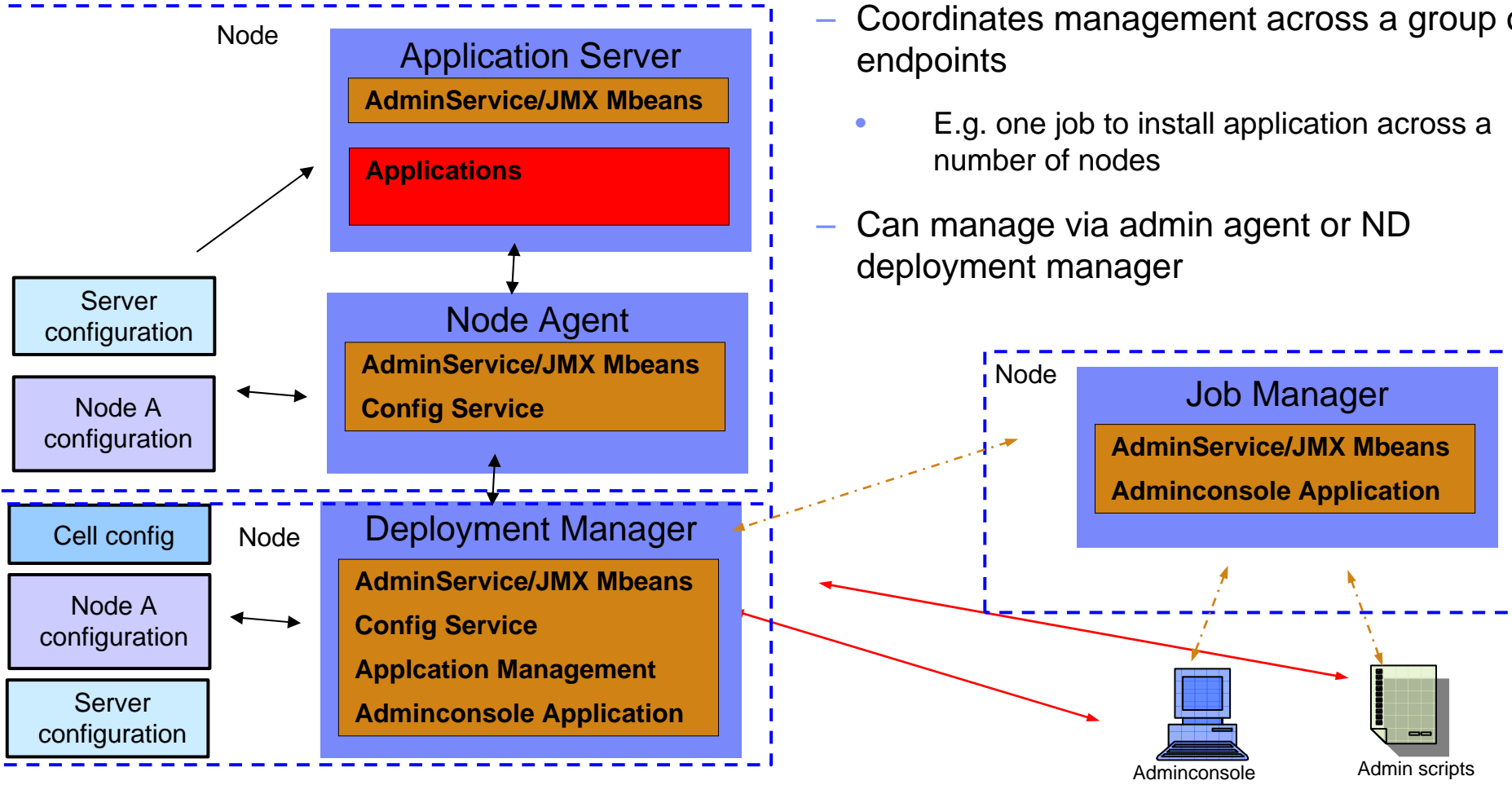
- Tight Coupling Between
 - Application Server(s) and Node Agent(s)
 - Node Agent(s) and Deployment Manager



Capitalizing on Intelligent App Server Management

WAS v7 Extends Existing WAS-ND Management

New Flexible Management Option



- Loose Management Coupling
- Coordinates management across a group of endpoints
 - E.g. one job to install application across a number of nodes
- Can manage via admin agent or ND deployment manager

Capitalizing on Intelligent App Server Management **Flexible Mgt Jobs Extends Existing WAS-ND Management**

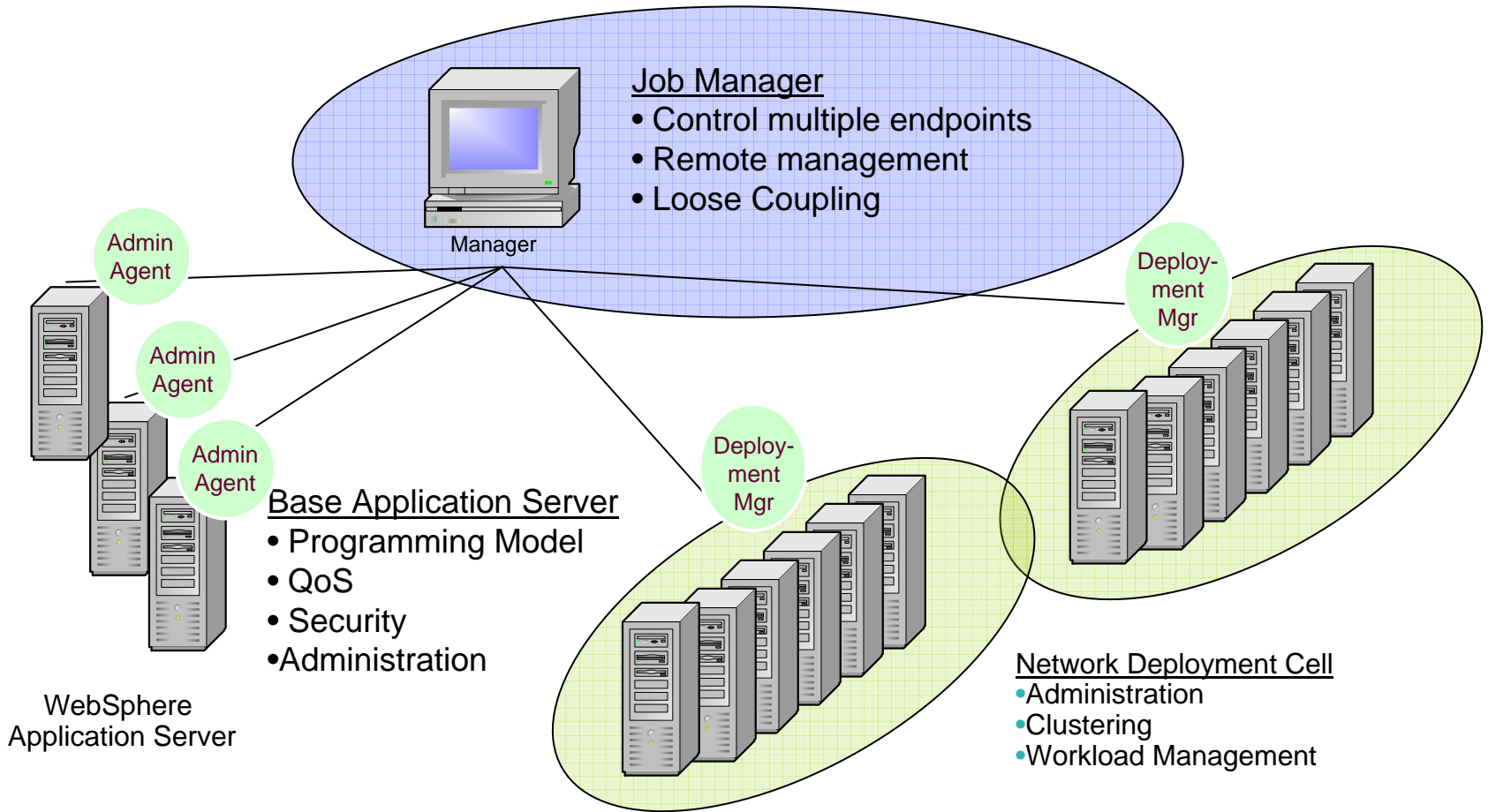
- Job Manager supports flexible management jobs:
 - Download application binaries
 - Install applications
 - Create/start/stop application servers
 - wsadmin scripts
- A Flexible Management job
 - Has semantics tied to the underlying node
 - For example, application management jobs
 - Has few parameters
 - Most application installation bindings are stored with the application.
 - Is asynchronous, with activation, and expiration times, and may recur
 - Can send email notification upon completion
 - Has status that shows # of nodes succeeded, failed, or pending
- Scales to large number of nodes





Capitalizing on Intelligent App Server Management

WAS v7 Sets the Stage for More Flexible Management Topologies ...





Capitalizing on Intelligent App Server Management

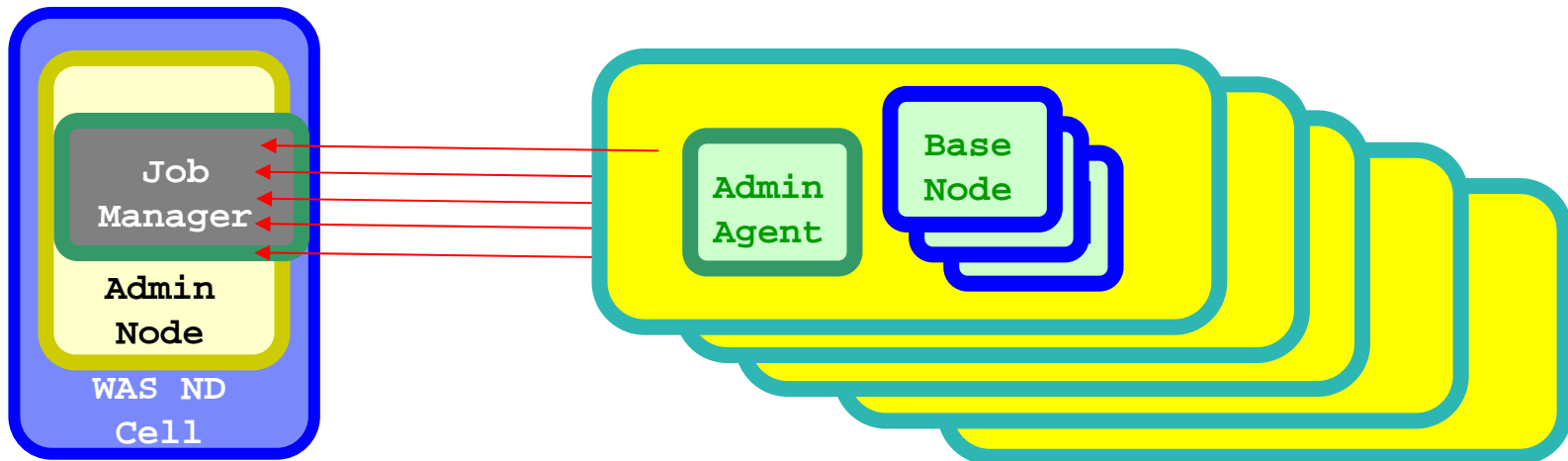
WAS v7 Addresses the Server Farm Dilemma with New Ideas ...

Loosely coupled Job Manager

Local node “Autonomy” unlike ND topology

Loose federation – Not “slave” to Deployment Manager

Develop/Unit Test/QA scenarios

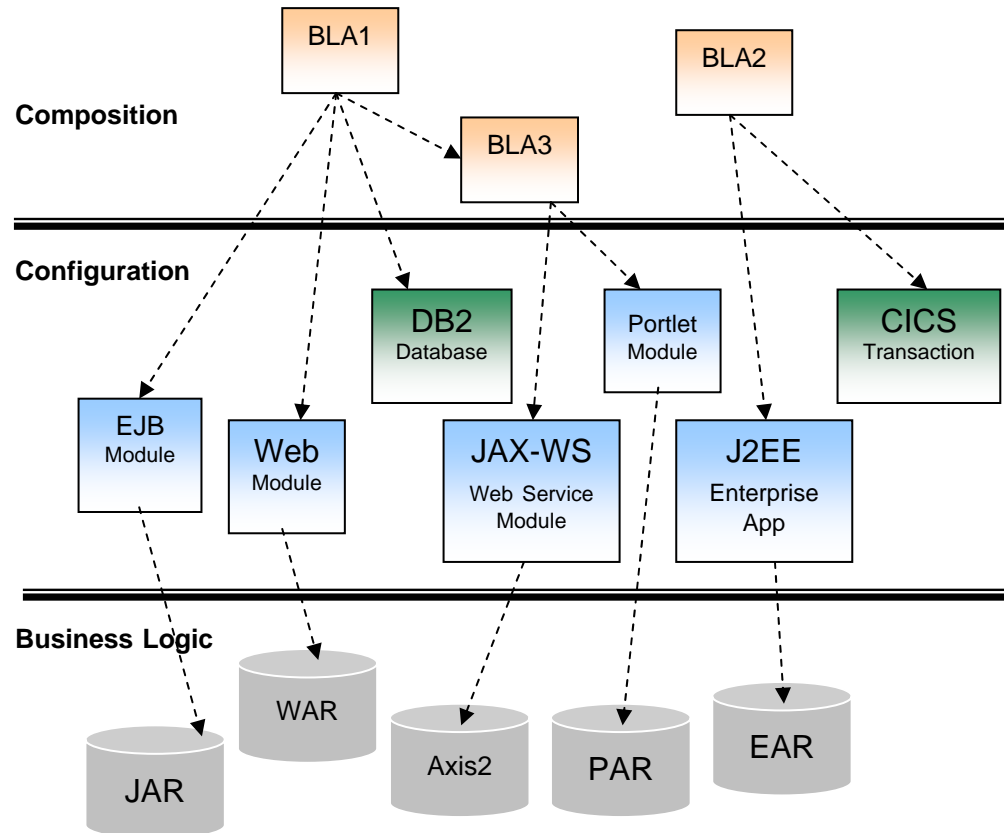




Using Technology Innovation to Meet Evolving Needs

WAS v7 Expands Support through Business Level Applications

- Expanding the notion of “Application” beyond J2EE
- Extensible deployment logic framework
- Supports more than Application Server deployment target runtimes
 - for example: Proxy Server, Web Server, CE, files, etc.
- Full lifecycle management of applications
 - Install, distribute, activate, monitor, update, remove





Using Technology Innovation to Meet Evolving Needs ***WAS v7 Extends Security through Multiple Security Domains***

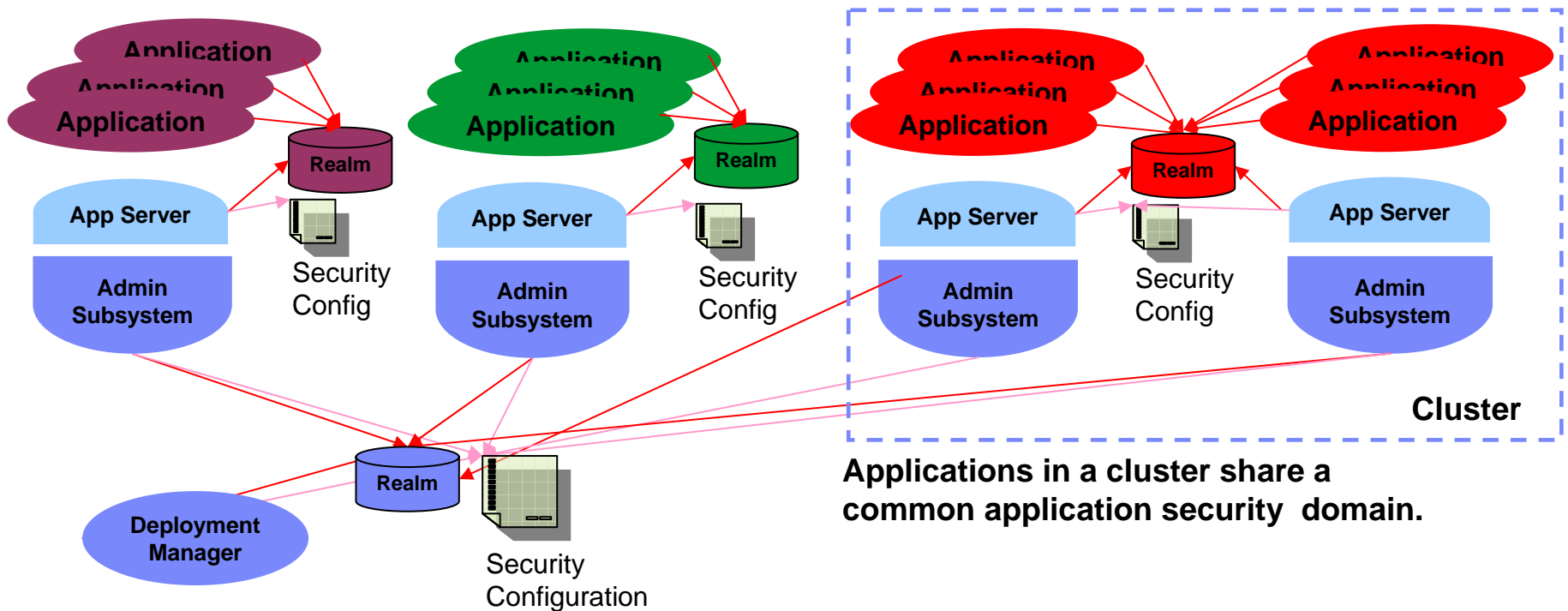
- Prior to WAS V7, single security domain per cell
 - One security realm, i.e., one set of users
 - Forced the proliferation of cells
- Multiple security domains
 - Provide flexible security configuration under centralized management
 - One administrative security domain
 - One or more application security domains
 - Scopes include cluster, node group, node, and application server
- Multiple security domains enable different applications
 - To have different user populations
 - To have different security mechanism configurations



Using Technology Innovation to Meet Security Needs

New WebSphere Security Domains Offers Greater Granularity, Flexibility, Control over Users and Infrastructure

Applications can have own application security domain, own user population



Applications in a cluster share a common application security domain.

Deployment Manager, Node Agent, and the Admin Subsystem common administrative security domain.



Using Technology Innovation to Meet Evolving Needs

WAS v7 Provides Security Auditability

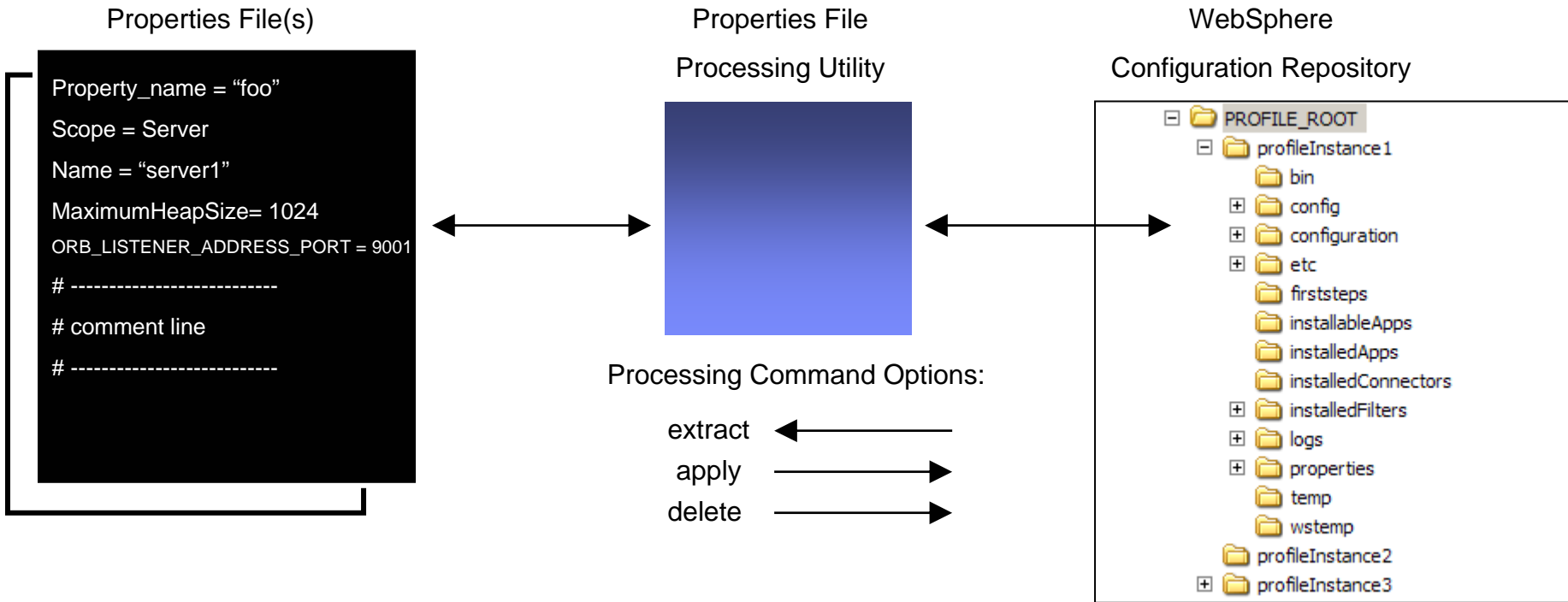
- Option to generate security auditing records of WebSphere administrative actions
 - Auditing security configuration changes, key and certificate management, access control policy changes, bus and other system resources management, etc.
 - Holding administrative users accountable for configuration and runtime changes
 - Reviewing audit records require a new auditor role.
- Option to generate security auditing records of business applications
 - Auditing authentication, access control, credential mapping and delegation, and digital signature validation
 - Maintaining audit records to satisfy legal requirements and regulations
- Support integrating with third party security auditing services
- Support separation of administrative user privileges
 - administrator cannot change audit policy and cannot view audit records
 - auditor cannot change WebSphere configuration and runtime state
- Audit records are encrypted and signed





Easing Application Serving Management Burden

WAS v7 Properties File Based Configuration Utility Reduces Manual Effort

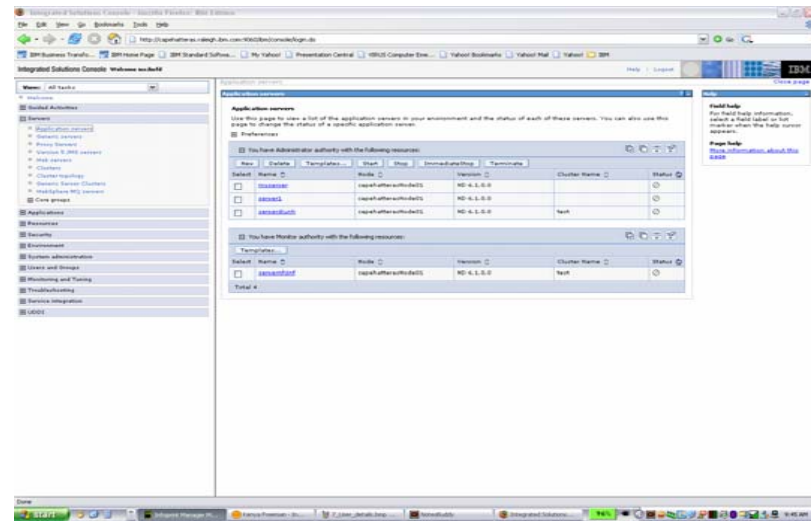




Using Technology Innovation to Meet Evolving Needs

WAS v7 Provides Console Support for Fine Grained Security Admin

- Fine grained administration security configured through console
 - WAS 6.1 - scripting only
- Fine grained administration security can be applied to console
 - will be filtered by administrators role
- Extended console assistance



Using Centralized Mgt to Install App Servers

WAS v7 Brings Centralized Installation Manager to IT Management

Challenge:

- ◇ I've got a lot of WAS-ND servers that I have to install and maintain !
- ◇ Patch management of my WebSphere application servers (WAS, ND) is challenging, takes too long, and I don't want to create my own way of doing it!

Solution



Centralized Installation Manager

- Simplifying Installation & Deployment
- Supports centralized installation from the Deployment Manager to Nodes in the cell
- Single install to the Deployment Manager which allows Push install package from DMGR to endpoints
 - Select a set of hosts and push to those endpoints
 - Installs appropriate endpoint code based on type of endpoint
 - Agent-less
- Centralization of patch management



Goal: Provide Rapid Support

You want to...

- Increase effectiveness of application infrastructure management
- Find solutions/answers that IBM support has already posted as Technotes, APARs, InfoCenters, etc.
- Increase speed to resolution of service requests
- Provides a one stop shop to attempt resolution of software issues

IBM Solution

- Provide a one stop shop to attempt resolution of their own software issues
- Provide the same troubleshooting tools as IBM Support teams to analyze data
- Automate manual tasks such as data collection



Providing Rapid Support

Speed Problem Resolution with the IBM Support Assistant

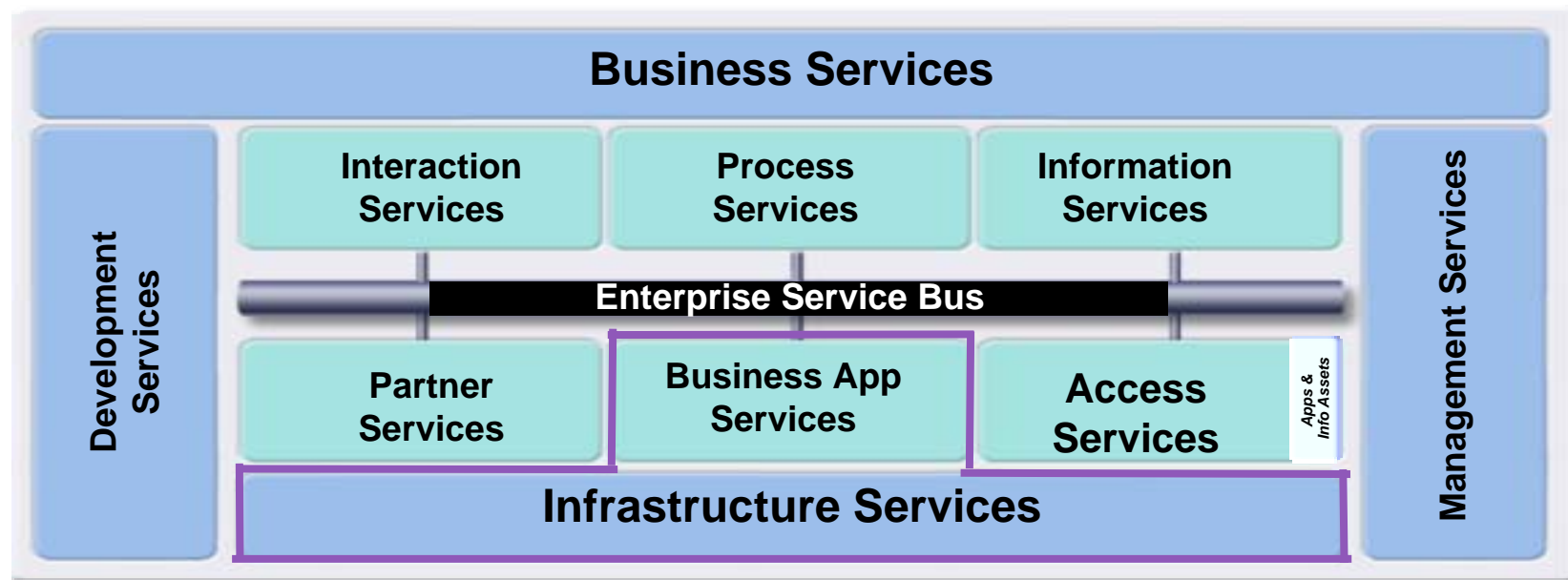
- The IBM Support Assistant (ISA) provides self help and support that helps you resolve questions and problems with IBM software products
- With IBM Support Assistant, you can
 - Personalize your workbench with product and tool add-ons
 - Access product specific documentation
 - Search for product information
 - Use problem determination tools
 - Gather and organize diagnostic data
 - Work with service requests
 - Dump Analyzer
 - Port Scanner
 - Log Analyzer
 - Thread Analyzer
 - Memory Dump Diagnostic for Java
 - Garbage Collection and Memory Visualizer
 - ... and more



Nobody does it better...

WebSphere Application Server Version 7 brings ...

- Simplification for Developers
- High Performance SOA Environment
- Innovation that Matters



Thank
YOU

