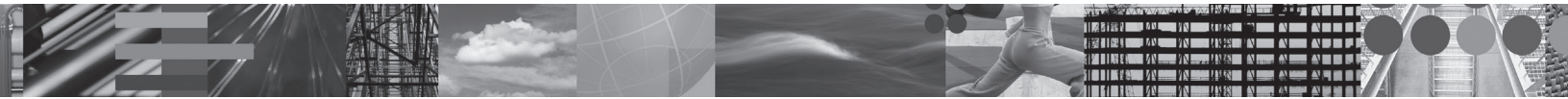




**WebSphere** software

# Increase business agility across OSS/BSS processes with IBM WebSphere Business Services Fabric and IBM Telecom Operations Content Pack.



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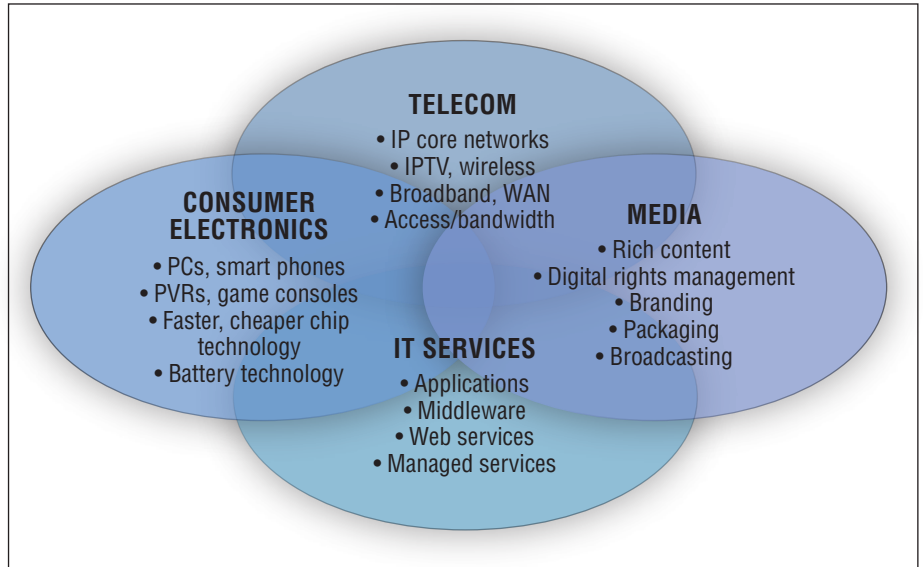
## Overview

Today's telecom industry is undergoing radical change at every level, driven in large part by converging ecosystems across traditional telecom infrastructures, consumer electronics offerings, new media and IT services. This convergence has opened the door to new opportunities in product development and market growth. However, the need to integrate across and leverage all aspects of converging ecosystems has also created a number of time-critical challenges on both the technology side and the business side of telecom organizations.

To help address these challenges, IBM provides solutions based on business process management (BPM) enabled by service oriented architecture (SOA). IBM WebSphere® Business Services Fabric is a comprehensive SOA offering that delivers dynamic BPM capabilities to assemble and manage composite business applications. WebSphere Business Services Fabric solutions enable end-to-end, life-cycle governance of business services. At the same time, they can extend existing IT capabilities without costly IT system "rip and replace" projects.

IBM Telecom Operations Content Pack integrates seamlessly with WebSphere Business Services Fabric and provides a large variety of prebuilt, telecom-specific assets to accelerate and enhance SOA solutions. IBM Telecom Operations Content Pack is also extensible and open for configuration and customization, based on the organization's key business processes.

SOA solutions based on WebSphere Business Services Fabric and IBM Telecom Operations Content Pack enable telecom service providers to support billing, fulfillment and assurance functions; address regulatory requirements; develop new products; and increase their competitive edge in today's marketplace.



*The telecom industry faces the need to integrate and leverage all aspects of converging ecosystems.*

**Recognize the challenges of converging telecom ecosystems**

“The more things change, the more they stay the same.” That might be true for some industries, but definitely not for telecommunications where change has accelerated to a blur over the past several decades.

To give just a few examples, the move to products and services based on Internet Protocol (IP) technologies has led to a fundamental shift in the telecom industry – far beyond pure technology. Public Switched Telephone Networks (PSTNs) now compete with Voice over IP (VoIP) systems. Traditional pure-play business models are reaching their end-of-life point, while multiple routes to markets, variable pricing models and integration with multiple media services and devices have become the norm.

## Highlights

Telecom service providers must find better ways to drive cost out of operations and infrastructure, helping to free resources that can fund investment in new capabilities and networks

Industry wide, all these changes are occurring within the context of converging ecosystems – the increasingly complex community of relationships among traditional telecom infrastructures, consumer electronics offerings, new media and IT services. This convergence has introduced exciting new product development and market opportunities. At the same time, however, the need to integrate across and leverage all aspects of converging ecosystems requires telecom service providers to:

- Continuously upgrade technology and network infrastructures.
- Develop new revenue models and collaboration models.
- Adapt to how technology extends and complicates traditional telecom value chains.
- Differentiate products as customer churn and market pressures increase.
- Secure assets across increasingly complex environments.

As a result, telecom service providers must find better ways to drive cost out of operations and infrastructure, helping to free resources that can fund investment in new capabilities and networks. They must also embrace collaboration in a new partner ecosystem. Finally, they need to gain the support of capital markets to underwrite the investment required to transform their IT infrastructures.

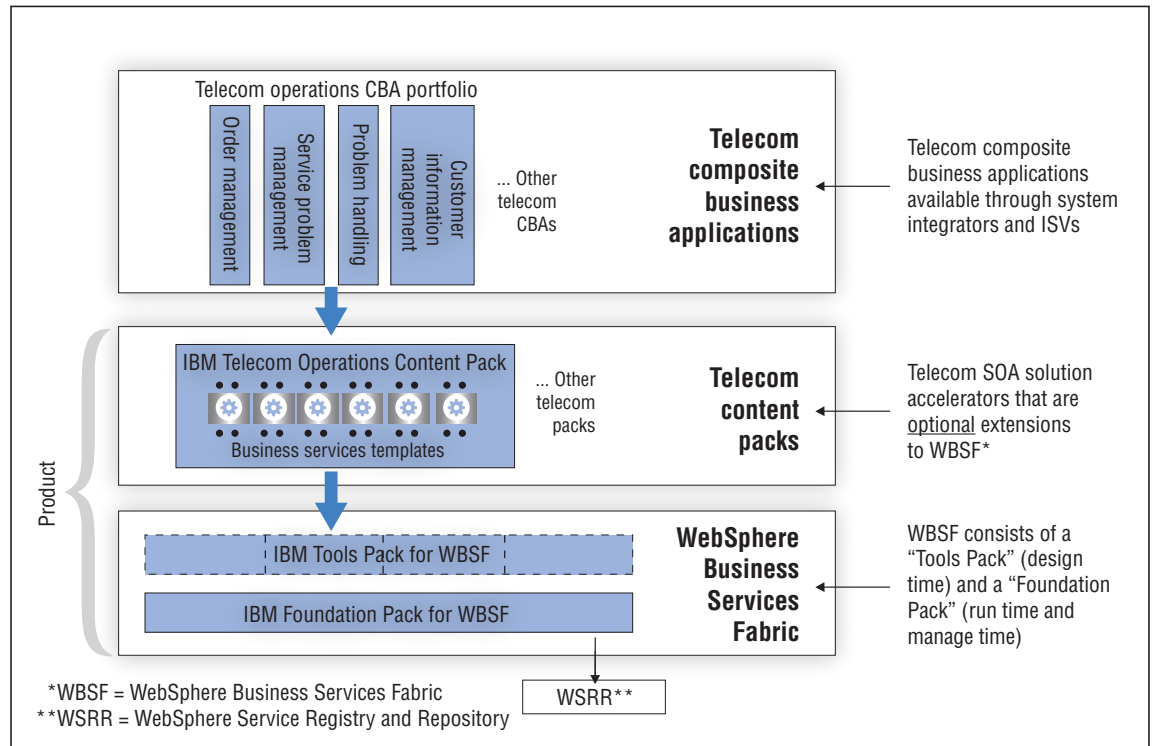
### **Develop composite business applications with BPM enabled by SOA**

To help telecom service providers address these challenges, IBM provides solutions based on BPM enabled by SOA. BPM is a discipline combining software capabilities and business expertise to accelerate process improvement and facilitate business innovation. SOA is an enterprise-wide, standards-based integration and development architecture that effectively overcomes differences in platforms, software architecture, languages and network protocols.

By modeling, developing, deploying and managing business processes throughout their life cycles, BPM enabled by SOA can help organizations absorb and manage change more easily. Telecom service providers can accelerate critical efforts such as changing operational processes, automating processes, viewing operations in real time, and collecting data for analysis and improvement.

Perhaps the most valuable benefit of BPM enabled by SOA is support for composite business applications based on reusable building blocks called business services. Because a business service consolidates business-level usage information into one place for easier discovery and change, it can be easily modified, customized by business context and dynamically executed at run time.

With composite applications based on BPM and SOA, telecom service providers can modify business processes without changing the entire process – all while enhancing the business agility and responsiveness gained from these processes.



WebSphere Business Services Fabric provides an end-to-end SOA platform to model, assemble, deploy, manage and govern telecom-specific business services.

### Enhance life-cycle management and governance with WebSphere Business Services Fabric

WebSphere Business Services Fabric offers comprehensive SOA that is designed to accelerate the assembly and management of composite business applications. WebSphere Business Services Fabric can help telecom service providers develop and deliver services across different ecosystems, based on specific technical, regulatory and business needs.

### Highlights

WebSphere Business Services Fabric offers a full range of components and capabilities for life-cycle management and governance of business services

WebSphere Business Services Fabric offers a full range of components and capabilities for life-cycle management and governance of business services, including:

- A highly scalable, dynamic service selection and delivery engine based on business and user context.
- A centralized repository to store business services and business-level policies in conjunction with IBM WebSphere Service Registry and Repository.
- Management, control and automation of business service entitlements for role-based users and systems.
- Business services visibility and monitoring to manage performance.
- Business policy management and enforcement.

In addition, WebSphere Business Services Fabric extends integration at multiple levels, including:

- Extension of IBM WebSphere Process Server to provide run-time and manage-time capabilities for business services.
- Extension of IBM WebSphere Integration Developer to provide the tooling necessary to assemble business services.
- Integration with WebSphere Service Registry and Repository to source technical Web services metadata used in the assembly of business services.

## Highlights

WebSphere Business Services Fabric also provides a number of enhancements for quality of service and information architecture. These enhancements are designed to deliver:

- Flexibility to change processes and service execution behavior across multiple business processes and disparate IT systems.
- Policy-driven business services to provide customized business functionality based on changing business contexts, thereby improving customer service.
- Accelerated process change and easier ongoing maintenance with business-level policies stored in a centralized location.

### Explore the assets and capabilities of IBM Telecom Operations Content Pack

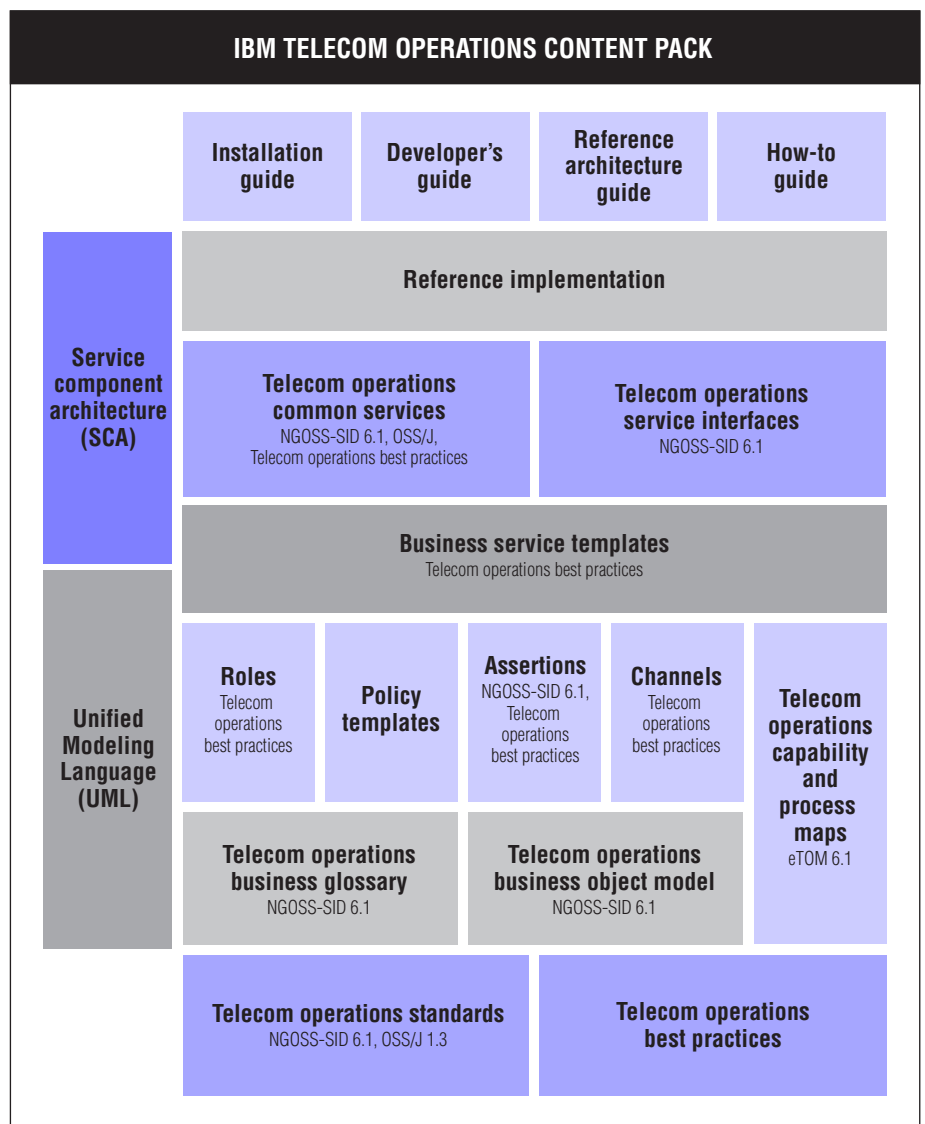
IBM Telecom Operations Content Pack supports billing, fulfillment and assurance operations using standards such as New Generation Operations Systems and Software (NGOSS). Included in IBM Telecom Operations Content Pack is a large variety of assets designed specifically for the telecom industry:

IBM Telecom Operations Content Pack supports billing, fulfillment and assurance operations using standards such as NGOSS

- **Business capability/process maps** — decomposition of telecom domain into business capabilities and subcapabilities, which are further decomposed into processes and subprocesses. The process definitions are mapped to business services.
- **Business services templates** — telecom-specific business services definitions based on Telecom Applications Map (TAM) and NGOSS-enhanced Telecom Operations Map (eTOM), as well as associated Web services and metadata on roles, channels, assertions and sample business policies.
- **Business glossary** — a common vocabulary of telecom terms, with associated relationships and properties based on NGOSS Shared Information Data (SID) standards.
- **Business object model** — an NGOSS SID-based business object model that represents a conceptual view of a telecom enterprise.
- **Service interfaces** — schemas and Web service interfaces to support Operational Support System (OSS)/Billing Support System (BSS) processes based on NGOSS SID, OSS through Java™ Initiative (OSS/J) and Multi-Technology Operations System Interface (MTOSI) models.
- **Common services** — service implementations based on NGOSS SID, OSS/J and MTOSI models that enable transactions such as validation and error identification.
- **Knowledge assets** — documentation and a sample implementation to help consume and extend the assets in IBM Telecom Operations Content Pack.



The reference architecture of IBM Telecom Operations Content Pack, shown below, logically expands SOA by promoting loose coupling of assets and thus enables consistency and reuse across business processes. The reference architecture is optimized to industry and technical standards and thus facilitates interoperability across the ecosystem.



IBM Telecom Operating Content Pack for WebSphere Business Services Fabric contains a wealth of "starting points" for an enterprise's business process project. And because these assets are prebuilt based on industry and technology standards, the IT team does not have to start from scratch.

IBM Telecom Operations Content Pack also provides extensive globalization capabilities, including pack and documentation support for English, French, Italian, German, Spanish, Brazilian Portuguese, Japanese, Korean, simplified Chinese and traditional Chinese. Additional support is available for region-specific standards (subject to language support) and domain models specific to customers and vendors.\*

### **Summary**

To survive – and thrive – in today’s telecom industry, service providers need the advantages gained through BPM solutions enabled by SOA. WebSphere Business Services Fabric extends the power of BPM to assemble and manage composite business applications, allowing telecom service providers to:

- Increase responsiveness to changing business needs through dynamic service selection and policy-driven composite applications.
- Accelerate process change and streamline maintenance through policy configuration instead of coding and redeployment.
- Aggregate business functionality from disparate legacy, third-party, custom and packaged systems to increase service reuse.
- Extend and enhance existing IT capabilities without requiring time-consuming and costly IT system “rip and replace” projects.

For even greater value, IBM Telecom Operations Content Pack delivers the industry-specific assets that telecom service providers need to help them:

- Minimize the efforts required to identify, design and develop unique services across telecom OSS/BSS business processes.
- Bring together traditional silos of product development by using prebuilt SOA assets, helping to accelerate the deployment of new telecom products and services.
- Decrease costs for modernization and maintenance through consistent, reusable, standards-based assets.
- Simplify interoperability across disparate telecom applications with prepackaged vocabularies based on telecom standards, customer-specific models and partner models.
- Enable architecture and development teams to focus on design and deployment of higher value business services.
- Improve time to market and time to value through prebuilt and reusable telecom-specific common services.

Backed by these IBM offerings, telecom service providers can develop the flexible, end-to-end IBM solutions they need to enhance their services, lower costs and increase their competitive edge.

#### **For more information**

To learn more about extending your company's BPM platform with WebSphere Business Services Fabric and IBM Telecom Operations Content Pack, visit [ibm.com/software/integration/wbsf](http://ibm.com/software/integration/wbsf)

Additional information on SOA is available at [ibm.com/soa](http://ibm.com/soa), and a discussion of the IBM WebSphere BPM suite can be found at [ibm.com/software/websphere](http://ibm.com/software/websphere). To learn more about IBM Business Innovation and Optimization, visit [ibm.com/software/innovate](http://ibm.com/software/innovate)



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\*Source content (for example, NGOSS SID model) is not translated.

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