Windows Azure platform

AppFabric

SERVICE BUS and ACCESS CONTROL

Microsoft BizTalk Server

Bridging the Gap between On-Premise BizTalk ESB and Windows Azure platform AppFabric

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Agenda

- Clearing confusion around cloud computing
- BizTalk ESB
- Windows Azure Platform
- Windows Azure Platform AppFabric
- Demo, demo, demo
- New architectural patterns, new possibilities

Understanding Cloud Computing

Generally accepted as the next logical step in IT evolution

"Cloud computing is a reality, and it's a force that IT professionals need to quickly come to terms with. The economic and social motivation for the cloud is high, the business need for speed and agility is greater than ever before, and the technology has reached a level in which prudent investments in cloud services are fast and easy."
–Network World, May 2009

Many definitions of "cloud computing"

"'Cloud computing' is the latest buzz term sweeping through the information-technology industry, but it's losing whatever meaning it once had as an increasing number of companies apply the label to their wares."
–Wall Street Journal Sept 2008

Important to have a common understanding across the industry

"[Cloud computing] is a security nightmare."
–John Chambers, Cisco CEO

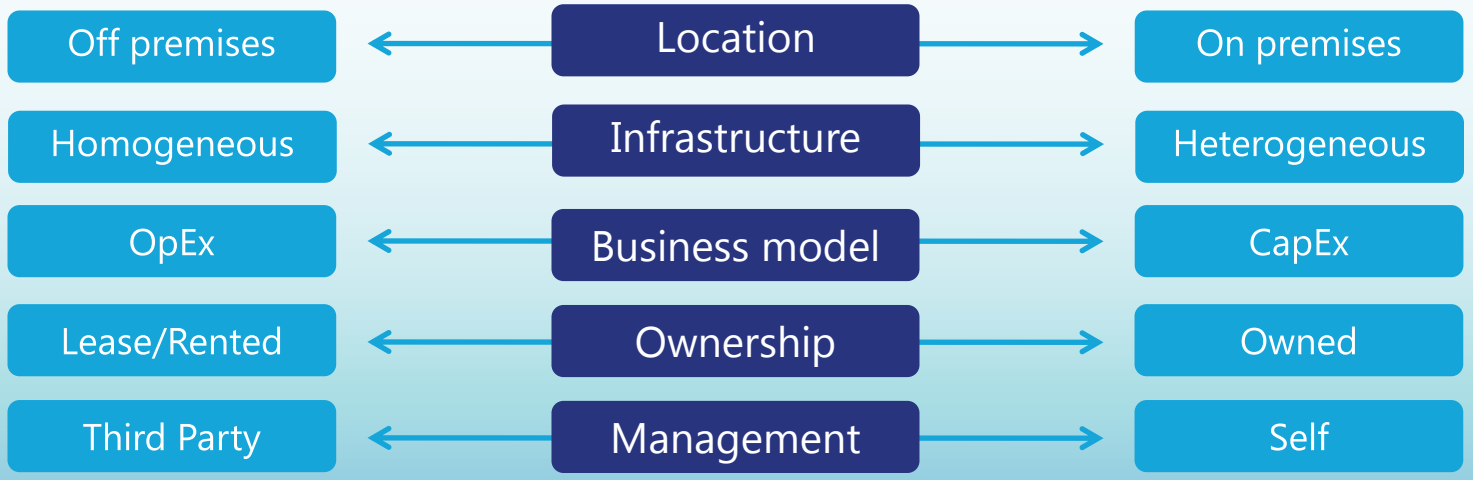
"The interesting thing about cloud computing is that we've redefined cloud computing to include everything that we already do… Maybe I'm an idiot, but I have no idea what anyone is talking about. What is it?"
–Larry Ellison, Oracle CEO

How Microsoft Views the Cloud

Fundamentals

- Scale out
- Automated Service Management
- High Availability
- Multi-tenancy

Considerations



Software + Services Unites the Web

Experiences should span beyond a single device.
Create rich and consistent experiences from PCs and web browsers to mobile devices to servers.

Tightly coupled systems should give way to federations of cooperating systems and loosely coupled compositions.
Solutions integrate easily with a variety of web-scalable and web-addressable services.

Infrastructure and solutions should span the server and the cloud.
Use Microsoft technology for both cloud and server-based solutions.

"With the Windows Azure platform, we're focused on delivering the best services platform to create compelling Web applications and services– which enables our customers and partners to quickly develop and deploy compelling solutions."

– BOB MUGLIA
PRESIDENT
SERVER AND TOOLS BUSINESS
MICROSOFT, (JULY'09)

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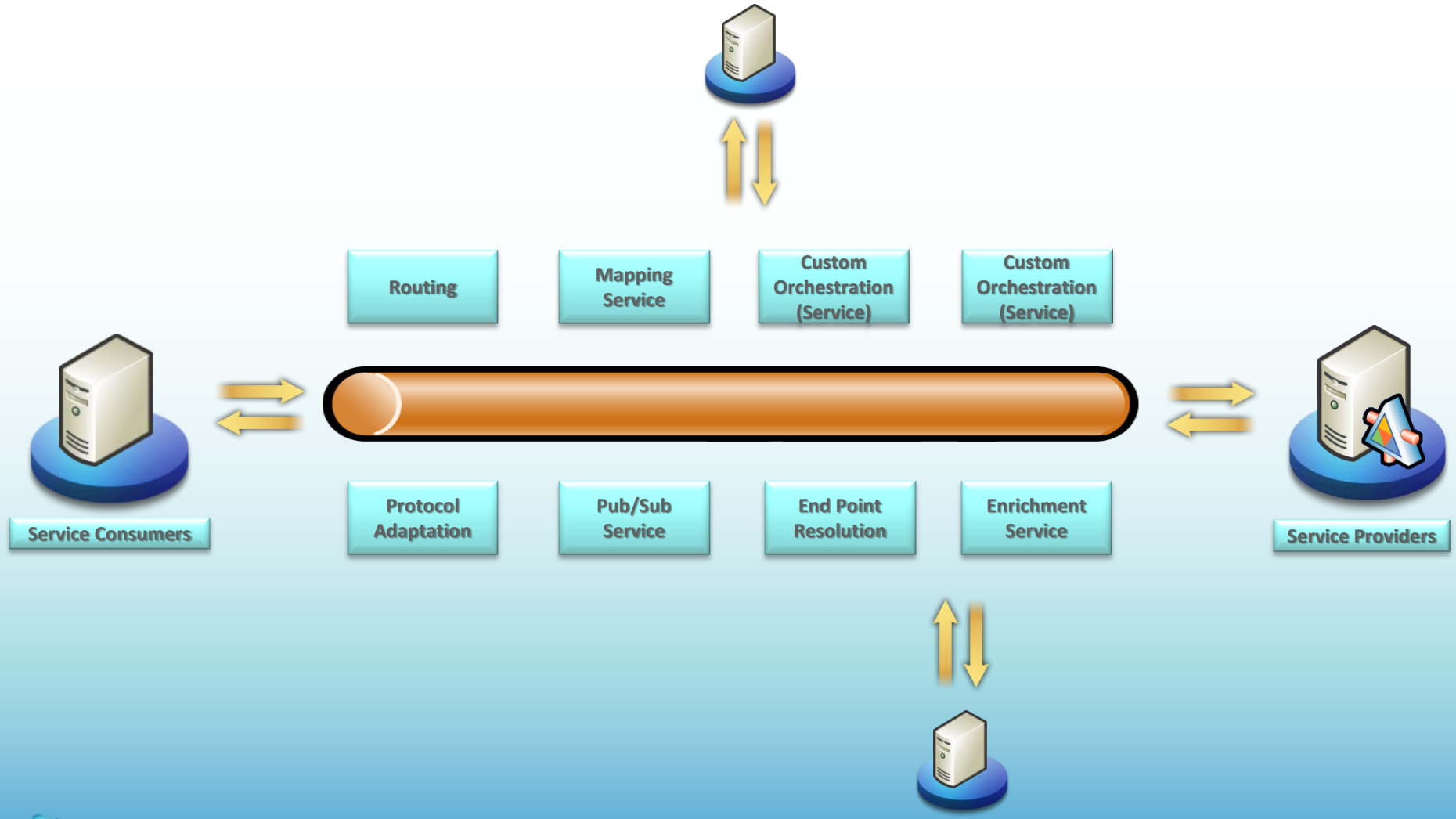
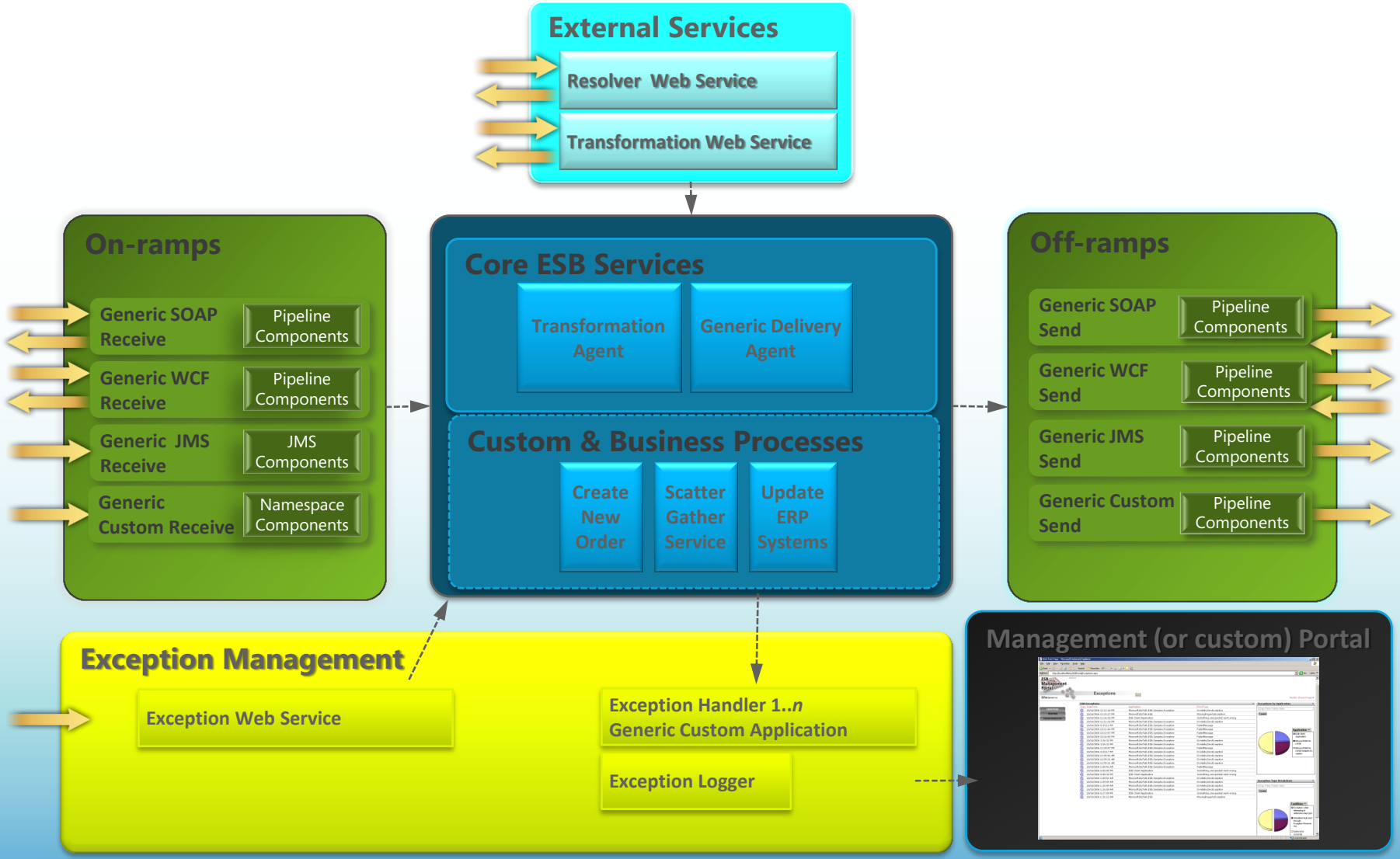
ESB: Re-think a Solution as a Set of Capabilities

(the fundamental truth behind SOA success)



Architectural Overview



Windows Azure platform AppFabric

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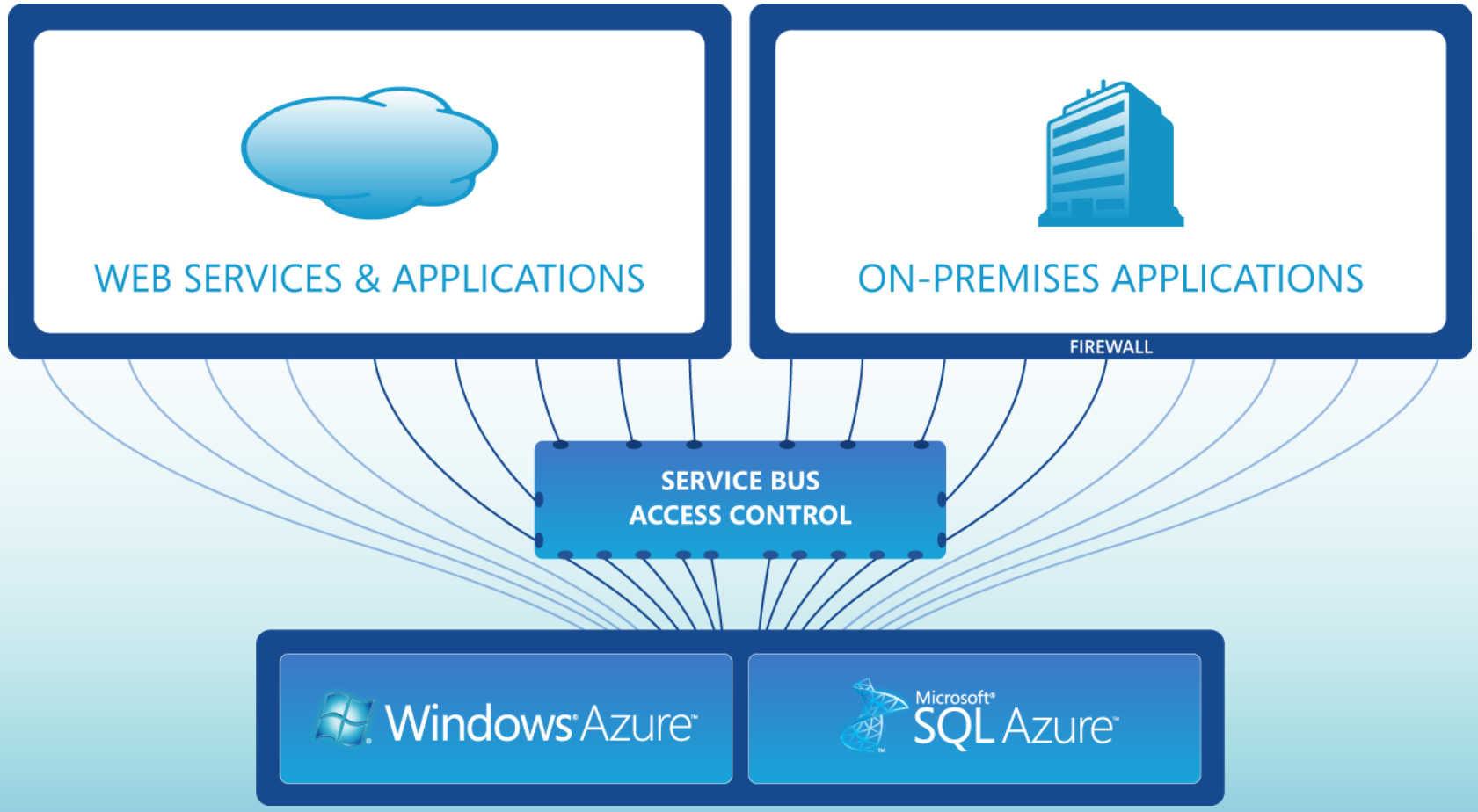
Windows Azure Platform



Solving Connectivity Challenges

CHALLENGES:

You want to make it easy and secure for partners and customers to integrate with your application

But you don't always know ahead of time the characteristics or scale of the integration

Plus partners and customers have devices and services running behind firewalls

OUR APPROACH:

The Windows Azure platform AppFabric provides a highly-available "Service Bus" based on standard Internet protocols and "Access Control" uniting existing security models.

AppFabric Access Control

What it is:

- Federated authorization management service

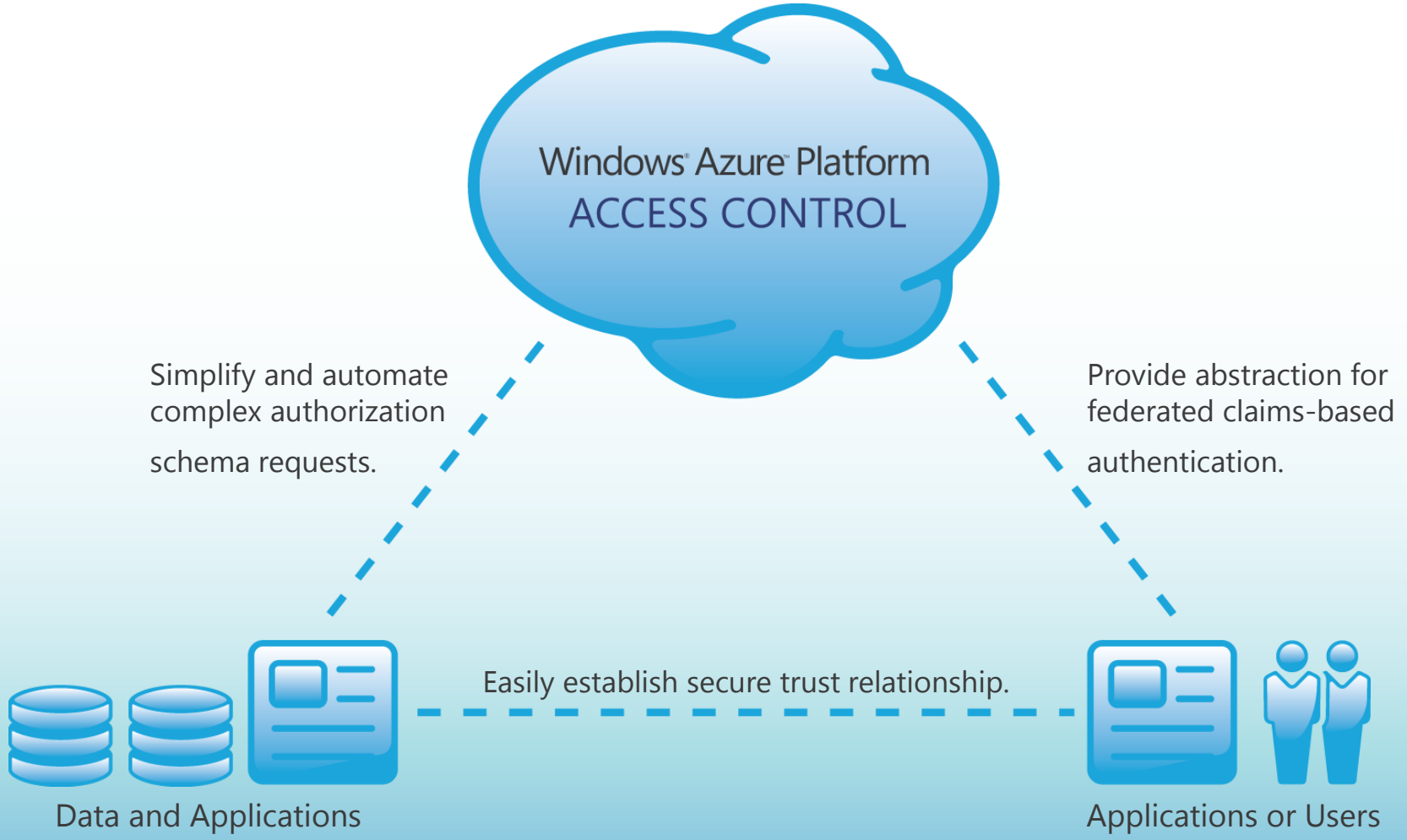
What it does:

- Simplify user access authorization across organizations and ID providers
- Perform claims transformation to map identities with access levels

Use it to:

- Secure AppFabric Service Bus communications
- Secure RESTful Web services

AppFabric Access Control



AppFabric Service Bus

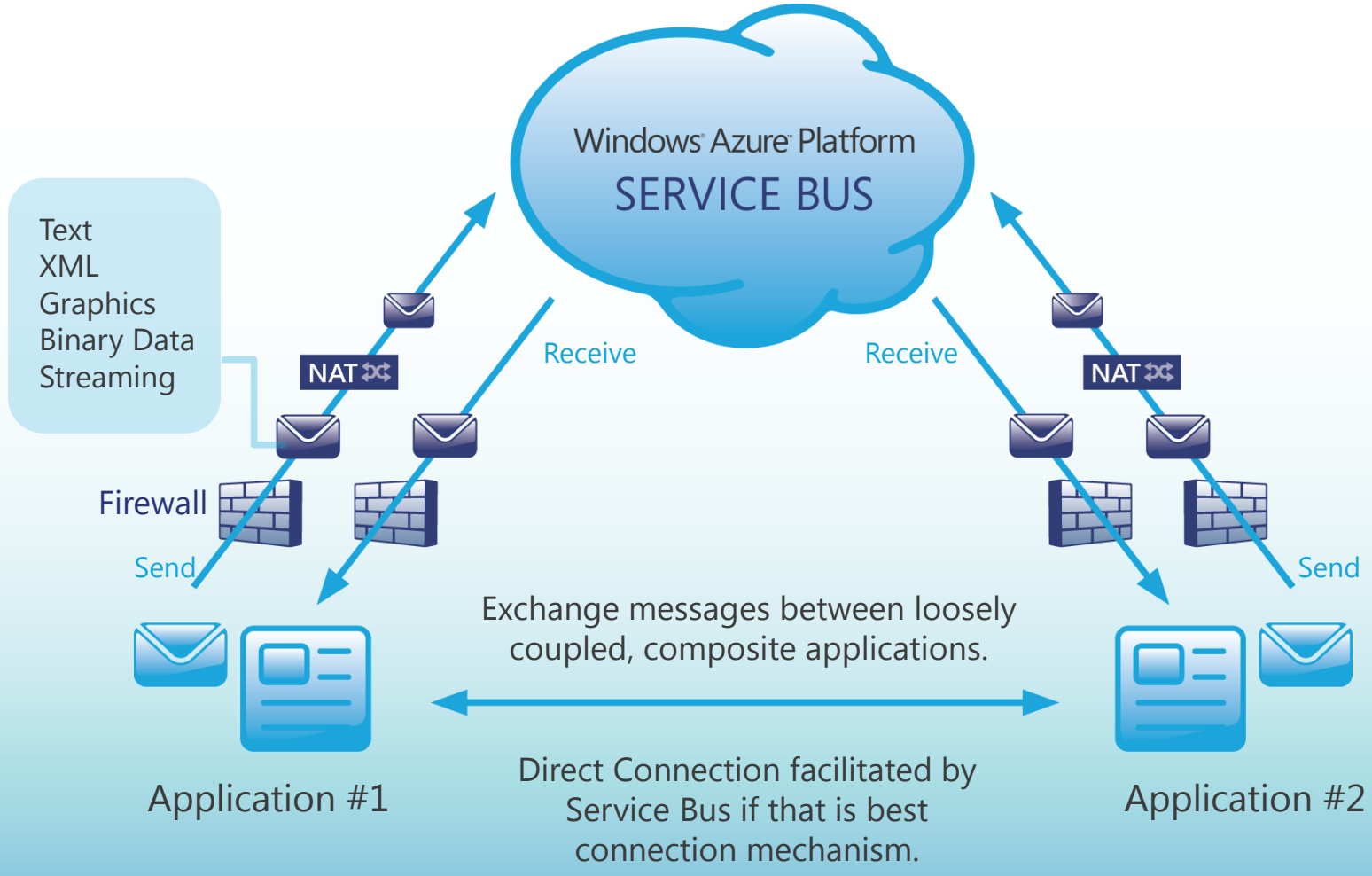
Expose apps and services
over the Internet across firewall, domain, and network boundaries

Communicate bi-directionally
between in an interoperable manner

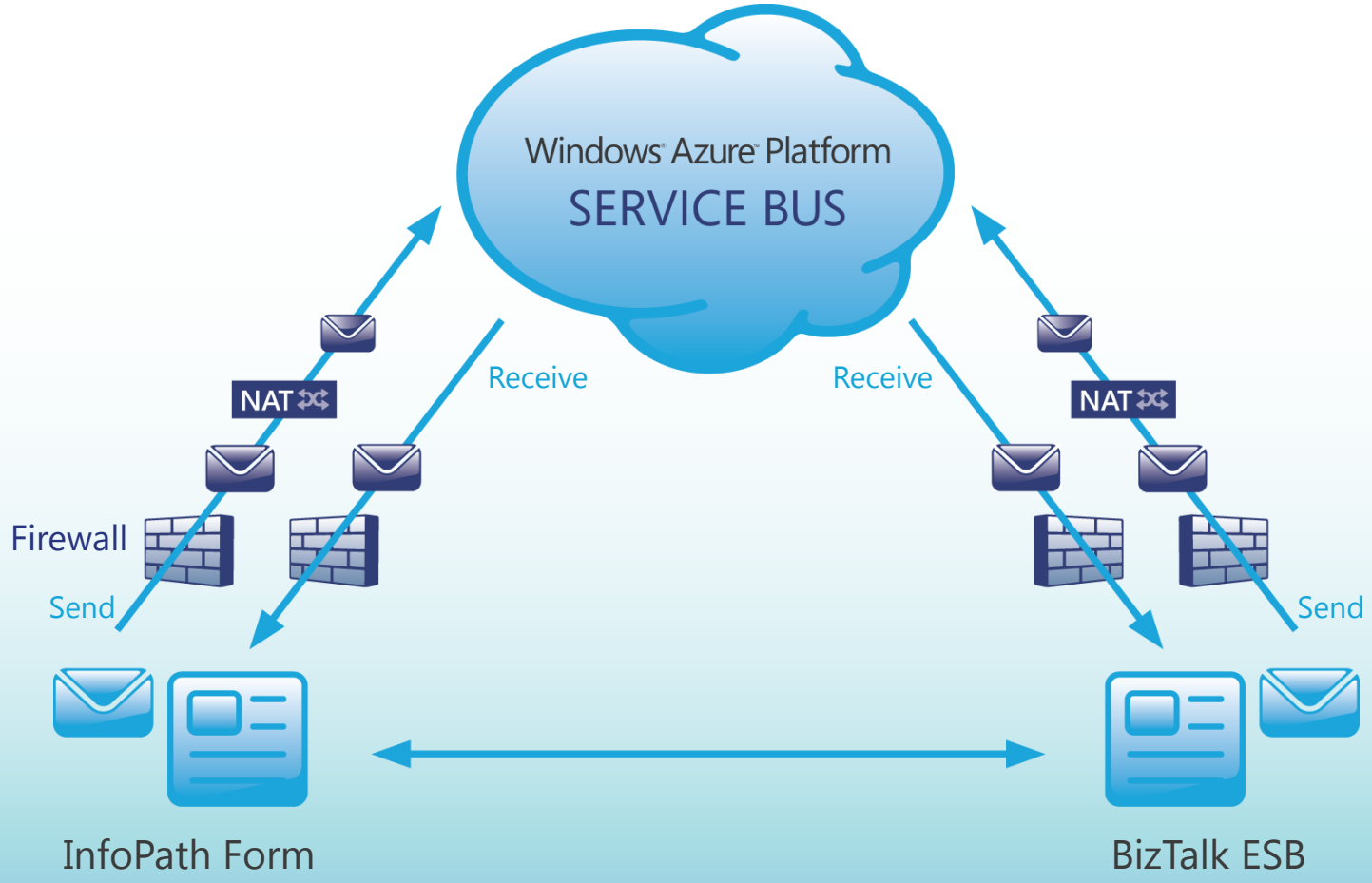
Choose interaction patterns to fit your application architecture,
like eventing, service remoting, and protocol tunneling

Scale out naturally and reliably
as applications and services grow

AppFabric Service Bus Connectivity



Demo Scenario



Windows® Azure™ platform
AppFabric

Microsoft®
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Demo

"IDC sees the launch of Windows Azure and Azure Services Platform as a first step in a long evolutionary path that customers will take moving them from today's self-hosted IT to consuming a hybrid of both internally and externally hosted services, and if so desired, could eventually support a fully outsourced model."

—IDC Insight, *Microsoft Unveils Cloud Services Strategy and the Azure Services Platform: Managing Customer Expectations and Competitive Pressures as Solution Evolves Is Key*, Nov 2008, Doc #215034

Cloud Computing:
More than “the same thing, done differently”

New Business Models

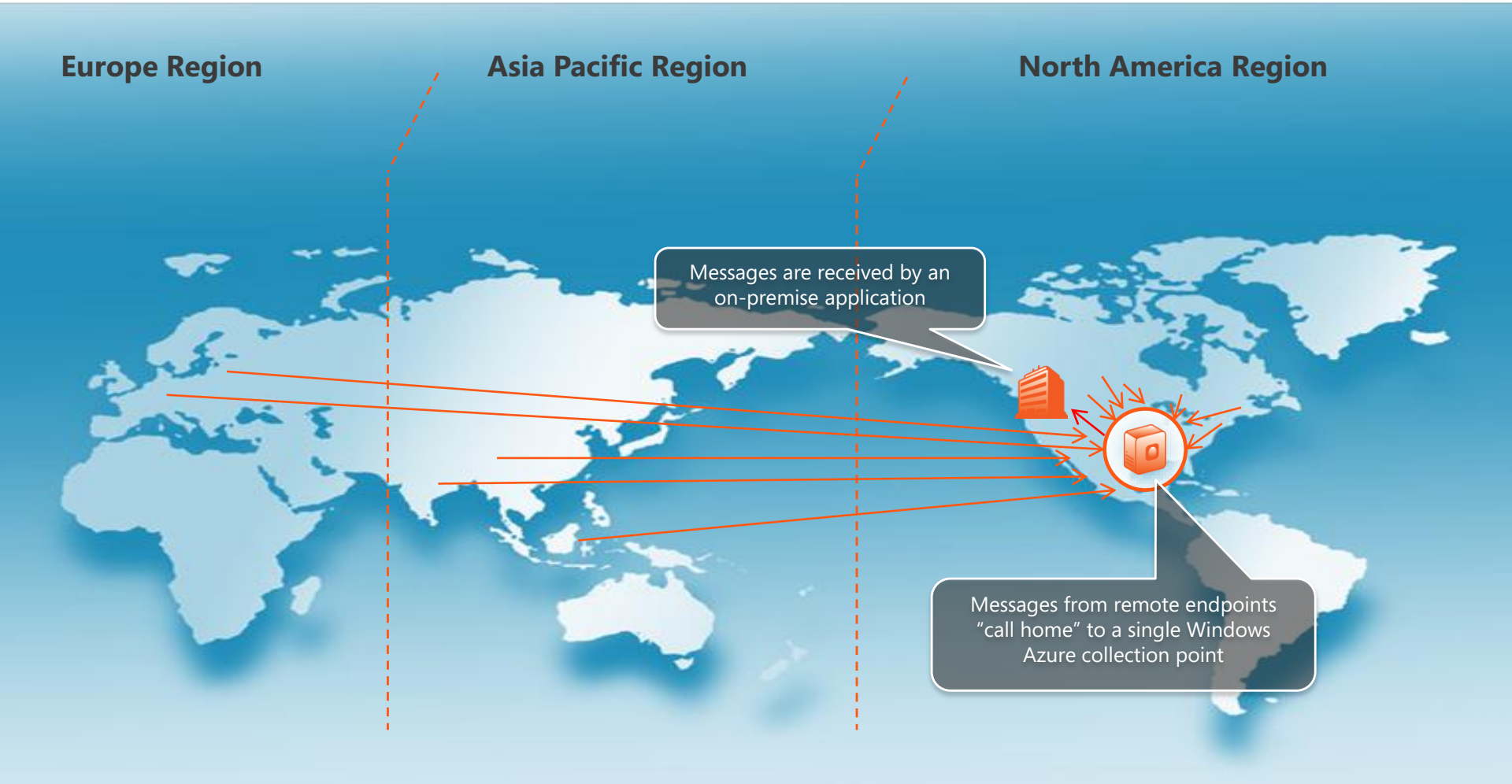
The “pay as you go” model dramatically lowers the barrier for new business, empowering entrepreneurs to launch venture without first building out a data center

New Architectural Patterns

Yes, we can take what we had and deploy to the cloud, but we wan also do things we could not do before

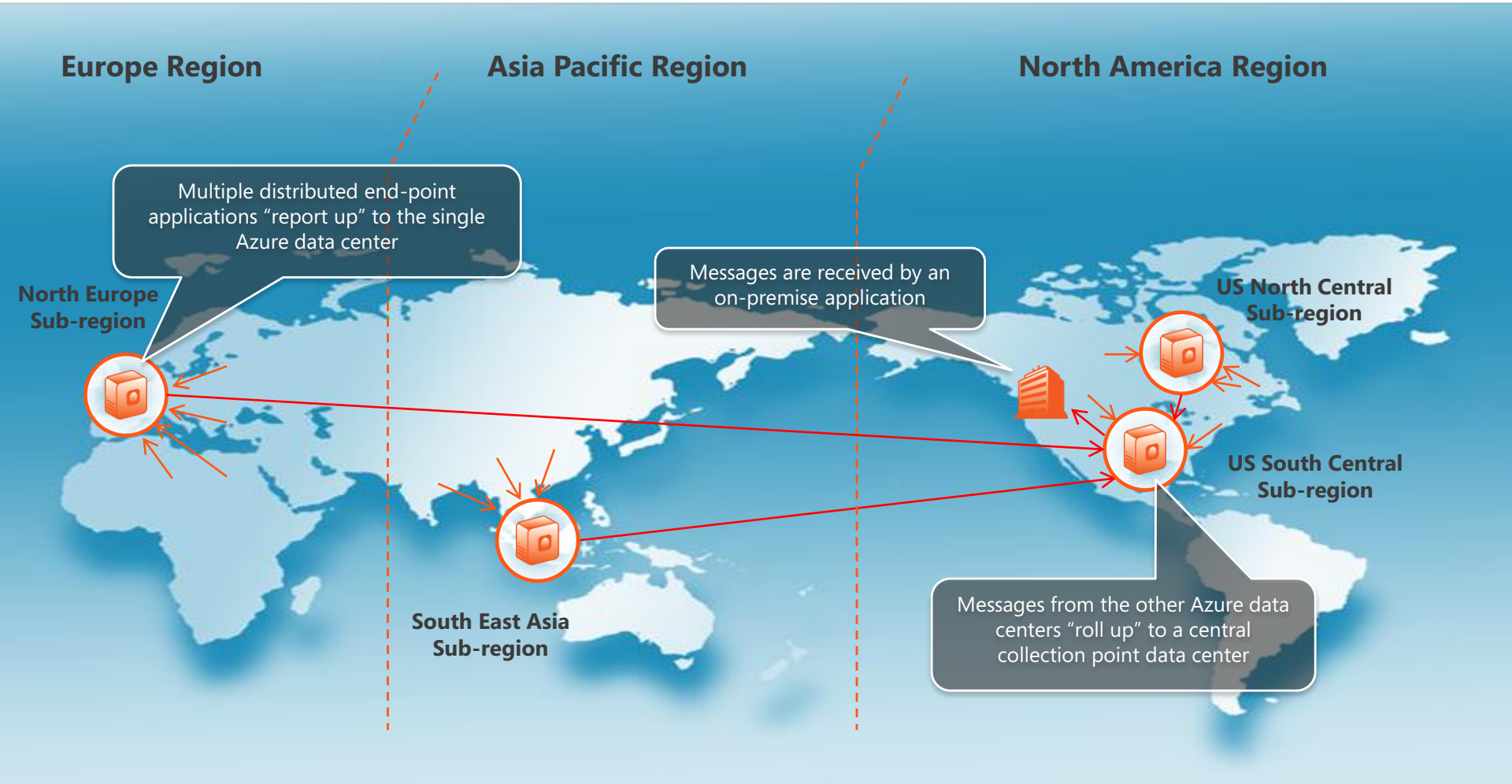
Global Collection Pattern #1

- Multiple distributed endpoints publish a message up to their closest Azure DC
- Messages are collected and relayed to a central collection Azure DC
- Messages are used at the central DC, or relayed down to on-premises



Global Collection Pattern #2

- Multiple distributed endpoints publish a message up to a single Azure region
- Messages are used at the central DC, or relayed down to on-premises



Summary

- The Windows Azure Platform is here, NOW
- Cloud computing doesn't mean picking on-premise or off-premise
- Hybrid applications can be very attractive alternatives for many business needs
- Existing BizTalk solutions can EASILY integrate with AppFabric Service Bus
- The combination on on-premise ESB and off-premise bus is very compelling
- This is not a new way of doing the same things, intriguing new options wait, more things are possible

Resources

http://microsoft.com/windowsazure (general info landing page)
http://msdn.microsoft.com/azure (Windows Azure developer center)
http://msdn.microsoft.com/biztalk (BizTalk Server developer center)
Twitter: #azure #appfabric … and more!
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