

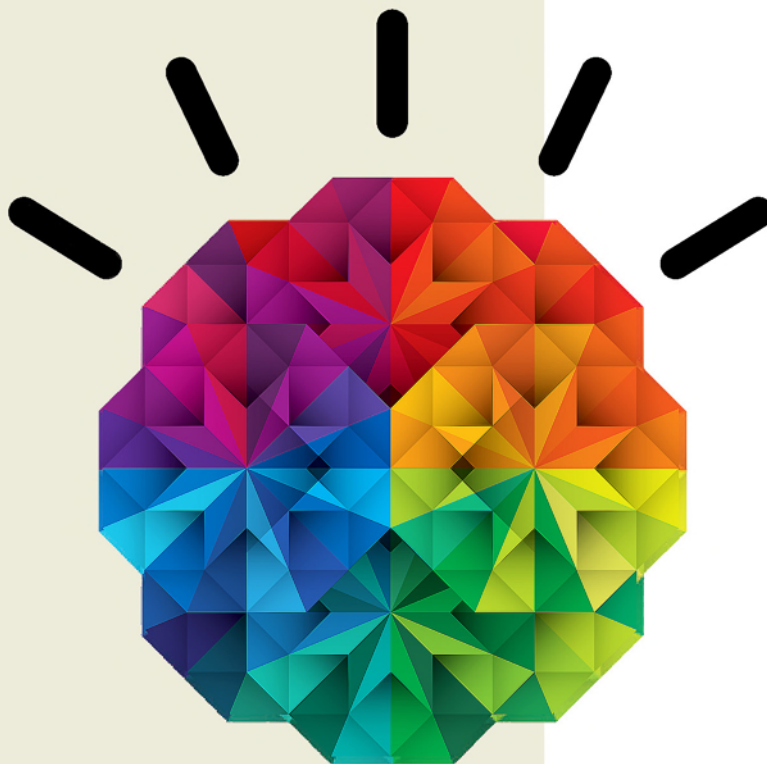
IBM PureSystems

Business Partner Guidebook

Your Roadmap to
Success with IBM
Expert Integrated
Systems



eBook



Edited by Jim Hoskins

IBM PureSystems Business Partner Guidebook

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IBM PureSystems Business Partner Guidebook

First Edition

*Your Roadmap to Success with IBM
Expert Integrated Systems*

Edited by Jim Hoskins

(version 1.0e)



Clear Horizon

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Table of Contents

Introduction	10
About This Guidebook	10
Check for Updated Editions of This Guidebook	10
How to Use This MaxFacts™ Interactive Guidebook.....	11
Reader Feedback	12

Chapter 1: IBM PureSystems Basics

IBM PureFlex System	15
IBM PureApplication System	16
IBM Flex System: The Building Blocks	18
Why IBM?	18

Chapter 2: PureSystems Tools and Resources

IBM PureSystems on PartnerWorld	20
Education & Certification	21
<i>Know Your IBM (KYI).....</i>	<i>22</i>
Certification.....	23
<i>For IBM PureFlex</i>	<i>23</i>
<i>For IBM PureApplication System</i>	<i>23</i>
Sales Configurator Tools for Building Solutions	24
Ordering	25
AAS	25
HVEC.....	25
Sales Support	25
IBM PureFlex System Sales Kit	26

IBM PureFlex Sales Scenario Tactics	26
IBM PureFlex System Sales Plays	26
<i>Consolidate on IBM PureFlex System</i>	27
<i>Optimize with IBM PureFlex System</i>	27
<i>Innovate on IBM PureFlex System</i>	28
<i>Accelerate Cloud with IBM PureFlex System</i>	29
PureFlex Technology Access Initiative	30
<i>PureFlex Demo Program</i>	30
<i>PureFlex Loaner Program</i>	30
<i>PureFlex Proof-of-Concept (PoC) Program</i>	31
<i>PureFlex Try & Buy Trial</i>	31
<i>PureFlex On-Wheels Loaner</i>	32
<i>IBM Client Center Services</i>	32
Sources for Competitive Marketing Information.....	33
Web Content Syndication.....	34
Social Media Resources for IBM Business Partners.....	34
IBM Global Financing.....	34
<i>Client Benefits</i>	36
<i>Business Partner Benefits</i>	37
IBM Global Services.....	38
<i>Technical Support Services for IBM PureFlex Systems</i>	39
<i>Integrated Technology Services for IBM PureSystems</i>	39
Business Partner Technical Support for PureFlex.....	41
<i>Techline</i>	41
<i>CTSS</i>	42
<i>Solution Assurance</i>	42
<i>Tools</i>	43
<i>Publications/Communications</i>	43

Chapter 3: PureSystems Quick Reference 46

PureFlex System	46
PureFlex Express	47
PureFlex Standard	47
PureFlex Enterprise.....	47

PureApplication System	47
Flex System Building Blocks	54
Enterprise Chassis	55
Compute Nodes	57
<i>Flex System x220</i>	57
<i>Flex System x240</i>	60
<i>Flex System x440</i>	62
Storage	65
<i>Storwize V7000 Unified Disk System</i>	65
System Networking	68
Ethernet	69
<i>IBM Flex System Fabric EN4093 10 Gb Scalable Switch</i>	69
<i>IBM Flex System EN2092 1 Gb Ethernet Scalable Switch</i>	71
<i>IBM Flex System EN4091 10 Gb Ethernet Pass-Thru Module</i>	72
Fibre Channel	73
<i>IBM Flex System FC5022 8/16 Gb SAN Scalable Switch</i>	74
<i>IBM Flex System FC3171 8 Gb SAN Switch/Pass-Thru Module</i>	76
InfiniBand	77
<i>IBM Flex System IB6131 InfiniBand Switch</i>	78
Flex System Manager	79

Chapter 4:

IBM Systems Lab Services and STG

Technical Training **82**

Lab Services **82**

STG Technical Training..... **83**

About the Editor..... **85**

Introduction

About This Guidebook

This MaxFacts™ interactive guidebook brings together—all in one place—the resources you need to be successful as an IBM PureSystems Business Partner. It contains information gathered and adapted with permission from multiple IBM and non-IBM sources. Also, there are embedded links to more-detailed information and news available on the Internet, so you always have the most current information at your fingertips. We are confident you will find this a useful reference tool.

As we are always working to better help you succeed, please forward any comments on or suggested improvements to this guidebook to info@maxpress.com.

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This guidebook has the ability to check for more current editions which are released periodically. Simply click on the “More on the Web” link provided here (or the link on the cover) and this guidebook will automatically check to see if you have the most current

MORE ON THE WEB

- [Check for updated editions of this guidebook](#)





edition. If you don't, you will be able to download the latest edition immediately.

How to Use This MaxFacts™ Interactive Guidebook

This guidebook has been specially designed to be read on your computer screen using the free Adobe Acrobat Reader software or a supporting Web browser. Alternately, you can print this guidebook on almost any printer and read the material anywhere.

Reading on a computer screen at your desk isn't as cozy as reading a printed page while lying on a towel at the beach. If you give it a fair chance, however, you will find that navigating the bookmarks along the left side of the screen provides an effective way to get to the information you need—quickly. Further, the instant access to expanded information provided by the many embedded Web links, along with the “search” function, also makes using this guidebook “on screen” worthwhile. We recommend that you copy this PDF file to your desktop so it will always be only “one click away.” If you still want a hard copy, you can print it out on almost any printer.

Links provided throughout this guidebook (anywhere you see a “More on the Web” box or embedded within some figures) will lead you to additional information related to the topic at hand resident on the Web. In this way, this guidebook is a “three-dimensional guide” providing you with information about the topics at the level of detail you choose. To follow a link, simply click on it and a Web browser window will appear on your screen with the requested information. If the link brings you to a password-protected area (e.g., on the IBM



PartnerWorld or COMP Web sites), you will be prompted to enter your IBM-issued user ID and password before you are presented with information.

When you are finished exploring, just close or minimize the Web browser window and you will arrive back at the guidebook. You are encouraged to explore all links that interest you to get the most out of this guidebook. You must have an active connection to the Internet to use the embedded links.

To navigate around within this guidebook, you can:

- Step forward or backward a page at a time using the standard Acrobat Reader navigation toolbar
- Click on the “Bookmark” links shown on the left side of your screen to go directly to that part of the guidebook
- Click on the “Table of Contents” section and click on the links to go directly to that part of the guidebook
- Search for keywords in the document using the Acrobat Reader “Find” function (found on the toolbar).

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To see our full line of IBM titles, we invite you to visit our Web site, maxpress.com. From all of us at Maximum Press, thank you for your interest.

MORE ON THE WEB

- [email us \(info@maxpress.com\)](mailto:info@maxpress.com)
- Maximum Press Web site

1

IBM PureSystems Basics

In this chapter, we cover some basics about the new PureSystems product line.

During the last 100 years, information technology has moved from a specialized tool to a pervasive influence on nearly every aspect of life. From tabulating machines that simply counted with mechanical switches or vacuum tubes to the first programmable computers, IBM has been a part of this growth, while always helping customers to solve problems.

IT is a constant part of business and of our lives. IBM's expertise in delivering IT solutions has helped the planet become smarter. As organizational leaders seek to extract more real value from their data, business processes, and other key investments, IT is moving to the strategic center of business.

To meet those business demands, IBM is introducing a new category of system—systems that combine the flexibility of general-purpose systems, the elasticity of cloud computing, and the simplicity of an appliance that is tuned to the workload. Expert integrated systems are essentially the building blocks of capability. This new category of systems represents the collective knowledge of thousands of deployments, established best practices, innovative thinking, IT leadership, and distilled expertise.





The IBM PureSystems offerings are designed to deliver value in the following ways:

- Built-in expertise helps you to address complex business and operational tasks automatically.
- Integration by design helps you to tune systems for optimal performance and efficiency.
- Simplified experience, from design to purchase to maintenance, creates efficiencies quickly.

The IBM PureSystems offerings are optimized for performance and virtualized for efficiency. These systems offer a no-compromise design with system-level upgradeability. IBM PureSystems are built for cloud, containing built-in flexibility and simplicity. Unlike competing offerings that cobble together products from multiple vendors, IBM PureSystems are all-IBM solutions built from the ground up, resulting in a solution that is easily managed from a “single pane of glass.”

MORE ON THE WEB

- [IBM PureSystems info on IBM.com](#)

IBM’s first two expert integrated system family members include:

- IBM PureFlex System: Infrastructure systems deeply integrate the IT elements and expertise of your system infrastructure.



- IBM PureApplication System: Platform systems include middleware and expertise for deploying and managing your application platforms.

IBM PureFlex System

To meet today's complex and ever-changing business demands, you need a solid foundation of server, storage, networking, and software resources that are simple to deploy and that can quickly and automatically adapt to changing conditions. You also need access to, and the ability to take advantage of, broad expertise and proven best practices in systems management, applications, hardware maintenance, and more.

IBM PureFlex System is an expert integrated system that provides a comprehensive infrastructure platform, combining servers, enterprise storage, networking, virtualization, and management into a single structure. Its built-in expertise enables organizations to simply manage and flexibly deploy integrated patterns of virtual and hardware resources through unified management. These systems are ideally suited for customers interested in a system that delivers the simplicity of an integrated solution, but who also want control over tuning middleware and the run-time environment.

IBM PureFlex System recommends workload placement based on virtual machine compatibility and resource availability. Using built-in virtualization across servers, storage, and networking, the infrastructure system enables automated scaling of resources and true workload mobility.



IBM PureFlex Systems are fully integrated and tested at the factory, so they can mitigate IT complexity without compromising the flexibility to tune systems to the tasks that businesses demand. By providing both flexibility and simplicity, IBM PureFlex System can provide extraordinary levels of IT control, efficiency, and operating agility that enable businesses to rapidly deploy IT services at a reduced cost. Moreover, the system is built on decades of expertise, enabling deep integration and central management of the comprehensive, open-choice infrastructure system and dramatically cutting down on the skills and training required for managing and deploying the system.

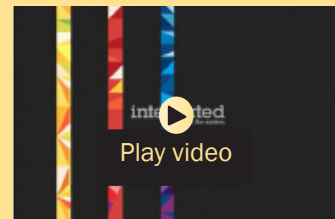
Chapter 3 provides configuration details about IBM PureFlex System.

IBM PureApplication System

IBM PureApplication System pre-integrates a full application platform set of middleware and expertise with a single management console. It is a workload aware, flexible platform that is designed to be easy to deploy, customize, safeguard, and manage in a traditional or private cloud environment, ultimately providing superior IT economics.

With the IBM PureApplication System you can provision your own patterns of software,

MORE ON THE WEB



Patterns of expertise (1:07)



middleware, and virtual system resources. These patterns enable you to customize your solution to deliver expertise from a broad ecosystem, deployable in an efficient manner, delivering faster time to value. You can provision patterns within a unique framework that is shaped by IT best practices and industry standards—standards that have been culled from many years of IBM experience with clients and from a deep understanding of smarter computing. These IT best practices and standards are infused throughout the system.

With IBM PureApplication System:

- IBM builds expertise into preintegrated deployment patterns, which can speed the development and delivery of new services.
- Built-in expertise capabilities can reduce the cost and time required to manage an infrastructure by automating key processes, such as application deployment.
- Built-in application optimization expertise reduces the number of unplanned outages through best practices and automation of the manual processes identified as sources of those outages.
- Administrators can use built-in application elasticity to scale up or to scale down automatically.
- Data replication is used to increase availability.

Chapter 3 provides configuration details about IBM PureApplication System.



IBM Flex System: The Building Blocks

The IBM Flex System provides the building blocks for clients who want to custom build and tune configurations to their specific requirements, similar to today's blades products. Flex System is much more than the next generation of Blade Center; it is the best blade product available in the world. Flex System's design delivers greater integration between networking, compute and storage resources than ever before, and it is built on a platform that is designed for the next decade of technology advances.

Chapter 3 provides more detail on the Flex System building blocks.

Why IBM?

IBM designs and builds products for nearly every element of an organization's computing portfolio, including microprocessors, servers and storage devices, operating systems, software programming tools, middleware, business intelligence applications, and industry-specific software frameworks. More importantly, IBM can help any organization build on their existing capabilities to realize the benefits that our leading clients have already achieved. IBM brings virtually unparalleled skills via our lab and services teams to engage directly with clients to architect approaches to establish their unique roadmap for the future.

Benefits of IBM innovation and expertise are demonstrated every day in our own data centers with our services and strategic outsourcing clients. IBM's data center in North Carolina's



Research Triangle Park illustrates the kind of improvements that are possible. The 60,000 square-foot facility has more than 40,000 sensors monitoring every piece of electrically-powered equipment to improve energy efficiency and the utilization of servers and storage, and networking devices. The deployment of more than 2000 temperature, humidity, and air flow sensors makes it possible to automatically adjust cooling systems and usage of IT equipment. This approach has reduced our clients' capital and operating costs by as much as 50 percent.

IBM also has been able to use its accumulated expertise to increase the percentage of its own IT budget to transform the business from 24 to 37 percent since 2003.

IBM Global Financing makes it even simpler by turning up front costs into low monthly payments, lowering the total cost of ownership and reducing the risk of technology obsolescence.

IBM's value proposition is clear: For organizations seeking to transform their IT economics through a more flexible and simpler approach to IT, we offer solutions with integrated expertise that address their unique strategy and needs.

2

PureSystems Tools and Resources

This chapter provides you with some general information and valuable resources that will help you as you sell IBM products.

IBM PureSystems on PartnerWorld

IBM maintains a Web site called PartnerWorld, which has a great deal of information of use to all IBM Business Partners worldwide. On the site you will find the latest presentations and marketing materials (such as brochures, data sheets, and case studies) as well as competitive information, consultant reports, IBM white papers, education and events, tools, technical support, and much more.

Business Partners who invest the most in IBM receive higher-value benefits and resources. This investment is recognized through three PartnerWorld membership levels: Member, Advanced, and Premier. Qualification for these membership levels is based on the Business Partner's attainment according to a point system. Points are earned by acquiring skills, developing and selling solutions, driving IBM revenue, and achieving customer satisfaction.





In this guidebook, we have summarized and provided direct links to a great deal of PartnerWorld information of interest to Business Partners selling IBM PureSystems offerings. As such, this guidebook is your personal “guide” to the PartnerWorld Web site. Just the same, we encourage you to spend some time browsing the PartnerWorld site, which is constantly updated so you can get a feel for the full scope of resources available to you.

You will need your IBM-assigned user ID and password to access some areas of PartnerWorld. If you don’t have your user ID and password, you can contact IBM PartnerWorld for help. (Follow the link provided in the “More on the Web” box.)

MORE ON THE WEB

- [PureSystems portal on PartnerWorld](#)
- [IBM Flex portal on PartnerWorld](#)
- [IBM PartnerWorld Web site home page](#)
- [IBM PartnerWorld news and newsletters](#)
- [PartnerWorld membership levels](#)
- [Help with your user ID and password](#)

Education & Certification

As with almost any endeavor, time spent educating yourself and your team on appropriate topics such as selling techniques and PureSystems product offerings will help you succeed. In this section, we discuss options for you to obtain the PureSystems–related education you need.

Education for all IBM systems offerings can be found in PartnerWorld Systems College. PureSystems is no exception. The education will help provide product details as well as how to position and sell PureSystems to your customers.



When you open the links below, you will find a “What’s New” section, which lists all of the training added within the last three months. You will also find a tab with education

“Roadmaps” to help guide you through the courses. The roadmaps are organized in basic and intermediate tracks. The last tab, “Job Role Course Catalog”

tab, provides access to all available education. You can use this area to perform keyword searches for educational material.

The PureSystems sections of Systems College was established on the day of the launch. You should continue to check back periodically to see new content updates.

In addition to the content in Systems College, we offer occasional live virtual sessions as well as face-to-face events. The STG Education newsletter is a good place to stay on top of new offerings.

MORE ON THE WEB

- [STG Sales Education Newsletter](#)
- [Solution Sales Representative](#)
- [Technical Sales Support Specialist/Consultant](#)
- [Implementer/Systems Engineer](#)

Know Your IBM (KYI)

Know Your IBM is a permission-based interactive marketing and selling resource designed for you, our Business Partner sellers. It provides net, customized, online education modules focusing on strategic product and solution areas. The education helps increase your understanding and awareness of the key features and busi-

MORE ON THE WEB

- [“Know Your IBM” training modules](#)



ness benefits of IBM products, solutions, and offerings. Incentives offered in conjunction with Know Your IBM are designed to encourage you to complete the education modules and provide rewards for your sales performance. Incentives are awarded at the individual rep level, not to the firm.

Certification

In order to have authorization to sell the PureSystems family, business partners must build their skills and pass exams.

For IBM PureFlex

The IBM PureFlex Sales (test number 000-780) and the IBM PureFlex Technical V1 (test number 000-781) certifications are available in Prometric Test Centers worldwide. These new certifications cover all currently announced PureFlex products, features, and functions. To register or locate a convenient test center, use the new Prometric online registration link.

MORE ON THE WEB

- [Prometric online registration](#)
- [Professional Certification for PureFlex](#)

Access the Professional Certification section from the IBM Web site in the “More on the Web” box for additional information on this certification, including test preparation activities.

For IBM PureApplication System

The PureApplication System Sales Mastery and Technical Sales Mastery (TSM) exams are available on Prometrics today and we are encouraging Partners to get certified.



MORE ON THE WEB

- [PureApplication System Sales Mastery \(SM\) exam](#)
- [PureApplication System Technical Sales Mastery \(TSM\) exam](#)

Test preparation links:

- [IBM PureApplication System Sales Kit—Client Presentation, Data Sheet, Demos, Education, etc. \(2.5 hours\)](#)
- [developerWorks PureSystems—Features \(2.0 hours\)](#)
- [PureApplication Systems—Video Series \(2.5 hours\)](#)
- [developerWorks PureSystems—Preparing for PAS \(2.0 hours\)](#)
- [IBM PureApplication System Technical Sales Master Study Guide available on Sales Kit—\(6.0 hours\)](#)

Sales Configurator Tools for Building Solutions

The IBM Configurator for e-business (e-config) has been enhanced to help you configure, price, and place an order for the PureFlex System.

Should you require Build to Order (BTO) Flex System products, they may be configured using the Standalone Solutions Configuration Tool (SSCT), the IBM System x & Cluster Solution Configurator (x-config), or the IBM Hardware Configurator.

MORE ON THE WEB

- Sales Configurators
 - [SSCT](#)
 - [x-config](#)
 - [IBM Hardware Configurator](#)
 - [e-config](#)
- [Additional sales tools](#)



Ordering

AAS

All PureFlex System offerings will be ordered in Partner Commerce/Server or via your local ordering system.

Should you require Build to Order (BTO) Flex System products, they will be ordered in Partner Commerce, EDI, or via your local ordering system.

HVEC

All System x Flex System products will be ordered in Partner Commerce (HVEC) or via Country Legacy Systems.

Sales Support

Sales support is available from your distributor, your business partner sales representative, and the IBM

PureSystems Tiger Teams. Follow the link in the More on the Web box to find out who to contact.

Also, IBM has created a variety of sales enablement assets to help you along the sales cycle—for a complete directory, go to our asset library link.

When starting to consult with clients on their IT challenges, it is especially helpful to understand how the PureSystems family is positioned within the IBM family of offerings, as well as against competition in the marketplace. For a better understanding of this positioning, you may check out the “positioning” link.

MORE ON THE WEB

- [Key Contact listing on PartnerWorld](#)
- [Asset library](#)
- [Positioning](#)



IBM PureFlex System Sales Kit

The IBM PureFlex Sales Kit consolidates all of the relevant assets and deliverables related to the PureFlex offerings into one easy to search document on PartnerWorld. In it you will find product brochures, white papers, videos, proposal inserts and solution briefs, and more, as well as links to other relevant assets to help you in your sales efforts.

The IBM Flex System Sales Kit is the re-

pository to enable IBM sellers to sell the compute node, chassis, networking, storage, and management nodes. All content is kept up-to-date in this repository for access by IBM sellers.

MORE ON THE WEB

- [IBM PureFlex System Sales Kit on PartnerWorld](#)

IBM PureFlex Sales Scenario Tactics

Identify opportunities, generate leads, and win business with “quick start” sales tactics. Leverage high-impact sales assets for specific sales scenarios and deliver compelling value proposition to your clients. Convert your “Opportunities” to a “Win.”

Identify target clients and prospects in your local region, and pursue opportunities with a focused set of sales tactics and assets.

MORE ON THE WEB

- [PureFlex Sales Scenario Tactics](#)

IBM PureFlex System Sales Plays

The IBM PureFlex System Sales Plays map to our four customer initiatives: Consolidate, Optimize, Innovate and Accel-



erate Cloud. These initiatives are the “entry points” to client engagements for PureFlex System. Each play describes the different target audiences within a client, their pain points associated with the initiative, and the unique features and benefits of PureFlex System that address those concerns. The plays also contain links to assets which support your sales efforts under each initiative.

Below you will find some examples of PureFlex sales plays.

Consolidate on IBM PureFlex System

This sales play is intended for clients that have an IT environment with multiple platforms and management systems experiencing complexity and low resource utilization. The “Consolidate” aspect of the IBM PureFlex System offers the client the ability to reduce the number of assets within the IT center while increasing utilization, enabling new workload growth, increasing overall performance, and significantly reducing operational and management costs by leveraging a centralized management over all compute, network, and storage resources.

MORE ON THE WEB

- [Sales Play: Consolidate on IBM PureFlex System](#)

Optimize with IBM PureFlex System

Help your clients move from underutilized, overprovisioned IT to an efficient, cost effective platform managed by industry-leading cloud software. This play is intended for sellers whose clients’ critical workloads and applications are consuming major portions of their IT budgets just to maintain, keep up with



capacity demands, and deliver on their SLAs. The play also addresses clients

MORE ON THE WEB

- [Sales Play: Optimize with IBM PureFlex System](#)

whose key database and application server elements of the workloads may be underperforming or scaling inadequately to meet peak workload demands.

Key value association with this sales play: Optimize your existing high value workloads through improved virtualization and centralized management.

Innovate on IBM PureFlex System

This sales play is intended to focus sellers on the innovation and benefits of the IBM PureFlex System. The PureFlex System delivers a new level of agility, efficiency, and control to customers when implementing and managing applications. New services are deployed faster by streamlining the install, load, and configure processes on these expert integrated systems with servers, storage, and network resources all managed together. The integrated systems management and security features enable simplified management and control of the IT infrastructure while reducing costs. Pooled systems resources improve workload performance and help clients address changes to rapidly changing business demands. In essence, we can help clients rapidly deliver new and innovative applications, processes, and services. Innovation enables business to gain competitive advantage by incorporating the latest expertise and thinking into IT services, facilitating new ideas and the organizational and process changes necessary



to implement them, and quickly deploying new services to address dynamic

customer and marketplace demands. New application deployment is simplified with the PureFlex System. IBM and its business partners have worked together to package industry-leading applications, making them quick and simple to load, install, and configure.

MORE ON THE WEB

- [Sales Play: Innovate on IBM PureFlex System](#)

Accelerate Cloud with IBM PureFlex System

Help your clients move from underutilized, over-provisioned IT to an efficient, cost-effective platform managed by industry-leading cloud software. This play is designed to help sellers understand these new products and how PureFlex Systems can deliver superior customer value through the cloud. Learn how IBM PureFlex Systems provide an ideal platform upon which clients can build flexible, secure cloud solutions to deliver infrastructure services (IaaS). PureFlex Systems features include

IBM Smart-Cloud Entry and enhanced

security levels pre-set to enable rapid cloud deployments and reduce management costs. Take advantage of the quick paths to education materials, demos, and presentations within this play to become an expert in Expert Integrated Systems and the PureFlex System family.

MORE ON THE WEB

- [Sales Play: Accelerate Cloud with IBM PureFlex System](#)



Key value association: Implement Cloud Workload Virtualization, and Centralized Management.

PureFlex Technology Access Initiative

The Technology Access Initiative has been designed to give IBM Authorized Business Partners access to IBM PureFlex technology through demo units, loaners, proof-of-concept loans, and other capabilities. The intent of this global program is to engage and enable authorized IBM Business Partners to invest in IBM PureFlex Systems technology for the purposes of demonstration, evaluation, and business development activities.

MORE ON THE WEB

- [Expert Integrated Systems Contacts](#)
- [Business Partner “Request Form”](#)

PureFlex Demo Program

Under this program, IBM Authorized Business Partners can purchase or lease a demo unit for internal demonstration, development and evaluation activities. Specific terms and conditions will apply. Lease offerings are provided by IBM Global Financing.

To order a PureFlex System demo unit, business partners must contact their local/regional authorized distributor, or local IBM Business Partner Channel Sales representative.

PureFlex Loaner Program

Under this program, IBM Authorized Business Partners can be loaned a PureFlex System, standard configuration, for up to a 30 day period. Approved usage for such loans are designed



to enable, educate, and drive demand generation activities. Specific terms and conditions will apply.

MORE ON THE WEB

- [Business Partner “Request Form”](#)

To request a PureFlex Systems Loaner Unit, business partners must submit a “Request Form” and may also contact their local IBM Business Partner Channel Sales representative.

PureFlex Proof-of-Concept (PoC) Program

Under this program, IBM Authorized Business Partners can help secure a PoC for their customers. PoC duration will be for a period not exceeding 30 days to test and evaluate a well-defined customer solution. Specific terms and conditions will apply.

MORE ON THE WEB

- [Business Partner “Request Form”](#)

To request a PureFlex System Proof-of-Concept (PoC) Unit, business partners must submit a “Request Form” and may also contact their local IBM Business Partner Channel Sales representative.

In addition, as part of Technology Access, a number of additional capabilities are available for IBM Authorized Business Partners.

PureFlex Try & Buy Trial

IBM Authorized Business Partners can help secure a PureFlex Try & Buy Trial for their customer for a specified period of time, with predetermined test criteria agreed to by the customer, and with the intention of selling the asset to the cus-



tomers at the end of the trial period.

To request a Try & Buy trial unit, business partners must submit a "Request Form" and may also contact their local IBM Business Partner Channel Sales representative.

MORE ON THE WEB

- [Business Partner "Request Form"](#)

PureFlex On-Wheels Loaner

IBM Authorized Business Partners can help secure a PureFlex On-Wheels loaner unit for their customer for a specified period of time, up to 30 days, with an on-site environment to exercise preloaded demo capability and test their applications and data on test equipment.

To request an On-Wheels loaner unit, business partners must submit a "Request Form" and may also contact their local IBM Business Partner Channel Sales representative.

MORE ON THE WEB

- [Business Partner "Request Form"](#)

IBM Client Center Services

Client centric services are designed to provide access to globally shared, large scale, physical and virtual infrastructure and technical expertise through IBM Executive Briefings Centers, Design Centers, and Benchmark Centers.

- Executive Briefing Centers deliver comprehensive technology briefings, remote and live product demonstrations, and solution workshops.



- Design Centers architect and integrate emerging, end-to-end solutions and create high value assets that leverage leading-edge technologies.
- Benchmark Centers provide clients with benchmark, proof-of-concept, scaling, and performance services and assistance in executing ISV application benchmarks.

To request IBM Client Center Services, business partners must submit a “Request Form” and may also contact their local IBM Business Partner Channel Sales representative.

Availability and approval of requests will be at IBM’s Business Partner Organization’s Sales discretion. If you have questions, please contact your Local Channel Sales Representative or forward your questions to PureSystems TechAccess.

MORE ON THE WEB

- [Client Center demo offerings](#)
- email: PureSystems TechAccess at puresys@us.ibm.com

Sources for Competitive Marketing Information

IBM maintains a Web site called “Comp,” which is a world-wide portal for information that will help you win in competitive marketing situations. It includes a searchable set of reports, presentations, and quick reference cards about the marketplace, competitors, and competitive products. You will find materials developed by IBM as well as outside sources such as Gartner, IDC, DH Brown, and IDEAS International.

MORE ON THE WEB

- [IBM “Comp” Web site](#)



IBM also publishes the Competitive Sales Guide for eligible business partners, which provides much useful information.

Web Content Syndication

IBM PureSystems digital marketing content is now available for syndication on your Web site. Web Content Syndication combines the power of content syndication, automatically sending and updating content, with built-in lead response tracking capabilities. It keeps prospects on your Web site and leads go directly to you. Currently syndicating Business Partners can simply go to their partner console and select the PureSystems Showcase. IBM Business Partners who want to start using Web Content Syndication should register on PartnerWorld. This is a free benefit for all PartnerWorld members. Be the first to start syndicating content for the new PureSystems offerings!

MORE ON THE WEB

- [Web Content Syndication](#)

Social Media Resources for IBM Business Partners

Social media is quickly growing in importance for businesses of all sizes. Whether you are already involved in social media or just getting interested, the “More on the Web” box provides some links that will be of interest to you.

IBM Global Financing

IBM Global Financing offerings are provided through IBM Credit LLC in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government clients. Rates and availability are based on a client’s credit



MORE ON THE WEB

- [Tweekchat Twitter host @IBMPureSystems, Chat hashtag: #ExpertSysChat](#)
- [IBMPureSystems Twitter @IBMPureSystems](#)
- [TwebEvent Page](#)
- [PureSystems Blog](#)
- [PureSystems YouTube channel](#)
- [PureSystems Social Media Aggregator](#)
- [SlideShare](#)
- [PureSystems Flickr](#)
- [Communities for Business Partners](#)
- [Twitter search results for IBM PureSystems](#)
- [Search Twitter for mentions of your business or competitors](#)
- [Use Twitter to Grow Your Business \(IBM Software Business Partner Blog\)](#)
- [Google blog search results for IBM PureSystems](#)
- [Search blog for mentions of your business or competitors](#)
- [LinkedIn social network \(has an IBM Business Partner Group\)](#)

rating, financing terms, offering type, equipment and product type and options, and may vary by country. Non-hardware items must be one-time, non-recurring charges and are financed by means of loans. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice and may not be available in all countries.

With IBM Global Financing at your side, you can lead your clients into the world of smarter computing, while helping you grow your business and become more profitable. In fact, IBM



MORE ON THE WEB

- [Financing Expert Integrated Systems](#)
- [Financing for IBM PureSystems](#)
- [Payment calculators and the Rapid Online Financing tool](#)
- [Getting Started with IBM Global Financing](#)
- [Rapid Online Financing tool for creating a quote](#)
- [Become an IBM Global Financing Partner/Financing Associate](#)

Market Intelligence data demonstrated that the odds of winning deals greater than \$100,000 increased by 36 percent when Business Partners include IBM Global Financing in the sale (source: IBM Market Intelligence Data Analytics “Win More” study of Seibel opportunities).

Simply put, recommending IBM Global Financing to finance IBM PureSystems is a win-win situation for both you and your clients.

Client Benefits

When clients combine a Fair Market Value lease with a special 90-day payment deferral, they can:

- Lower their total cost of ownership by as much as 16 percent (Represents Net Present Value savings over a 36-month period for an IT infrastructure Fair Market Value lease, “best credit” customer. Current IBM Global Financing monthly rates for IBM hardware used to calculate present value savings. Savings can vary according to hardware platform).



- Conserve cash to use for other strategic needs and investments
- Maximize cash flow and accelerate time to value with payment terms that align PureSystems costs with anticipated benefits
- Add capacity or upgrade, often at little or no increase in monthly payments
- Reduce the risk of technological obsolescence
- Dispose of unneeded technology without hassle or risk.

Note: (90-day deferral for PureSystems financing subject to client credit approval. Interest accrues during deferral period. Restrictions may apply. Contact IBM Global Financing for more details.)

Business Partner Benefits

By providing your clients the benefits of financing through IBM Global Financing, you'll be able to:

- Open up opportunities for larger deals since your clients will have more purchasing power
- Maintain account control—Clients that finance tend to become repeat customers
- Eliminate credit risk—IBM Global Financing will handle all credit approvals and assume the risk of collection



- Reduce pressure to discount as clients can obtain solutions through affordable monthly payments
- Reduce your Days Sales Outstanding (DSO)—IBM Global Financing will pay you in an average of five days vs. 60–90 days in which your clients pay you. This puts more operating cash into your business
- Earn commission fees when clients finance eligible transactions.

Additionally, IBM Global Financing can help finance consulting and migration services for your clients—from IBM as well as business partners.

IBM Global Services

IBM Global Technology Services (GTS) subject matter experts served as a key source of the expertise and intelligence infused into PureSystems. And now they're ready to help you enable your clients to take advantage of this technology and accelerate the value of their PureSystems investment.

IBM GTS has decades of IT services experience gained as one of the world's largest systems integrators and managers of IT infrastructure. As a result, we can help you deliver complete end-to-end PureSystems solutions to your clients—across design & architecture, complex migrations, technical support, resiliency, and cloud.

Attaching IBM Global Technology Services to your IBM solution sales gives you a way to enhance your productivity, accelerate sales, and increase deal size today while creating



ongoing revenue opportunities for the future—creating offerings that are more attractive to your clients than ever before.

Technical Support Services for IBM PureFlex Systems

IBM Technical Support Services offers world-class remote and on-site technical support to maximize the agility, efficiency, simplicity, and control offered by PureSystems. In addition to the Next Business Day warranty service that is included with the PureFlex and Flex Systems, our three Global Centers of Competence are set up to provide integrated support for the IBM Flexible System Manager.

Each IBM PureFlex System configuration contains pre-defined Technical Support Services that need to be included in every solution sale. Additional Technical Support Service options are also available for both IBM Flex and PureFlex Systems. These services include:

- Warranty service upgrades (WSU)
- Software maintenance (SWMA)
- Software support (Support Line)
- Enhanced technical support (ETS)
- Hard Drive Retention Services.

Integrated Technology Services for IBM PureSystems

IBM has deep IT services skills in providing cloud services, infrastructure assessment, design and architecture services, resiliency, networking and implementation services. We can



partner with you on PureSystems to help your clients in these key areas:

- **Confidently add PureSystems to your enterprise IT landscape**—IBM strategy and design services can help clients adopt PureSystems to optimize their infrastructure by creating a strategy, business case, and architecture that lets them minimize risk and maximize ROI.
- **Prioritize workload transition to PureSystems**—IBM research-based workload analysis services can help clients map the right workload to the right platform, prioritize workload transition to PureSystems, and integrate these systems into existing service management processes.
- **Ready your data center facility for PureSystems**—IBM facilities assessment and design services can help quickly deploy high density PureSystems technology while optimizing cooling efficiencies and reducing related power consumption to help increase system uptime by potentially reducing outages caused by high heat conditions.
- **Fast-track PureSystems implementation and minimize risk**—IBM implementation services can help clients customize PureSystems to their IT environment, accelerating the time to value by helping clients understand how to leverage its new functionality.
- **Prepare your networks for PureSystems**—IBM network strategy and optimization services can combine business plans for PureSystems with an assessment of clients' current network to identify, design, and deploy any necessary network specific actions.



MORE ON THE WEB

- [PureSystem Global Technology Services info on PartnerWorld](#)
- [Flex System Technical Support Services info on PartnerWorld](#)
- [Webinar on PureSystems Global Technology Services \(audio and slides\)](#)

- **Enhance PureSystems resiliency**—IBM automated cloud-based recovery services for PureSystems can help reduce recovery time and improve the reliability of clients' recovery infrastructure through a fully managed recovery solution and security-rich managed protection of critical data.
- **Enhance cloud delivery**—PureSystems and IBM Smart-Cloud Services allow clients to develop and implement their own flexible and secure hybrid cloud strategy across private, public, and hybrid deployments to optimize performance.

Business Partner Technical Support for PureFlex

The path for support starts with Techline, then CTSS/FTSS/CTS, then Tiger Team, and then ATS/Centers. Business Partner opportunities are treated like direct opportunities from a technical pre-sales support point of view.

MORE ON THE WEB

- [Contact Techline](#)

Techline

Skilled specialists provide voice and email support for product information and positioning, solution design, configuration validation, pricing and performance, education, solution assurance, competitive solutions, and more.



CTSS

CTSS is the Channel Technical Sales Support. If the business partners are not aware of their CTSS, they can engage them through their CRP or iCRBP. The CTS Customer Technical Support will be engaged if the end user is assigned that resource. 888-771-7705.

Solution Assurance

Pre-sales TDAs will be required for all PureFlex offerings (foundation) purchases—the checklist contains pre-sales and pre-install questions and POC proposals will require pre-sales and pre-install TDAs with a subset of questions ([Figure S.1](#)).

- The PureSystems family products have been added to the Trigger Criteria and Designated Product List under the Cross-brand category.

IBM PureSystems Offering	Pre-sale TDA	CSU	Pre-install TDA	Notes
IBM Flex System (BTO)	Not required	Yes	No	Lab Services installation services can be purchased
IBM PureFlex System				
Express	Mandatory	Yes	No	STG Lab Services will be bundled
Standard	Mandatory	Yes	No	STG Lab Services will be bundled
Enterprise	Mandatory	Yes	No	STG Lab Services will be bundled
Proof-of-Concept (POC)	Mandatory	No	Mandatory	
IBM PureApplication System	No	No	Mandatory	SWG & STG Lab Services installation services will be bundled initially

Figure S.1. IBM PureSystems solution assurance.



- PureFlex System TDA checklist which notes the POC questions has been posted on the Solution Assurance Web site.

Tools

Figure S.2 provides a listing of tools to help you consult with customers about IBM PureSystems solutions.

Publications/Communications

See the “More on the Web” box for information sources related to IBM PureSystems.

MORE ON THE WEB

- [IBM Flex System Information Center](#)
 - [IBM Flex System Interoperability Guide](#)
- Redbooks
- [IBM PureSystems introduction Redbook Webdoc](#)
 - [Additional PureSystem Redbooks](#)



Tool	Description	Where to find it
Alinean IBM PureFlex System TCO Analysis	This analysis tool compares the total cost of ownership for the IBM PureFlex Solution versus a traditional dedicated or virtualized IT infrastructure by collecting information about the current computing needs and then projecting the TCO for the two alternatives.	Restricted domain for testing: https://florluat01.alinean.com/ibm_uat/ (Contact Scott Kennedy if you want access)
ATS SCON Monitor Tool	Comprehensive server consolidation data collection and reporting; a free tool in the form of a service offering that provides customers with a report detailing the workload and utilization of their production systems.	External: http://www-03.ibm.com/support/techdocs/atmsmastr.nsf/WebIndex/PRS4663
IBM Systems Workload Estimator	Web-based sizing tool for IBM Power System, System x, IBM PureFlex System, IBM Flex System, and System z. It can be used to size new systems, upgrades/migrations from existing systems, and consolidations.	Main Page: http://www.ibm.com/systems/support/tools/estimator External: http://www-947.ibm.com/systems/support/tools/estimator/ Server consolidation for z/BX and Power Systems Supports CSV import, server groups, collected data
Power Configurator	Tool used to calculate energy savings	External: http://www-03.ibm.com/systems/bladecenter/resources/powerconfig.html
IBM Sizing Guides	IBM Sizing Guides provide point-and-click access to software solution specific hardware requirements to meet customer immediate and growth requirements on IBM systems	External: http://www-304.ibm.com/partnerworld/wps/sizing/index.jsp
Visio stencil collection	IBM's Visio stencil collection has been updated to include Flex	External: http://www.visio-cafe.com/ibm.htm
Data Collection/Analytics		
Insight for SAP V5	Free service offering that provides customers with a report detailing the workload and utilization of their production SAP system.	http://www.ibm.com/erp/sap/insight
Insight for Oracle Database V2	Free service offering that provides customers with a report detailing the workload and utilization of their Oracle database servers.	http://www.ibm.com/erp/oracle/insight

Figure S.2. IBM PureSystems tools at a glance (and links). (continued on next page)



Sizing, Competitive Consolidation

Disk Magic	Enables you to estimate IBM disk subsystem performance. The tool models IBM disk controllers in z Series, i Series, and Open environments. The IBM disk controllers supported are DS8000, DS6000, DS5000, DS4000, SVC, V7000, and SAN attached N Series.	Partners
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Power (Energy) & Cooling

IBM Systems Energy Estimator	Web-based tool for estimating power requirements for IBM Power Systems™. You can use this tool to estimate typical power requirements (watts) for a specific system configuration under normal operating conditions.	IBMers and Partners
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Figure S.2. IBM PureSystems tools at a glance (and links). *(continued from previous page)*

3

PureSystems Quick Reference

In this chapter, we will explore the specific offerings in the IBM PureSystems family.

PureFlex System

IBM PureFlex System combines advanced IBM hardware and software along with patterns of expertise and integrates them into three optimized configurations that are simple to acquire and deploy so you get fast time to value for your solution.

The three PureFlex System configurations are:

- **IBM PureFlex System Express:** Designed for small and medium businesses—the most affordable entry point for PureFlex System.
- **IBM PureFlex System Standard:** Optimized for application servers with supporting storage and networking—is designed to support your key ISV solutions.
- **IBM PureFlex System Enterprise:** Optimized for transactional and database systems—has built-in redundancy for highly reliable and resilient operation to support your most critical workloads.

Let's take a quick look at each.





MORE ON THE WEB

- [Redbook: IBM PureFlex and Flex System Products & Technology](#)

PureFlex Express

The IBM PureFlex System Express configuration ([Figure F.1](#)) is designed for small and medium businesses and is the most affordable PureFlex System entry point.

PureFlex Standard

The IBM PureFlex System Standard configuration ([Figure F.2](#)) is optimized for application servers with supporting storage and networking and is designed to support your key ISV solutions.

PureFlex Enterprise

The IBM PureFlex System Enterprise configuration ([Figure F.3](#)) is optimized for scalable cloud deployments and has built-in redundancy for highly reliable and resilient operation to support your critical applications and cloud services.

PureApplication System

As mentioned in Chapter 1, IBM PureApplication System is a platform system that pre-integrates middleware and expertise with the IBM PureFlex System.

**Specifications**

Form factor	PureFlex System 42U Rack
Flex System Chassis	Yes
Integrated 10 Gb Networking Switch	1
Integrated 8 Gb Fibre Channel Switch	1
Integrated Management Node	Yes
IBM Flex System Manager Edition	Flex System Manager with 1-year service and support
Power supplies (std/max)	2/6
80 mm fans (std/max)	4/6
Integrated Chassis Management (CMM)	2
IBM Storwize V7000 Disk System	Yes (redundant controller)
IBM Storwize V7000 Software	Base with 1-year software maintenance agreement

- [PureFlex System Express details on PartnerWorld](#)
- [PureFlex System Express info on IBM.com](#)
- [PureFlex System Express competitive info on COMP](#)
- [PureFlex System build-to-order configurations](#)
- [PureFlex HW/SW compatibility](#)
- [PureFlex System Express blog search](#)
- [PureFlex System Express Twitter search](#)

Figure F.1. IBM PureFlex System Express at a glance (and links to more detail).



Specifications

Form factor	PureFlex System 42U Rack
Flex System Chassis	Yes
Integrated 10 Gb Networking Switch	1
Integrated 8 Gb Fibre Channel Switch	2
Integrated Management Node	Yes
IBM Flex System Manager Edition	Flex System Manager Advanced with 3-year service and support
Power supplies (std/max)	4/6
80 mm fans (std/max)	6/8
Integrated Chassis Management (CMM)	2
IBM Storwize V7000 Disk System	Yes (redundant controller)
IBM Storwize V7000 Software	Base with 3-year software maintenance agreement

- [PureFlex System Standard details on PartnerWorld](#)
- [PureFlex System Standard info on IBM.com](#)
- [PureFlex System Standard competitive info on COMP](#)
- [PureFlex System build-to-order configurations](#)
- [PureFlex HW/SW compatibility](#)
- [PureFlex System Standard blog search](#)
- [PureFlex System Standard Twitter search](#)

Figure F.2. IBM PureFlex System Standard at a glance (and links to more detail).

**Specifications**

Form factor	PureFlex System 42U Rack
Flex System Chassis	Yes
Integrated 10 Gb Networking Switch	2 + upgrades 1 and 2
Integrated 8 Gb Fibre Channel Switch	2
Integrated Management Node	Yes
IBM Flex System Manager Edition	Flex System Manager Advanced with 3-year service and support
Power supplies (std/max)	6/6
80 mm fans (std/max)	8/8
Integrated Chassis Management (CMM)	2
IBM Storwize V7000 Disk System	Yes (redundant controller)
IBM Storwize V7000 Software	Base with 3-year software maintenance agreement

- [PureFlex System Enterprise details on PartnerWorld](#)
- [PureFlex System Enterprise info on IBM.com](#)
- [PureFlex System Enterprise competitive info on COMP](#)
- [PureFlex System build-to-order configurations](#)
- [PureFlex HW/SW compatibility](#)
- [PureFlex System Enterprise blog search](#)
- [PureFlex System Enterprise Twitter search](#)

Figure F.3. IBM PureFlex System Enterprise at a glance (and links to more detail).



At a high level there are two kinds of expertise in the IBM PureApplication System:

1. Embedded expertise, as the system contains a balanced amount of compute, storage, and network for workloads it is designed to run.
2. Application and platform patterns for a particular type of application or workload, i.e., the PureApplication System has a “web app” pattern that allows client applications to utilize the pattern for rapid deployment, automated scaling, or improved operations and management.

PureApplication patterns of expertise can automatically balance, manage, and optimize necessary elements, from the underlying hardware resources up through the middleware and software. These patterns of expertise help deliver and manage business processes, services, and applications by encapsulating best practices and expertise into a repeatable and deployable form. This best-practice knowledge and expertise has been gained from decades of optimizing the deployment and management of data centers, software infrastructures, and applications around the world.

These patterns help you achieve the following types of value:

- **Agility:** As you seek to innovate to bring products and services to market faster, you need fast time-to-value. Expertise built into a solution can eliminate manual steps, automate delivery, and support innovation.



- **Efficiency:** To reduce costs and conserve valuable resources, you must get the most out of your systems with energy efficiency, simple management, and a fast, automated response to problems. With built-in expertise, you can optimize your critical business applications and get the most out of your investments.
- **Increased simplicity:** You need a less complex environment. Patterns of expertise can help you easily consolidate diverse servers, storage, and applications on to an easier-to-manage, integrated system.
- **Control:** With optimized patterns of expertise, you can accelerate cloud implementations to lower risk by improving security and reducing human error.

Streamline Administration and Maintenance with a Single Management Console: PureApplication management is integrated across the entire solution stack of hardware and software. This integrated approach provides a single point of management with roles-based security and tasks, real-time system monitoring, and application centric infrastructure and middleware provisioning.

IBM PureApplication System is available in four configurations ([Figure A.1](#)). These configuration options enable you to choose the size and compute power that meet your needs for application infrastructure. You can upgrade to the next size when your organization requires more capacity, and in most cases you can do so without any application downtime.

Leverage extensibility from a broad, open ecosystem of partners ready and able to provide industry expertise and



	IBM PureApplication System W1500-96	IBM PureApplication System W1500-192	IBM PureApplication System W1500-384	IBM PureApplication System W1500-608
Cores	96	192	384	608
RAM	1.5 TB	3.1 TB	6.1 TB	9.7 TB
SSD Storage	6.4 TB	6.4 TB	6.4 TB	6.4 TB
HDD Storage	48.0 TB	48.0 TB	48.0 TB	48.0 TB
Application Services Entitlement	Included	Included	Included	Included

Figure A.1. IBM PureApplication System configurations at a glance.

solutions to clients. Take advantage of PureSystems Centre—a PureSystems catalog and solution showcase that simplifies deployment of partner applications—to deliver value even faster.

MORE ON THE WEB

- [IBM PureSystems Centre](#)

There you can:

- Gain access to a broad community of IBM and certified partner expertise
- Download optimized, deployable application patterns from 100+ leading ISV partners
- Search by solution area, industry, or system
- Download fixes and patches
- Access a developer community.

PureApplication System is built for cloud and has a complete set of private cloud platform-as-a-service (PaaS) capabilities. Not only does PureApplication provide cloud in-



frastructure as a service via foundational capabilities, but it's the first fully integrated PaaS box in the industry. Following is a summary list of the key characteristics of a cloud environment, all of which are built into the PureApplication System:

- Dynamic resource scalability
- Highly standardized infrastructure
- Multi-tenancy
- Virtualization
- Automated provisioning of IT resources
- Catalog of services
- User-based self-service
- Service level management
- Usage-based reporting.

Flex System Building Blocks

The fundamental building block of IBM PureFlex System solutions is the IBM Flex System Enterprise Chassis, complete with compute nodes, networking, and storage. In this section, we look at the components used in IBM PureSystems.

MORE ON THE WEB

- [Flex System Information Center](#)
- [Product guides about the components of IBM Flex System](#)



Enterprise Chassis

To meet today's complex and ever-changing business demands, you need a solid foundation of compute, storage, networking, and software resources that is simple to deploy and can quickly and automatically adapt to changing conditions. You also need to be able to take advantage of broad expertise and proven best practices in systems management, applications, hardware maintenance, and more. The IBM PureFlex System combines no compromise system designs along with built-in expertise and integrates them in complete, optimized solutions.

The IBM Flex System Enterprise Chassis ([Figure C.1](#)) is a simple, integrated infrastructure platform for your PureFlex System that supports a mix of compute, storage, and networking resources to meet the demands of your applications. The solution is easily scalable with the addition of another chassis with the required nodes. With the Flex System Manager, multiple chassis can be monitored from a single screen. The 14 node, 10U chassis delivers high speed performance complete with integrated servers, storage, and networking. This flexible chassis is designed to deploy simply now and to scale to meet your needs in the future.

Here are some quick PureFlex Enterprise System facts:

- **Integration by design:** Integrated compute, storage, and I/O environment provides unprecedented workload consolidation, availability, and time to value.
- **Built-in expertise:** Management integration allows multiple chassis to be controlled from one interface.



Specifications

Form factor	10 EIA rack standard units high, EIA 19-inch rack standard width, minus 3 mm clearance
Node bays	14 node bays (7 full wide)
Switch modules	Optional
Power supplies	2/6 2500W 200–240 VAC
80 mm fans	4/8
40 mm fans	2/2
CMM	1/2

- [Enterprise Chassis details on PartnerWorld](#)
- [Enterprise Chassis details on IBM.com](#)
- [Enterprise Chassis competitive info on COMP](#)
- [Enterprise Chassis configuration details](#)
- [Enterprise Chassis options](#)
- [Enterprise Chassis blog search](#)
- [Enterprise Chassis Twitter search](#)

Figure C.1. IBM Flex System Enterprise Chassis at a glance (and links to more detail).



- Simplified experience: All-in-one design simplifies adding compute, storage, and networking capacity.

Compute Nodes

Taking advantage of the full capabilities of Intel Xeon processors, the compute nodes are designed to offer the performance that you need for your critical applications. With support for a range of hypervisors, operating systems, and virtualization environments, the compute nodes provide the foundation for:

- Virtualization solutions
- Database applications
- Infrastructure support
- Line of business applications.

In this section, we will explore the different compute nodes available.

Flex System x220

The IBM Flex System x220 Compute Node ([Figure N.1](#)) has a versatile, cost-optimized design for infrastructure and entry virtualization workloads. The Flex System x220 is available on either your PureFlex System or IBM Flex System solution.

With Flex System x220, it is simpler than ever to get started. The Flex System x220 compute node features a no-compromise design for processor, memory, and networking resources to allow your business to do more. Features such

**Specifications**

Processor	2/2, Intel Xeon E5-2400 Series Processor
Level 2 (L2) cache	256 KB per core
Level 3 (L3) cache	2C—5 MB, 4C—10 MB, 6C—15 MB, 8C—20 MB
Chipset	Intel C600
Form factor	Flex System standard node
Memory	12 DDR3/DDR3L LP, 192 GB max with 16 GB RDIMMs
Internal storage	2 x HS 2.5" (SAS/SATA/SSD)
Internal RAID	SW RAID, RAID 0/1—Optional HW RAID, ServeRAID H1135, RAID 0/1; Optional ServeRAID M5115/RAID 0,1,5,6,10,50 with LSI SAS2208 Controller
Internal USB	2 x Standard USB Flash Key; 1 x Front Access USB Key
Ethernet	Broadcom Dual 1 GbE
Chassis support	Flex System Enterprise Chassis
I/O expansion	2 x Mezz Cards (x8 + x4) + x4 PCI Express 3.0 1 x PCIe Expansion Node Connector (x16 PCI Express 3.0)
Power management	AEM, Active Energy Management
Management	iMM V2, RTMM KVM Dongle
RAS features	Chassis redundant/hot plug power & cooling; front panel & FRU/CRU LEDs
Operating systems	MS Windows Server, SUSE, RedHat Enterprise Linux, VMware
Warranty	3 year

- [x220 details on PartnerWorld](#)
- [x220 details on IBM.com](#)
- [x220 competitive info on COMP](#)
- [x220 configuration details](#)
- [x220 options](#)
- [x220 blog search](#)
- [x220 Twitter search](#)

Figure N.1. IBM Flex System x220 Compute Node at a glance (and links to more detail).



as automated power management with onboard sensors to give you more control over power and thermal levels across the system. These capabilities, combined with memory capacity up to 192 GB are designed to help you get the most out of your systems.

Upgrading to 10 Gigabit Ethernet (GbE) Virtual Fabric allows you to take advantage of up to 32 ports of virtual networking capabilities and leverage multiple protocols, including Ethernet, Fibre Channel over Ethernet, and iSCSI. The system also allows you to enable features on demand for a more flexible I/O solution. Virtual networking can require up to 75 percent fewer adapters, cables, and upstream switch ports to help control costs. You also get significantly simpler management with reduced cabling and fewer components to manage.

Built-in storage is available through two 2.5-inch hot swap hard drives or solid state drives. Available optional features include support for RAID 0, 1, 5, 6, 10, 50 fully backed by cache and a high-density application acceleration solution with IBM Flex System Flash. These features allow you to tailor internal storage to match your specific capacity, performance, and reliability needs and support applications such as distributed database without sacrificing system density.

Here are some quick x220 facts:

- Optimized for infrastructure and entry virtualization workloads
- Simple virtualization solution with embedded dual hypervisors
- Designed for simplified deployment and management.



Flex System x240

IBM Flex System x240 Compute Node ([Figure N.2](#)) is optimized for virtualization, performance, and highly scalable I/O designed to run a wide variety of workloads. The Flex System x240 is available on either your PureFlex System or IBM Flex System solution.

The Flex System x240 compute node delivers maximum performance—up to 80 percent performance boost over previous generation servers. This enables businesses to get more out of their compute environment for a broad set of workloads. Features such as automated power management with onboard sensors give you more control over power and thermal levels across the system. Offering up to 50 percent more performance per watt than previous generations, the new Flex System x240 is designed to improve energy efficiency. These capabilities, combined with memory capacity up to 768 GB, help you get the most out of your compute environment.

With integrated virtual fabric you can take advantage of up to 32 ports of virtual networking capabilities. With 10 Gigabit Ethernet (GbE) onboard, you get multiple protocols, including Ethernet, Fibre Channel over Ethernet, and iSCSI. The system also allows you to enable features on demand for a more flexible I/O solution. Virtual networking can reduce up to 75 percent of adapters, cables, and upstream switch ports to help control costs. In addition, you also get significantly simpler management with reduced cabling and fewer components to manage.



Specifications

Processor	2/2, Intel Xeon E5-2600 Series Processor
Level 2 (L2) cache	256 KB per core
Level 3 (L3) cache	2C—5 MB, 4C—10 MB, 6C—15 MB, 8C—20 MB
Chipset	Intel C600
Form factor	Flex System standard node
Memory	24 DDR3/DDR3L LP, 768 GB max with 32 GB LRDIMM
Internal storage	2 x HS 2.5" (SAS/SATA/SSD)
Internal RAID	LSI 2004, RAID 0/1 Optional ServerRAID M5115/RAID 0, 1, 5, 6, 10, 50 with LSI SAS2208 Controller
Internal USB	2 x Standard USB Flash Key; 1 x Front Access USB Key
Ethernet	IBM Virtual Fabric 2 x 10 GbE LOM
Chassis support	Flex System Enterprise Chassis
I/O expansion	2 x Mezz Cards (x16 + x8 PCI Express 3.0) 1 x PCIe Expansion Node Connector (x16 PCI Express 3.0)
Power management	AEM, Active Energy Management
Management	iMM V2, RTMM KVM Dongle
RAS features	Chassis redundant/hot plug power & cooling; Front panel & FRU/CRU LEDs
Operating systems	MS Windows Server, SUSE, RedHat Enterprise Linux, VMware
Warranty	3 year

- [x240 details on PartnerWorld](#)
- [x240 details on IBM.com](#)
- [x240 competitive info on COMP](#)
- [x240 configuration details](#)
- [x240 options](#)
- [x240 blog search](#)
- [x240 Twitter search](#)

Figure N.2. IBM Flex System x440 Compute Node at a glance (and links to more detail).



Built-in storage is available with 2.5-inch hot swap hard drives or solid state drives. Available optional features include support for RAID 0, 1, 5, 6, 10, and 50 fully backed by cache and a high-density application acceleration solution with IBM Flex System Flash. These features allow you to tailor internal storage to match your specific capacity, performance, and reliability needs and support applications such as distributed database without sacrificing system density.

Here are some quick x240 facts:

- Optimized for virtualization, performance, and highly scalable networking
- Embedded IBM Virtual Fabric allows breakthrough I/O flexibility
- Designed for simplified deployment and management.

Flex System x440

The IBM Flex System x440 Compute Node ([Figure N.3](#)) is optimized for high-end virtualization, mainstream database deployments, and memory-intensive high performance environments. The Flex System x440 compute node is a price-performance optimized 4-socket compute node with flexible I/O options to help you match system capabilities to workloads without compromise. With a dense design, the Flex System x440 compute node can help reduce floor space used and lower data center power and cooling costs. The Flex System x440 is available on either your PureFlex System or IBM Flex System solution.



Specifications

Processor	4/4, Intel Xeon E5-4600 Series Processor
Level 2 (L2) cache	256 KB per core
Level 3 (L3) cache	4C—10 MB, 6C—15 MB, 8C—20 MB
Chipset	Intel C600
Form factor	Flex System standard node
Memory	48 DDR3/DDR3L LP, 1.5 TB (32 GB LRDIMMs)
Internal storage	2 x HS 2.5" (SAS/SATA/SSD)
Internal RAID	LSI 2004, RAID 0/1 Optional ServeRAID M5115/RAID 0, 1, 5, 6, 10, 50
Internal USB	2 x Standard USB Flash Key; 1 x Front Access USB Key
Ethernet	Two IBM Virtual Fabric (2x10 GbE) LOMs, total of 4x10 GbE ports, LOM-less models available
Chassis support	Flex System Enterprise Chassis
I/O expansion	4 x Mezz Cards (x16 + x8 PCI Express 3.0)
Power management	AEM, Active Energy Management
Management	iMM V2, RTMM KVM Dongle
RAS features	Chassis redundant/hot plug power & cooling; Front panel & FRU/CRU LEDs
Operating systems	MS Windows Server, SUSE, RedHat Enterprise Linux, VMware
Warranty	3 year

- [x440 details on PartnerWorld](#)
- [x440 details on IBM.com](#)
- [x440 competitive info on COMP](#)
- [x440 configuration details](#)
- [x440 options](#)
- [x440 blog search](#)
- [x440 Twitter search](#)

Figure N.3. IBM Flex System x440 Compute Node at a glance (and links to more detail).



The Flex System x440 compute node is performance-tuned and features no compromise compute, memory, and I/O capacity to meet your needs. It is designed to deliver an outstanding combination of performance, built-in capabilities, and cost-effectiveness, featuring automated power management with onboard sensors to give you more control over power and thermal levels across the system. Combined with memory capacity up to 1.5 TB, the Flex System x440 compute node is designed to help you get the most out of your systems.

With integrated virtual fabric you can take advantage of up to 64 virtual network adapters while making use of multiple protocols, including Ethernet, Fibre Channel over Ethernet, and iSCSI. The system also allows you to enable features on demand for a more flexible I/O solution. Virtual fabric can require up to 75 percent fewer network adapters, cables, and upstream switch ports to help control costs. You also get significantly simpler management with reduced cabling and fewer components to manage.

Built-in storage is available through two 2.5-inch hot swap hard drives or solid state drives. Available optional features include support for RAID 0, 1, 5, 6, 10, 50 fully backed by cache and a high-density application acceleration solution with IBM Flex System Flash. These features allow you to tailor internal storage to match your specific capacity, performance, and reliability needs and support distributed database applications without sacrificing system density.

Here are some quick x440 facts:

- Optimized for high-end virtualization and mainstream databases



- No compromise design with available 1.5 TB memory capacity and up to 64 virtual network adapters
- Designed for simplified deployment and management.

Storage

The storage capabilities of IBM Flex System allow you to gain advanced functionality with storage nodes in your system while taking advantage of your existing storage infrastructure through advanced virtualization.

IBM Flex System simplifies storage administration with a single user interface for all your storage with a management console that is integrated with the comprehensive management system. These management and storage capabilities allow you to virtualize third-party storage with non-disruptive migration of the current storage infrastructure. You can also take advantage of intelligent tiering so you can balance performance and cost for your storage needs. The solution also supports local and remote replication and snapshots for flexible business continuity and disaster recovery capabilities.

In this section, we will take a look at the storage devices used with IBM Flex System.

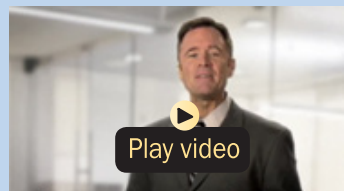
Storwize V7000 Unified Disk System

IBM Storwize V7000 and Storwize V7000 Unified ([Figure D.1](#)) are virtualized storage systems to complement virtualized server environments that provide unmatched performance, availability, advanced functions, and highly-scalable capacity never seen before in midrange disk systems. Storwize V7000

**Specifications**

Host interface	SAN-attached 8 Gbps Fiber Channel (FC), 1 Gbps iSCSI and optional 10 Gbps iSCSI/FCoE; NAS-attached 1 Gbps and 10 Gbps Ethernet
User interface	Graphical user interface (GUI)
Supported drives	<p>3.5" disk drives:</p> <ul style="list-style-type: none"> • 2 TB, 3 TB 3.5" 7.2k Near-Line SAS disk <p>2.5" disk drives:</p> <ul style="list-style-type: none"> • 146 GB, 300 GB 2.5" 15k SAS disk • 300 GB, 450 GB, 600 GB, 900 GB 2.5" 10k SAS disk • 200 GB, 300 GB, 400 GB 2.5" E-MLC enterprise-grade multilevel cell (SSD) • 1 TB 2.5" 7.2k Near-Line SAS disk
RAID levels	RAID 0, 1, 5, 6 and 10
Maximum drives supported	240 per control enclosure; 960 per clustered system (Block only)
Fans and power supplies	Fully redundant, hot-swappable
Rack support	Standard 19" rack
Management software	Storwize V7000 and Storwize V7000 Unified Software
Cache per controller/ control enclosure/ clustered system	8 GB/16 GB/64 GB
Advanced features	System Storage Easy Tier, FlashCopy, thin provisioning, IBM Active Cloud included with each system Engine (Storwize V700 Unified only)

- [Storwize V7000 portal on PartnerWorld](#)
- [Storwize V7000 Express details on IBM.com](#)
- [Storwize V7000 competitive info on COMP](#)
- [Storwize V7000 blog search](#)
- [Storwize V7000 Twitter search](#)
- [FastBack for Storwize V7000](#)

*IBM Storwize V7000 overview (6:27)***Figure D.1.** IBM Storwize V7000 Midrange Disk System at a glance (and links to more detail).



and Storwize V7000 Unified are powerful midrange disk systems designed to be easy to use and enable rapid deployment without additional resources. Storwize V7000 supports block workloads whereas Storwize V7000 Unified consolidates block and file workloads into a single storage system for simplicity of management and reduced cost. Storwize V7000 and Storwize V7000 Unified are virtual storage systems that offer greater efficiency and flexibility through built-in solid state drive (SSD) optimization and thin-provisioning technologies. For Storwize V7000, integrated IBM Real-time Compression enhances efficiency even further by enabling storing up to five times as much active primary data in the same physical disk space. Storwize V7000 and Storwize V7000 Unified advanced functions also enable non-disruptive migration of data from existing storage, simplifying implementation and minimizing disruption to users. Finally, these systems also enable you to virtualize and reuse existing disk systems, supporting a greater potential return on investment (ROI).

Here are some quick Storwize V7000 facts:

- Delivers sophisticated enterprise-class storage functionality for businesses
- Supports your growing business requirements while controlling costs
- Provides up to 200 percent performance improvement with automatic migration to high-performing SSDs
- Enables storing up to five times more active data in the same physical disk space using IBM Real-time Compression with Storwize V7000 (Block)



- Consolidates block and file storage for simplicity and greater efficiency with Storwize V7000 Unified
- Enables near-continuous availability of applications through dynamic migration.

System Networking

With a range of available adapters and switches to support key network protocols, you can configure IBM Flex System to fit in your infrastructure while still being ready for the future. The networking resources in IBM Flex System are standards-based, flexible, and fully integrated into the system, so you get no-compromise networking for your solution. Network resources are virtualized and managed by workload. These capabilities are automated and optimized to make your network more reliable and simpler to manage.

Key capabilities include:

- Support for the networking infrastructure that you have today, including Ethernet, Fibre Channel, and InfiniBand
- Plugs into your existing Cisco or Juniper network backbone
- Enables node-to-node communications without running through the top of rack (TOR) switch, reducing system latency
- Industry-leading performance with 1 Gb, 10 Gb, and 40 Gb Ethernet; 8 Gb and 16 Gb Fibre Channel and FDR InfiniBand
- Pay-as-you-grow scalability so you can add ports and bandwidth when needed.



Let's take a look at the system networking components used with IBM Flex System.

Ethernet

These high performance Ethernet offerings coupled with on demand scalability offer an easy way to scale as IT requirements grow. IBM Flex System Fabric is:

MORE ON THE WEB

- [Ethernet switches and adapters](#)

- **Integrated**—Helps manage discrete aspects of the data center as an integrated system through the built in management appliance.
- **Optimized**—High performance scalable offerings with available 1 Gb, 10 Gb and 40 Gb uplinks allow easy integration with existing network. Simple and cost effective scalability for future growth.
- **Automated**—Automate provisioning and setup of both physical and virtual network.

IBM Flex System Fabric EN4093 10 Gb Scalable Switch

The IBM Flex System Fabric 10 Gb Scalable Switch ([Figure E.1](#)) provides unmatched scalability and performance, while also delivering innovations to help address a number of networking concerns today and providing capabilities that will help you prepare for the future.

With the growth of virtualization and the evolution of cloud, many of today's applications require low latency and high bandwidth performance. The EN4093 is the first blade



- [10 Gb Scalable Switch details on PartnerWorld](#)
- [10 Gb Scalable Switch details on IBM.com](#)
- [10 Gb Scalable Switch competitive info on COMP](#)

Figure E.1. IBM Flex System Fabric EN4093 10 Gb Scalable Switch (and links to more detail).

switch to support sub microsecond latency and up to 1.28 Tbps, while also delivering full line rate performance, making it ideal for managing dynamic workloads across your network. In addition, the switch provides a rich Layer 2 and Layer 3 feature set that is ideal for many of today's data centers, plus offers industry-leading uplink bandwidth by being the first blade switch to support 40 Gb uplinks.

Here are some quick 10 Gb Scalable Switch facts:

- "Pay as you grow" scalability with the ability to turn on additional 10 Gb or 40 Gb ports



- Integrated management and automated VM mobility for VM aware networking with VMready
- Performance and low latency with 1.28 Tbps and less than 1 microsecond latency
- Investment protection when migrating from 1 Gb to 10 Gb and to a converged network.

IBM Flex System EN2092 1 Gb Ethernet Scalable Switch

The IBM Flex System EN2092 1 Gb Ethernet Scalable switch ([Figure E.2](#)) provides outstanding flexibility, allowing you to buy one switch today and enhance its functionality in the future. The scalable architecture allows you to support 2-port or 4-port 1 Gb adapters with this switch. The EN2092 supports up to 28 server ports and up to 20 1 Gb uplinks and four 10 Gb uplinks. Designed with top performance in mind, the EN2092 provides high availability with legendary IBM quality and switch failover capability.

This switch is an exceptionally flexible integrated switch with extreme scalability and performance, while also delivering best-in-class networking innovations to help you address today's networking requirements. It also provides advanced capabilities to address future needs.

Here are some quick 1 Gb Scalable Switch facts:

- “Pay as you grow” scalability with the ability to turn on additional 1 Gb ports or 10 Gb capacity
- Simpler management with IBM's innovative VMready virtualization-aware networking for automated Virtual Machine mobility



- [1 Gb Scalable Switch details on PartnerWorld](#)
- [1 Gb Scalable Switch details on IBM.com](#)
- [1 Gb Scalable Switch competitive info on COMP](#)

Figure E.2. IBM Flex System EN2092 1 Gb Ethernet Scalable Switch (and links to more detail).

- Investment protection for your 1 Gb or 10 Gb network infrastructure
- Integrated network management allowing network administrators to manage servers, storage, and networks together as one logical unit.

IBM Flex System EN4091 10 Gb Ethernet Pass-Thru Module

The Flex System EN4091 10 Gb Ethernet Pass-Thru Module ([Figure E.3](#)) offers easy connectivity of the Flex System Chassis to any external network infrastructure. This unmanaged device enables direct connectivity of the compute node in the chassis to an external top-of-rack data center switch. This module can function at both 1 Gb and 10 Gb. It has 14 internal 10 Gb links, and 14 external 10 Gb SFP+ uplinks.



- [10 Gb Ethernet Pass-Thru Module details on PartnerWorld](#)
- [10 Gb Ethernet Pass-Thru Module details on IBM.com](#)
- [10 Gb Ethernet Pass-thru Module competitive info on COMP](#)

Figure E.3. IBM Flex System EN4091 10 Gb Ethernet Pass-Thru Module (and links to more detail).

Here are some quick 10 Gb Ethernet Pass-Thru Module facts:

- Offers easy connectivity of the Flex System Chassis to any external network infrastructure
- Enables direct connectivity of the compute node in the chassis to an external top-of-rack data center switch
- Can function at both 1 Gb and 10 Gb
- Provides 14 internal 10 Gb links, and 14 external 10 Gb SFP+ uplinks.

Fibre Channel

Fibre Channel is the dominant choice for storage connectivity today. The IBM Flex System portfolio offers both 8 Gb and 16 Gb SAN connectivity offerings for seamless integration with



your SAN environment. Supporting a range of technologies and performance levels, these offerings are:

MORE ON THE WEB

- [Fibre channel switches and adapters](#)

- **Integrated**—Helps manage the LAN and SAN network via a single integrated tool. Advanced licensing features enable advanced SAN functions and monitoring.
- **Optimized**—High performance scalable offerings offer 8 Gb and 16 Gb Fibre Channel connectivity to support easy integration with your existing SAN and simple and cost effective scalability for future growth.
- **Automated**—Advanced virtualization features enable both physical and virtual SAN setup and management.

IBM Flex System FC5022 8/16 Gb SAN Scalable Switch

The IBM Flex System FC5022 SAN Scalable Switch ([Figure E.4](#)) meets the demands of hyper-scale, private cloud networked storage environments by delivering market-leading 16/8 Gbps Fibre Channel technology as well as expert optimized, automated, and integrated capabilities. The switch is designed to support highly virtualized computing and storage area network (SAN) environments with high performance, reliability, and usability. The IBM Flex System FC5022 SAN Scalable Switch is available as a 12-port base model, 24-port model, and a 24-port Enterprise model. The enterprise model includes a powerful enterprise software bundle of advanced SAN fabric services. The IBM Flex System FC5022 SAN Scalable Switch offers an innovative DPOD (Dynamic Ports On De-



- [8/16 Gb SAN Scalable Switch details on PartnerWorld](#)
- [8/16 Gb SAN Scalable Switch details on IBM.com](#)
- [8/16 Gb SAN Scalable Switch competitive info on COMP](#)

Figure E.4. IBM Flex System FC5022 8/16 Gb SAN Scalable Switch (and links to more detail).

mand) capability that allows the user to efficiently utilize the port licenses on either the internal or the external ports.

The IBM Flex System FC5022 SAN Scalable Switch delivers exceptional price/performance for growing SAN workloads through a combination of market-leading 1600 MB/sec throughput per port and an affordable high-density form factor. The available 48 FC ports can produce an aggregate 768 Gbps full-duplex throughput, plus any external eight ports can be trunked for 128 Gbps Inter-Switch Links (ISLs). As 16 Gbps port technology dramatically reduces the number of ports and associated optics/cabling required through 8/4 Gbps consolidation, the cost savings as well as simplification benefits are substantial.

Here are some quick 1 Gb Scalable Switch facts:

- Provides exceptional value, flexibility, simplicity, and enterprise-class functionality



- Enables fast, easy, and cost-effective scaling from 12 to 48 ports
- Simplifies compute node connectivity and SAN scalability
- Simplifies and centralizes SAN and compute node adapter management, reducing operational costs and complexity.

IBM Flex System FC3171 8 Gb SAN Switch/Pass-Thru Module

The IBM Flex System FC3171 8 Gb SAN Switch ([Figure E.5](#)) and FC3171 8 Gb SAN Pass Thru provides an integrated, simple connection to existing SAN fabrics and storage. Based on QLogic's proven fibre channel expertise, these switch modules set up quickly and are easy to manage. These high performance integrated switch solutions minimize time and risk, supporting faster access to your data and quicker and better business decisions. The IBM Flex System FC3171 8 Gb SAN Switch is an ideal solution when connecting directly to fibre



- [8 Gb SAN Switch/Pass-Thru Module details on PartnerWorld](#)
- [8 Gb SAN Switch/Pass-Thru Module details on IBM.com](#)
- [8 Gb SAN Switch/Pass-Thru Module competitive info on COMP](#)

Figure E.5. IBM Flex System FC3171 8 Gb SAN Switch/Pass-Thru Module (and links to more detail).



channel based storage. It is easy to deploy and manage using the IBM management appliance or Qlogic tools. The SAN Switch provides the full management, enhanced security, and zoning capabilities found with a SAN fabric. Full featured and cost effective, it provides high performance connectivity to your existing SAN environment.

Here are some quick 8 Gb SAN Switch facts:

- Seamless low cost connectivity to storage at 8 Gb or 4 Gb speed
- Two offerings to match client requirement—switch mode and pass thru mode.
- Enhanced N_Port ID Virtualization (NPIV) capability across 14 ITEs
- Auto-StreamGuard to guarantee streaming data operations
- Port aggregation—combine ports to increase bandwidth
- Automatic failover preconfigured for peace of mind.

InfiniBand

The network architecture on the IBM Flex System platform has been specifically designed to address data center challenges, giving you a very scalable way to integrate, optimize, and automate your data center. Trading volumes keep rising, bringing existing systems to their limits. IBM Flex System enables next generation InfiniBand offerings for the

MORE ON THE WEB

- [InfiniBand switches and adapters](#)



high performance and low latency required for HPC and financial services applications.

IBM Flex System IB6131 InfiniBand Switch

The IBM Flex System IB6131 InfiniBand Switch ([Figure E.6](#)) is designed to offer the performance you need to support clustered databases, parallel processing, transactional services, and high-performance embedded I/O applications, reducing task completion time and lowering cost per operation. Virtual Protocol Interconnect also simplifies system development by serving multiple fabrics with one hardware design. This switch is designed for low latency, high bandwidth, and computing efficiency for performance-driven server and storage clustering applications. Combined with the InfiniBand FDR adapter, your organization can achieve efficient computing by offloading from the CPU protocol processing and data movement overhead such as RDMA and Send/Receive semantics, allowing more processor power for the application. CORE-Direct brings the next level of performance improvement by offload-



- [InfiniBand Switch details on PartnerWorld](#)
- [InfiniBand Switch details on IBM.com](#)
- [InfiniBand Switch competitive info on COMP](#)

Figure E.6. IBM Flex System IB6131 InfiniBand Switch (and links to more detail).



ing application overhead, such as data broadcasting and gathering, as well as global synchronization communication routines.

Here are some quick InfiniBand Switch facts:

- High performance FDR (fourteen data rate) speed that can auto negotiate to QDR (quad data rate) speed also.
- Offers up to 18 uplinks ports for 14 servers, allowing high speed throughput with zero oversubscription.
- Suited for clients running InfiniBand infrastructure in high performance computing and financial services.
- Less than 0.7 usec latency node to node—nearly half of QDR InfiniBand latency.

Flex System Manager

According to surveys, more than 70 percent of IT budgets are spent on operations and maintenance. System administrators face extraordinary demands as they try to plan and document IT infrastructures, identifying capacity needs, getting the most out of current assets, and looking for ways to save money. But they also need to deploy assets to meet current needs and optimize them for maximum performance. More and more customers are virtualizing and administrators face the daunting task of monitoring a complex infrastructure and fixing problems as they arise. This task may be complicated by multiple tools that aren't integrated and offer limited automation.

IBM Flex System Manager ([Figure E.7](#)) is designed to help you get the most out of your IBM PureFlex System while au-



tomating repetitive tasks. Flex System Manager can significantly reduce the number of manual navigational steps for typical management tasks. From simplified system set-up procedures with wizards and built-in expertise to consolidated monitoring for all of your physical and virtual resources—compute, storage, and networking—Flex System Manager provides core management functionality along with automation so you can focus your efforts on business innovation.

Flex System Manager helps you gain more from infrastructure-wide virtualization. With cloud-ready management, Flex System Manager allows you to reduce the total cost of ownership of your virtualized environment—compute, storage, and networks—by decreasing management costs, increasing asset utilization, and linking infrastructure performance to goals. Flex System Manager simplifies the management of virtual environments across multiple virtualization technologies and hardware platforms, freeing you from “silos of virtualization” and delivering enterprise-wide visibility and control.



- [Flex System Manager details on PartnerWorld](#)
- [Flex System Manager details on IBM.com](#)
- [Flex System Manager competitive info on COMP](#)

Figure E.7. IBM Flex System Manager (and links to more detail).



Here are some quick Flex System Manager facts:

- **Integration by design:** Management integration of physical and virtual compute, storage, and networking resources from a single vantage point.
- **Built-in expertise:** Automation and optimization expertise for dynamic allocation of resources through policy-driven virtualized system pools.
- **Simplified experience:** Automation of repetitive management tasks to allow IT experts time to focus on higher value projects.

4

IBM Systems Lab Services and STG Technical Training

In this chapter we take a look at the Systems Lab Services and STG Technical Training for IBM PureSystems.

Lab Services

At the announcement of PureFlex Foundation System, IBM Systems Lab Services will offer Deployment services which will be required as part of the Express, Standard, or Enterprise Configuration for the first several months after general availability. These Deployment Services are for the first chassis only. The intent of the services is to ensure the end client is able to take advantage of all the robust capabilities and provide some skills transfer on configuration and key tools such as the FSM and other vital systems. The deliverables are shown in [Figure S.1](#).

Questions on ordering and fulfillment should be directed to hoffman@us.ibm.com.

MORE ON THE WEB

- [IBM Systems Lab Services info on IBM.com](#)





Services Description	Services Bundled with Foundation			BTO and/or Foundation
	Express	Standard	Enterprise	Optional Fee Service
Primary Compute Node Configuration	★	★	★	\$
FSM Configuration & Skills Transfer	★	★	★	\$
V7000 Configuration & Skills Transfer	★	★	★	\$
Secondary Compute Node Configuration (Hybrid)	★	★	★	\$
Basic Chassis Network Configuration	★	★	★	\$
PureFlex Advanced Skills Transfer		★	★	\$
Setup Virtual Appliance		★	★	\$
Server Pool Creation & Validation			★	\$
Virtual Server Mobility			★	\$
Second Compute Node Configuration			★	\$
Additional Compute Node Integration (Above Base Configuration)				\$
Network Integration into Client Environment				\$
Additional OS Deployment (Beyond Primary Nodes)				\$
Smart Cloud Entry Deployment				\$
Storage/SAN Integration				\$
Virtualization Enablement				\$
				\$

Note: Certain tasks fall in and out based on code updates, so this is not a complete list, but provides a good overview. Optional services are facilitated through GTS offerings.

Figure S.1 IBM Systems Lab Services deliverables.

STG Technical Training

Here are some examples of the technical training available:

PureFlex Systems Introduction

- NGT10 3 days Classroom Offering
- NGV10 3 days Live Virtual Class
- NGP10 Self Paced Virtual Class



IBM PureFlex System Fundamentals

NGT11 3 days Classroom Offering

NGV10 3 days Live Virtual Class

Flex System x240 Compute Node

NGT20 3 days Classroom Offering

NGV20 3 days Live Virtual Class

Flex System p260 & p460 Compute Node

NGT30 3 days Classroom Offering

NGV30 3 days Live Virtual Class

Flex System Overview with System Management Focus

NGT40 3 days Classroom Offering

NGV40 3 days Live Virtual Offering

Flex System Scalable Networks

NGT50 3 days Classroom Offering

NGV50 3 days Live Virtual Offering

IBM Power Systems Technical University featuring IBM Pure Systems

October 29–November 2, 2012, Las Vegas, Nevada

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- [PureFlex courses—descriptions, schedules, and pricing](#)

About the Editor

Jim Hoskins is the founder of Maximum Press, a premier publisher of books, ebooks, and rich media that help businesses apply technology profitably. Jim has been involved with computer technology design, implementation, and education for over 25 years. He is the author of many articles and books covering a wide range of technology and Internet business topics. Jim spent a decade with IBM designing computer systems and directly helping businesses of all sizes design and implement real-world solutions. He is the author/editor of the popular *Exploring IBM* series, which has sold over 350,000 copies in 12 languages. Jim has a degree in electrical engineering from the University of Florida and resides in Gulf Breeze, Florida, with his wife and five children. You can reach Jim via email at jimh@maxpress.com.