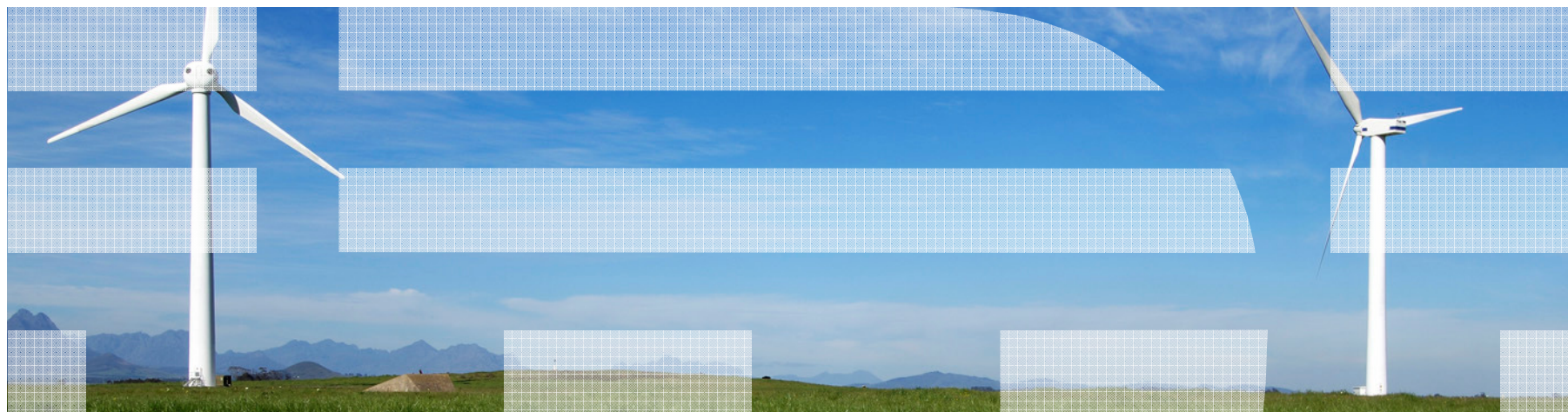

IBM BladeCenter Foundation for Cloud

Piotr Nowik

High End / Blade SMA System x

Central Eastern Europe, Growth Market Team



What is this?



- *It's a hard disk drive back in 1956... With 5 MB of storage*

It's 2011 now. In 2005, few knew...

- Communicating in 140 characters or less would be all the rage
- Social media would spur millions of high school grads to reconnect
- Teenagers would stop talking on the phone (texting trumps voice)
- Apple would dominate the consumer media / phone business
- Email, internet, maps, would move from computers to phones
- ‘Android’ would become the fastest growing cellphone platform
- Everyone would be talking about this thing called a “Cloud”
- The world economy would collapse



...and no one in STG forecasted...

- Sun would nearly vanish from the face of the earth (by Oracle)
- Itanium would fail
- Google would build servers and data centers and move them to where electricity was cheapest rather than where business was.
- A bookseller would rent online storage worldwide (Amazon S3 Simple Storage Service)
- Microsoft Office would get attacked by a search engine giving away productivity software to the world (Google Docs)
- Cisco would be in the server and storage business
- HP Would look to Exit the PC Market



... and now

The image displays a variety of IBM System x server models and related technologies. On the left, several tower servers are shown, including the x3200M3, x3500M3, x3100M3, and x3400M3. In the center, there are numerous rack servers such as the x3650T, x3620M3, x3630M3, x3650M3, x3550M3, x3250M3, x3350, dx360M2, dx360M3, x3850M2, x3950M2, x3755M3, x3755, x3755, x3850 X5, and x3690 X5. On the right side, there are blade servers including the HX5, HS22, HS22V, HS12, BC-S, BC-H, BC-E, and BC-HT. Networking equipment like the MAX5 is also shown. To the right of the servers, there are icons for software and services: Director, NW Manager, AEM, CloudBurst, TPM, VMM, Storage, Networking, and BOFM. The VMware logo is also present. The entire collection is framed by a blue border.

IBM BladeCenter Foundation for Cloud

I liked when things were easy! They can be again!



Industry best practice platform for VMware



Integrate

- Networking standards from multiple partners
- End-to-end management
- VMware integrated



Simplify

- Purchase & configuration
- Deployment
- Management & Complexity
- Workload Scaling



Reduce

- Cost (purchase & TCO)
- Space, power, cooling
- Cables
- Risk



Manage

- ✓ vCenter Integration
- ✓ Flexible Plug-ins
- ✓ Data Centre-wide management with IBM Systems Director (Optional)



vCenter, with Management Plug-Ins

(Optional)

Storage

- ✓ Choice
- ✓ Flexible Capacity
- ✓ Integrated



or BYO

Network

- ✓ Choice
- ✓ Flexible Networking
- ✓ Increased Bandwidth
- ✓ Energy Efficient
- ✓ Integrated



Servers

- ✓ Choice
- ✓ Flexible Workloads
- ✓ Embedded Hypervisor
- ✓ Optimised for VMware
- ✓ Energy Efficient
- ✓ Integrated



IBM HS22
48GB RAM
~15 VM's



IBM HS22V
96GB RAM
~30 VM's



IBM HX5
128GB RAM
~40 VM's



IBM Systems Director Appliance - EASY

- Monitors and manages physical and virtual resources in seamless manner including full lifecycle management
- Dynamically manages virtual workloads to optimize resource and maintain service levels
- Provides visibility into key energy metrics (power, cooling, temperature, airflow) within the solution
- Preloaded server includes
 - Microsoft Windows 2008 R2
 - IBM Director 6.2
 - Active Energy Manager 4.3
 - DS Storage Manager v10.70
 - vSphere 5.0 Client

Management

Storage

Networking

Servers



IBM x3550 M3

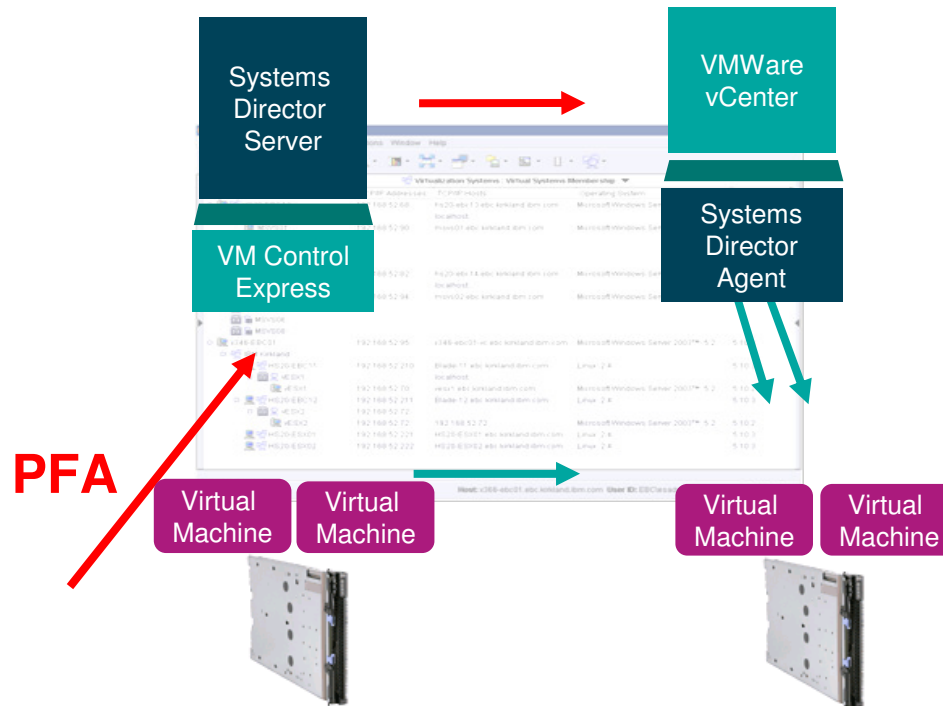
- Intel Xeon E5620, 2.40GHz, 8 cores
- 24GB memory (6 x 4GB DIMMs)
- 4 x 300GB SAS drives (2.5")
- DVD Multi-burner
- 2 x 1Gb Ethernet ports
- Preloaded management software



IBM Systems Director VMControl

VMControl delivers:

- ✓ A single tool to manage both physical and virtual servers
- ✓ System Director automation to link physical alerts to VMwareVMotion™
- ✓ VMControl Express, a free Systems Director plug-in available for download



IBM Storwize V7000

- Integrated Thin Provisioning and Storage Virtualization
- Helps you reduce the growth of storage costs, increase storage administrator productivity, improve service levels, and reduce the risk of losing data.
- Easy to use and is designed to offer all the advanced capabilities that you need including dynamic volume expansion
- 100% virtualized storage enables flexible provisioning from a central storage pool
- High-performance thin provisioning frees up pre-allocated space
- Multiple internal mirroring options – RAID levels – increases flexibility

IBM Storwize V7000



Management

Storage

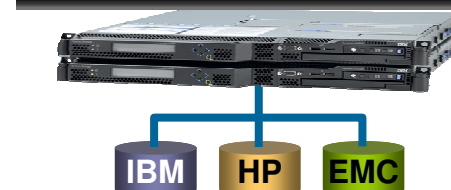
Networking

Servers

SAN Volume Controller (SVC)

- Simplify management of your storage infrastructure with a single easy-to-use point of control to improve administration productivity as storage needs grow

IBM SAN Volume Controller





Based on IBM Converged Networking *Fibre Channel over Ethernet (FCoE) for Simplicity*

- Requires fewer devices, cables, & parts than separate LAN/SAN
 - Lower cost, simpler management than traditional setup
- Easily connects to existing LAN/SAN infrastructure
- IBM Virtual Fabric adapter supports up to 8 vNICs (4/port)
 - Important for running larger number of VMs
- VMready ties the VM port attributes to individual VM images
 - Moves them automatically with VM migrations

Management

Storage

Networking

Servers



Emulex Virtual Fabric Advanced adapter

BNT Virtual Fabric 10Gb Switch
- Supports 10 10Gb uplinks

QLogic Virtual Fabric Extension Module
- Supports 6 8Gb FC uplinks





Benefits of IBM VMready

- **Enterprise Data Center Network Virtualization**
 - **VM Detection** - automatically discovers and identifies the Virtual Machines
 - **VM groups** - Grouping of similar Virtual Machines to simplify management tasks
 - **NMotion™** - Automatically track migrating Virtual Machines to maintain network configuration
- **Vendor Neutral**
 - VMready works with all major virtualization offerings
- **Integration with VMware vCenter**
 - Single pane of management for both VMready switches and ESX vSwitches
 - Rich display of VM information such as IP addresses, VM name and ESX server location
- **Low cost – Software license included with switch in this offering**
- **Software runs on switch, not the servers**
- **Accounting and Auditing**
 - VM Migration is detected by VMready and reported
 - Traffic per VM can be audited

Management

Storage

Networking

Servers



Based on industry leading IBM BladeCenter

Highly resilient, energy and cost efficient

- Superior bandwidth
- Leading energy efficiency
- No single point of failure

Management

Storage

Networking

Servers



IBM BladeCenter H

- Redundant 2980W power supplies
- Redundant AMMs
- 2 IBM BNT Virtual Fabric 10Gb Switches
- 2 QLogic Virtual Fabric Extension Modules



IBM BladeCenter HS22V

- Intel Xeon E5659 (2.53GHz), 2P, 12 cores
- 96 GB memory (12 x 8 GB DIMMs)
- Emulex Virtual Fabric Advanced adapter
- ESXi key



BladeCenter Foundation for Cloud - Offering

▪ Prebuilt Chassis models with networking

- BladeCenter H BNT / Qlogic FCoE switch module (Preferred)
- BladeCenter H Brocade FCoE switch module
- BladeCenter H Cisco Nexus FCoE switch module

Management

▪ Prebuilt Blade servers with network and VMware

- HS22 2*6C E5645 2.40GHz, 48GB, CNA+FCoE, ESXi
- HS22V 2*6C E5659 2.53GHz, 96GB, CNA+FCoE, ESXi (Preferred)
- HX5 2*8C E7-2830 2.13GHz, 128GB, CNA+FCoE, ESXi
- HX5+MAX5 2*10C E7-8867L 2.13GHz, 320GB, CNA+FCoE, ESXi

Storage

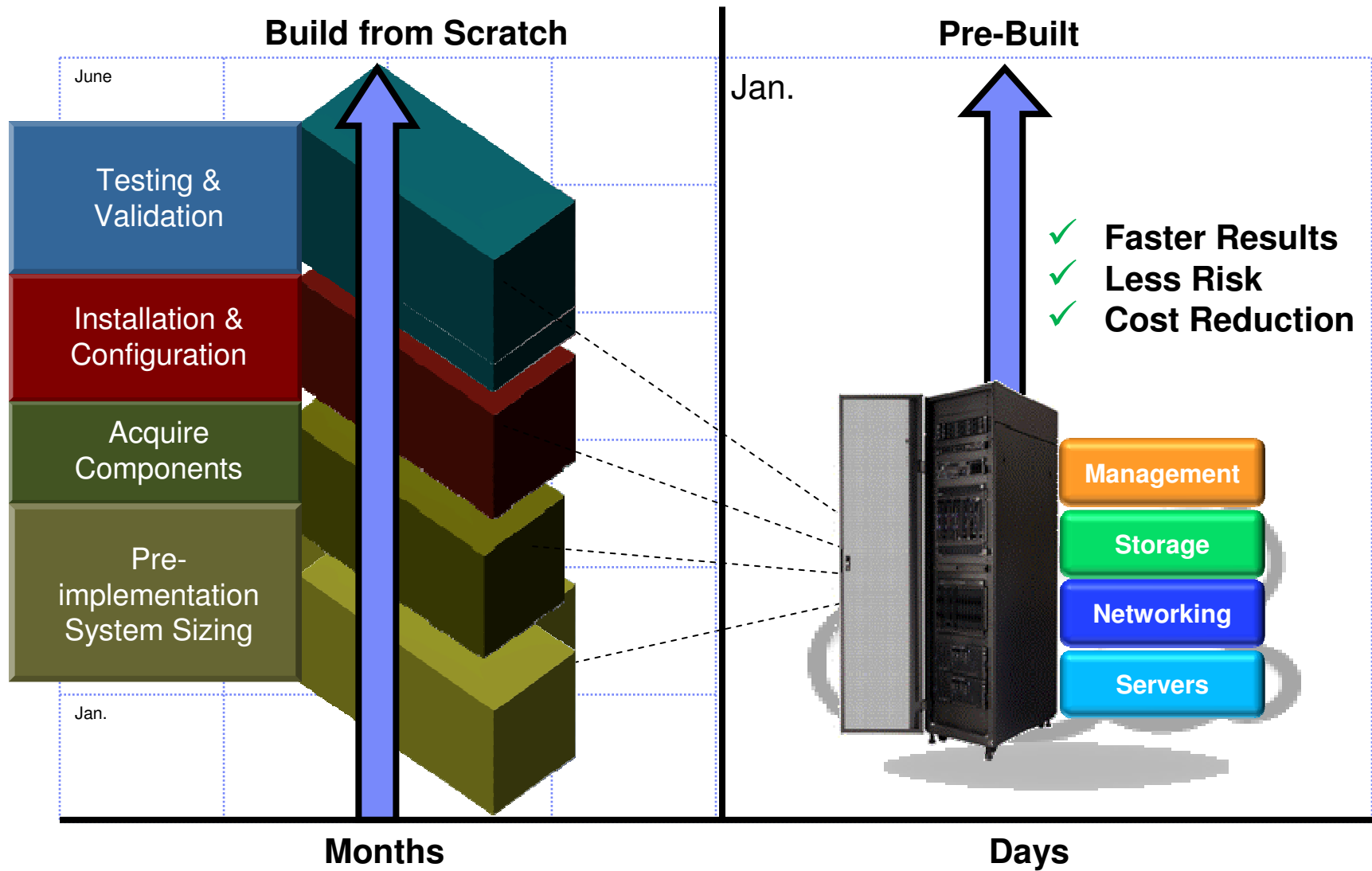
Networking

Servers

▪ Value

- Factory integrated and tested
- Fastest path to deliver virtualized computing platform
- Reduces risk and complexity



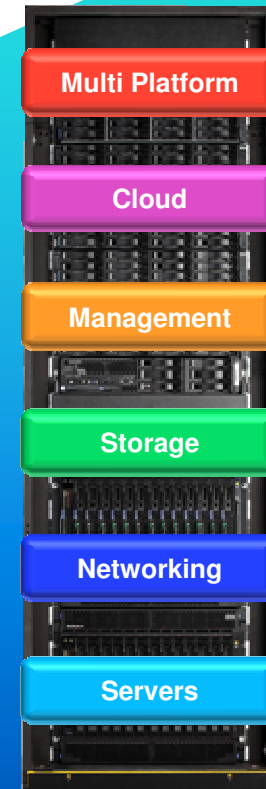
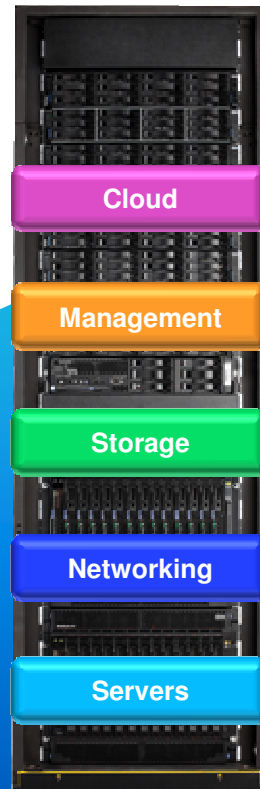




BladeCenter Foundation for Cloud

IBM ISDM *or* VMware vCloud Director

IBM CloudBurst



- ✓ Integrated
- ✓ Virtualised
- ✓ Managed

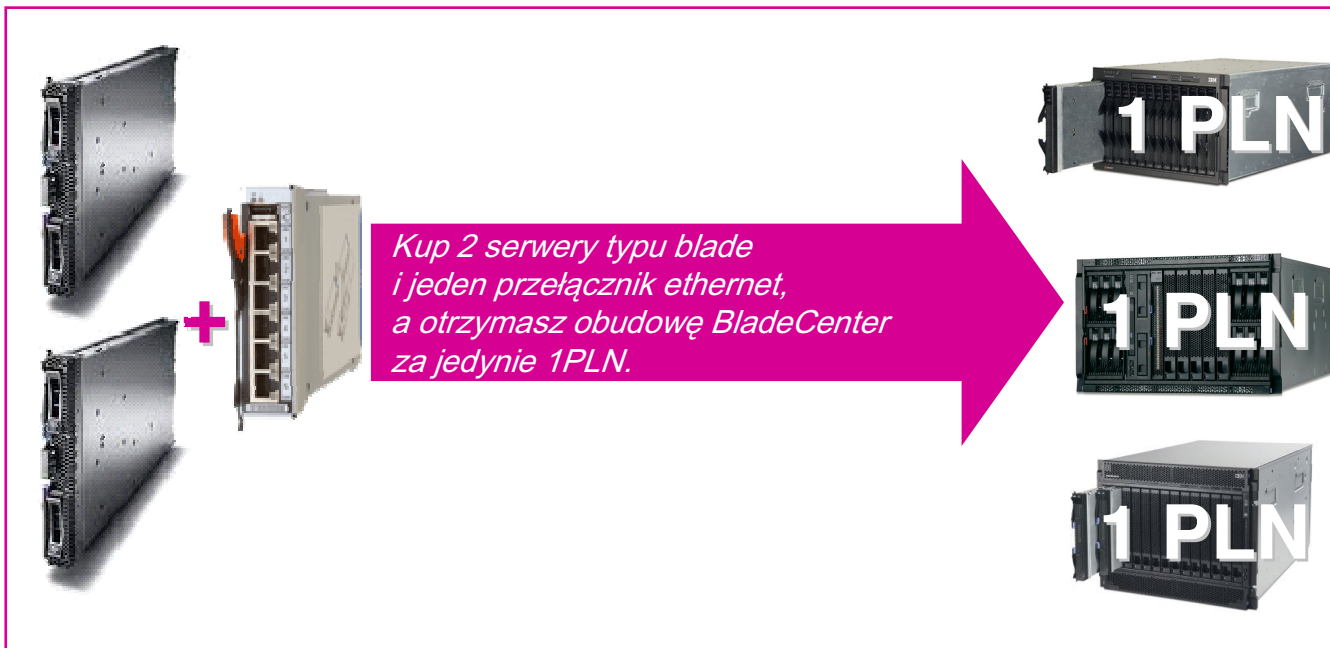
- + Self Service
- + Automated

- + Multiplatform
- + Metering
- + Billing



First in Enterprise (FIE) - IBM BladeCenter

Pierwsze kroki z IBM BladeCenter nigdy nie było w bardziej przystępnej cenie!



Kup 2 serwery typu blade i jeden przełącznik ethernet, a otrzymasz obudowę BladeCenter za jedynie 1 PLN.

*Obudowa BladeCenter S, E lub H za 1 PLN
&
Przy zakupie od 2 do 5 serwerów typu Blade – 25% zniżki na pozostałe serwery Blade, przełączniki i dodatkowe opcje lub
Przy zakupie od 6 do 14 serwerów typu Blade – 30% zniżki na pozostałe serwery Blade, przełączniki i dodatkowe opcje*

IBM BladeCenter® z procesorami Intel® Xeon® oferują szeroki zakres technologii sieciowych-włączając w to jedno z najbardziej zaawansowanych rozwiązań wirtualizacyjnych w branży IT, dzięki czemu możesz wybrać tę, która jest najlepiej dopasowana do Twoich potrzeb. IBM BladeCenter potrafi również zaoszczędzić do 40% kosztów infrastruktury sieciowej, w porównaniu do konkurencyjnych ofert.

Konfiguracja FIE BladeCenter:

Part No.	Opis	Ilość	Cena katalogowa	Cena promocyjna
	Added 10-Oct-11 10:01:07			
88524TG	IBM eServer BladeCenter(tm) H Chassis with 2x2980W PSU	1	PLN 22,827.00	PLN 1.00
32R1860	BNT Layer 2/3 Copper Gb Ethernet Switch Module for IBM BladeCenter	2	PLN 15,360.28	PLN 11,520.21
25R5785	2.8m, 200-240V, Triple 16A IEC 320-C20	2	PLN 684.14	PLN 513.11
7870C6G	HS22, Xeon 6C X5675 95W 3.06GHz/1333MHz/12MB, 3x4GB, O/Bay 2.5	3	PLN 46,335.00	PLN 34,751.25
42D0677	IBM 146 GB 2.5in SFF Slim-HS 15K 6Gbps SAS HDD	3	PLN 3,750.00	PLN 2,812.50
		Total	PLN 88,956.42	PLN 49,598.07

- Konfiguracje należy zamawiać w całości i za jednym razem.
- Promocja dotyczy tylko nowych klientów = nieposiadających IBM BladeCenter.
- Ogranicza się do jednej obudowy na jednego klienta. Ważna tylko do końca 4Q11.
- Nie dotyczy: Modele Express, BCFC modele, oprogramowania i ServicePacs.
- Nie może być łączona z innymi promocjami.

piotr.nowik@pl.ibm.com



Thank You!

