

Examining the TPC Pricing Specification 2.0.0

Moritz Kaufmann

Technische Universität München

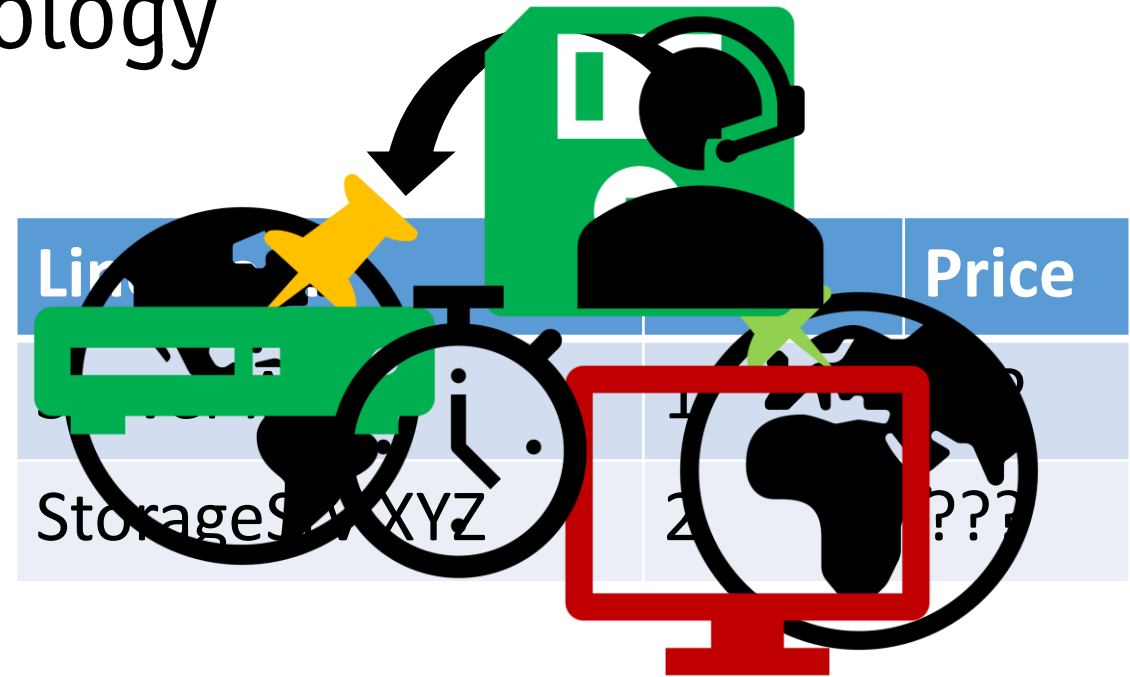


Purpose

“Benchmarks are intended to provide a fair and honest comparison of various vendor implementations to accomplish an identical, controlled and repeatable task. *The pricing for these implementations must also allow a fair and honest comparison for customers to review.*”

Structure

- Clause 0 - Preamble / Basic Requirements
- Clause 1 - Pricing methodology
- Clause 2 - Pricing models
- Clause 3 - Priced system
- Clause 4 - Maintenance



Clause 0 - Philosophy

Prices must be meaningful

- Prices must be available to anyone
 - No limited discounts
 - No benchmark pricing
 - Verifiable
- Prices have to remain valid while results are active
- Only commercial products
 - Designed for uses other than benchmarking
 - Orderable
 - Non-zero price for at least one of: purchase, license, maintenance support

Clause 1 – Pricing Methodology

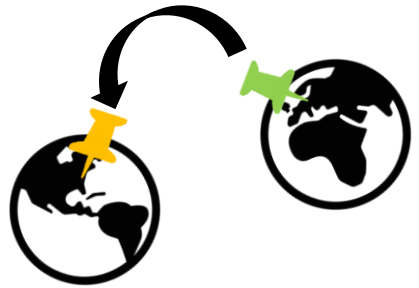
Methodology to be used to calculate the price and the price/performance result

- Each line item must be available at the specified price individually
- Sales channel must be specified
- Only approved reseller and OEMs allowed
- All line items must be available when benchmarking is published
- License / Services must be priced for the specified time duration

Line item	Qty	Price
Server ABC	1	???
StorageSrv XYZ	2	???

Clause 2 – Pricing Model

Specifies the geographic constraints between the measured configuration and the priced configuration



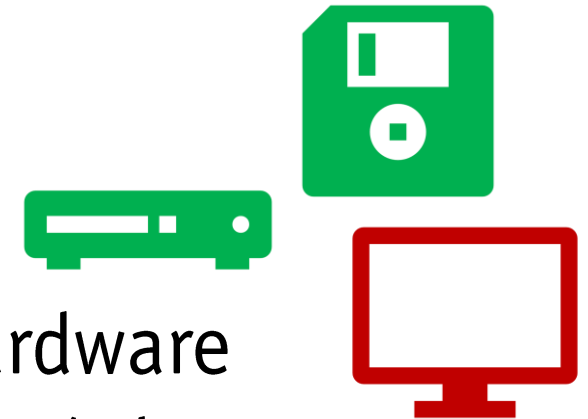
Measured System \leftrightarrow *Priced System*

- Measured system and priced system can belong to different regions
- Each itself must be wholly inside one region

Clause 3 – Priced System

Specifies which components have to be included in the priced configuration

- No usage based pricing of hardware
- All software licenses must be listed
- Software licenses must be good for the full hardware
- Supporting equipment for the test driver doesn't have to be priced
- Simple network devices don't have to be included



Clause 4 - Maintenance



7 days / week, 24 hours/day coverage

– Hardware: Time for Problem Resolution *Availability*

- Replaceable units must be available within 4 hours
- Alternative: 10% of units (minimum 2) as on-site spares with guarantee of replenishment within 7 days

– Software: Response Time for Problem *Recognition*

- A qualified person must be assigned to identify a resolution within 4 hours

– Software Updates must be covered for the specified time frame

– Cloud services need to adhere to same constraints

Example

Description	Part Number	Price Source	Unit Price	Qty	Extended Price	3-yr. Maint. Price
Database Server (Tier B) Hardware			\$		\$	\$
PRIMERGY RX4770 M3						
PY RX4770 M3	S26361-K1504-V200	1	5,970.00	1	5,970.00	
Power Supply Module 1600W w/o power cord	S26113-F5295-E160	1	483.00	2	966.00	
Cable powercord (USA), 1.8m, grey	T26139-Y1742-E10	1	13.00	2	26.00	
Intel Xeon E7-8890v4 24C/48T 2.20GHz	S26361-F3896-E490	1	11,727.00	4	46,908.00	
Memory Board RX4770 M2	S26361-F5295-E200	1	623.00	6	3,738.00	
64GB (2x32GB) 2Rx4 DDR4-2400 R ECC	S26361-F3898-E642	1	1,435.00	32	45,920.00	
Memory Independent Mode Installation	S26361-F5295-E4	1	7.00	1	7.00	
HD SAS 12G 300GB 15K HOT PL 2.5' EP	S26361-F5531-E530	1	545.00	2	1,090.00	
HD SAS 12G 600GB 15K HOT PL 2.5' EP	S26361-F5531-E560	1	942.00	6	5,652.00	
PRAID EP400i	S26361-F5243-E1	1	454.00	1	454.00	
PRAID EP420e FH	S26361-F3847-E2	1	735.00	7	5,145.00	
Rack Mount Kit F2-C LV	S26361-F2735-E285	1	119.00	1	119.00	
Mounting of RMK in symmetrical racks	S26361-F4530-E10	1	2.00	1	2.00	
region-kit America	S26361-F1452-E130	1	13.00	1	13.00	
PYRX4770 Series during normal business hours, Primergy Installation, Midrange Server, w/o OS, One Time billing	PYR477-N038005-0NA	1	350.00	1		350.00
PYRX4770 Series Warranty Uplift, 36 Months, Enhanced Plus Level, 24x7 4hr Onsite, Prepaid billing	PYR477_S26361-K1484-V200	1	1,309.00	1		1,309.00
				Subtotal (*)	116,010	1,659



So what about cloud?

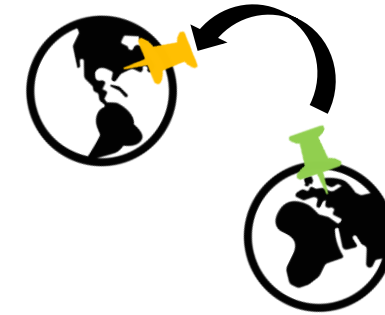
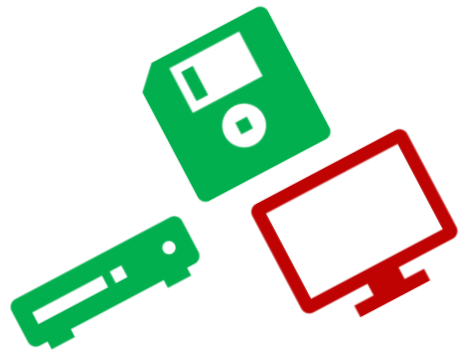
„Hardware“ → „Hardware or Licensed Comput Services“

- Maintenance same as Hardware
- Pricing same as other licenses

- No elastic pricing! Full hardware is accounted for the whole duration
- Doesn't address performance differences inside service class

Line item	Qty	Price
Server ABC	1	???
StorageSrv XYZ	2	???

Discussion



What do we ~~want~~ *need* to change?

