Power Systems Virtual Server

Sales Process, Sizing and Pricing

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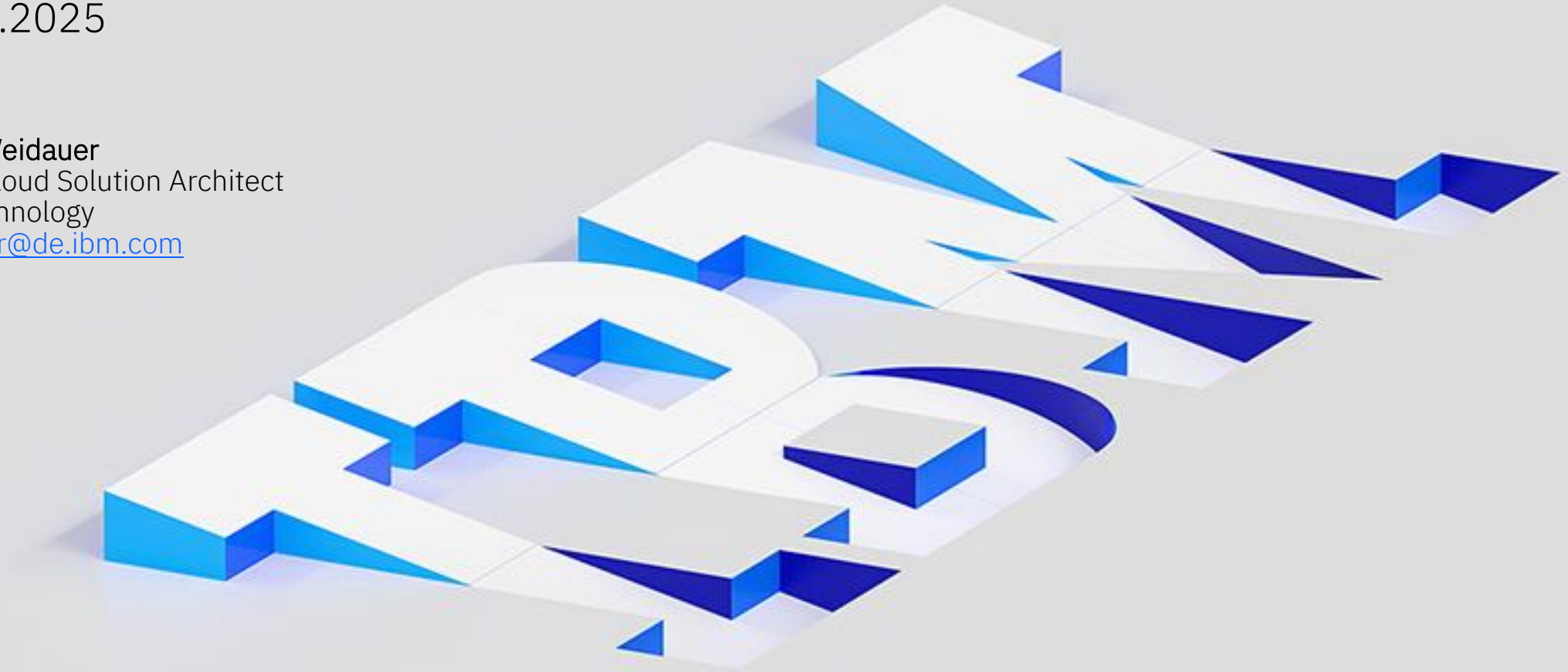
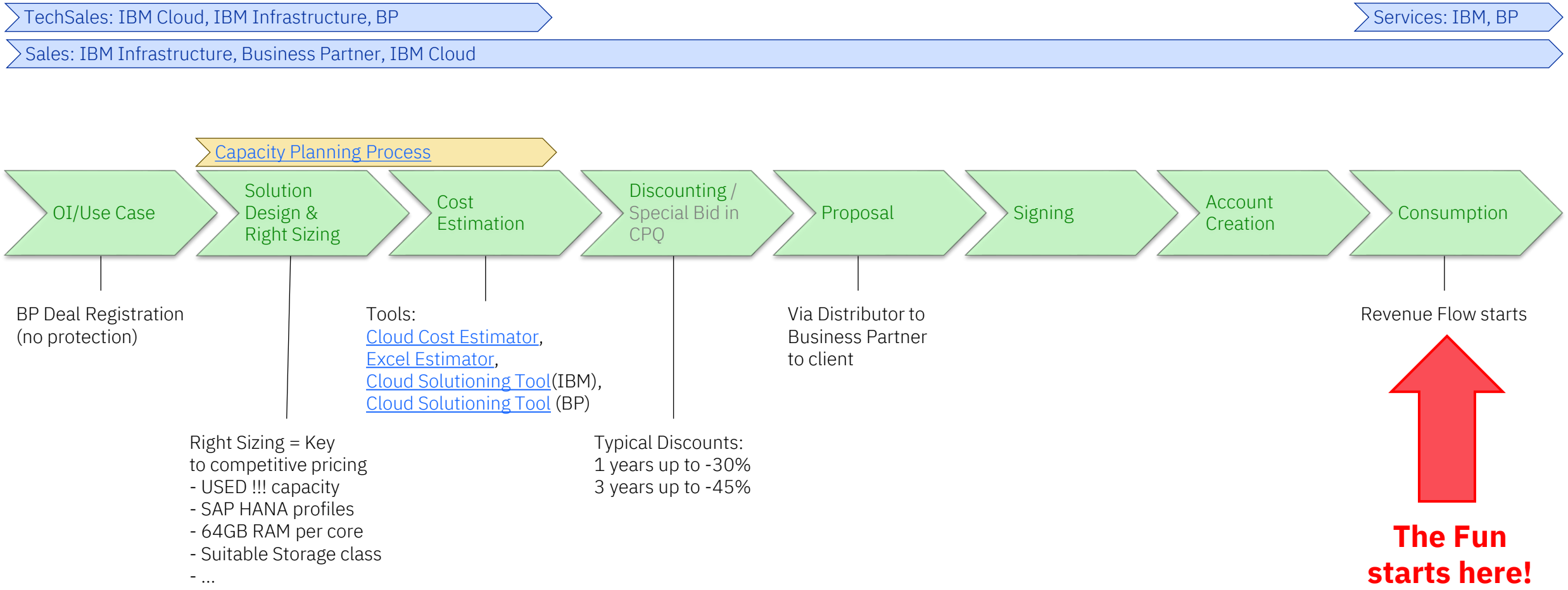
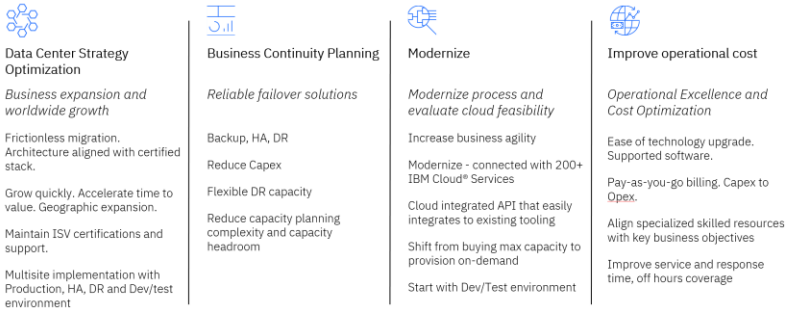


Power Systems Virtual Server Opportunity Workflow - Complicated? Simply work with your IBM Cloud colleagues!



OI/Use Case

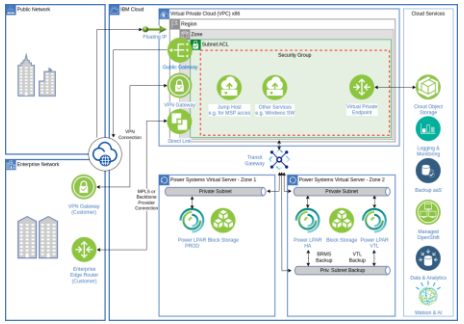
The Use Case defines the Scope



What‘s the customers need / plan?

- Development instances?
- Additional capacity?
- DR or Backup location?
- Application modernization keeping Power at the core?
- Replace CAPEX by OPEX?
- Move complete Power footprint to Cloud?

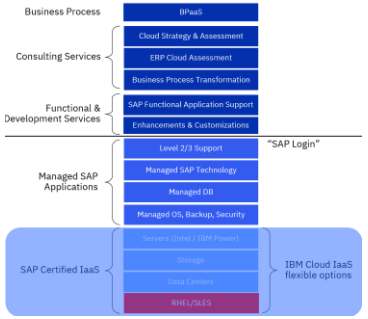
We need to cover the full scope of the customer to win.



There is no solution which consists of PowerVS only!

- Power VS, COS, VTL
- Networking (VPC, VPN, DL ..)
- Security (VPC, Firewalls, ...)
- Additional x86 Instances
- Operational Services
  - Logging, Monitoring
  - Backup, ...
- ...

Potentially a lot to size & price.



Who is going to do what?

- Which skills does the client have?
- Who will perform setup tasks?
- Who will perform migration tasks?
- Who operates which parts of the solution?

Remember? The FUN starts with deployment & usage.

Solution Design & Right Sizing

Power VS Sizing is about Workloads / LPARs

Understanding the customer's workload(s) in scope is key to create a meaningful solution, sizing and pricing.

- HMC export is a good source for **CPU** (entitled cores) and **RAM**
- Power generation, machine type and model to compare / calculate CPU capacity
- Used **Storage** (not attached), storage performance / capacity to best match it in PowerVS
- Operating systems in scope incl. current and planned version(s)
- Applications and their characteristics (SAP, Oracle, custom IBM I applications, ...?)
- RPO / RTO requirements
- Backup requirements (size and number of backups, retention policies, ...)
- Operational tools to consider
- Non Power workloads to consider since they depend on the Power workload in scope?
- Focus on current, near-term USED (!!!) capacity
- Leverage PowerVS flexibility and automation to scale up/down
- Consider ramp-up steps and project phases with different capacity requirements

Solution Design & Right Sizing

Power VS Sizing – Best Practices I

Compute:

- Optimize each LPAR, use rPerf/CPW/SAPS values to calculate required performance (P7, P8, P9, P10, x86 (SAPS))
  - IBMi – Commercial Processing Workload (CPW) ratings
  - AIX - Relative Performance (rperfs) ratings
- Use shared uncapped cores by default, capped for Oracle, dedicated only if required e.g. for SAP HANA
- Certified HANA Profiles provide drastically lower Core & RAM prices
- Aim for 1 Core : 64GB RAM ratio; above 64GB RAM per Core has a 1,5 price multiplier (does not apply to SPPs)
- Use S922 by default, other models when required only (up to 65% discount on P9)
- Power 10 performance gain is roughly compensated by higher price (still S1022 potentially very attractive for IBM i)

Storage:

- Make sure to size the currently used storage + growth as needed (do not match currently attached storage = oversizing)
- Use Tier 3 storage when ever possible
- Mix storage Tiers as required, make sure to use higher Tiers only for Volumes which really require the performance
- Use Cloud Object Storage for configuration files, Images, Backup, Archive since it comes with the lowest cost (but is slower)

Networking:

- Local Transit Gateway traffic is (currently Q2/25) free of charge, if a PowerVS is Workspace is attached
- VPNaaS via VPC is the cheapest way to connect to customer networks

Solution Design & Right Sizing

Power VS Sizing – Best Practices II

Licensing:

- AIX OS license and support are part of the hourly LPAR price, no ByoL for AIX
- Linux subscriptions (SLES, RHEL) can be ByoL or can be paid with the LPAR hourly price

- Usa Movable OS licensing IBM i MOL to convert perpetual IBM I licenses into a discounted IBM i subscription price which is included in the LPAR hourly price
- IBM i License Program Products (LPP) included in IBM i image and LAPR hourly price (https://cloud.ibm.com/docs/power-iaas?topic=power-iaas-ibmi-lpps)
- Additional IBM i Software can be subscribed: ICSS, PowerHA, Rational Developer Studio
- IBM i licensing: Processor Group P10: S922 & S1022; Processor Group P30: E980 & E1080
- Extended Support costs for IBM i 7.2 and 7.3 are automatically added to hourly LPAR price

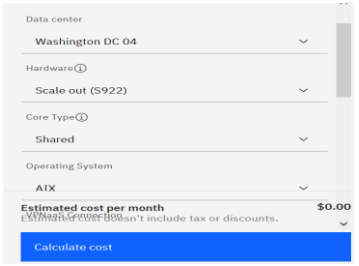
- IBM Passport Advantage Software must be licensed based on PVUs (ByoL)
- Power HA for AIX must be licensed separately, for Power VS only N+1 licenses/subscriptions are required
- ORACLE requires caped cores or SPPs; only S922 can be used for Standard Edition licenses (ByoL)

Cost Estimation

Cost Estimation

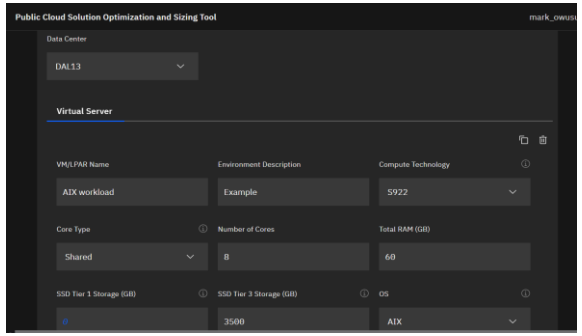
IBM Cloud Website – Cost Estimator:

- https://cloud.ibm.com/power/overview#estimator
- LPARs, Storage, SPPs, VPN (deprecated), VTL for IBM i backup, Dedicated host
- Other IBM Cloud Services
- Best used for single quick estimations



IBM Cloud Solutioning (COOL) Tool:

- IBM: https://internal.cloud-solutioning.ibm.com/login
- BP: https://public.cloud-solutioning.ibm.com/login
- Embedded demo within the COOL tool
- Slack channel #cool-power-support
- LPARs and Networking
- Nice export / import feature



Excel Power VS Estimator:

- Always download latest version from Seismic https://ibm.seismic.com/Link/Content/DCpPGRcbqCc4c87J7HRWT8DWTQT8
- LPARs, Storage, SPPs, VTL for IBM i backup, dedicated host
- Fastest way, but lacks non PowerVS pricing

LPAR			Data Center	System	Processor Type	Desired Cores	Memory (GB)	OS	Storage (GB)		DSI VTL	IBM i Add On Licenses		
name or #	LPAR Qty					P9 Cores			Tier 1	Tier 3	Repository Size whole number TB	Power HA for IBM i (y/n)	IBM i Cloud Storage Soln (y/n)	Rat Stu (# use
EXAMPLE	1		DAL13	S922	S	2.25	64	AIX		500				
1														
2														