

May 2021



Tailored Fit Pricing

A sensible pricing model



Tailored Fit Pricing



Evolution in customers' workload profile

Customers are continuing on their journey to hybrid cloud and new types of workloads continue to emerge as they do so. Digital transformation has been a disruptive force across industries and fluctuating high spiking business critical workloads are becoming even more common. This is in part due to rapidly changing consumer behavior as well as unforeseen factors such as regulations and a global pandemic.

According to a recent [ParkMyCloud study](#), wasted cloud spend is projected to hit \$21,000,000,000 by 2021. So, an alternative in cloud and simply adding more whitespace is not economically feasible. Enterprise IT teams need to react quickly to sudden changes in demand with even more control and flexibility in order to scale IT as needed while balancing expenses with the value IT delivers.

Increasing customers' commercial confidence in IBM Z

IBM Z® platform users have been used to paying for IBM Z software and hardware for peak capacity and managing their software costs by capping machine usage. They have been traditionally achieving this by

- Executing batch workloads during off-shift hours,
- Reducing machine resources access to development and test,
- Not introducing new workloads or applications onto the platform even when it was the most logical technology for such workloads,
- Investing in tools and resources to manage sub-capacity capping,

These approaches, while effective in predictable workload management, have created a mindset that stifles innovation and limits the ability for businesses to leverage the full value of Z technology, especially now as they adapt for digital transformation and the journey to hybrid cloud.

IBM introduced Tailored Fit Pricing, originally for IBM Z software, as a simpler pricing model to allow Z customers to better leverage their existing platform investments as their business demands, and in a more cost competitive way. Building on the success of this program, a variable IBM Z hardware model has been introduced to extend the value of Tailored Fit Pricing for IBM Z. With Tailored Fit Pricing models now available across hardware and software, customers have the opportunity to gain more flexibility and control with pricing solutions that can be tailored for what business demands, helping to balance costs, while deriving even more value from hybrid cloud.

IBM's Tailored Fit Pricing model can address key concerns:

- Complexity of Sub-capacity pricing model leading to Z being managed as a cost center
- Difficulty in establishing cost of new workload deployment and the impact on cost of existing workloads

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- Investment in tools and resources to manage sub-capacity that can inflate costs
- Lack of development and test resources
- Purchasing hardware for peak capacity to handle short term spikes

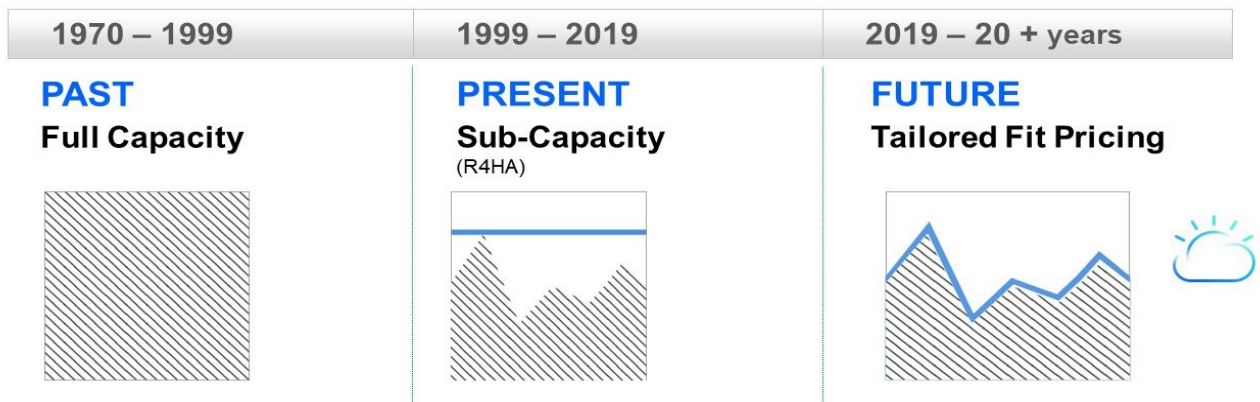
Both the software and hardware pricing models provide customers an opportunity to grow and more fully utilize their IBM Z investment for new opportunities.

Why change was necessary?

Based on customer requirements, IBM Z software pricing models for Z have evolved over the years. During 1970 through to 1999, a Full Capacity model was offered to provide customers the capability to leverage computing power of the entire infrastructure. As the Z hardware evolved, it offered better performance capabilities with each newer model, enabling customers to do more with less MSU consumption. This led to the Sub-Capacity Pricing model which allowed customers to manage their software cost based on the Rolling 4 Hour Average (R4HA) peak utilization.

This sub-capacity pricing metric was modelled in the late 1990's and assumed as a minimum an 80% utilization of Z hardware and helped align software licensing to less than full capacity. Both of these models served their intended purpose based on customer needs during their respective time frames. However, the world of IT is dramatically different now as compared to late 1990s. For example, average customer utilization is now typically much lower than 80%; a function of today's workloads being spikier with higher peaks and therefore lower utilization.

Throughout all of these pricing model changes; customers have always purchased the hardware for peak usage.



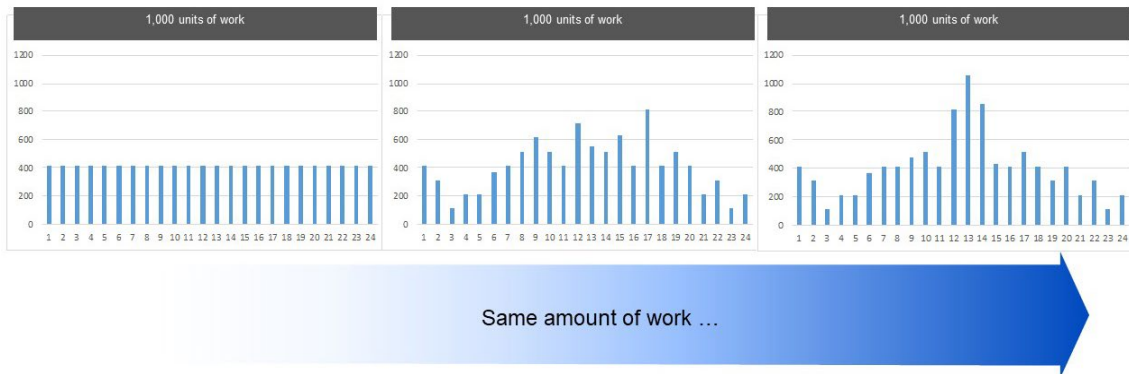
During mid-2010s, IBM noticed that customers were starting to experience increased challenges with sub-capacity planning irrespective of where they were in their digital transformation journey. Customers often fell into three broad categories:

- Those investing in the Z platform to solve new business requirements caused by an evolution of the API Economy, DevOps practices and more as part of their transformation.

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These customers believed in Z platform; however, they did run into challenges of meeting their SLAs while maintaining sub-capacity limitations.

- Those that recognized the Z platform to be the right choice for building a hybrid cloud architecture around but were not able to move forward due to concerns over the impact on billing that new and unpredictable resource demands would bring.
- Those that are not growing or growing just organically, but with an increasingly spikey workload profile (see below) producing a disproportionate impact on software billing through the R4HA.



Additionally, these categories of customers were often affected by seasonal and unexpected business/economic events, which drove even more unpredictability in the usage patterns. As such, IBM felt a whole new cloud like pricing approach was required and it was clear that any new software pricing model would not include the sub-capacity (R4HA) metric and simplify quantification of all workload value in terms of system resource consumption.

IBM originally introduced DevTest Solution and New Application Solution in 2017 and this further evolved when in May 2019, IBM announced two significant additional solutions, Enterprise Consumption (since renamed to the Software Consumption Solution) and Enterprise Capacity Solution. In May 2021, IBM announced a new hardware solution, called Hardware Consumption Solution. All these options were gathered into a new family of IBM Z pricing called **Tailored Fit Pricing (TFP)**. This paper will focus on the Software Consumption Solution and the Hardware Consumption Solution.

Software Consumption Model

In order to meet the demands of modern workloads and to provide a commercial confidence to match the technology confidence, it's been no surprise that the Consumption Solution has been extremely well received and adopted.

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We've seen three recurring reasons why customers typically transition onto TFP Consumption:

- a) It's a software pricing model better suited to today's workloads profiles, typically, where they are increasingly spikier. Also, it's a pricing model better suited to future uses, as an example, inclusion in Hybrid Cloud architectures.
- b) A customer on TFP Consumption is able to confidently remove all forms of capping and expose all their workloads to ALL of the hardware infrastructure they own.
- c) Any form of growth (from a new workload to a 30-year-old COBOL application being used more often) qualifies for a much-improved Price per MSU.

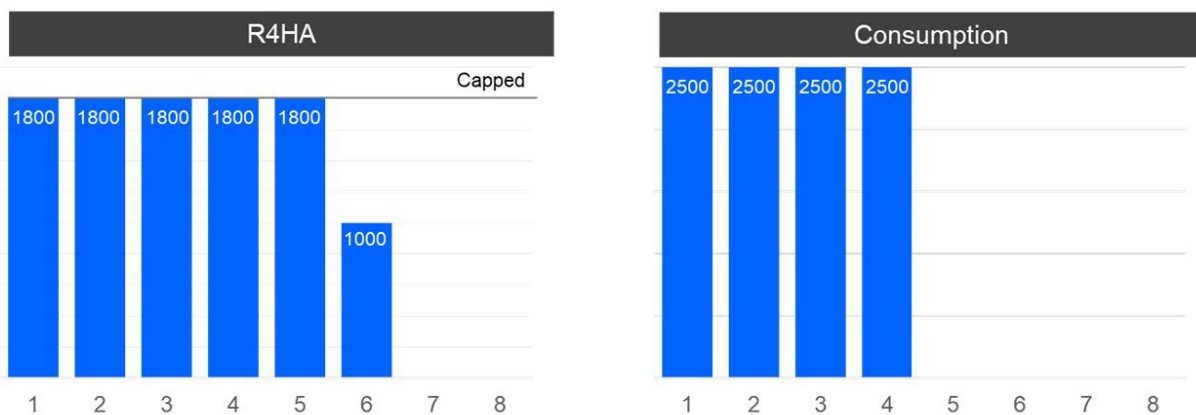
One key concept in a Software Consumption Model is the client baseline. The IBM team works with the client to review their previous 12 months production MSU consumption & billing, determine an effective price per MSU and also establish a predictable price for all growth at discounted rate.

Example Consumption Charges:	
Previous 12 months' MLC costs:	\$12,000,000
Previous 12 months' MSU consumption:	12,000,000 MSUs
Effective price per MSU:	\$1 per MSU
Variable price for all growth:	50c per MSU

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With the Software Consumption model, there is no concept of peaks or white space that previously were integral to the Sub-capacity-based model. This means that, customers are free to remove capping and can utilize all of the owned capacity without worry of penalties for peaking or spiking. While a customer does commit to an MSU baseline, should the MSUs for a particular year not get fully utilized, the client may carry any MSUs unused over for use in the following year for the life of the contract. TFP consumption encourages and rewards growth meaning that MSUs processed above the baseline are charged at a very aggressive Growth Price per MSU.

All workload processing can benefit by running with no capping and having all owned infrastructure available. Batch processing can also take advantage and reduce batch windows dramatically. Without capping in place, customers can expect jobs to finish faster yet at the same cost, and online processing can process more transactions simultaneously hence improving response times. This is simply a function of the new billing approach based on the amount of work done, rather than peaks reached.



To provide improved economics for growth, TFP Consumption customers will pay preferential pricing on the MSUs consumed above their baseline, irrespective of whether that growth came from existing or new workloads. There is no additional approval, qualification or processing required to take advantage of the growth pricing rate.

IPLA in the Software Consumption Model

IBM Z enterprise customers will often have One Time Charge (OTC) IBM products also running in the same environment as MLC products. With the Software Consumption Model, IBM offers two choices for the handling of OTC software. A Full Capacity licensing model, and the option to utilize their existing OTC software licensing in a consumption model with the flexibility to use the entitlement on a consumption basis across a year, as business demands.

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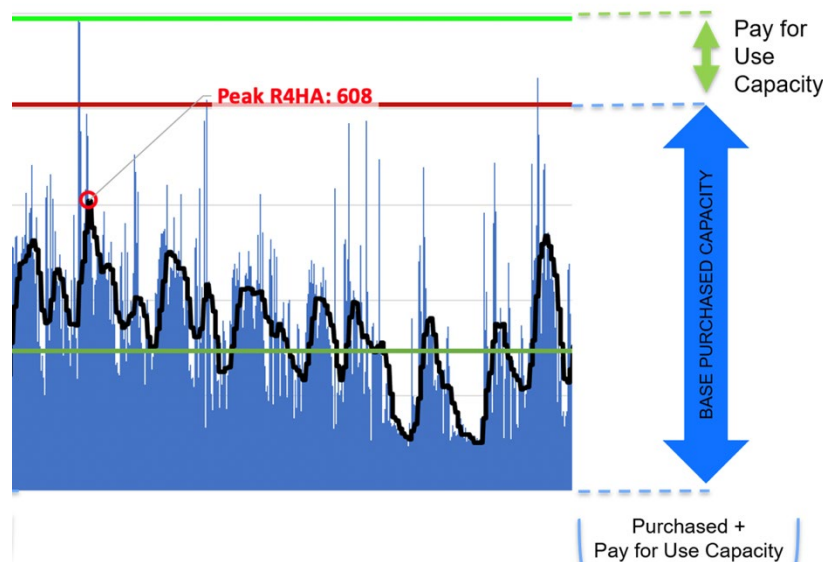
With coverage of both MLC and capacity based IPLA products, Software Consumption Model offers a single and comprehensive software solution to IBM Z customers.

Hardware Consumption Model

Introducing a hardware solution that provides added flexibility to the IBM Z IT infrastructure pricing and is a natural and valuable extension to the Tailored Fit Pricing models for IBM Z software. To meet the demands of modern workloads IBM Z hardware can now include, on top of the base capacity, a subscription-based corridor of pay for use capacity. This always on corridor of consumption priced capacity will help alleviate the impact of short unpredictable spikes in workload that are becoming more common in today's digital world. The usage charges have a granularity of 1 hour and are based on actual MSUs consumed as measured by the Sub Capacity reporting Tool (SCRT), not full engine capacity.

Tailored Fit Pricing for IBM Z hardware enables customers to be ready for the unknown and unexpected. The presence of the always on capacity contributes to better efficiency, reduced overhead, and shorter response times. This offering is available for customers with IBM z15™, z/OS® general purpose CPs, and who are utilizing Tailored Fit Pricing for IBM Z software. Below is an example of a customer with an unpredictable workload that is a good candidate for utilizing the Hardware Consumption Solution. Rather than having the client consider moving this spiky part of the workload off of the platform, we would encourage them to investigate Tailored Fit Pricing for IBM Z hardware.

The image below illustrates how the customer can utilize the Hardware Consumption Solution, by investing in the TFP-HW capacity corridor to handle their daily workload spikes. Up to the red line is their base capacity and then above that, they would have a cloud-like pricing corridor that, when utilized, would result in a consumption charge.



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The combination of Tailored Fit Pricing for both the hardware and software is a powerful one for our customers to maximize their investment in IBM Z. For eligible customers, it allows them to use their hardware for their general capacity requirements with a consumption-based corridor on top. When this is combined with the TFP-SW solutions, it allows customers to unleash the full power of their IBM Z machine.

Conclusion

Tailored Fit Pricing has been introduced to provide a more appropriate pricing model for the workload profiles of both today and tomorrow. Greatly improved pricing predictability and transparency as customers manage their existing workloads and introduce new ones on to the Z platform whilst they consider including IBM Z in future architectures such as hybrid cloud. The model enables customers to leverage all machine resources at their disposal as and when they need it without the limiting peak price factor. This will encourage IT departments to architect solutions based on technology and not cost analysis as they continue their Digital Transformation and Journey to Hybrid Cloud.

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