R+2
THE POWER IS IN THE NUMBERS

About Us

Our History

I am Jim White and I am currently the CEO of RPI. In 1970, I was head of IT at a major New York City bank and decided to address the problem of excessive job terminations caused by hardware failures. I concluded that the best way to reduce those job terminations was to maximize the reliability of the hardware. To do that, I set up a system by which data centers across the industry could pool their job termination data with mine so that a picture would emerge that would identify which vendors had the most reliable hardware. It was my belief then, as it is now, that only the vendors could upgrade the reliability of their hardware, and the only reason they would do so is if they understood that their customers would only buy the most reliable hardware.

We started with a handful of IT organizations in the greater New York area and eventually evolved into a system that was collecting the job termination data from approximately two thousand data centers across the industry. Along the way we organized RPI to be the collector, processor, distributor and maintainer of the algorithms of a service we named R+.

For nearly thirty years this data served the industry well by eventually forcing the vendors to create hardware that virtually ended all job terminations. Not all vendors were able to meet the challenge of producing higher reliability. Telex, the largest of the plug-compatible vendors in 1970, was the first to leave the market. The next to go was CDC, and finally, after a few more years, Memorex stopped building and selling hardware. Other vendors prospered under this public exposure of reliability. STK (now known as STC) almost overnight surpassed IBM in tape sales, fueled almost exclusively by the R+ data that showed their tapes to be more reliable than IBM's.

By the end of 1999, R+ had achieved its goal of virtually eliminating job terminations and was then withdrawn from the market. In 1970, we made the decision to measure the reliability of hardware as a function of job termination because we wanted the vendors to end job terminations. It took a while, but they have done that. We now see the next challenge is to maximize availability and minimize maintenance costs for all IT hardware, and that is why we have created R+2.

Today's Goal

Our goal today is to maximize availability and minimize maintenance costs for all IT hardware. We have identified two new management measures that have the power to accomplish these goals – the "Availability Rate" and the "Maintenance Rate".

The "Availability Rate" quantifies how many months a specific hardware product can operate before experiencing a hardware disruption. The most available hardware is the hardware that can continue to operate despite component failures and can continue to operate during the replacement of failed components. The availability rate allows IT managers to determine which vendors have come closest to the holy grail of hardware operability, i.e., hardware that can survive the loss of any component or combination of components and can make replacements while the hardware continues to operate. No

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hardware yet qualifies as the grail but some hardware such as the System Z from IBM comes close with an availability rate approaching 10,000 months per disruption or one disruption every 833.33 years. Compare that to a standalone server that has an availability rate of 60 months and one gets a sense of how large the range of availability is.

The "Maintenance Rate" measures the months between maintenance actions for all IT hardware. The maintenance rate should become the basis for determining the cost of maintenance. It is completely unreasonable for a maintenance provider to charge the same maintenance fee for hardware that requires a maintenance action every 50 months that it does for a product that requires maintenance every 200 months. R+2 will provide your organization with these important statistics.

Armed with access to both the availability rate and the maintenance rate, IT managers can for the first time in the fifty year history of IT maximize the availability of hardware while minimizing the cost of maintaining that hardware…that is what RPI is doing today.

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