

# the Availability Digest™

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--- achieving 100% uptime

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The digest of topics on Continuous Availability. More than Business Continuity Planning.  
BCP tells you how to *recover* from the effects of downtime.  
CA tells you how to *avoid* the effects of downtime.

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## Middleware Still Binds Applications

After more than two decades, middleware still provides the software facilities that allow applications to interoperate with each other. It is a software tier that sits on top of the network layer and provides interconnectivity between applications and databases. Without middleware, we could not build the complex distributed applications today upon which we depend.

In this issue's article "What's This Stuff Called Middleware," we summarize a commentary that I wrote in 1994. That description is still fairly accurate some two decades later, but middleware has become much more powerful. Back then, middleware was often defined as "the slash between client/server." But it has evolved to include transaction processing, messaging, database access, data replication, and remote procedure calls.

This article and our other stories in the April issue are examples of what we write for the Digest and for others. If you have an article, a case study, or a white paper that you would like written, we encourage you to contact us. We also provide consulting services and seminars on high- and continuous availability.

Dr. Bill Highleyman, Managing Editor

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## Best Practices

### Archivist Works to Rebuild HP Archives Lost in Fire

In our November 2017 issue of the Availability Digest, we described the devastating fire in early October 2017 that destroyed an archive of historic documents created by Hewlett-Packard founders William Hewlett and David Packard. Despite the loss, efforts are underway to rebuild the historical narrative thanks to the dedication of archivist Karen Lewis.

The papers in the archives dated from 1937 to 1995. They revealed the company's strategy and its evolution from the beginning of the electronics industry.

In 1999, HP shed its test and measurement division into a new company, Agilent Technologies. In 2014, Agilent spun off its electronics group into a newly created company, Keysight Technologies. Somehow, Keysight ended up with the archives. It held the archives on its campus in Santa Rosa, California.

The Sonoma Valley fires began on the night of October 9<sup>th</sup>. The fires reached Keysight's Santa Rosa campus and damaged several company buildings. Two buildings were completely destroyed. Unfortunately, one of these buildings contained the HP archives that were lost.

[--more--](#)

### Sheltered Harbor Provides Protection for Financial Institutions' Data

Two years ago, dozens of U.S. banks, including Citigroup, JPMorgan Chase, and Bank of America, began working on a secret, ultrasecure data bunker called Sheltered Harbor. The data bunker holds a copy of all bank transaction data to protect it from a devastating cyberattack.

Sheltered Harbor provides an extra layer of protection against potential cyber risks. It is designed to provide enhanced protection for the customer accounts and data of financial institutions. Its goal is to securely store account data and to recover it even in the event of the loss of operational capability of a bank or brokerage.

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## Availability Topics

### What's This Stuff Called Middleware?

I recently came across "What's This Stuff Called Middleware?," an article that I published in the July/August 1994 issue of the Tandem Users' Journal. It was released at a time when the concept of middleware was just being introduced.

Back then, middleware was seen as the glue that bound client applications to server applications. It was often described as the "/" in "client/server." Today's definition is a bit broader. According to Wikipedia, middleware is computer software that provides services to software applications beyond those available from the operating system. It is a software layer residing between the applications and databases on various systems and the networking layer which connects these systems into a distributed computing network.

Middleware has become a staple of today's distributed applications. We couldn't build the complex systems we need without middleware. Middleware has become so important to today's distributed applications that I thought it useful to review this article some two decades later.

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## The Geek Corner

### The PDP-8 – My Favorite Computer

I recently was amused when I came across an article entitled "iPhone beaten in performance race by 1970's Apple II and other even older computers (and a mechanical calculator)." The challenge was for each computer and device to output the numbers in the Fibonacci sequence. Why did the iPhone perform so poorly? Simple. It cannot be programmed, so the Fibonacci series had to be spoken into it.

However, I was particularly attracted by the fact that the PDP-8 computer was included in the lineup. That has always been my favorite computer.

I was involved with the PDP-8 from its very inception and became a close friend of Ken Olsen, the founder of Digital Equipment, the manufacturer of the PDP-8. It was a computer I loved. With the development of my own business-oriented language, SAIBOL-8, I was able to use the system for business data processing and greatly expanded the reach of the PDP-8.

The PDP-8 was simple enough that I am able to remember most aspects of it. Computers will never be the same.

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## Tweets

### **@availabilitydig – The Twitter Feed of Outages**

A challenge every issue for the Availability Digest is to determine which of the many availability topics out there win coveted status as Digest articles. We always regret not focusing our attention on the topics we bypass.

Now with our Twitter presence, we don't have to feel guilty. This article highlights some of the @availabilitydig tweets that made headlines in recent days.

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