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FreeBSD is even better ARMed for the latest 64-bit architecture.

In this issue we have two articles covering recent work on the ARMv8 architecture, which is ARM Inc.'s foray into the world of 64-bit server computing. FreeBSD was an early adopter of the ARMv8 architecture with the FreeBSD Foundation, ARM Inc., and Cavium all pitching in money and engineering resources to make sure FreeBSD was properly supported on this new architecture. Andrew Wafaa describes what it took to get FreeBSD enabled as a Tier 1 architecture on ARMv8. A Tier 1 architecture is one that is self-hosting and has a complete set of 3rd-party packages from the FreeBSD Ports collection. Making it to Tier 1 is an important milestone for any architecture on which FreeBSD runs, and indicates a serious level of commitment that will carry over for many years.

Zbigniew Bodek and Wojciech Macek discuss FreeBSD running on a particular implementation of the ARMv8 architecture, Cavium's ThunderX platform. ARM does not make chips itself; it licenses the designs for others to produce chips, and to add and remove interesting features from those chips. This level of specialization is what has made ARM so popular in mobile and embedded platforms. A hardware manufacturer only takes the parts beyond the basic core that they need to build their platform. In order to bring up FreeBSD on real hardware, rather than a processor simulation, there has to be some hardware, and because Cavium stepped forward with their platform early in the process, it was the first hardware to be targeted by FreeBSD developers. Zbigniew Bodek and Wojciech Macek do not work for Cavium directly, but worked with them to bring up FreeBSD on the ThunderX platform.

Our third article covers an important new feature in FreeBSD's native virtualization solution—bhyve. Teaca Ionut-Alexandru, Mihai Carabas, and Peter Grehan describe their work with providing bhyve with an ATA emulation layer. ATA and ATAPI emulation are necessary to support older FreeBSD guests on top of modern FreeBSD hosts. Many people run FreeBSD applications on older releases for years, and having a virtual platform available for these legacy applications is an important transition path for many companies.

In his svn update column, Steven Kreuzer talks about all the changes that have gone into the FreeBSD tree due to the work on ARM. He has taken up the torch on this column and is clearly off and running with it.

Dru Lavigne interviews Benedict Reuschling, who has been contributing to FreeBSD in many ways over the years, and is now a member, along with Dru, of the FreeBSD Foundation's Board of Directors. Benedict teaches in Darmstadt, Germany, and has a passion for moving FreeBSD into more classrooms.

Lastly, it's always great to hear from our readers, in email or in person. If you see one of the editorial board members at an upcoming conference—and there are several more to attend in 2016—make sure to let us know what you think about the *Journal* and how it can better serve the FreeBSD and general computing communities.

Sincerely, George Neville-Neil
For the *FreeBSD Journal* Editorial Board