Actix NSM Benchmark

Validates the scalability of Network Status Management Solutions for Radio Access Networks

The Radio Access Network (RAN) challenge

Today, in every mobile network worldwide, operating a RAN accounts for one of the largest costs for network operators. Hundreds of engineers struggle to resolve thousands of RAN status problems, which can often translate into customer experience issues.

Today, legacy management tools for RAN are essentially a collection of multiple disconnected silos of activity, with dozens of desktop tools, incompatible ad hoc databases, inconsistent rules and processes, and informal prioritization criteria. This lack of integration and automation leads to huge inefficiencies through the high dependence on human resources.

Network Status Management (NSM) is a new category of software solutions that allows mature, next-generation mobile carriers to address their RAN cost issues directly.

NSM systems are highly sophisticated, standards-based automated solutions combining systems for gathering network intelligence with business logic engines that correlate and prioritize that intelligence.

NSM benefits can be summarized as follows:

- Lowering Total Cost of Ownership (TCO) by systemizing network engineering
- Using network intelligence to deliver breakthrough customer experience
- Accelerating revenue through automation of processes

Intel, HP and Actix approach to NSM

Actix has deployed NSM systems based on the ActixOne platform into many of the world's largest operators.

Over 10,000 engineers from more than 230 operators in 106 countries globally depend upon Actix software every day to help improve coverage for more than 1,100,000,000 subscribers. Actix can deliver a six fold efficiency improvement in the RAN area, hitting at one of the major drivers of a carrier's annual costs.

As an enterprise solution ActixOne needs to demonstrate hardware sizing to scale to support hundreds of users and multiple terabytes of data. In addition, Actix looks to partner with system integrators that are able to undertake the large-scale implementation services that surround many of these projects, as well as hardware integration services to build the turnkey hardware solutions.

Thanks to the alliance with both HP and Intel, Actix has completed a benchmark to validate that Actix NSM solutions could adapt to all wireless networks.

Details of the Benchmark Architecture

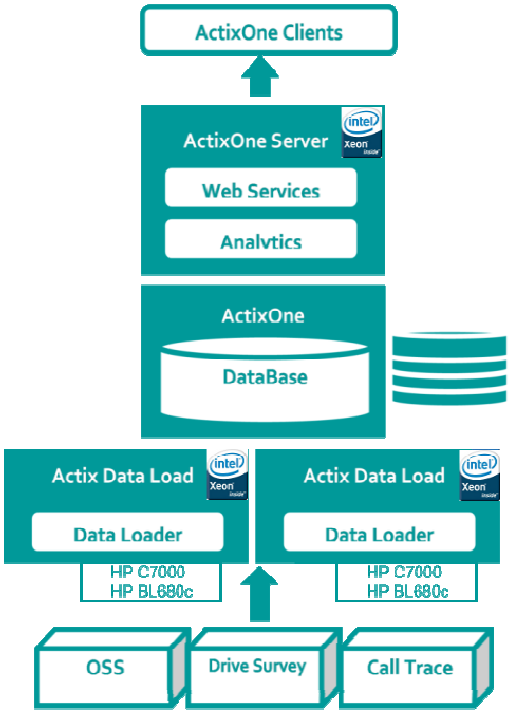
The goal was to validate that the solutions could deliver to mobile network operators a powerful and flexible system to visualize and manage their RAN, as they can be scaled to all operators regardless of size.

Actix leveraged the existing infrastructure available at the EMEA CME Solution Center to create a test environment simulating a large national mobile telecom operator.

The solution put together at the EMEA CME Solution Center combined the competencies of the three companies: HP, Intel and Actix.

The ActixOne platform created leverages the capabilities of an Oracle Enterprise DB deployed on an HP Proliant server platform powered by Intel® Xeon® Processors.

The target platforms are designed around a client-server configuration of the Intel Xeon based HP BL680 platforms, in conjunction with HP EVA storage.



Results of the Benchmark

The tests proved that the platform – hardware, software architecture and implementation – easily met the performance and scalability goals, demonstrating flexibility and efficiency throughout the tests. Most of the components were shown to be under-utilized with significant capacity to support additional network elements and users.

As a conclusion, the EMEA CME Solution Center has helped validate that the ActixOne NSM platform could be deployed on HP BL680 with six-core Intel Xeon processors platform to meet the requirements of a large mobile network carrier.

Key components

Intel Xeon processors

The Intel Xeon Processor 7400 Series includes enhanced 45nm Intel® Core™ micro architecture, up to 6 cores, large shared 16MB L3 cache per processor, scalability beyond 4 sockets, and support for up to 256GB of RAM. It offers more headroom, reliability, and the highest expandability for large-scale server consolidation, is best-in-class for demanding enterprise workloads, is the ideal choice for your data-intensive, business-critical performance requirements.

HP BladeSystem c7000 Enclosure

The BladeSystem c7000 enclosure provides all the power, cooling, and I/O infrastructure needed to support modular server, interconnect, and storage components today and throughout the next several years. The enclosure is 10U high and holds up to 16 server and/or storage blades HP Proliant BL680c plus optional redundant network and storage interconnect modules.

The HP Intel Solution Centers provide complete telecom infrastructures for demonstrating the Communications Media and Entertainment Solution Portfolio to HP customers and partners. The centers are located in three cities: Grenoble, France; Richardson, Texas, USA; and Shanghai, China. These unrivalled technical facilities offer our customers and partners, the unique opportunity to evaluate new services in real-world environments, test new technologies and select the solutions most likely to succeed.

Technology for better business outcomes

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