

Case Study: agere systems

Company Profile

Agere Systems, headquartered in Allentown, Pennsylvania is a premier provider of advanced integrated circuit solutions for wireless data, high-density storage and multi-service networking applications. Agere's wireless data portfolio enables seamless network access and Internet connectivity through its GPRS offering for data-capable cellular phones, as well as Wi-Fi/802.11 solutions for wireless LANs and computing applications.

The company is the market leader in providing integrated circuits for the hard disk drive market, with number one positions in sales of system-on-a-chip solutions and preamplifiers. Agere also provides custom and standard multiservice networking solutions to move information across wired, wireless and enterprise networks. The company successfully partners with networking companies including Motorola, Infineon and Chartered Semiconductor. Agere customers include former parent company Lucent, Apple Computer, Cisco, Maxtor and Samsung Electronics among others.

Employees

- 6,800 worldwide

The Multi-service Access division provides custom and standard multi-service networking solutions, such as broadband Ethernet-over-SONET/SDH components and wireless infrastructure chips, to move information across metro, access and enterprise networks, such as cell phones, ATM machines and base stations. It is this group, with

approximately 30 developers using the MKS Integrity Solution, that is responsible for the development of system applications enabling chip communication with application programming interfaces found in Agere's various products. Most of the division's development is on distributed platforms, predominately Solaris and Windows, and some Linux.

Agere's development approach is not an uncommon one for any organization engaged in embedded system or chipware development. There is an underlying main code base, which is then modified for the unique needs of various customers. These modifications are handled as separate product releases. This parallel form of development demands that the team work together in a highly organized way, keeping a high level of control over the main software project, its variations, as well as additions to any existing releases or new releases that may be underway.

Compelling Reasons for Migrating from Desktop to Enterprise SCM

Time to market, particularly in the highly competitive telecommunications world is everything, as is customer satisfaction. Agere must be continuously on an aggressive development path, innovating and bringing new products and capabilities to market. Failure to deliver, or inferior product quality can mean the difference between maintaining or losing a valued customer – certainly a job to put any software configuration management

solution and development team to the test.

In the past, Agere's development teams used a variety of desktop versioning systems, but found that they were inadequate, predominately in the area of process and workflow control. There was little ability to associate defects or issues to the actual source code under modification, which in turn impacted Agere's ability to reproduce a specific release on behalf of a customer.

As a manufacturing operation, Agere is also ISO 9001/2000 certified, putting additional pressure on the development team, who must face audit scrutiny to maintain their ISO status. Driven by the need for better process control over their complex environment, the team moved to the MKS Integrity Solution for enterprise software configuration management.

Today, the team relies on some of MKS's most sophisticated features such as change packages and project sharing in their development environment.

Change package capability in both MKS Source Integrity Enterprise Edition and MKS Integrity Manager allow Agere developers to associate actual source code files, design documentation and any other development artifacts to a specific feature request or issue. It's also functionality that serves them well in the area of release management. In the event of a bug fix for a specific customer, Agere's support and development team can quickly isolate the specific release and all

its associated elements to provide timely resolution.

Project sharing, or the ability to reuse software components, is another extremely valuable capability for the embedded systems market, and easily managed using the MKS Integrity Solution.

"The project sharing capability allows us to create a library of components that can be commonly used across multiple projects, says Jim Smith, Agere Software Engineer, and member of technical staff. "The commonality is then established. It is a significant productivity saver, because code components are written only once. There's only one component, in one location to maintain and enhance, rather than several components in several projects. If a particular customer wants some modifications made to an existing chip set, the Agere project team doesn't have to reinvent the wheel to quickly accommodate the request."

Results

Since implementing the MKS Integrity Solution nearly a year ago, Agere's development team was able to successfully migrate its disparate versioning systems and embrace new enterprise SCM capabilities without impacting development deadlines. Business is picking up pace, and customer satisfaction remains high.

Internally, the team overall is benefiting from a reduction in developer uncertainty and improved team communication.

"Everything is centralized now," says Jim Smith. "People don't have to go hunting for specific releases, or files. It's all on the server, the projects are all clearly listed, and they can simply select the project they are working on and go." Nor has demonstrating ISO compliance been an issue. Says Smith, "we can clearly demonstrate what we have in place, and how we do our work. Maintaining our certification has not been a problem for us over the last year."



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