



ActiveState

CASE STUDY DATAPATH

EXECUTIVE SUMMARY



THE CHALLENGE

- › Provide quickly customizable network monitoring solutions in broadcast communications, government, and commercial systems
- › Ensure stability and 24/7 uptime for critical monitoring systems
- › Ability to customize each installation to meet specific customer requirements



THE SOLUTION

- › ActiveTcl, from ActiveState, for customizable components of the DataPath® MaxView® system



THE RESULT

- › Rapid development and ease of customization thanks to ActiveTcl OEM
- › Stable system and support from ActiveState
- › Easy, automatic customization

THE CHALLENGE

STABILITY, UPTIME, AND FLEXIBILITY ARE PARAMOUNT FOR MAXVIEW

DataPaths' communications, software and services solutions are deployed across 40 countries, on all seven continents. Its MaxView Enterprise Management System provides remote control and automation monitoring control for satellite and broadcast communications, as well as government and commercial systems. Using MaxView, network operators can see and manage an entire communications network in a single view without having to interpret dashboards from multiple proprietary systems. Users can control their network using MaxView, and can automate complex tasks and gain insight through its analytics engine. Using one system instead of many means less complexity and training, and lower support costs. MaxView also enables scheduled changes without human involvement. For example, if a device fails, MaxView will automatically switch over to a backup, or notify users, send e-mails, or make phone calls. For DataPath, the development challenge with MaxView is twofold: providing highly customizable solutions for a widely divergent customer base, and ensuring uptime in sectors where downtime is simply not an option.

Seth Ogram, Senior Software Engineer, DataPath

"ActiveTcl is the best-supported distribution of Tcl that I know of."

THE SOLUTION

EASY CUSTOMIZATION WITH ACTIVETCL

The MaxView modular product suite can be customized for specific customer user interface requirements—customization is a key sales feature. As such, DataPath needed a technology solution that would make it fast and easy to customize MaxView according to distinct customer interface requirements. Enter ActiveTcl. Tcl (Tool Command Language) is a powerful dynamic programming language used frequently for networking, administration and testing, and ideal for cross platform development. DataPath relies on ActiveState's ActiveTcl language distribution because it is a complete, ready-to-install commercial grade distribution that works cross-platform with Windows, Linux and Mac OS X plus Solaris, AIX and HP-UX.

THE RESULT

Since 2005, ActiveTcl has been DataPath’s choice for powering device drivers—the code that connects MaxView to a specific device or system on the customer end. By using ActiveTcl in device drivers, DataPath doesn’t have to manually change its core product to work with every unique customer interface. “We have a Tcl interpreter built into our product so we don’t have to change the core product for each new interface or customer,” says Adam Kirkley, director of software products at DataPath. “This allow us to more effectively manage and support our commercial product, while using the customization capability to meet the needs of our customers.”

ActiveTcl also powers automation logic, which can be customized by end users onsite once the system is operational. “Customers can change these smaller bits of code that, thanks to ActiveTcl, don’t have to be compiled. Nor do they affect the quality and stability of the core product.”

Another key benefit of ActiveTcl for DataPath is the ability to make development changes on the fly at customer locations. DataPath senior software engineer, Seth Ogram, says this is critical for fast, successful system integrations. “We can be away from our development environment and we don’t have to worry about compiling code and distributing it for particular platforms because ActiveTcl supports so many platforms. It’s the cross-platform aspect of ActiveTcl that’s so valuable.”

ActiveTcl is Worry-Free Tcl for Critical Systems

Uptime is critical in the broadcast industry, where satellite time is incredibly expensive. “We have service agreements where seconds of downtime are worth millions of dollars, so it’s critical everything stays up,” Ogram says. “And in the government and military space, it’s even more important than that.”

DataPath knows it can count on ActiveTcl’s stability and ActiveState’s solid reputation when it comes to ensuring uptime. “ActiveState’s reputation and support of dynamic scripting languages is unparalleled. ActiveTcl is the best-supported distribution of Tcl that I know of,” Ogram says.

Seth Ogram, Senior Software Engineer, DataPath

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Development Speed Keeps MaxView Ahead of Competitors

While the stability and technical value of ActiveTcl are critical, ActiveTcl also introduces business benefits, such as speeding development time. "ActiveTcl helps us deliver solutions faster than our competitors. And we can react to changing requirements," Kirkley says. For instance, when responding to a proposal or a set of requirements from a customer, DataPath doesn't have to waste time going through a full software development cycle or creating a new product from scratch for each implementation. "We have a core product that we're reusing, that we already know is set and stable, and then we only change the ActiveTcl part of it for each implementation. We've separated out the customizable parts of it from the core code. And when we write code in ActiveTcl, we don't have to compile it to use it. We can run it right then and troubleshoot problems very quickly."

For DataPath, it's all about the rapid development and ease of customization. "There's a quick learning curve. Our customers have learned to go in and start doing customization work themselves." Ultimately, ActiveTcl ensures MaxView is faster to develop, easy to customize, and stable. And with those bases covered, DataPath can provide a high quality product that consistently meets its customers' needs. To enable these capabilities and embed ActiveTcl in MaxView Enterprise, DataPath uses OEM licensing from ActiveState, allowing them to take their product to market faster with the right licenses in place.

WHY ACTIVESTATE?

ActiveState is the world leader in enabling companies to develop, manage, and distribute applications with dynamic languages. The company's products and services for Perl, Python, Tcl and other web languages are used by over 2 million developers and 97% of the Fortune 1000, to build and run applications from mission-critical to open source projects. ActiveState's end-to-end solutions include development tools, language distributions, indemnification, OEM solutions, support and other services. With these, customers such as Cisco, CA, HP, Bank of America, Siemens, and Lockheed Martin are able to accelerate productivity, minimize risk, and ensure compliance.

Adam Kirkley, Director of Software Products, DataPath

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ActiveState Software Inc.

sales@activestate.com

Phone: **+1.778.786.1100**Fax: **+1.778.786.1133**

Toll-free in North America:

1.866.631.4581**ActiveState**[®]

ABOUT ACTIVESTATE

ActiveState believes that enterprises gain a competitive advantage when they are able to quickly create, deploy and efficiently manage software solutions that immediately create business value, but they face many challenges that prevent them from doing so. The company is uniquely positioned to help address these challenges through our experience with enterprises, people and technology. ActiveState is proven for the enterprise: more than two million developers and 97 percent of Fortune 1000 companies use ActiveState's end-to-end solutions to develop, distribute, and manage their software applications written in Java, Perl, Python, Node.js, PHP, Tcl and other dynamic languages. Global customers like Cisco, CA, HP, Bank of America, Siemens and Lockheed Martin trust ActiveState to save time, save money, minimize risk, ensure compliance and reduce time to market.