

At a Glance

INDUSTRY

Professional services

LOCATION

Phoenix, Arizona

USE CASE

Monitor performance of mobile apps designed for enterprise clients

WHY NEW RELIC

No firewall exceptions or additional servers — just instant insight

HIGHLIGHTS

- New Relic delivers server and client side performance monitoring for mobile applications Unwired Revolution builds and delivers to its enterprise customers
- New Relic provides in-depth, real time data without creating any roadblocks for Unwired Revolution or its clients
- New Relic eliminates lots of unnecessary end user, support staff and development time, saving hours and often weeks of time for the development team

Unwired Revolution Gains Full Visibility into Enterprise Environments with Server Side and Mobile App Monitoring from New Relic

Founded in 1996, Unwired Revolution is a mobile solutions integrator specializing in security, management, support, connectivity, and application enablement for enterprise mobile initiatives across all major industries.

In recent years, the company has turned much of its attention toward the development of custom mobile apps that help clients' internal teams collaborate more productively and effectively.

Environment

Unwired Revolution creates on-premise solutions designed to integrate seamlessly with clients' enterprise systems. For example, a recent implementation features

a RESTful web service in a client's .NET 4.0 environment, which interfaces with Microsoft SQL Server, SharePoint and file shares in the backend.

Challenges

In the world of enterprise apps, user experience is sometimes a secondary consideration. And Unwired Revolution is looking to change that, one client at a time. “When we design apps, one of our top priorities is to make the experience fun, fast and simple,” says Matt Vlasach, Director of Mobile Integration Services at Unwired Revolution. “There’s no better way to encourage widespread enterprise adoption than to make an app genuinely enjoyable to use.”

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Matt Vlasach

Director of Mobile Integration Services, Unwired Revolution

For one client — a major player in the food and beverage industry — Unwired Revolution designed a software solution named DocLink for accessing enterprise content on iOS devices and Windows 7 desktops. With this app, salespeople and other mobile employees can access files and auto-generated reports stored on enterprise servers through

a common and very secure RESTful API. Users can even subscribe to content they find particularly relevant and that content is then automatically synced to their mobile devices for offline availability.

Another client — a major utility — needed an app to make mobile device management (MDM) a more user-friendly process. Unwired Revolution made it easier for the company to manage devices and maintain security posture without exposing thousands of end users to a complicated ERP backend. “In both of these engagements, we wanted to enable seamless functionality for enterprise users in an attractive, intuitive UI,” says Vlasach. “The ultimate goal was to unleash more productivity by transforming difficult, inefficient processes into engaging work experiences.”

However, an app can only engage users if it performs consistently. And during test phases for client projects, Unwired Revolution often encounters its own share of performance hiccups. “At one point, a pilot end user reported an increase in ‘server errors,’ but we couldn’t identify the source of the problem or reproduce it,” says Vlasach. “Our only option was to review log files and debug traces, which is hardly an efficient use of developers’ time. Besides, we didn’t want to burden our clients with the task of troubleshooting. Our goal is to be proactive — to identify problems before our end users even know that something’s wrong.”

Solution

Vlasach was already familiar with New Relic before bringing it to Unwired Revolution. In fact, he'd been using the solution for apps in his side business for nearly a year. "From my own experience, I knew that New Relic could help us address our app performance issues and give us early warning of issues," he says. "We installed it on our production servers in February 2013, and right away it gave us deeper insight into any errors we encountered going forward."

Server monitoring was just the beginning. When New Relic for Mobile Apps became available a few weeks later, Vlasach and his team jumped at the opportunity to gain greater visibility into mobile app performance. "We got the Mobile iOS SDK up and running in literally five minutes, and we were getting valuable information right away," he says. "It was amazingly simple: just insert two lines of code, add a framework, then run the app."

Vlasach was especially impressed that New Relic for Mobile Apps gives the Unwired Revolution developers a fresh perspective on issues that affect both server side and client side performance. "The server side doesn't necessarily break things down by specific HTTP GET request," he says. "But the mobile SDK does. It looks at every GET request as a separate transaction, not as one big controller. With that kind of granular insight — from two different perspectives — we're able to gain more visibility into app performance on a per transaction and per customer basis."

With deeper insight into individual GET requests, Vlasach was able to identify the source of the server errors that had eluded his previous

troubleshooting efforts. "Without doing any coding, I was able to login to New Relic, drill into the transaction that was throwing the 'Server Error' and even obtain the .NET exception stack trace in the response body of the GET request," he says. "Then I simply copied and pasted that information in an email to the .NET team. It was so easy, and it saved everyone tons of time."

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For the client's mobile content access app, DocLink, Unwired Revolution uses New Relic to monitor both server performance and mobile app performance, with a particular focus on response times. "We look at metadata synchronization operations, just making sure that users' permissions and subscriptions are behaving as they should with a response time that is within reason," he says. "We are able to drill into each transaction and see where performance bottlenecks are occurring — be it with our SQL calls, a .NET library or our own code. In a very short amount of time, we know exactly where we should

invest our development cycles to achieve the most significant performance gain.”

Meanwhile, the utility company’s MDM app requires no server side monitoring, but still poses a significant challenge in terms of scale. “It’s a persistently running application, checking in across thousands

Results

New Relic provides in-depth, real time data without creating any road-blocks for Unwired Revolution or its clients. “The agent sits alongside our software in clients’ enterprise environments, then securely reports out to a web interface that our team can access from anywhere,” says Vlasach. “New Relic doesn’t require any firewall exceptions. It doesn’t call for any additional servers. It simply provides great information without getting in the way, and that’s incredibly valuable to us.”

New Relic enables Unwired Revolution to identify and address performance issues on a proactive basis — long before those issues impact end users. When Vlasach and his team rolled out their app for the beverage company, they were able to determine the root cause of a trending issue within hours of deployment. “We could see exactly what calls were being made and by which user,” he says. “We spotted the issue, replayed the request as that specific user and dove down to find the root cause. We had a patch ready in a few hours — and all of that happened before the issue escalated to a problem that may have given the solution a black-eye right off the bat.”

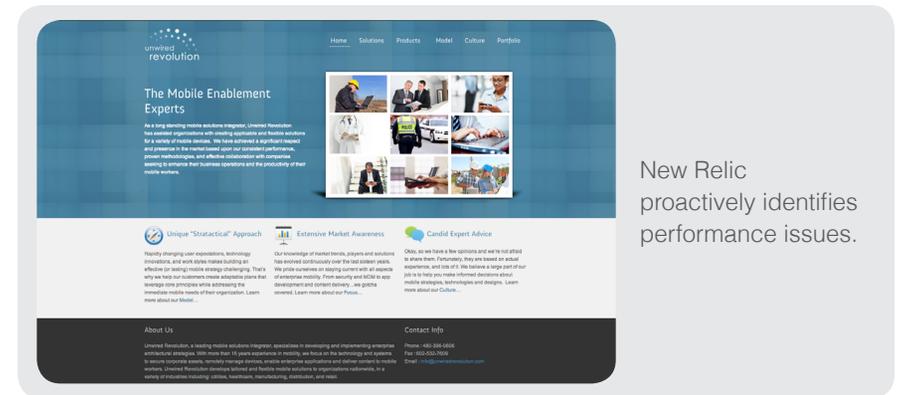
of devices, with hundreds of active users at any time,” says Vlasach. “With New Relic for Mobile Apps, we can clearly see which calls are being made, which ones are failing, how fast the servers are responding, and so on. There’s so much comfort in having instant visibility into our app’s performance — just knowing that everything’s OK.”

Like many performance problems, this particular error hadn’t emerged during the testing process. “In enterprise on-premise solutions, environmental factors that impact integration are extremely hard to simulate, let alone anticipate,” Vlasach explains. “These environmental variables contribute to behavior that is not otherwise seen in a development environment, and traditionally can take an extremely long time to debug. New Relic greatly reduces the time required to identify and address those interoperability issues in both pilot and production environments. It turned out to be one of those variables that’s difficult to test against,” says Vlasach. “In this case, the error happened because of the way a user was configured in Active Directory in this particular customer’s environment. Without New Relic, it would’ve taken much longer — days or even weeks — for the issue to be reported to the helpdesk and passed along to us and subsequently troubleshot and resolved. New Relic eliminated a lot of unnecessary end user, support staff and development person-hours right away.”

By saving so much time, the development team can focus more of their efforts on tasks other than troubleshooting. “We can spend more time doing something productive rather than chasing down a problem,” he

says. “The investment we’re making in New Relic is trivial compared to the time it takes for a team of skilled developers to search for the source of a performance issue. From that perspective alone, the software easily pays for itself.”

Most importantly, better performance means a better experience for end users. “Our DocLink application is a big hit,” says Vlasach. “Users are saying, ‘This app is fun to use. It makes my work so much easier.’ That’s exactly what we’re going for — and performance plays a huge role in making their experience more enjoyable. At this point, I honestly can’t imagine releasing a mobile app without help from New Relic.”



New Relic proactively identifies performance issues.

About New Relic

New Relic is an all-in-one SaaS-based application performance management solution that provides comprehensive, real time visibility into web and mobile applications regardless of where they're run. Our platform combines Real User Monitoring, web monitoring, server monitoring, and iOS and Android mobile monitoring in one powerful dashboard experience. Our 40,000+ customers use our cloud solution every day to optimize over 108 billion daily performance metrics. Learn more at: newrelic.com.