New Relic APM Best Practices

The Top 10 That Every Enterprise Needs to Know

It's one thing to know how to use New Relic, but it's another thing to know how to use New Relic well. Here are 10 best practices designed to help you become a New Relic APM master—and a key asset to your team!

1 Standardize application-naming conventions

Most New Relic agents provide a default application name, such as "My Application" or "PHP Application," if you don't specify the name in your New Relic configuration file. You don't want to end up with 20 applications that all have the same name, so always be sure to select a descriptive identifier for your apps as soon you deploy them. To keep things consistent and easy to navigate, New Relic also recommends standardizing your application naming (e.g. all apps in Staging have [Staging] or the like at the end of the name). Ideally, you want your new Java applications named automatically, rather than manually, to help cut down the chances of typographical errors and misnaming.

HOW TO DO IT:

1. For Java applications, automatic application naming can come from the following sources:
   - Request attribute
   - Servlet init parameter
   - Filter init parameter
   - Web app context parameter
   - Web app context name (display name)
   - Web app context path

   Choose the method that fits best with your needs and follow these steps.
2. For non-Java applications, there are no automatic naming methods so refer to the documentation for your agent.

2 Add labels to your applications

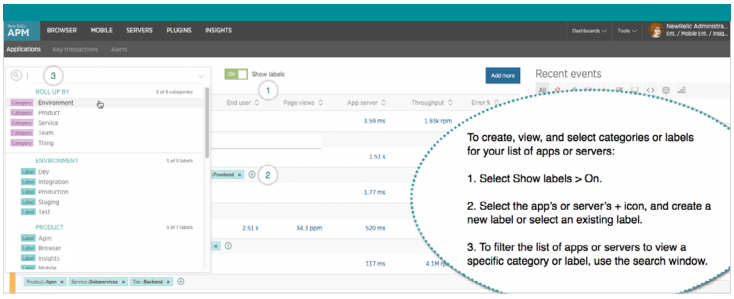
When you've got several different applications using the same account and each application spans multiple environments (e.g. development, test, pre-production, production), it can be hard to find a specific application in your overview dashboard. That's why we recommend adding labels to your apps so you can organize your apps and servers by segmenting them into logical groups. The two most common labels mature APM customers use are application name and environment. So, for example, if you wanted to view the billing application in Test, you could simply filter by "billing app" (name label) and "test" (environment label).

New Relic APM and New Relic Servers are designed so that account Owners and Admins can label apps and servers so they "roll up" into an unlimited number of meaningful categories. You can also easily sort, filter, and page through all applications on your account's Applications list or servers on your account's Servers list.

HOW TO DO IT:

1. From the New Relic APM menu bar, select **Applications**.

   OR, From the New Relic Servers menu bar, select **Servers**.
2. From the Applications or Servers index, select **Show Labels > On**.
3. To assign an app or server to a category, select the circled plus icon by its name.
4. Follow the guidelines to type the label; use the format Category:Value.
5. To save the new label, press **Enter** or **Return**.



3 Create and evaluate alert policies

Most of your alerts are going to be based on your Apdex score, which measure users' satisfaction with the response time of your application. Apdex T is the central value for Apdex—you want to make sure you set it at a value that is meaningful to your specific app. New Relic recommends setting your Apdex T value to 0.95 to strive for true optimization.

Once you have your alerting set up, you then want to make sure you're taking advantage of all viable notification channels. After all, what good are alerts if no one knows about them? You can manage alerts by creating specific user groups and by leveraging New Relic's integrated alert channels, including HipChat, JIRA, PagerDuty, Campfire, Webhook, and email. Be sure to evaluate alert policies on a regular basis to ensure that they are always valid.

HOW TO DO IT:

1. To change your Apdex settings, go here.
2. To set up your alert notification channels, go here.

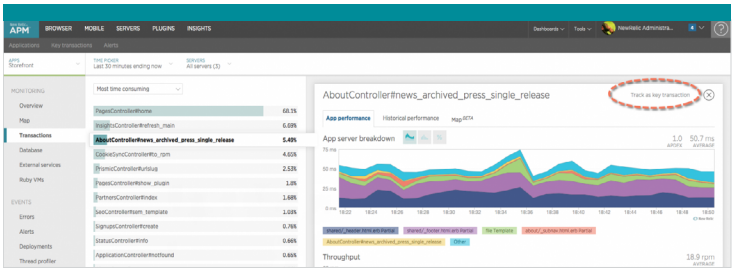
4 Identify and set up key transactions

Depending on the nature of your application, some transactions may be more important to you than others. New Relic's Key Transactions feature is designed to let you closely monitor what you decide are your app's most business-critical transactions, whether that's end-user or app response time, call counts, or error rates and more. You can also set alert threshold levels for notifications when your key transactions are performing poorly.

HOW TO DO IT:

1. From the New Relic APM or New Relic Browser menu bar, select **Key transactions**, and select **Add more**. Then select the app and web transaction.

   OR From the selected transaction, select **Track as key transaction**.
2. Type a name for the key transaction, and select **Track key transaction**.
3. Optional: If the agent for the selected app supports custom alerting, use the default values that New Relic automatically fills, or select **Edit key alert transaction policy** to set the Apdex and alert threshold values.
4. To view the key transactions dashboard details, select **View new key transaction**.



5 Track deployment history

When development teams are pushing new code out the door as frequently as possible, it can be hard to measure the impact each deployment is having on performance. One way to stay in tune with how all these changes are affecting your application is via deployment reports. Deployment reports list recent deployments and their impact on end users and app servers' Apdex scores, along with response times, throughput, and errors. You can also view and drill down into the details and catch errors related to recent deployments, or file a ticket and share details with your team.

HOW TO DO IT:

1. To view the Deployments dashboard, from the New Relic menu bar, select **APM > (selected app) > Events > Deployments**.
2. To view performance after a deployment, go to the selected app's Overview dashboard in the **Recent events** section. Also, a blue vertical bar on a chart indicates a deployment. To view summary information about the deployment, point to the blue bar.

6 Create custom dashboards

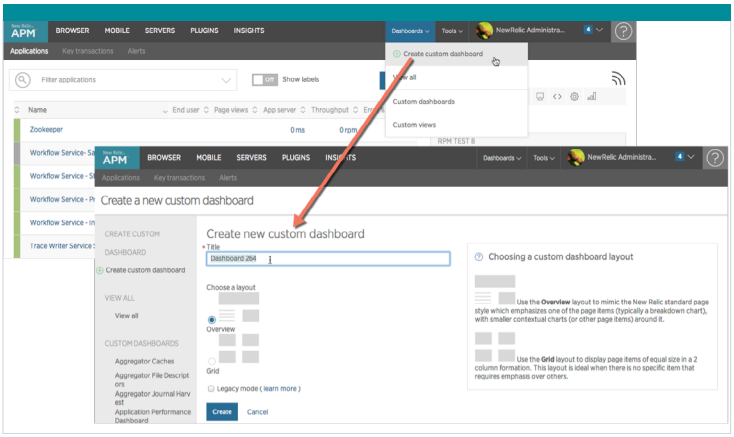
Looking to pull graphs from various New Relic products, plugins, and custom metrics you're collecting into one end-to-end, unified view. Custom dashboards are useful for creating unique overviews that present data differently than New Relic does out of the box. For example, you can:

- Show web and mobile application information, server information, custom metric data, and plugin metric data all on a single custom dashboard.
- Create dashboards that present charts and tables with a uniform size and arrangement on a grid.
- Select existing New Relic charts for your dashboard, or create your own charts and tables.

New Relic.

HOW TO DO IT:

1. From the New Relic menu bar, select **Dashboards > Create custom dashboard**.
2. Type the dashboard's title, or keep the default name.
3. Optional: To create a dashboard with the selected application data only, select the **Legacy mode** checkbox.
4. Select the layout (Overview or Grid), and select **Create**.
5. Continue with the procedures to add charts, tables, and data to your dashboard.



7 Leverage New Relic's reporting capabilities

From SLA, deployment, capacity, scalability, host which include SLA, deployment, capacity, scalability, host usage reports, and more. New Relic APM offers a variety of downloadable reporting tools surfacing historical trends—all great ways to report to senior executive teams or customers. To see the full list of reports available, go here.

HOW TO DO IT:

1. To view a report, from the New Relic APM menu bar, select Applications > (selected app) > Reports.
2. Select the report you'd like to see.
3. If you want to save or export a report to share, select **Download this report as .csv**, which will create a report with comma-separated values.

8 Look at your environment holistically

The great thing about using New Relic to monitor your applications is that it doesn't just give you visibility into a certain portion of your application stack, but the entire thing. If you spot a performance problem in New Relic APM, for example, you can easily trace that back to the hardware side using New Relic Servers or vice versa. Or say you're an Amazon Web Services (AWS) user. New Relic Platform offers a number of useful AWS plugins to give you added visibility into your cloud-based applications. From mobile and browser monitoring to synthetics testing and more, New Relic's software analytics products suite can provide end-to-end visibility into the performance of your applications, so take advantage of it to make better decisions about your software!

HOW TO DO IT:

1. If you aren't using any products beyond New Relic APM, sign up for other solutions that pique your interest. Many New Relic products offer a free Lite version, which you can use to test out before purchasing the upgrade.
2. Once all products are deployed, easily switch between New Relic products using the menu bar on top in your overview screen.

9 Keep your agents current

Most likely your organization already has a set of scripts for deploying application upgrades into your environment. In a similar fashion, you can also automate your New Relic agent deployment to ensure that your systems are up to date. As a general rule, there's no hard and fast requirement to be on the very latest agent, but you shouldn't be running agents more than a year old. Both Puppet and Chef scripts are great examples of deployment frameworks that make life easier by allowing you to automate your entire deployment and management process.

HOW TO DO IT:

1. Regularly review which version of the agent you're using to know when an update is needed. If the latest agent release contains a needed fix or some additional functionality you want, download it.
2. To deploy the agent manually:
   a. Backup the current agent directory.
   b. Deploy the updated agent into the existing agent directory.
   c. Modify configuration files by comparing the new files with the existing files. In particular, make sure things like license key and custom extensions are copied over to the new configuration.
   d. Restart the application.
   e. If problems arise, restore the old agent using the backup and restart.

3. To deploy the agent automatically (**preferred as a method to avoid errors**), you can either:

   a. Use existing deployment scripts, provided they can be adapted to handle the deployment.

   b. Create and maintain a script that specifically deploys and configures the New Relic agent. Ideally the script would pull the agent files from a repository where the files are versioned (for rollback purposes). Once the script has been created:

      i. Shutdown the application (unless script handles this).

      ii. Run the deployment script.

      iii. Start the application (unless script handles this).

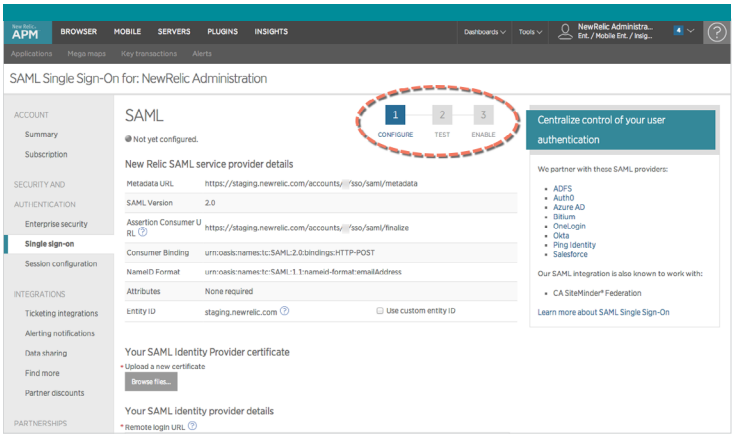
      iv. If problems arise, run the script to rollback the version to the previous version.

10 Enable single sign-on (SSO)

Security is no doubt of utmost concern at your organization. To simplify password management for your employees and strengthen security, you may already be using SSO with your other systems. You should do the same with New Relic. Using New Relic's SSO integration feature, account administrators will be able to enforce strong passwords and restrict login via a corporate authentication mechanism. This way, New Relic users who have already authenticated using a corporate SSO system will be able to bypass the New Relic login prompt.

HOW TO DO IT:

1. Login to New Relic as an Admin and go to the SSO configuration page. From the New Relic title bar, select **(your account name) > Account Settings > Integrations > Single Sign On**.
2. From the SAML Single Sign On page, review your New Relic SAML Service Provider details.
3. To upload your SAML Identity Provider certificate, select **Choose File**, and then follow standard procedures to select and save file.
4. Copy and paste in (or type) the **Remove login URL** that your users will use for single sign on.
5. If your organization's SAML integration provides a redirect URL for logout, copy and paste in (or type) the **Logout landing URL**; otherwise leave blank.
6. Save, test, and enable.



Bonus tip: Reference one or all of the following for helpful tutorials, instructions, and advice related to all things New Relic:

- New Relic University
- New Relic Documentation
- New Relic Community Forum

Want more user tips?

- Check out our Tutorials page.
- Read the documentation.
- Ask a question in the New Relic Community Forum.