Best Practices for Monitoring Cora SeQuence Environment

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Monitoring on-premises Cora SeQuence Server deployments is an important part of keeping them running smoothly, especially for large enterprise deployments. Good monitoring can help administrators avoid issues before they affect end users, as well as react quickly when user impacts do occur.

Our approach is outside-in monitoring with proactive monitoring of infrastructure health (application-tier CPU utilization, for example) and fine-tuning the alerts to make sure they are actionable.

Infrastructure Health

We recommend using System Center with the SQL, IIS, and Windows management packs and a few custom monitors/alerts configured using built-in System Center Operations Manager capabilities.

SQL, IIS, and Windows Management Packs

These management packs provide a wealth of information about the underlying software on which a Cora SeQuence deployment relies. Each of them can be easily installed from the management pack catalog.

The SQL management packs (there are multiple, for the various versions of SQL Server) cover a lot of ground. Everything from checking for installation of the latest service packs through CPU utilization and disk space availability. To learn more, download the SQL 2016 management pack guide at https://www.microsoft.com/download/details.aspx?id=53008 .

The IIS management packs (again there are multiple, for the various versions of IIS) primarily monitor the availability of your web sites and their associated application pools. They can also be used for performance monitoring scenarios. To learn more, download the IIS 10 management pack guide at https://www.microsoft.com/download/details.aspx?id=54445 .

The Windows management packs (again there are multiple, for the various versions of Windows) cover a ton of ground. Monitoring and alerting includes disks and disk partitions, processors and CPU utilization, network adapters and bandwidth usage, and memory utilization.

Between these three types of management packs, you can get quite extensive monitoring of your Cora SeQuence deployments, from the ASP.Net web layer through the SQL backend and all the way down to the underlying OS. Much of the data they provide can be used to fix issues – resource constraints, for example – before they start affecting end-users.

Windows Services

The Cora SeQuence Job Execution Service and Cora SeQuence Background Runtime Service, which are used to run long running background tasks and scheduled tasks, should be monitored in couple of ways.

i. First, make sure the service is up and running,

ii. Second, the service is performing as it is supposed to.

To address the first you can utilize powershell, all you need is a handful of commands, like Get-Service, Get-Process and Send-MailMessage for alerting. OR any other approach that is used in your organization

to monitor windows services.

For second, the PANAM event log needs to be monitored. Refer to Events Log section for details.

Web Tier

A simple availability monitor for your Cora SeQuence deployments should be set up by following the general instructions at https://technet.microsoft.com/library/hh457553.aspx . We recommend to hit the main portal page (Flowtime) OR one of the API end points your solution is using.

Make sure to set up the properties of the web application with the appropriate User Account and Authentication Method. See https://technet.microsoft.com/library/hh457542.aspx , for more information here. Typically, Authentication Method should be Negotiate, and the User Account should be a user who has read access to the monitored SeQuence deployment(s). You should alert on slow performance, response content, and so forth.

Events Log

Cora SeQuence logs all events to PANAM event log. We recommend adding these logs to your System Center. You can control the level of items logged in the Event Log from the component config files:

Each event holds the relevant information and source.

Other Logging Options

Workflow execution trace log files (svclog) – when running workflow instances, each component of Cora SeQuence can generate execution trace logs, which are useful in isolating errors.

- Enable Log files. See this article for enabling SVC log for Sequence sites and services.

IMPORTANT: Enabling SVC logs impacts performance. You may decide to enable it only for troubleshooting purposes.

- Use SVC Viewer (https://msdn.microsoft.com/en-us/library/ms732023(v=vs.110).aspx) to analyze the SVC log.
- Review log files for errors and warnings.

Note: These logs are turned off by default. It is recommended to turn them ON, during development and while troubleshooting an execution problem.

Data Insights

Our Support has a set of queries that can be executed every weekend. These Queries allow tracing execution instabilities. For Example, increased execution times, stalled processes and others.

Please contact support@corasequence.digital to have a copy of those.