



## DATASHEET

# Helix Core Root Cause Analysis

The support team at Perforce is there for you when you have a specific problem or challenge to overcome. We work with your teams to resolve issues in a timely manner. Once resolved, to help prevent issues in the future, you may want to determine the root cause of why the problem occurred in the first place.

This type of project and analysis goes beyond Support and requires more in-depth exploration to attempt to discover the core reason for your issues. We call this Root Cause Analysis (RCA).

## RCA Process and Tasks

Our RCA process requires close collaboration with your team members. We undertake root cause analysis projects with the detailed information you provide. That way we can determine if it's likely we'll have success isolating a cause — and so we have as much information as possible about how your environment was operating before you experienced problems.

When we engage with you on an RCA project, we typically cover the following areas:

- Determine the command(s) at fault through log analysis and customer input.
  - Review Helix Core server configurations.
  - Review OS configurations.
  - Gather logs (server and system) prior to the system restart:
    - p4dstate.sh — Linux: [Configuring p4dstate.sh](#)
    - p4diag — Windows: [Configuring P4Diag](#)
- Review journal(s) and history:
  - p4 journals
  - Associated Helix Core log files
- Examine network diagnostics.

## COMMON REASONS FOR COMPLETING AN RCA

- Server crash
  - Hardware
  - Bug
- Database and/or journal corruption
  - Power outage
  - Filesystem
  - Out of memory
  - p4d process killed
- Server delays
  - Long-running command(s)
  - Replication delays
  - Network
  - 3rd party scripts

## PREREQUISITES

- Linux customers should be on the latest available p4dstate.sh, which can be found [here](#).
- Instructions can be found on the Community Portal: [Using p4dstate.sh to collect Helix Core Server system state information on Linux.](#)
- We require that p4dstate.sh is properly configured (and tested) to collect the necessary information.

## REQUIRED INFORMATION AND DATA

Having access to log files and data as soon as possible after an incident occurs is critical to the success of these types of analysis projects. To facilitate the process, we work with you to complete our Root Cause Analysis template to capture incident details, including:

- Time/date of occurrence and business impacts.
- Problem description and error details.
- Impacted product(s).
- Server state and impacted server(s).

- Recent upgrades or OS, software, or hardware changes.
- Diagnostics and recovery steps performed.
- Last checkpoint and journal rotation.
- Any other pertinent details.

We will identify the data we require from you before we attempt to determine root cause such as your commit server logs and replica/edge server logs.

## Root Cause Analysis Packages

Although Root Cause Analysis is not a standard component of your support plan. We offer convenient, pre-paid RCAs as a supplement to your plan. These are offered at a discount off our full-price hourly consulting rate. You can purchase these pre-paid RCAs together with your initial Helix Core Support contract or at renewal.

- We offer pre-paid packages for one to five RCAs.
- Pre-paid RCAs are available for use during your contract period. If you are on a one-year contract, they are valid for one year and then expire if not used during your contract period. If you are on a multi-year contract, they remain valid throughout your contract period and then expire at your next renewal. Unused RCAs cannot be rolled over at renewal.

## Take the Next Step

Talk with your Customer Success Manager or Account Executive today for pricing and to add an RCA package to your support contract!

For other consulting needs, our Professional Services team is there for you. From audits and assessments to upgrades, migrations, integrations, training and even administration of your Helix Core and Helix Swarm environments, we've got you covered. We'll help speed your project delivery and optimize your outcomes to accelerate ROI and success with Helix Core.

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