DATASHEET

Infotel Application Parallel Testing

Mainframe application development testing for accelerated development across Agile and DevOps methods

Today's development teams must deliver high-quality software at high speed with an eye on cost. To achieve this ambitious goal, leading enterprises continue to adopt Agile and DevOps consistently.

The database problem with mainframe application testing

As a general rule of application lifecycle management, the later an error is encountered, the more expensive the process to correct it. These increases tend to be almost exponential, especially when we consider the consequences and the personnel involved with their mitigation and correction.

Organizations today face several problems with software testing. In the phase during which Test Engineering verifies Scope Coverage and the Development area involved for mass data generation, the databases are already identified, but:

- The mass-generated data does not adhere to the test coverage criteria and requirements;

- Testing is performed in the development environment without environment exclusivity, with conflict issues arising from the competition;

- While testing, the developer is free to modify code, affecting version control;

- After testing is complete, there is no guarantee that the version delivered will be the same as the one that was tested, because the code was modified during the process.

The impact of this scenario is extensive:

- Possibility of promoting an untested version, with potential for problems in subsequent test phases or production;

- Lost time during the tests (extended effort without return);

- Lost time creating test environments inefficiently.

The solution for the software testing resource problem – Infotel APT

Traditional approaches replicate the entire infrastructure to enable test parallelism, sometimes at the LPAR level. For example: a unique LPAR for a test identically installed; configured as base software; all replicated and configured distributed platform infrastructure; all application systems replicated in terms of programs and databases; allocated personnel by test environment; new release distribution processes when a change goes into production. This process is very expensive, and it allows a limited number of parallel tests with a long refresh rate between each test.

For more information visit www.infotelcorp.com
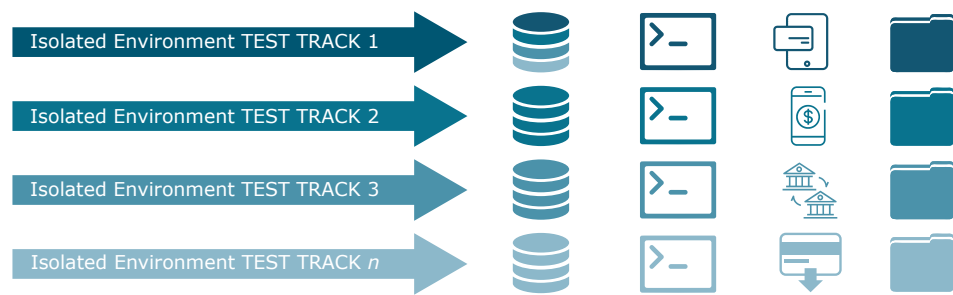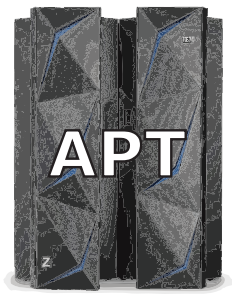
Isolated parallel application testing in a sinlge LPAR

The Infotel Application Environment Management for Parallel Testing solution allows software development and testing teams to spend more time on testing and less on production conflicts. With isolated components, transactions, programs, data from Db2 tables, sequential files, and VSAM files physically cloned into a single LPAR, it's possible to utilize everything that is already installed in the test environment without additional changes, enabling more efficient, impact-free testing.

- Exclusivity (TEST INSULATION) and the required parallelism, without conflict, for both online and batch processes;

- Infotel Application Environment Management for Parallel Testing can integrate with SCLM (Software Configuration and Library Management) tools at the time of test track creation and freeze the package involved in the test, thus preventing the developer from being able to modify the code during testing and ensuring that the version delivered is the same as the one tested.

- Guaranteed promotion of a tested version;

- Avoid potential problems in subsequent test phases or Production (QUALITY);

- Full use of the hours involved during the tests (TIME);

- Preservation of scenarios for allocation of resources for testing (COST);

- Total track REPAIR (guard) for further testing.

Isolation of databases and programs

Facilitates same program, different versions running at the same time with no conflict. Clones of tables and files being accessed are exclusive according to test requirements.

Benefits and expectations from Infotel APT

The continuous testing that Infotel APT can manage for your development environments can facilitate either your continuous integration (CI) pipeline or your continuous development (CD) pipeline.

- Lower system maintenance time;

- Lower rate of emergency maintenance after the implementation of maintenance;

- Reduced overtime due to better application quality in production;

- Lower rework rate in systems development or maintenance;

- Fewer delays in the delivery of system projects.

> **Research suggests the time devoted to application testing is 40% of the entire project.**
> –Roger S. Pressman, Software Engineer & Author

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