

## Ingres Database Helps the Gynecologic Oncology Group Set Standard for Critical Cancer Research and Treatment

### HIGHLIGHTS

The Gynecological Oncology Group is funded by the National Cancer Institute to perform quality clinical research on female pelvic cancers. To accomplish their mission, they conduct up to 45 clinical trials at any given time, and gather cumulative data on the response to treatment of up to 3,300 patients per year. The GOG uses Ingres Database, a leading open source database for business-critical applications, as the back-end to their web-based, form-driven clinical research. With it, health professionals from more than 48 institutes around the world can go online to qualify patients for trials, submit cumulative data on patient response to treatment, and query and run reports. Ultimately statisticians analyze collected data to present research findings in peer-reviewed medical publications.

### CHALLENGE

Organized in 1970 by a group of gynecological surgeons interested in quality clinical research, the Gynecologic Oncology Group (GOG) is a non-profit organization funded by the National Cancer Institute. With a specific focus on female pelvic malignancies such as ovarian, uterine, and cervical cancers, the GOG is committed to maintaining the highest standards in clinical trials development, execution, and analysis. In support of its mission, the GOG conducts approximately 45 clinical trials at any given time. Each trial tests a new cancer drug or new use of an established drug, and collects cumulative data on individual patient responses.

Since its inception, this cooperative cancer research group has grown from 11 original member institutions to include more than 50 principal centers and 160 affiliate institutions throughout the world. Today, the GOG registers more than 3,300 patients annually to participate in ongoing research. To conduct a clinical trial, the GOG must be able to collect cumulative data on each patient's response to treatment via online forms. Then, this data must be made available to the patient's treatment team 24x7 for monitoring and analysis, as well as query and report generation. When the data that's being gathered can literally make the difference between life and death, it's absolutely vital to trust your backend database solution.

### SOLUTION

The GOG currently uses Ingres Database Release 3 on Red Hat Enterprise Linux to hold all the data and handle all back-end definitions for its web-based, form-driven research. They run Crystal Reports in conjunction with Ingres Database to generate and distribute reports. And they employ a variety of "homegrown" proprietary software applications written in-house to help internal users analyze and quality-check the data.



#### Customer

Gynecologic Oncology Group

#### Industry

Pharmaceutical Research

#### Challenge

To capture and analyze cumulative clinical trial data on up to 3,300 patients per year

To ensure 24x7 online availability of clinical trial data

#### Solution

Ingres Database R3  
Red Hat Enterprise Linux  
Crystal Reports  
Proprietary applications written in-house

#### Benefits

Lower total cost of ownership  
24x7 online access to business-critical information  
Seamless scalability  
Highly available, resilient foundation

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 Bill Elgie, Director of Information Technology, Gynecologic Oncology Group”

**Migration Plans**

According to Bill Elgie, GOG Director of Information Technology, the GOG plans to move to Ingres Icebreaker 9.3 in the near future. “We’ve always trusted Ingres Database,” says Elgie. “We don’t even have a true database administrator on staff because Ingres just runs. We plan to take advantage of the Icebreaker 9.3 platform because it includes a fully integrated operating system. We want one box and we want Ingres.”

**Ingres Database in Action**

Ingres Database plays a big role in the mission-critical research conducted by GOG:

- When a new protocol is accepted for trial, an interactive PDF form is designed to capture the right data at the right time. Ingres Database holds all the definition for that form.
- Ingres Database helps doctors determine whether a patient is eligible to participate in a clinical trial by providing a data-driven check sheet that can be accessed, filled out, and submitted online.
- Each patient form has a corresponding table built in Ingres. The data is processed and pushed nightly into the form table, at the rate

of one record per patient per visit. The form table is used to track progress over time.

- Forms are pre-populated with information from previous visits to save data entry time and minimize inconsistencies and errors.
- Ingres Database provides automated checks that identify errors and send notices out to teams about missing forms.
- Statisticians use Ingres Database to run reports and track toxicities through standard CDC codes supplied by the federal government.
- Once a protocol’s test has ended, all the data and reports are made available to statisticians who analyze the data and present it in peer-reviewed publications.

**RESULTS**

With the help of Ingres Database, the GOG has been able to run an active and effective program for the study of new chemotherapeutic agents in the treatment of gynecological cancer. The results of its studies have provided new standards of treatment for ovarian cancers. Ingres Database has scaled seamlessly throughout the growth of the GOG, transparently providing this research group with a highly available and resilient foundation.

**About Ingres Corporation**

Ingres Corporation is a leading provider of open source database management software and support services. Ingres powers customer success with the flexibility, cost savings, and innovation that are hallmarks of an open source deployment. Ingres supports its customers with a vibrant community and world class support, globally. Based in Redwood City, California, Ingres has major development, sales, and support centers throughout the world, and more than 10,000 customers in the United States and internationally. For more information, visit [www.ingres.com](http://www.ingres.com).

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