

# BANNER UNIVERSITY MEDICAL CENTER TUCSON

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BUMCT Maximizes File Compression and Saves on Storage with IDERA's SQL Safe Backup

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# OVERVIEW

Banner – University Medical Center Tucson (BUMCT) is a private, non-profit teaching hospital located at the Arizona Health Sciences Center and adjacent to The University of Arizona in Tucson, Arizona. Its 4,000 employees support more than 20,000 admissions and almost 400,000 outpatient visits annually. BUMCT's high nurse-to-patient ratio contributes to its outstanding patient care, ranking it among the nation's premier hospitals in U.S.News & World Report's annual guide to "America's Best Hospitals." It has also been named one of the 100 Top Hospitals by Thomson Reuters.

## ORGANIZATON PROFILE

**Industry** Healthcare

**Headquarters** Tucson, AZ

**Website** [www.bannerhealth.com](http://www.bannerhealth.com)

## CHALLENGE

Database Administrator Tom Ryan is tasked with the administration of the hospital's SQL Servers: determining whether backups are being run, dealing with issues of blocking, and making sure the SQL Servers are running smoothly. With 122 SQL Server instances, Ryan needed a high-performance backup and recovery solution that would meet BUMCT's rapid growth. He also sought to reduce backup and recovery times and reduce the amount of space required for backups.

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# SOLUTION

IDERA's SQL Safe Backup allows Banner to look at all instances in one centralized console and quickly view backup status. The "per instance" pricing model offered by IDERA also helps BUMCT keep costs down as they are not required to have a separate license for back-up restores. Within one week of switching to SQL Safe Backup, BUMCT discovered that they were able to compress and reduce their backup files by hundreds of gigabytes, saving money on SAN, disk and off-site tape storage.

When Database Administrator Tom Ryan arrived more than four years ago, BUMCT had been using another third-party SQL Server database backup vendor. After discovering that they were not compliant with the terms of their licensing agreement, Ryan decided to look around for a more cost-effective backup and recovery solution. With 122 SQL Server instances, most of which are stand-alone, Ryan required a database solution that would scale to support essential order data entry for physicians, including clinical data for inpatient and outpatient care, and ICU Critical Care data.

While searching for a backup solution, Ryan discovered that IDERA's SQL Safe Backup was highly rated by industry publications and offered licensing based on SQL Server instance rather than per-CPU. "We could acquire SQL Safe Backup licenses that backed up 10 instances for about what we would have paid to get the 8-CPU instance compliant with its old backup license. My manager was very happy that we could get such a good deal," Ryan said.

In describing his environment today, Ryan said, "On our clinical side, we have three main SQL Servers. Two are for order entry for physicians, commonly known as EHR (Electronic Health Records), and the other is for ICU Critical Care where all the information for our ICU patients, such as blood pressure and respirations, get pumped into that database every minute. Those are our three biggest and busiest databases and now all three have SQL Safe Backup on them."

## COMPRESSION SAVINGS ON ALL THREE LEVELS OF STORAGE

It didn't take long for Ryan to determine that he had made the right choice with SQL Safe Backup. "Within a week of installing the SQL Safe Backup licenses, one of our server administrators came to me and said, 'I don't think we got SQL backups because my whole Friday night backup was hundreds of gigabytes less than normal,'" Ryan said.

In fact what had occurred was that after installing SQL Safe Backup the size of the backup location for BUMCT's largest SQL database for its Critical Care data was reduced to about 275 gigabytes. Before, the backup folder would typically take up a terabyte. As a result BUMCT was able to delay having to purchase additional off-site storage.

"What we do is have the CommVault, which writes the data to an EMC SAN, which is written to disks and is then stored off-site with Iron Mountain. This was great news. Because of the space saved on the SQL backups, we didn't have to purchase additional off-site storage, delaying the need for more storage for a period of time," Ryan explained. He added that he had not envisioned the multiple storage savings effect of SQL Safe Backup when he initially purchased the product.

“Since that time, when a database gets to be a certain critical size, we put it on SQL Safe Backup when it needs compression,” he said. Typically, SQL Safe Backup saves money by reducing database backup time by up to 50 percent over native backups and reduces backup disk space requirements by up to 95 percent.

Prior to adding SQL Safe Backup Backup, Ryan said the DBAs would have to adjust the timing of their backups on critical systems since users on the system would cause blocking. Now with SQL Safe Backup, backups are substantially quicker – even when delivering a high level of compression. Even though the largest database has tripled in size in four years, the amount of time to back it up is still about the same at an hour and a half. “We can back up a half a terabyte database in half an hour with 68 percent compression,” Ryan said.

SQL Safe Backup also greatly reduces the possibility of a failure due to a network problem. Since adding SQL Safe Backup, BUMCT has not experienced any backup failures from network outages, even for the database that is backed up in a central location.

For Banner, SQL safe has consistently provided the results to keep pace with their burgeoning databases – having grown from 10 to 26 licenses in four years. For Ryan, the product’s ease-of-use is his favorite feature, especially the central enterprise console for real-time monitoring of current backup and recovery operations, as well as for historical backup and restore information.

In conclusion, Ryan added: “It’s really easy to use. With the SQL safe console, I can look at all my instances and see very quickly if there are any problems. While compression and speed are important, I like that it is very easy to work with ... plus the licensing model allows me to test my production backups on multiple machines and not have to worry about the licensing.”

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Tom Ryan **Database Administrator**

# SQL Safe Backup

## AUTOMATE SQL SERVER BACKUP ACROSS YOUR ENTERPRISE

- Backup faster and save space via dynamic compression with encryption
- Choose from multiple options for recovery
- Ensure organizational compliance via policy-based management
- Reduce failures due to temporary network problems
- Receive alerts and create reports with centralized web console

Start for FREE

The screenshot displays the IDERA SQL Safe Backup web console. The interface includes a navigation menu with options like HOME, POLICIES, OPERATION HISTORY, INSTANCES, DATABASES, SQL SAFE AGENTS, VIRTUAL DATABASE, and ADMINISTRATION. A top navigation bar shows the user 'konoha administrator' and links for Administration and Help. The main content area is divided into several sections:

- Alerts:** A section titled 'YOU HAVE 23 ALERTS' with buttons for 'Export' and 'Hide alerts'. It lists four alerts with levels (2 and 3) and descriptions such as '5 databases never backed up' and 'Last backup operation for 15 databases succeeded'.
- Charts:** Two horizontal bar charts are shown: 'TOP DATABASES BY SIZE (MB)' and 'LONGEST RUNNING BACKUPS BY DATABASE (MINUTES)'. The first chart shows 'ContosoRetail' as the largest, followed by 'AdventureWo...' and 'Northwind'. The second chart shows 'ContosoRetail...' as the longest running, followed by 'AdventureWo...' and 'msdb'.
- Environment Summary:** A 'My Environment' section provides a summary of system components: Managed Instances (3), Not-contacted Instances (0), Not-contacted Backup Agents (0), Databases (21), Databases with failed backup (0), Databases with failed restore (0), Backup Policies (1), Restore Policies (0), and Log Shipping Policies (0).
- Status Details:** A 'Status Details' section shows: Policies OK (1), Policies Not OK (0), Operations Successful (15), and Operations Failed (0).
- Disk Space Savings:** A table showing disk space usage and savings over time:

Category	Size	Percentage
Today:	772 MB	51%
This Month:	1944 MB	48%
This Year:	1944 MB	48%
Total:	1944 MB	48%
ROI:		1.9 \$

At the bottom of the console, there are buttons for 'Add instance', 'Create policy', 'Backup', and 'Restore'.