

## With CommVault Galaxy, Eastern Health System Graduates to an Enterprise Solution that Delivers Fast Restores, Easy Management

### QUICK FACTS

**Industry/Solution:**

- Healthcare

**Platform/File System:**

- Windows, UNIX, LINUX, AIX, Novell Netware, Oracle, Microsoft Active Directory

**Application(s):**

- Backup and restore

**Challenge:**

- Scale up from a workgroup backup solution that could no longer meet the needs of a growing organization.

**Solution:**

- CommVault Galaxy Backup & Recovery

**Benefits:**

- Backups are reliable and trouble free
- Restores are fast - usually taking only a minute or two
- Backups are completed well within available windows
- IT time freed up to focus on quality and service
- Galaxy reporting capability helps technicians identify and solve problems rather than simply putting out fires
- Web-based system management allows fast, simple backup management from anywhere

### Customer Profile

Eastern Health System, Inc. (EHS) is an integrated, multi-facility healthcare delivery system with headquarters in Birmingham, Alabama. The system provides a full range of patient care services in Central Alabama through three major medical centers (Medical Center East in Birmingham, Medical Center Blount in Oneonta, and St Clair Regional Hospital in Pell City), along with 12 primary care centers in communities across three counties, a home healthcare network, and a wide variety of other healthcare services.

### Data Management Environment

The centralized IT department, located in Birmingham, provides the information systems and technical support to meet the healthcare IT needs of EHS. They deal with all the IT and telecommunications needs of the entire system, supporting both business and clinical applications. The system runs in a very heterogeneous computer environment that includes Novell Netware, Windows NT, UNIX, AS400, DEC Alpha, and AIX/UNIX platforms. The network is a Cisco-switched 100 megabits per second full duplex Ethernet all the way to the edge, with Cisco 4000 switches at the edge. The EHS network covers an area that stretches across about 40 miles in the Birmingham area. Wide area network connections among sites are over frame relay. The IT infrastructure includes close to 70 servers and supports 1,200 desktops.

### Data Protection Strategy

EHS uses CommVault Galaxy data protection software to support all the system's Novell Netware and Windows NT servers (the great majority of the servers in the system). Data protected by Galaxy software includes administrative data, patient data, patient registration, transcriptions, e-mail (Novell Groupwise 6.5), Microsoft Active Directory, and SQL (Oracle, Microsoft and Sybase) databases. EHS is moving away from their

previous backup solution, CA ArcServe 2000, to an enterprise-wide backup and recovery solution built on CommVault Galaxy software. They are now in the process of installing Galaxy in the UNIX environment, which, along with the Netware and Windows environments, accounts for almost all of their systems. The switch to Galaxy has yielded much faster data recovery performance and dramatically improved ease of use.

"We use a backup strategy called staging," explains Network Services Manager Mike Ray. "A lot of NAS and SAN devices are widely used now. But, from a price perspective, I think they simply add cost to getting the job done for EHS. We have taken a lower-cost approach by using SCSI attached ATA hard drives for Staging through the CommVault Media Agent." The backup storage system consists of four separate DASD disk arrays, each with twelve 120-gigabyte hard disks. Each array has a total of 1.2 terabytes of available storage, and there are four arrays, for a total of 4.8 terabytes. This array provides interim storage for the backup server, and is directly SCSI attached to the CommVault Media Agent. An HP TL891 tape library with 78 tape slots and six DLT 7000 tape drives is also SCSI-attached to the CommVault Media Agent. The CommVault Media Agent server is a Compaq ProLiant ML530 dual processor server, attached to the network the over gigabit fibre.

The CommVault platform includes the Galaxy CommCell running on a Windows 2000 server. Galaxy CommCell is the interface that controls the backup metadata and provides pointers to the data. The CommVault Media Agent talks to the disk and tape drives and media.

When a backup job runs on a server, the server initiates the backup to the disk array first. If the backup were being done direct

to tape, a maximum of six streams could run at once — one for each drive. Running the backup to the disk array, the number of streams is theoretically unlimited. Currently, backups run for 20 servers at a time, and that number will grow, limited only by network bandwidth. The completed backups are then downloaded from the disk array to the tape library.

### Dissatisfaction with CA ArcServe

EHS moved to Galaxy to get better performance, price, and service, and because of dissatisfaction with the CA ArcServe product. “We had a full maintenance and support contract with ArcServe 2000, but we had gotten beyond the point at which a workgroup solution was adequate. We expected to be moved over from our ArcServe 2000 workgroup solution to the CA Brightstore enterprise solution. But CA told us, ‘No, you’ll have to buy it all over, buy an all-new product. So, we decided to go shopping.’”

### Choosing Galaxy

In the course of shopping, the IT team came across CommVault Galaxy. They set up trials with CA, Legato, and CommVault. “For the trials, we set up a lab with the same backup situation for each company,” recalls Ray. “After each test, we cleaned off the system, reloaded it, and turned it over to the next company.” Legato ran a telephone demo, and CA and CommVault came on site.

The trials were revealing, says Ray. “With CA Brightstore, we did not see a big leap forward in performance over what we were getting with CA ArcServe. CommVault came out ahead in performance, price, and support. The Galaxy management interface and reporting just blew the competition away.” As a result, EHS selected Galaxy for their enterprise backup solution. “The software was installed easily into our production environment within a few days,” recalls Ray, “and systems are being continuously added. CommVault’s remote client installation makes the deployment of agents simple in both Novell and Microsoft environments.”

### Restores Take “A Minute or Two”

Ray has seen a dramatic improvement in restores with Galaxy. “With Galaxy our file restore time is much faster, which is a huge benefit to users and often results in a dollars and cents savings to the company. When we do a restore on Galaxy,” he says, “it’s unbelievable. You just walk through the screens, right click, and it’s restored. A typical lost data call we get goes like this: ‘I lost such-and-such data. I had it open yesterday, but today it’s gone.’ In that typical situation, our restore is going to take only a minute or two. In our tape-only environment, you’d have to find the right cartridge and mount the tape before you could restore. That might take hours using the CA product, because of the constant database issues within the CA product itself that often forced scan and merge operations to locate the data. With Galaxy, I just walk down the tree on the screen, browse, select the file in an ‘Explorer’ type view, and click recover. If the guy forgets which day he last had the data, it doesn’t matter. We usually keep the last three days backups on the disk array. I just give him all three, he picks the one he needs and deletes the other two without keeping me or one of my Engineers tied up.”

### Galaxy Comes Through in a “Major Crash”

Mike Ray and the EHS IT team “really put the Galaxy software through its paces” when they were hit by what Ray describes as “a major server crash.” “The power of the Galaxy software was evident in how easily the browse and recover capability let us find the exact data we needed,” recalls Ray. “Over 420,000 files were restored during the system rebuild, and only 320 files were missed in the first restore. These were files that were open during the backup process. We were able to easily go back over several backup cycles and pick up those files. That is less than one tenth of one percent we had to selectively restore. We learned a great deal from that experience, and we are using it as a tool to improve our processes. Galaxy helped us deal with the crash, and helped us see the issues so they can be resolved.”

### Greater Overall Reliability

Galaxy has also delivered a major reliability benefit for EHS. “With CA ArcServe, what was killing us was the database,” says Ray. “The CA ArcServe database itself would get corrupted, and it would take all day to manage the recovery. The problem was that the underlying database architecture of ArcServe 2000 is not adequate for a large-scale enterprise backup system. Because the database was unreliable, the backups were not as reliable as we wanted.” CommVault Galaxy has strengthened the whole backup/data protection process, says Ray. “You can do your data integrity checks more often,” he explains. “The reporting features of Galaxy let you focus on the quality of the backups and restores. You can drill into the reports and find out why something is wrong, putting you into a position to find a way to correct it permanently, not just put out fires.”

### Galaxy: A Different Way to Manage Storage

“The way you look at managing storage with Galaxy is different from the way you look at it with other backup and recovery software,” says Ray. “With other software I’ve worked with, you deal with media. With Galaxy you don’t; you only deal with data. Backups are about the data, not the media you store it on. Galaxy manages the media automatically, and you deal with the data. You set up the backup cycles, see several different choices, and just click to select the one you want. There’s no scripting with Galaxy. That’s huge. Galaxy does everything from the management GUI, all Web-based. I can do it from home if I want to. If I’m on vacation, I can do it from anywhere.”

EHS uses a standard daily incremental, weekly full backup routine, with spot backups as needed. “Setting up the backup schedule with Galaxy is very easy, very flexible,” says Ray. “One of the power things about Galaxy is the way they run their scheduling. For example, I run four incrementals a day for some servers, rather than one and I can merge them and move them over to tape once a day if needed. All this scheduling capability is built right into Galaxy. The way you handle

storage policies is very simple. You just look at pull downs and click on what you want.”

### **Making the Leap to an Enterprise Solution**

The challenge for the EHS IT department was going from a workgroup environment to an enterprise environment. “For a Netware, NT guy like me,” says Ray, “going from three servers, to five servers, to ten servers is easy. ArcServe can easily scale from three to five to ten servers. But when you get into 50 or 60 servers and up, the backup scheduling problem alone becomes so big that you simply can’t do it. In big UNIX shops, this type of data management is standard practice. But for people like me, moving from a workgroup environment to an enterprise environment, it’s harder to get your head into the new enterprise concept. Going from 10 servers to enterprise scale backup is a leap. It is a question of going from managing backups based on hardware — disk drives and tape cartridges — to managing based on the data. That’s what Galaxy does.”

### **Easy to Install, Easy to Learn**

Six people in the IT department help with backups, and all were involved in the product review and trials. As a result of that experience,

when they installed Galaxy in their production environment, they were able to run the applications right away. The installation went smoothly, reports Ray. “We have a good group of engineers, so we had the product up and ready to run when CommVault came in. And updates are easy. Just put in the CD, go to the list of servers, check the ones you want to upgrade, click, and they are all installed, all at once.”

### **“Awesome” Reports**

“The reporting capability of Galaxy is awesome,” enthuses Ray. “I get daily reports that can be emailed to each department. The time saving value of the reports is huge. For example, I get a report that lists expired media. So I just take the list and pull those cartridges out of the library. Our library does not have a mail slot, so it doesn’t automatically pop out the expired media cartridges, but it’s still fast and simple, based on the report from Galaxy.”

### **“Phenomenal” Support**

Ray is as pleased with the people at CommVault as he is with the product. “Day-to-day support for CommVault is phenomenal,” he exclaims. “I can’t say enough about how good it is. One time I

was working on something at 2 a.m., and suddenly there was a problem. I called in to CommVault for support, got somebody, presented the problem, and hung up. Within 30 minutes somebody was on the phone, we connected them to our system using their Webex support product, got on the speakerphone, and their Support Technician walked me through the solution. On a recent Sunday morning I ran into a problem. I called, and I got the help I needed. My point is, there’s always somebody there, even on Sunday or at 2 in the morning. If the problem is mission critical, they’re there to fix it.

“What really shines about CommVault, above and beyond all the other companies, is their support. CommVault gives you knowledgeable support, not just somebody on the phone. It’s a real SE, not a phone answerer. Once I was talking to an SE about a problem, and she said, ‘I’ll go ask the programmers and get back to you.’ She got back to me and said the fix is in process. She couldn’t necessarily give me an exact schedule, but I had the information, and I knew they were working on it, and that it would get done. So I’m happy!”

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