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Axxana locks down data with on-site disaster-recovery vault

Analyst: Henry Baltazar
Sector: Storage & Systems

Startup **Axxana** is looking to provide an alternative to synchronous replication data protection strategies through the introduction of its disaster-resistant Phoenix System. Similar in concept to the 'black box' flight-data recorders used on airplanes, Axxana is introducing the concept of Enterprise Data Recording as a storage tier for keeping data protected locally. The company is looking to partner with storage vendors and resellers in order to sell its vaults to organizations in the enterprise and midrange.

The 451 Take

Axxana is hoping to create a new tier of on-site data protection with its EDR (Enterprise Data Recording) data vaults. Although the vendor has developed an innovative and somewhat unique approach and has an impressive pedigree – with well-known storage innovators sitting on its advisory board – Axxana's biggest challenge is to convince risk-averse customers to use its products in place of traditional replication and standby site infrastructures. An OEM partnership with a large storage vendor and customer references will be necessary to establish a presence, at least at the high end of the market. Midrange customers, who can't afford to implement standby sites and synchronous replication, could be receptive to Axxana's technology – as long as it's being sold to them through trusted resellers.

Context

Tel Aviv-based Axxana was founded in September 2005 by its CEO Eli Efrat – who previously served as CEO of wireless-collaboration startup **MessageVine** (acquired by **Onset Technology** in 2006) – and CTO Alex Winokur. Prior to founding Axxana, Winokur was the CTO of storage systems specialist **XIV** (recently acquired by **IBM**) and was the founder of virtual tape library and de-duplication specialist **Sepaton**. The company's third founder, Dan Hochberg, is the EVP of business development and sales and was a sales and marketing executive at **Radvision**. Axxana's advisory board includes a number of notable names, including XIV's founder Moshe Yanai – who is now at IBM and is also known as the inventor of **EMC's** Symmetrix enterprise storage array – and Fred van den Bosch, the former CTO of **Veritas**.

The company closed a Series A funding round with **Gemini Israel Funds** to the tune of $5m in June 2007. It is currently in discussions with other potential investors and may close an additional funding round later this year. Axxana claims that prior to its funding it had signed a partnership agreement with a well-known storage company, although at this time it is not announcing the name of this vendor or the level of engagement between the two companies. Axxana will begin beta testing with its unnamed storage partner in November and is planning to make its Phoenix data-vault system generally available at the end of Q1 2009.

Axxana currently has 20 employees – mostly engineers – based in its Tel Aviv headquarters. It recently established a remote office in Wellesley, Massachusetts.

Products

Unlike other disaster-recovery and business-continuity products that are designed to replicate copies of data away from a disaster site, Axxana's Phoenix System is a physically hardened data vault designed to survive a disaster while providing a zero-data-loss recovery point objective (RPO). Currently, the only technology available to provide this level of data-loss protection is synchronous replication – a technology that is expensive to deploy. Furthermore, limited by the speed of light, synchronous data replication implementations are confined to maximum distances of roughly 20-30 miles for latency-sensitive applications, an approach Axxana contends is less effective when a site is hit with a large-scale disaster such as a hurricane or earthquake.

Axxana says its Phoenix Black Box vault can survive temperatures of up to 2,000 degrees Fahrenheit for an hour and can resist up to 30 feet of water pressure. Axxana has done a fair amount of research in material science in its quest to find a way to keep Phoenix's storage innards cooled, even when exposed to 482 F heat over a period of six hours. The vault can also tolerate the pierce force of a 500-pound rod dropped from a 10-foot height and 5,000 pounds of weight, which it notes are useful properties in the event of an earthquake.

The Phoenix System includes 72-300GB of removable flash memory (currently supplied by **STEC Inc**) storage and connects to a customer's SAN through a 2Gbps fiber channel link. In the event of a disaster, assuming a customer cannot gain access to the vault to retrieve data locally, a Phoenix System will use its embedded cellular antennas to transmit data to a customer over a 3G wireless connection. Satellite-based WAN was eliminated as an option since it would require line of sight to work properly. Data within the Phoenix system is protected with encryption, both at rest and when transmitting wirelessly. A connector unit – which is essentially a commodity server running Axxana's software – sits in a datacenter where it captures write transactions from a customer's SAN switches and forwards them to the Phoenix Black Box vault.

Although the Phoenix's relatively small data capacity, coupled with the limited bandwidth of cellular networks, prevents it from protecting all of the primary data at a particular site, a customer with asynchronous replication could leverage a Phoenix unit to protect write operations that have not already been replicated over to the remote site to provide a zero-

data-loss RPO. Pricing for Phoenix will range from $50,000-250,000 per system with Axxana's smaller, less expensive systems targeted for release next year.

Strategy

Axxana's go-to-market strategy is to position Phoenix as an alternative to the local and unmanned disaster-recovery sites (linked together with synchronous replication) that some organizations deploy for mission critical applications and databases. High-end users could also potentially leverage the Phoenix as an alternative to a third replication site in order to reinforce the protection already provided by a synchronous mirror. Axxana will work with the larger storage vendors to integrate with their arrays and replication technologies.

Beyond the high end of the market, the vendor will target midrange companies, which typically do not have the bandwidth and datacenter resources to properly implement synchronous replication. In these midrange accounts, Phoenix can be combined with less-expensive forms of data protection such as asynchronous replication and daily offsite backups to provide disaster-recovery coverage. Axxana claims smaller, single-site companies that have disaster recovery obligations but do not have business-continuity guidelines could opt to only deploy Phoenix units in place of asynchronous replication.

Axxana also plans to target disaster-recovery service provider vendors such as **SunGard**. Instead of having to set up replication datacenters close to each of its clients, the vendor could instead install Phoenix vaults to locally protect customer data.

The vendor will initially target North America and Europe and could expand to the Asian market with the aid of a partner. Axxana is working to recruit OEM partners and storage-reseller partners to sell its Phoenix System, although it expects to fulfill most of its sales through its direct sales team during its first year of product availability.

Competition

As far as competition goes, today there are not many vendors providing on-site disaster-recovery products like Axxana's Phoenix. VaultStor's Disaster Recovery Vault functions as a NAS device and has water and fire protection built into its chassis. DRV is not a direct competitor to the Phoenix given that it is aimed at the SME environments and does not provide wireless WAN capabilities to transmit data after a disaster. Conventional hard drives are used in the unit.

Axxana is looking to displace or provide supplemental data protection for synchronous data protection technologies such as EMC's SRDF/S (Symmetrix Remote Data Facility Synchronous) and **Hitachi Data Systems'** TrueCopy with its on-site disaster protection. Although asynchronous replication products – from vendors such as **InMage Systems**, **Double-Take Software**, and **CA Inc** – have the ability to travel over long distances and are relatively inexpensive to implement (they have relatively low bandwidth requirements), these products can potentially lose data since replication jobs run in intervals. Axxana will work together with asynchronous data protection vendors to ensure that the transactions that

occur right before a disaster are preserved – providing an alternative to synchronous replication.

SWOT analysis

Strengths	Weaknesses
Axxana has an experienced management team and board, which should provide it with some clout as it takes its idea to large storage vendors and resellers.	Axxana is still small and unknown. It will have to rely on partnerships with storage vendors to enter the market.

Opportunities	Threats
The distance limitations of synchronous replication technologies and the high cost to implement them are two shortcomings that could attract early adopters.	Customers in high-end environments, which typically implement synchronous replication, are conservative in nature and would be less likely to entrust data to a new startup.