



EXECUTIVE SUMMARY

STORAJWEBS' BUSINESS OPPORTUNITY

Worldwide, public and private enterprises will waste between \$200 and \$350 billion annually on the storage and management of computer data through inefficient utilization of storage resources. The utilization of data storage equipment can be as low as 30%, according to studies by Motorola and McKinsey and Company. The highest utilization rate reported by Motorola or McKinsey is 62%.

Experience has shown that data storage networks, such as NAS (Network Attached Storage) or SAN (Storage Area Network) increase storage utilization efficiency and reduce management costs, compared to DASD (Direct Attached Storage Disks). Even greater productivity gains could be achieved by consolidating storage at the enterprise level. Most IT professionals agree on the potential benefits of enterprise storage consolidation, but despite five years of offerings by network storage vendors, very little enterprise storage consolidation has been implemented. There are two major barriers to storage consolidation that, so far, have proved intractable:

1. *The lack of data storage hardware and software standards.* The lack of standards means that storage networks are limited to single-vendor network "islands" usually serving individual workgroups, such as accounting, engineering, or manufacturing. A major reason for the lack of standards is the reluctance of storage equipment and system vendors to give up proprietary features or to share APIs.
2. *Resistance of workgroups to give up control of their own storage islands.*

THE STORAJWEBS SOLUTION

StorajWebs, Inc., is ready to begin Beta site deployment of StorajWebs to demonstrate that StorajWebs will overcome both of those two barriers, making it possible for IT equipment OEMs to offer customers improved productivity. By improving storage efficiency only 10%, much less than most estimates, StorajWebs could save storage users \$40 billion annually by 2006.

A StorajWeb has three elements.

- **A network** of intelligent *StorajRouters* with total redundancy of equipment and data, and with an open API. A StorajWeb provides an open fabric that incorporates all heterogeneous equipment in a storage system -- servers, storage, and switches -- through automation and self-discovery, and runs third-party applications. The StorajRouters act as a *de facto* standard.
- **A StorajBrowser**, that provides IT administrators with a Graphical User Interface to locate storage capacity, and to drag and drop blocks of that capacity wherever it is unused to unused wherever capacity is needed, regardless of brand or protocol. The IT administrator can set enterprise policy and assure business continuity.

- **StorajIntraNets**, that give workgroups a "Virtual SAN" independent of server technology within which they can control access and set workgroup utilization policy.

StorajWebs has an exclusive license to Vicom Systems' SLIC routers. The Vicom routers embed the **ONLY** technology today that will connect together multi-vendor, heterogeneous SAN islands, and provide total redundancy. The technology was developed over a five year period by Vicom Systems at a cost of more than \$25 million. It is the **ONLY** technology which can become a *de facto* industry standard. The reliability of the Vicom System routers has been demonstrated in storage systems deployed by IBM, Sun, and H-P.

Because StorajRouters are programmable, with an open API, storage equipment vendors can program their own differentiated solutions on top of the platform. Equipment vendors can concentrate on their areas of strength in technology or storage architecture, while offering their customers improved productivity to justify higher margins for value-add capabilities.

OUR BUSINESS MODEL

Much of StorajWebs' business is modeled on Cisco. We will sell only to OEMs and system houses, as Cisco does. We will train Certified StorajWeb Engineers, just as Cisco trains Certified Cisco Engineers, to become a profit center. Certified StorajWeb engineers at storage OEMs and their business partners can generate an enormous productivity improvement for their enterprise customers. They can show a fast payback for their services, so they will be able to charge a premium fee to help customers create StorajWebs serving the enterprise, and StorajIntraNets serving individual workgroups.

The success of our business model depends upon our being successful in winning the support of the IT community for StorajWebs, and on facilitating an industry infrastructure of OEMs, resellers, and independent technicians capable of designing and implementing StorajWebs in a complex enterprise environment. For that reason, our marketing programs are designed to win the endorsement of leading IT professionals as the catalyst driving the industry to adopt StorajWeb as a *de facto* standard. The incentives for IT professionals to implement enterprise StorajWebs are to achieve their goal of standardization, and to realize tremendous productivity savings from storage consolidation.

The cost of implementing an enterprise StorajWeb will be 2% to 5% of the total value of new storage equipment, giving IT administrators a fast payback.

COMPETITION

There are many alternative solutions being proposed for storage standardization and consolidation, ranging from software running on mainframes and switches to PC-based network "appliances" operating in or outside of the data stream. Organizations, such as The Storage Network Industry Association (SNIA), are chipping away at incompatibility by proposing new standards. All major storage equipment OEMs have consolidation and virtualization platforms of their own. Several small companies are developing global file systems. Although many of those competitors have demonstrated interoperability of multiple brands of equipment, they have done so only within single-vendor networks. ***But StorajWebs will be the first network that will be able to connect multiple vendor networks together.***

MARKETING

The claims StorajWebs makes for reliability, security, interconnectivity, and openness will have no credibility within the IT industry simply because we proclaim them, or demonstrate them in a laboratory. They will not be credible until they are demonstrated in several enterprise IT environments in mission-critical applications. Only when the IT managers of those enterprises validate the cost savings, reliability, and interconnectivity StorajWeb made possible for them, will StorajWebs have credibility.

Every storage OEM who will be our eventual customer has its own proprietary approach to storage. If a storage OEM, on its own initiative, should adopts the StorajWeb approach in advance of the endorsement of the IT community, all other storage OEMs will immediately boycott that approach.

But the storage OEMs and their business partners, not StorajWeb, must provide the ene-to-end system responsibility most IT managers demand. Because an enterprise storage system is complex and highly customized, the integration of storage is a technologically daunting task. The incentive for storage OEMs to support StorajWeb as a *de facto* standard, and to develop the infrastructure to support it, is the demand for it from their enterprise customers and the potential for increased margin they can attain by improving their customers' productivity.

Therefore the ONLY way that StorajWebs will succeed is by demonstrating StorajWebs at major enterprises. The Vicom Systems technology will sustain that goal. The marketing task is to win the IT industry endorsement.

FIVE REFERENCE CUSTOMERS.

To win the endorsement of the IT industry for StorajWebs, we will begin with five reference customers typical of the 19,000 enterprises who have IT budgets of \$250 million or more. We will select the five based on their potential for cost savings, and their interest is being a catalyst for the formation of a the establishment of a *de facto* standard, and the building of a StorajWeb support infrastructure.

We will begin with an application that is not mission critical, but which solves an enterprise IT problem, such as data migration, storage back-up and access performance, or integration of legacy equipment into a high-performance SAN. As the StorajWeb demonstrates its reliability we will roll it out within the five enterprises to ever-increasing levels of criticality -- integrating multiple SANs and DASD, and establishing the acceptance within the enterprise of workgroup StorajIntraNets.

The five IT organizations then will become spokespeople for us with the industry. We will demonstrate in the end user environment that we have overcome the barriers to storage consolidation and increased storage productivity. With each of the first five enterprises we expect to show annual savings ranging from \$50 million to \$1 billion in storage acquisition and management costs, and to publish those results widely within the industry.

INDUSTRY STANDARDS

At the same time, we will participate in all industry and standards organizations to ensure that we are compliant with all industry standards, and to lobby for our consolidation platform as a standards facilitator. And we will seek opportunities to present our StorajWeb concept and its benefits at all major storage industry meetings, and to storage industry analysts.

STORAGE EQUIPMENT OEMS

For the reasons discussed above, we do not expect to be successful at selling the storage equipment vendors without IT industry pull-through. However, we will begin immediately to lobby the storage equipment vendors on the advantages to them of working with StorajWebs. We will show them how their use of our platform can increase their product margins and enhance their areas of technological strength. We will seek their input to our design criteria, so that we can make our platform as compatible as possible.

TECHNOLOGY

StorajWebs has an agreement in principal with Vicom Systems to license Vicom's storage router and data management software exclusively for three years. Under the terms of the agreement, Vicom Systems will provide training to StorajWebs personnel, and will support StorajWebs customers in the field. (A copy of the license agreement is attached as an Appendix.)

StorajWeb will have the rights to manufacture the routers, to subcontract manufacturing, or to buy the routers from Vicom's manufacturing supplier.

VICOM SYSTEMS' BACKGROUND

Vicom Systems began development of its routers in 1995, with SSA technology as the backbone. The routers provided connectivity between SSA and SCSI, and were resold to end users by both IBM and IBM business partners. As Fibre Channel became increasingly popular, Vicom developed routers using that protocol, and developed storage virtualization capability. Late in 2000 Vicom received an equity private placement of \$26 million from a group of venture capitalists and private individuals. The purpose of the funding was to further advance the Vicom Systems technology and to extend its compatibility with new switching and data communications protocols.

Vicom Systems today is in Chapter 11, having failed in its marketing strategy to sell its routers and software to storage equipment OEMs. At no time during the past 4 years has Vicom Systems attempted a marketing program such as described in this business plan. Instead, Vicom used its technology to win engineering development contracts from OEMs who continued to develop their own proprietary storage networking solutions based on switches.

More than 2,500 Vicom routers are now installed in end user storage facilities as subsystem components in proprietary OEM networks deployed by Sun Microsystems, IBM, and Hewlett-Packard. Vicom Systems also has sold about 200 routers directly to end users for connectivity applications.

THE VICOM SYSTEMS' ROUTERS

The Vicom Systems routers are unique. They are compact, programmable, and can be addressed through an open API and a command line interface. They are compatible with all communications protocols, and all brands of storage equipment -- servers, switches, and storage devices. The routers self-discover all equipment on the network, automatically backup data, and self-heal. The routers automatically replace any piece of equipment, any communication link, and all stored data upon any failure in the network. Vicom also has developed both firmware and software that provides storage management capability with functions such as LUN masking, data migration, copy services, and virtualization. Some of these functions have been incorporated into the proprietary storage management systems sold by storage OEMs.

STORAJWEBS' DEVELOPMENT PROGRAM

StorajWebs will develop a StorajBrowser, StorajTransferProtocol, and StorajIntraNet architecture that will run on the Vicom Systems routers, or on servers or portable computers attached to the StorajWeb. Although StorajWebs will offer these three programs in a proprietary package, the underlying language for all three will be open, allowing any third-party or storage OEM to develop competitive programs.

FINANCIALS

We project that StorajWebs, Inc., will reach breakeven in the 3rd Quarter of the third year of operation. We anticipate revenue of \$120 million by the 5th year. The Table below summarizes projected revenue, expenses and cash flow.

StorajWebs CASH FLOW PROJECTIONS

	First Year		Second Year		Third Year		4th Yr	5th Yr
	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half		
Revenue (\$MM)	0	0	2	3	10	14	60	120
Expenses (\$MM)	3	4	5	7	11	12	40	66
Cash Flow (\$MM)	-3	-4	-3	-4	-1	4	20	54
Cumulative (\$MM)	-3	-7	-10	-14	-15	-11	9	36

EXIT

Based on multiples of sales of three storage companies acquired in the past two years, StorajWebs' value would be from \$500 million to \$1.2 billion in five years. But we believe it is more likely than in 2-3 years, when we have clearly demonstrated the savings in storage costs that StorajWebs can deliver, StorajWebs will be acquired by a company such as Cisco for a value determined by discounted earnings. We calculate that value at \$300 to \$600 million.