



## Scalability – a multidimensional challenge

### Abstract:

**A brief discussion on the issue of scalability highlighting that it is not just capacity that storage administrators should be concerned with but includes I/O and throughput performance plus an ability to protect existing investments by easily integrating new technologies into existing storage infrastructure.**

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Traditionally scalability has been myopically viewed in terms of capacity and growth demands and addressed by simply adding more storage. However, an extreme rate of data growth, greater demands for online data availability and accessibility and a growing demand for operational efficiencies (power, space, management), are all trends that question the viability of this lazy mans approach to managing storage growth and increasingly demanding service levels. Unfortunately however, this tradition still lingers and is SOP in many data rich enterprises.

Scalability is a multidimensional challenge and while just one of many selection criteria, its importance requires deeper thinking. Data growth, increasing application demand, service level expectations and vendor product roadmaps should be understood and balanced when considering the complex question of scalability.

- **Data Classification:** While not strictly a scalability issue understanding your data should be the first question to answer. Why? Different data has different characteristics that drive different storage requirements which in turn drive key cost factors (CapEx and Opex) and ongoing service delivery growth options.
- **Data Growth:** Does capacity expand easily and transparently to match projected data growth over an acceptable time horizon? Suggested planning horizon would be 3 to 5 yrs.
- **Time:** Does the solution scale through time meaning can it

Be upgraded/enhanced easily with newer technology as it becomes available over the life of the product. Such scalability increases the useful life of the product and drives greater return on your initial investment? Examples would be higher capacity drives, new storage technologies such as SSD, compute resources and connectivity, understand the vendors roadmap and match it to your future requirements and beware the smoke.

- **Performance:**

Is application growth understood? Will they drive an increase in supported users? Will they increase the time sensitivity of the data? Will they increase the complexity of the queries and workloads? All are business driven requirements which drive greater demand for I/O, faster response time expectations or at least the same response time while servicing greater workloads and increases in ingress/egress data rate demands? If the answer is yes to any or all of the above, how easily and transparently can performance be enhanced? Know, the limits and plan accordingly.

Bio: Bill Mottram compliments his role the managing partner of Veridictus Associates Inc, a high technology marketing consultancy as analyst practitioner with Data Mobility. He has over 25 years product development, marketing and sales experience in the data storage and information technology industries. Experienced with Fortune 500 companies such as StorageTek, Compaq and HP and smaller, start-up enterprises including Pillar Data Systems and COPAN Systems he was the marketing executive and leader responsible for the development , introduction and “go-to-market activities for a number of innovative and highly successful data storage solutions. Although primarily a marketing professional Mottram has considerable expertise in technology management, corporate acquisition and public company funding.

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