DATA STORAGE AND PROTECTION ARCHITECTURE DESIGN

Assumptions are *good*! They are what guide the design of your storage architecture

Making uneducated, unexplored and unconfirmed assumptions in life is not advised, but when building and documenting your experience-based IT assumptions, it is critical to ensure the validation of a defined architecture.

At Mainline, we document your existing storage architecture and then facilitate the building of your planned architecture by defining a framework and a series of assumptions to guide the crafting of that architecture. Once validated, these assumptions become the detailed, low-level rules or architectural decisions and guidance used to align your SAN, storage arrays, backup/restore and archive infrastructure with future growth requirements in conjunction with your strategic storage mission.

The results of this architectural definition are part of a larger best-practices effort typically defined as part of the storage strategy. Architectural definition is a process and as a process, it requires a definition that is documented, published, maintained and enforced.

It is not just about painting a pretty picture of your architecture

While not taking for granted the value of visualizing an architecture, the deeper business value of an architectural definition is about operational efficiency and the healthy questions involved in building a process around who owns and administers that process. Is that owner the IT director/manager? Who is the administrator? Is it someone on the team? Is it a new hire? Is it someone on the existing or future engineering team? Once the owner and administrator are established, what do they do to maintain and enforce that architecture standard?

If we were just painting a picture, in six months that picture would become invalid. Even if we documented the assumptions, the same is true for them. The overall architecture definition and detailed implementation of it must be maintained as part of regular business. If service classes are defined, each class has an architecture to be defined. If data placement, retention and residency were defined per class, they get included as part of that architecture definition. As the SAN switch infrastructure grows, those new devices get added to both the physical and logical diagram. Without better tools, when a new LUN is allocated, that LUN is manually documented on a detailed physical array diagram. Keeping an updated definition is critical when managing problem and change. When making procurement decisions, issuing RFPs, and making tactical and strategic decisions to expand that solution, your storage architecture is the "on the ground" extension of your storage strategy.

What is included as part of this offering?

Mainline brings storage technical and business expertise and conducts a storage architecture workshop meant to define the data storage, protection and archive infrastructure, including up to two sites, the SAN, inter-site telecommunication links, fibre channel, iSCSI and IP arrays (NAS), archive solutions (CAS), tape library solutions, and any storage cloud solutions and services. Architectural decisions will be defined for the above, with assumptions about of structured and unstructured growth and what the future-state logical architecture should look like. Detailed physical diagram requirements will be identified, whether rack-level views or data-center-level views, to define a future SAN switch-cabling diagram or how the equipment would be placed in the racks. Assumptions about the rules for building racks, placement on the floor, cabling rules, use of patch panels, etc. all get defined as it makes sense for your infrastructure. You will validate this documentation, and a final presentation will be given back to your team defining the existing architecture, the future architecture and those related architectural decisions used to determine that architecture, including an estimated view of the logical diagram at 12 months and 36 months.





Data Storage and Protection Architecture Design is part of Mainline's larger storage assessment

methodology

Mainline's Storage Assessment methodology consists of ten service areas that can be delivered as a whole to exploit the inherent synergy, or they can be delivered as standalone services, depending on where you are in the storage transformation journey.

Data Storage and Protection Architecture Design provides additional value when delivered with the following services within the methodology...

- Enterprise Storage Assessment with Data Storage and Protection Architecture Design takes the current and target environment described in the Enterprise Storage Assessment and uses it as the starting point to converge on the future architecture within the design session.
- Infrastructure Application Landscaping with Data Storage and Architecture Protection Design provides detailed application-level requirements for storage infrastructure, providing a framework for architectural elements required to address each service class.
- Infrastructure Data Analysis will provide specific storage tier and backup retention policy recommendations that will drive growth estimates by tier over time.

STORAGE STRATEGY WORKSHOP A facilitated and managed approach to defining infrastructure strategy.

ENTERPRISE STORAGE ASSESSMENT Define current and target data s

Define current and target data storage and protection environment, identify the gaps, and provide an actionable roadmap of recommendations. The core of any storage assessment.



DATA STORAGE AND PROTECTION ARCHITECTURE DESIGN Define and illustrate both your current and

Define and illustrate both your current and future environment, including both logical and physical diagram modeling growth over 12, 24 and 36 months by data center.



INFRASTRUCTURE APPLICATION LANDSCAPING Facilitate infrastructure and

application teams working together to build a score card, score application requirements and agree on the future onboarding process.



STORAGE INVESTMENT ANALYSIS Define and enable a loaded unit cost of storage supporting showbacks/chargebacks through the development of TCO, ROI and CBA. SERVICE READINESS ASSESSMENT

Use Mainline's scoring tool to establish a service delivery baseline and compare against your industry average. Use to measure improvement.



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ANALYSIS Using an agentless, cloud-based Storage Resource Management tool, define valid and invalid data, recommend residency and retention policies, and classify application data/servers into service tires.

INFRASTRUCTURE DATA

SERVICE CATALOG DESIGN

Organize your infrastructure services into a catalog of your choosing based on strategy, data requirements and agreements with application teams by service class, or build a starting point to update as you learn more.

> PROCESS ENGINEERING Document and detail ITI-based process definitions within an IT-based process reference model, starting with storage and backup processes and building an operational guide delivering auditable, repeatable one-way-to-implement infrastructure.

ARCHIVE AND COMPLIANCE Establish a Data Storage Archive infrastructure based on the application data characteristics to be archived and the regulations that guide our client's industry.



EXPERTISE YOU CAN TRUST

- Eighty-five storage experts skilled in storage solutions from every major vendor
- Decades of industry expertise in designing, implementing and optimizing storage solutions for environments of all sizes
- Services covering product implementations, complex data migrations, information lifecycle management, storage assessments, and advanced archiving and protection strategies
- Residencies and managed storage services to improve storage operations and reduce operating cost

Next Steps:

Contact your Account Executive, or you can reach us at StorageServices@mainline.com.

For more information on our storage services, go to http://mainline.com/storage-transformation.

