Pre-Cloud Optimization Blueprint

[deft]

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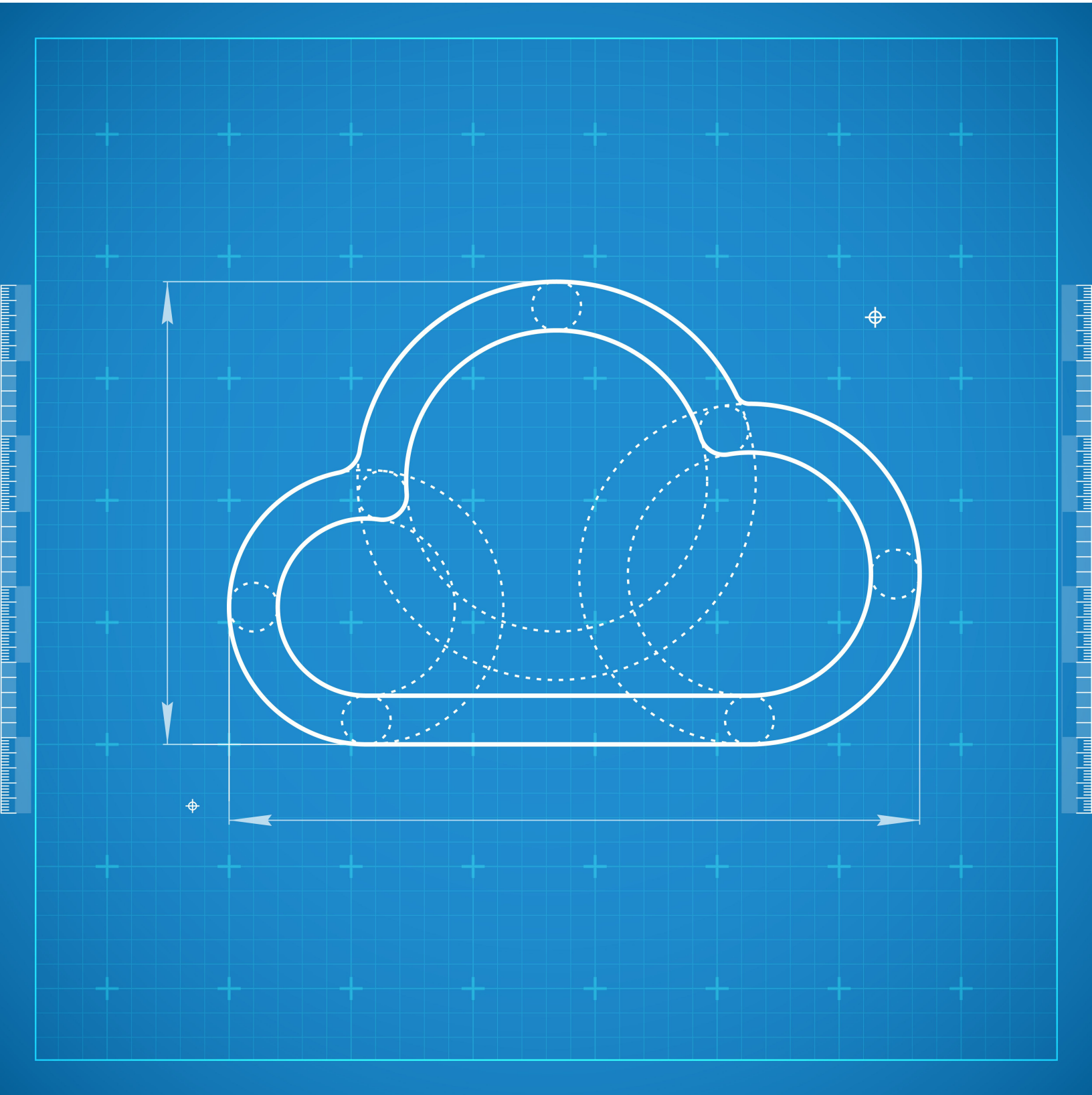
An optimized cloud is no accident.
Here's how to plan for one.



Assessing your current environment

Deft can help you with this, but you can do it on your own, too. These are the questions we need to answer before a cloud optimization can begin.

Strategy and Motivation:

- What are the drivers behind this optimization?
- Are there any pain points around scalability, security, performance, or SLAs for critical applications?
- What does your ideal setup look like?
    - Single cloud vs. multi-cloud vs. hybrid vs. on-prem?
    - Cloud-native applications vs. IaaS?
    - PaaS adoption (e.g., database platforms, containers, serverless technology)?

Current Inventory & Environment Assessment:

- Provide a high-level map of your current IT and cloud architecture.
- Provide all costs of your current setup.
- How many people are on your IT team?
- Existing connectivity (data center-to-cloud, campus-to-cloud, remote office-to-cloud, a dedicated network connection)?
- Firewall and/or network infrastructure vendors?
- Existing data centers planned for exit?
- Data center locations?
- Monitoring tools (system, application, UX)?
- Integration tools?
- Public cloud accounts and hosting info?
- Private cloud accounts and hosting info?
- Other hosting solutions (on-prem, data centers)?
    - Number of servers and OSs, & versions?
    - Number of databases and their technologies?
    - Number of middleware instances and their technologies?
- Approx. server footprint (physical and virtual)?
    - Server breakdown count by OS?
    - Server breakdown count by production vs. non-production vs. disaster recovery?
- Performance data per server?
- Number of SaaS applications?
    - Is licensing centralized?
- List of applications and the following details:
    - Application name & functional overview
    - Priority/criticality to the business
    - Availability/uptime requirements
    - Interdependency map documentation
    - Commercial off-the-shelf or custom?
    - Programming languages (.NET, Java)
    - Web and/or app servers (Weblogic, Tomcat)
    - Middleware (Fusion, OSB)
    - Database (SQL Server, Sybase)
    - OS (Solaris, RHEL)
    - Application size, including lines of code and complexity
    - Where it's hosted now
    - Performance data per application
- What hardware do you currently have? Make a list of all compute devices, including:
    - Make
    - Model
    - Type
    - Environment
    - Criticality
    - Required availability
    - Quantity
- Make a list of all storage and backup devices, including:
    - Make
    - Model
    - Type
    - Capacity
    - Quantity
- Make a list of all network devices, including:
    - Make
    - Model
    - Type
    - Quantity
- Make a list of all security devices, including:
    - Make
    - Model
    - Type
    - Quantity
- Make a list of all databases, including:
    - Type
    - Quantity
    - Version
    - Hosted environment
- IT and operations tools currently in place:
    - Continuous integration and continuous delivery tools?
    - Infrastructure provisioning and automation tools?
    - Release management tools?
    - Monitoring and feedback amplification tools?
- Total storage allocated?

Processes and Automation:

- What type of automation exists today?
- What type of customer/employee service/support management tools are you using (e.g., ServiceNow)?
- What hypervisors are you using for virtualized workloads?
- Do you have a configuration management database (CMDB) implemented?
    - How accurate and updated is it?
- To what extent, if any, has your company adopted DevOps processes?

Stakeholders:

- Do you have a vetted and confirmed list of internal stakeholders and decision-makers?
- Do you have a communications and approval plan in place?

Security and Compliance:

- What regulatory, compliance, data residency, and/or security requirements must *you* follow?
- What regulatory, compliance, data residency, and/or security requirements must *your suppliers* follow?
- Do you have any data sovereignty restrictions?
- Do you have preferred or required vendors for operations or security?
- Do you know which of the following cloud security assessments you need and who will perform them?
    - Identity provisioning
    - Identity management
    - Role-based access control
    - Access governance
    - Web access management
    - SSO/federation
    - Multi-factor authentication
    - Privileged identity management

Disaster Recovery:

- What current disaster recovery and business continuity plans do you have in place?
    - Who has access to them?
    - Who can execute the plan?
- Do you have business availability and DR requirements defined for every application?
- What RTO and RPO are you expecting in general?
- What RTO and RPO are you expecting for each application?
- What backup/DR systems do you use? Please provide vendor/type/product.
- What archival procedures and/or vendors are you currently using?

Planning and Governance:

- Do you have a cloud migration plan for existing and future applications?
    - What does the timetable look like?
    - Do you have any OEM-preferred vendors to support the migration (e.g., CloudEndure)?
- Who is responsible for cloud governance?
    - How is it documented and communicated?
- Who is responsible for cloud training?
    - Who needs to be trained?
    - What is their current level of understanding?
- Do any applications need rearchitecting and refactoring to take full advantage of the cloud?
    - Does the expertise exist to do that in-house?
    - On what timeline do you see that happening?
- Do you plan to adopt IaaS or PaaS for app hosting?
- What percentage of workloads are expected to run in the cloud in the next 1/2/3 years?
- Are there any roadmaps set for the next few years that may create new or different infrastructure needs?
- Will the geographies you serve change?

How to optimize your IT environment the right way — because there is a right way

This blueprint should give you an idea of *some* of the things to think about before optimizing your cloud. If you feel overwhelmed or wind up with more questions than answers, you can reach out to us anytime. We're happy to walk you through the process or work through it together in a formal IT architecture review.