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Migration operations centers

Build your own capability or partner for success?

Strategic White Paper

Migration operations centers are the controlling mechanism to industrialize the migration of thousands of customers in a repeatable and controllable way, while minimizing risk. This white paper examines whether it is better to invest in and build your own capability — or partner with a recognized industry leader in managed migrations.

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Introduction

A migration operations center (MOC) is usually essential for companies about to undertake a large, multi-year IP transformation program. That's because it can enable the volume and control required to migrate ten of thousands of customer network services, whilst minimizing risk, and enabling business as usual operations to continue unhindered. But building and operating this type of organization is a complex undertaking. It requires a serious, long-term commitment from sponsors, the managing organizations and the finance organization.

Before embarking on an investment of this scale, it is important to understand the skills, capabilities and assets that are required. After all, the MOC is a physical facility, housing a combination of skilled resources and customized IT systems, implementing finely tuned business processes. So the investment should be considered, not just in terms of initial sunk costs, but also according to its return and how the capabilities will be redeployed, repurposed and leveraged once the migration is completed.

This white paper explores the important phases of building a MOC, the required investment and whether these efforts are worthwhile, when partner models are readily available.

Strategy and planning phase

Strategy

Setting the strategic direction and tone of the MOC is essential before planning begins. Without a clear strategy, investment planning becomes impossible, and the long-term viability of a reusable MOC will be questioned.

Therefore, the first step in building a MOC is to determine the following points:

- Its purpose – technical scope, period and scope of migration assignment
- The organizational scope – who will design, build, operate and manage the MOC
- The logistics – how it will be staffed and where it will be located
- The funding – who will pay for it, how and over what period, as well as how it will be managed as a financial asset moving forwards

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Planning

In planning, the program manager must ensure that:

- The scope is clear.
- Boundaries are agreed.
- Stakeholders are engaged.

The necessary skills will be available during the scheduled timeframes for designing, building, integrating, commissioning and operating the MOC. MOCs need to be specialist centers of expertise, a point that is regularly misunderstood — often making it the first stumbling block to overcome when building such a capability.

The business case

After strategy and planning are complete, the business case can be shaped and assessed for sign off. Any business case must take into account the following factors:

- The tangible program assets – people, platforms and facilities
- The effort to execute – resources, recruitment and training
- The costs to operate – including the capital expenditures (CAPEX) of establishment and ongoing operating expenses (OPEX).
- The decommission path and the associated costs of resource release, asset redeployment and the re-use of facilities.

In short, the business case for an MOC should cover the full lifecycle.

Design phase

During design, dedicated process engineers define the operating processes and interfaces required to operate the MOC. These include pre-migration, migration, stability, fallback management, reporting and schedule control. The design must also accommodate operating interfaces to the external programs and stakeholders, including network operations centers (NOCs), managers, regulators and customers.

Models and role profiles: Based on the defined processes, human resources (HR) and modeling experts are engaged to design the organizational operating model (normally functional) and the associated role profiles.

Systems: Where processes rely on systems, separate IT projects will design, develop, integrate, test and prepare training for the necessary systems. The systems that industrialize the MOC will deliver data migration, manage workflow and schedule management functionality. Engaging in-house IT to

deliver such systems is not preferred, as their own workload to integrate the OSS ready for migration is in its own right, extremely time consuming. Consequently, third party delivery of MOC IT is recommended.

Facilities: In parallel, facilities for housing the MOC must be identified, secured (either through internal facilities reallocation or through building acquisition) and made ready to accommodate the working operations. Facilities readiness is a complex project in its own right, and one key challenge is to have everything completed by the intended MOC launch.

Investment view: All aspects of design should be considered a committed investment, only returning value when the MOC is operational. Managed Service providers have already invested in a MOC, and therefore working with a partner offsets the investment, plus the risk of MOC design issues and program failure.

Build

Experts: One very large undertaking when building an MOC is to find the right experts to fit the roles defined during design. The required skills are a mix of operations (NOC environments), IT, network planning and project management. So subject matter experts in each field should support HR through the recruitment process. Finding and attracting the right caliber candidates takes considerable time and expense.

Training: Once recruitment is completed, the training of resources in the MOC operations is needed. The preparation, logistics and content for training is normally prepared during the recruitment process, so training execution occurs as soon as resources are employed.

Cold runs: Of course, training alone cannot fully establish a new "operation." That's why test migrations and "cold runs" are also required to operationalize the MOC and help "bed in" the processes, people and systems. During this bedding-in period, when the operational learning curve is steep, it's important to keep in mind that the number of migration faults is likely to be higher, until the processes, staff and systems mature.

Management: All these operations require management oversight. An experienced migration professional must be appointed to provide assurance, governance and control to the MOC. It should also be noted that during this bedding-in period, when the operational learning curve is steep, the number of migration faults is likely to be higher whilst the processes, staff and systems mature.

Investment view: From an investment perspective, the build and ramp-up activities are certainly resource intensive, and the costs should not be overlooked in relation to the pure "asset" costs in any business case.

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Migration operations

The impact of migration on business-as-usual (BAU) activities has to be considered when integrating the MOC during operations. While the MOC offloads the workload of planning and managing migrations, the integration into BAU functions such as program management office (PMO), NOC and service desks has to be addressed.

Partners can minimize these efforts through template approaches to process integration. But any new "home grown" MOC will go through a learning curve and impact BAU through additional headcount requirements, as well as expansion of the PMO. This headcount growth should be included when determining integration costs.

Knowledge base: One of the key benefits of managing an MOC is that the knowledge base for migration-related activity is shared within a single organization, using centralized systems and people. Establishing how that knowledge is stored (for example, in a document-management repository) and shared across the wider ecosystem takes a level of maturity that develops over the first twelve months of operations. During that period, any company managing an MOC should anticipate that they are not yet receiving the full value of centralized knowledge management.

Managing demand fluctuations: One challenge facing new MOCs during the first year of migration is learning to manage demand fluctuations. Demand can alter, based on the various migration schedules under control and on the associated network-preparation activities. Both factors can accelerate or delay migration. Demand fluctuation can result in benched resources (creating costs) or in peak demands outstripping capability (causing program delays). So, to cover the peaks and troughs of migration programs, a business case for resources to operate the MOC should allow for fluctuating demand or assume a utilization rate of less than 80 percent over the operating period.

Managed service providers can manage such demand fluctuations far easier, by load sharing resource capability across multiple migration programs, which gives them a significant advantage in managing ongoing operating costs.

Decommissioning

During decommission of the MOC, at the end of the migration program, a number of factors have to be considered, in terms of recouping some investment, calculating additional costs and determining the business impact.

Resource reallocation: First, the cost of reallocating resources into the business or releasing them through HR programs has to be determined. These costs can be significant, considering that large MOCs can employ significant numbers of people. The process also requires a dedicated HR investment to manage, and there are severance costs if resources are to be released.

Reallocation or sale of the facility: If an MOC facility can be redeployed in operations, it is an ideal environment. Otherwise building facilities will need to manage the sale or rental of the property.

System costs: Depending on their roadmap, MOC systems need to be archived, repurposed (through transfer or additional development) or closed. These costs also need to be accounted for in any business case when building an MOC.

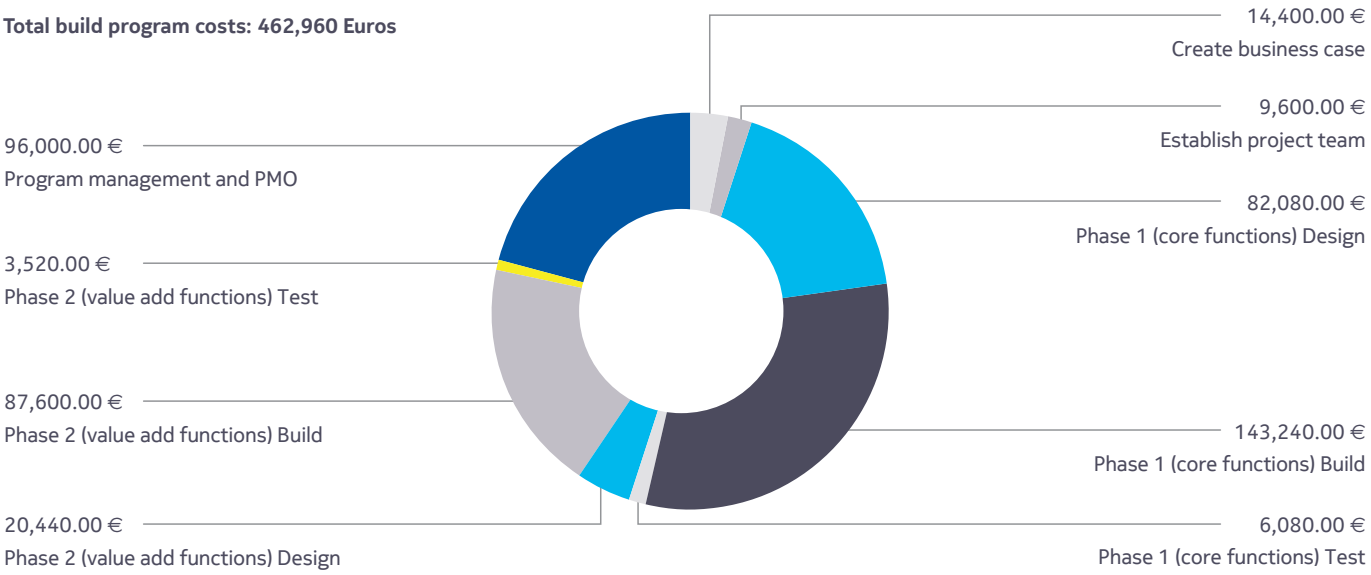
Program management

The final element to consider when building an MOC is the level of expertise and resource effort required in managing an MOC program. Clearly, these programs are complex and have a large number of dependent projects running in parallel. A program manager with experience in creating operating environments from the ground up is a necessity, supported by a dedicated PMO, which must operate until the MOC goes live. Identifying, recruiting and retaining these types of resources is a considerable undertaking and should be factored into both planning and the business case.

The costs of doing it alone

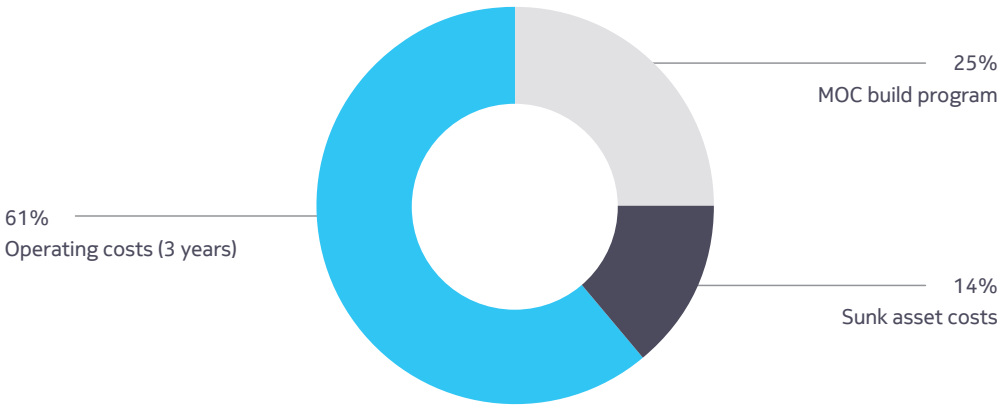
The financial cost of building an MOC is estimated at over 460,000 euros, taking at least six months with experienced resources. A typical program cost breakdown is shown in Figure 1.

Figure 1. MOC build program cost breakdown



The total costs of MOC ownership for a typical three-year program can be much higher though, because the facilities (where only lost rental or reuse is factored), telephony, IT and operations costs must be accounted for. Figure 2 illustrates a three-year program, operating a full-time migration, using three parallel teams, with a facility located in a lower-cost European country.

Figure 2. MOC build and operate costs (three years)



In short, building an MOC and operating it for a typical migration program will cost several million euros. This estimate assumes the program has an experienced team of designers, planners and operations resources.

The benefits of partnering

Certainly, designing, building and operating an MOC is a considerable investment, and it is not without risk. There are several key benefits in working with a managed service partner who provide an MOC as part of the service offering. For example:

- The service provider has invested in the MOC, so you do not have to. There's no need to develop an expensive business case.
- Processes and organizational models have been through the maturity curve, so they are proven and are well tested with case studies.
- The dedicated systems are already operational, have a legacy of development investment and are an incurred cost to the partner. They also offer a feature richness that only maturity can provide,
- The partner provides methods and templates based on experience, de-risking migration and speeding up the capability build and integration phases.

- Partnering reduces the impact on HR in recruitment, training, redeployment and release programs.
- Partnering reduces the impact on facilities, in identifying, acquiring, modifying and then disposing of a dedicated operations center.
- The service provider can manage demand fluctuation by load sharing resource capability across multiple migration programs.
- The partner shares the risk of migration programs, if the contract is established correctly.

Summary

Building and maintaining a new migration operations center to manage complex migrations is a significant undertaking. It requires multi-year investment, specialist resources, customized IT solutions and a specific operating model. All to support what could be a one-time network change program.

The business case for a dedicated migration capability is hard to justify when the MOC will be, for most clients, focused on a single program, over time periods shorter than five years. MOCs, like network operations centers and customer service desks, are investments for long-term use, where value is delivered over many years.

Certainly, owning an MOC has advantages. But using a strategic partner has significant benefits, offsets investment costs and de-risks the overall program assurance. While no two programs are unique, there is a strong case for choosing the right partner for migration.

Looking for more information? Please call us at:

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