IT Infrastructure Manager Roles and Responsibilities

What Does an Infrastructure Manager Do?

Summary

The Infrastructure Manager is responsible for the design, installation, maintenance, and retirement of the systems and personnel that are at the core of an organization. The services under the responsibility of the Infrastructure Manager are typically the underpinning (or supporting) services that enable the delivery of customer-facing IT services.

In more simplistic terms, the Infrastructure Manager is responsible for everything between the wall jack and the
handoff to the internet service provider.

Peers and Reporting

An Infrastructure Manager is usually part of the senior management team in an IT organization. In larger organizations, the Infrastructure Manager may report to an Operations Director that oversees additional areas. In smaller organizations, the Infrastructure Manager will report to the CIO or senior leader in the IT organization. The Infrastructure Manager works alongside the service desk, security, development, and project managers to deliver IT services to the organization.

Staff Management

The Infrastructure Manager typically oversees three functional areas:

1. Networking – Manage the staff and equipment that handles switching, routing, and in some cases perimeter devices (firewalls). Most larger organizations have transitioned the firewalls to being the responsibility of the security team. In those cases, it is important that the Infrastructure Manager build a strong relationship with the security team to ensure smooth infrastructure service operations. In organizations without a dedicated security team, the Infrastructure Manager should have at least one person who has the responsibility for ensuring the IT security of the organization. In very small organizations this can be the responsibility of the Infrastructure Manager.

2. Servers – The Infrastructure Manager must have a good understanding of server technologies. This includes operating systems, as well as physical and virtual servers. Storage, backups and disaster recovery are
usually the responsibility of the server team as well.

3. Physical Cabling – Only the largest organizations have internal teams responsible for physically pulling network cabling. However, the Infrastructure Manager must be well versed on all types of physical and fiber optic cabling. I’ve seen situations where failure to consider data transfer speeds and associated cabling requirements have been instrumental (and devastating) to server room and data center projects.

Vendor Management

In most IT organizations, the staff works with external vendors to support hardware and software. The Infrastructure Manager is responsible for establishing strong partnerships with those vendors to set clear expectations. This includes negotiating access agreements, establishing service level agreements, and ensuring contracts are in place to support the services provided by the infrastructure team.

Establish Standards and Procedures

Perhaps the most important role of the Infrastructure Manager is to ensure that standards and procedures are in place for the work of his or her team. Technology infrastructure is inherently complex. This complexity is best mitigated by establishing standard ways of work that ensures the technical teams work together in a consistent manner. Although it may seem the opposite, standard procedures actually enable the organization to be more agile and more adaptable to change. Think about it, which sounds like more work – writing a script to change the configuration on 200 servers, or manually changing the configuration on 200 servers because each one was set up in a unique way?
Strategy

The Infrastructure Manager must be more than just an expert at managing technology. The Infrastructure Manager must be aware of the strategic direction of the organization as well as new technologies on the horizon. The Infrastructure Manager must be able to use this knowledge to select the right technology that enables the organization to move forward, rather than waiting on the IT department. Furthermore, the highly successful Infrastructure Manager must be able to lay out a strategy that the CIO and other executives will understand and support. This means going beyond understanding what the technology does at a systems engineer level. The Infrastructure Manager must understand how that technology relates to the goals of the department and larger organization.

Monitoring and Reporting

I once read a comic where it showed an IT guy in front of the computer with the caption “Network hasn’t gone down in 2 years, everyone wonders what the IT guys does.” Then next to it, another caption that said “Network has been down for 2 minutes, everyone wonders what the IT guy does.” Without proper metrics and monitoring, this can quickly be the opinion that senior leadership has of the Infrastructure Manager. The Infrastructure Manager needs to have a strong monitoring system in place and be able to produce standard reports on the status of the infrastructure. Furthermore, the Infrastructure Manager must regularly communicate what they are doing and how their work relates to the success of the organization. By doing this, the Infrastructure Manager can bring visibility into work that happens ‘behind the scenes’ when compared with the rest of the organization.
Infrastructre Software

One responsibility that frequently gets overlooked is ensuring the right software and tools are in place to manage the infrastructure. This goes beyond the OS selection. What I’m talking about here are things like software monitoring, device, OS patching and configuration management tools.

What Does the Future Hold?

Cloud Based Infrastructure

Many organizations are already focused on “cloud first” solutions. While there are significant advantages to a cloud first approach for new organizations, well established organizations have a lot to consider when investigating cloud solutions. Cost should not be the only consideration for Infrastructure Managers. Cloud based solutions can bring greater agility to the overall infrastructure and allow it to respond to business demands more rapidly. The modern Infrastructure manager must consider cloud based solutions as part of his/her infrastructure toolkit and know how to leverage its benefits to deliver a competitive advantage for the organization. Key to this understanding is having the proper tools and people in place to effectively manage the infrastructure services regardless of whether they are on premise or in the cloud.