



ASYSSTEC
DATA MANAGEMENT SOLUTIONS

SERVICES



Desktop Assessment and Application Discovery

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Introduction

The planning phase of any project is key. Any decisions made during this phase shape the direction that the project will take and ultimately will determine whether the project goals are met.

In the End User Computing (EUC) and Digital Workspace world, the inclination is often to first look for solutions without completing a thorough analysis and requirements gathering activity. For example, when a particular product has been in use in the company for some time, upgrading that product to the latest version can seem like the logical approach. However, end user requirements often change significantly over time and a solution that was purchased to address user requirements previously may no longer be fit for purpose.

To carry out an accurate assessment of current user activity it is necessary to deploy application and user discovery agents onto the existing environment. As planning for an EUC project may only happen once every 5 years, it can be hard to justify a spend on the relevant tools. Instead, best-guess estimates and the design team's perceptions of what their users require are used.

When it comes to information gathering, accuracy and precision can be the difference between a project that runs within budget and a project that runs over budget, an environment which is sized correctly and one which is undersized, or the difference between a happy and a disgruntled user base.

Asystec have the experience, skills and tools in place to assist with this planning phase. In this document we draw out the framework we use to ensure that you gather accurate information to feed into your architectural design.

Target Audience

This service assists a customer who has an existing desktop environment (physical or virtual) and is looking to either migrate to, or upgrade to, a virtual desktop or application environment or get a handle on their user base to accurately plan for an EUC/Digital Workspace strategy. Examples:

- Migrating from an on-premises desktop environment to a cloud hosted environment
- Migrating from physical PCs to a virtualised desktop (Citrix XenDesktop or VMware Horizon)
- Migrating from Windows 7 to Windows 10
- Migrating from Citrix XenDesktop or VMware Horizon or vice versa
- Upgrading from Citrix XenApp 6.5 or XenDesktop 5.X to XenDesktop 7.X
- Upgrading from Horizon 6.X to Horizon 7.X

Questions to consider

Whether you are migrating to Windows 10, planning to move from physical to virtual desktops or upgrading your existing virtual desktop infrastructure there are a number of questions that need to be answered before any architectural design begins:

QUESTIONS	
1. Virtual Desktop or Application Environment Strategy	<ul style="list-style-type: none"> Is there a company policy of cloud-first? Is security a key concern (it should be)? Is the ability to scale up and scale down quickly a requirement e.g. expansion due to Mergers & Acquisitions or a large number of seasonal workers? Is the mobility of the workforce a key requirement? What is the company’s overall DR strategy and how does this relate to the desktop environment?
2. Users Functional Requirements	<ul style="list-style-type: none"> Do some users need to access desktops/applications from mobile devices? Do these mobile users also work from an office location some of the time? What peripheral devices need to be supported from the user’s end-point e.g. smart cards, USB drives, label printers? Do your users need to access the desktop from outside of the corporate network? Do users need to stream video e.g. YouTube, Vimeo? Is audio/video conferencing a requirement e.g. Skype for Business?
3. User Groups	<ul style="list-style-type: none"> What are the user groupings in relation to the pre-defined task workers, knowledge workers, power users, developers, high-end graphics users or road warriors (detailed descriptions of these are in the ‘User Groups’ section)? Are there some users that do not fit in any of these categories?

4. Application Requirements	<ul style="list-style-type: none"> • What applications are in use in the environment? • What applications are installed but not in use? • What is the licensing structure for each application? • Are the applications compatible with potential target operating systems e.g. Windows 10?
5. Application Dependencies	<ul style="list-style-type: none"> • What back-end components (Database, application server, web server) does each application need to communicate with? • What pre-requisite software does each application depend on e.g. .NET Framework, Java etc.?
6. Site Topology	<ul style="list-style-type: none"> • Are there multiple hosting datacentres? • Where are your users located relative to your hosting datacentre(s)? • What is the bandwidth and latency between the user site(s) and the associated hosting datacentre? • What is the bandwidth and latency between the hosting datacentres (for replication)? • Do users need to roam between multiple hosting locations?

Once these questions are answered, and can be supplemented with enough data to provide an accurate assessment of user and application activity in the current desktop environment, they can be fed into an architectural design. Starting the architectural design without this data may lead to a virtual desktop environment being created that cannot accommodate all use cases and may be either oversized or undersized.

User Groups

When discussing the types of users of a virtual desktop environment there are industry standard user groupings that are a useful guide when performing a desktop assessment.

They are as follows:

USER GROUPS	
Task Workers	These users use one/two applications, such as a call centre worker running a telephony application. These users would consume the least amount of system resources.
Knowledge Workers	These users use four/five applications such as Office, Internet Explorer and some other corporate applications. They work on Word documents (or equivalent), spreadsheets and presentations. In most environments, but not all, this will be the largest group of users.
Power Users	They use some heavy-duty applications which require a lot of CPU and memory. In some cases, this could be Excel running calculations on large spreadsheets. High-end graphics users would fall under this group. In this instance GPU's may be required to achieve the performance they need.
Developers	These users need to install applications, reboot the machine and make configuration changes to the system. They would also consume a large amount of CPU and memory.
Mobile Users/Road Warriors	Mobile users work outside of the corporate network and can work from multiple locations. In some instances, they may be offline and in other instances they may be connected to the internet. When online they may need to connect back to corporate resources or their application requirements may be served from the relevant application store.

Knowing that these types of users exist in your environment is one thing, grouping your users accurately into each group is the more difficult task.

Asystec Offering

Using our experience in planning and designing virtual desktop and application environments, Asystec will host planning workshops to assist you with answering the above questions. In addition, we will also perform a discovery and analysis exercise against your existing physical or virtual desktop estate. We will gather information relating to system resource utilisation, user resource utilisation, application usage and application dependencies. From this data we will be able to group users into the before-mentioned groups while also getting a better understanding of your application estate. This information can then be fed into a virtual desktop and application design that meets your company and user requirements.

Impact and Resource required

Workshops

There will be two planning workshops required, a kick-off meeting and a follow-up meeting once the data gathering is complete. The first workshop will help build a better understanding of the background and context of the project while answering as many of the previously listed questions as possible. The second workshop will take place after the application and user discovery agents have been deployed and have gathered enough data for an accurate assessment of the current state. This second workshop will involve a presentation of, and discussion about, those findings.

Application and User Discovery

We use Stratusphere FIT by Liquidware Labs to perform the discovery. We will deploy discovery agents onto all or a subset of desktops within the environment. We will also deploy some appliances (a maximum of 4) into a virtualised environment (vSphere, Hyper-V, XenServer, Nutanix & AWS are all supported). The agents communicate back to the appliances at a configurable interval and report back on application usage, system resources and logged-on user activity. The agents would be left in place for at least 30 days. The data gathering duration will be determined during the first workshop. The information can be analysed and reports created to gain a deeper understanding of the existing environment.

Service Deliverables

The deliverables for this service is a Desktop and Application Assessment Report which along with the workshops will give you:

- A better understanding of your company requirements
- A better understanding of your user requirements
- A list of used applications within the surveyed pool of machines
- A list of applications installed but not used during the period of the data gathering
- A grouping of users in order of resource utilisation
- A grouping of users relative to the user groups defined in a previous section
- A grouping of applications in order of resource utilisation
- A better understanding on whether existing hardware can meet future needs
- Sizing analysis for new or upgraded solution

How long it will take

The effort and duration required for this service is as follows:

ACTIVITIES	
Kick-off workshop	1 Day
Appliances Installation & Configuration	1 Day
Agent installation *	1.5 Days
Agents running for 30 days (or more) **	No additional effort
Data gathering and analysis	2 Day
Follow-up meeting	0.5 Days
TOTAL EFFORT	6 DAYS

* Depending on the size of the environment and the level of involvement required from Asystec for the agent installation activity, this estimate may increase.

** The minimum required running time is 30 days. Depending on application usage trends this may need to be extended to ensure that a full cycle of application usage is captured.