



Inside Track Research Note

In association with



Digital workplace transformation

The business context
for Windows 10 in
financial services

Freeform Dynamics, 2017

About this Inside Track

The insights presented in this document are derived from independent research conducted by Freeform Dynamics. Inputs into this include briefings with Microsoft and in-depth discussions with a range of its enterprise customers in the financial services sector, along with intelligence gathered during broader market studies.

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A digital divide has opened up between modern customer-facing digital systems and the old-fashioned technology used by employees in the workplace.

Workplace-related challenges and constraints will eventually impact your competitive status and shareholder value.

The enterprise digital divide

There is a digital divide at the heart of many, or perhaps most, financial services organisations. The old saying 'The cobbler's children run barefoot' puts it well: companies have invested in outward-facing digital services that benefit their customers and prospects, but they have ignored needs inside the organisation – or rather, in the aftermath of the 2008 global crisis and other problems, they have repeatedly kicked those needs down the road in order to save money.

Now, almost a decade later, they – and you – cannot delay much longer. Fortunately, though, this modernisation imperative coincides with a number of other opportunities, each of them probably insufficient on its own to justify investment, but which taken together will allow you to digitally transform your workplaces for the 21st century. Chief among these is the opportunity to leverage work already done to transform your customer-facing technologies, together with innovative software that could remove the need for major desktop upgrade projects in the future.

Why it matters

The problem is not merely that staff are using outdated technology. It is that, lacking access to modern tools and processes, decision-makers and others are constrained in their abilities. For example, it might mean they lack the ability to make the best possible decisions that will guide the organisation's future, the ability to service customers in a timely and accurate fashion, or simply the ability to look and behave like they are part of a 21st century operation.

The result of all this is that your business outcomes suffer. For instance, a customer advisor who lacks the information necessary to engage properly with a customer may well miss opportunities to up-sell or cross-sell. Potential employees may prefer an employer who treats them with the respect that a more up-to-date workplace implies. Customers visiting a branch may be worried if they see their advisor using what looks to them almost like an antique. And eventually all the above will filter through to your competitive status and shareholder value.

This sets the frame – and the opportunity – for workplace, or digital, transformation.

What is digital workplace transformation?

The term 'workplace' generally brings to mind the classic office set up in which employees largely work from their desk, occasionally gathering in meeting rooms and communal areas when they need to plan, review and otherwise collaborate. In a branch office context, we might add to this more specialised areas, e.g. teller stations, and a combination of both open and private locations in which advisers can interact face-to-face with customers.

This physical view of the workplace has traditionally dictated many aspects of the way people work. You confine certain activities to certain locations based on who needs to be involved, the level of privacy and security required, which records and systems need to be accessed, and so on. When necessary, you hand-off work between teams, functions and individuals that are geographically separated - or sometimes even just separated by a flight of stairs between floors in the same office block.

The elongated process cycle times, the limits on customer responsiveness, and the frustrations employees live with on a day-to-day basis, have often been institutionalised as just 'the way things work'.

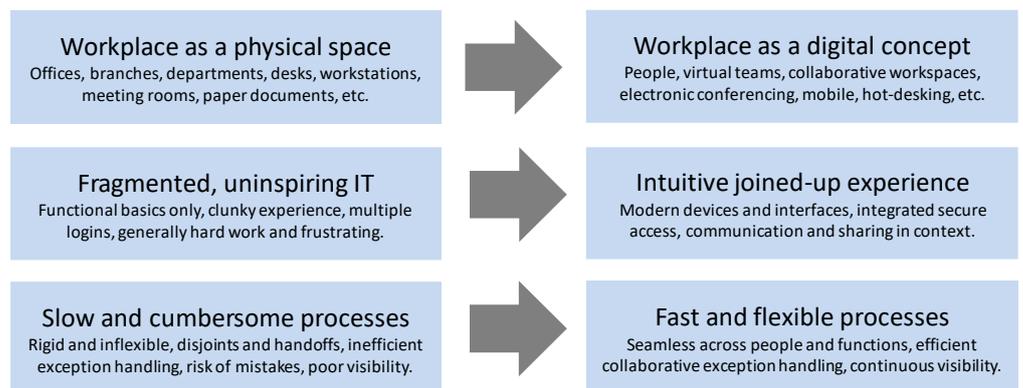
While no one can remember why a particular process was designed to work in the way it does, it's amazing how often it can be tracked back to how paper forms and other documents have been physically passed around in decades gone by. Indeed, the first wave of automation, towards the end of the 20th century, arguably did little more than emulate existing workflows electronically, with IT constraints often inhibiting process integration, even within the same department.

The truth is that in many financial services organisations, the elongated process cycle times, the limits on customer responsiveness, and, quite frankly, the frustrations employees live with on a day-to-day basis, have essentially been institutionalised as just 'the way things work'. This may have arguably been 'acceptable' until recently, but the reality is that what are essentially 20th-century working practices are starting to look particularly archaic when you consider what is happening in the broader digital world. When a customer going through your website has more coherent visibility and access into your back-end systems than your employees sitting at their desks, something is clearly wrong.

Put simply, workplace transformation is about recognising that many of the traditional physical and system constraints we have had to cope with no longer apply, and using this opportunity, not just to optimise current processes and working practices, but to approach problems and objectives in totally new and different ways.

Digital workplace transformation begins with recognising that many traditional physical and system constraints no longer apply.

Digital workplace transformation



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The idea of regarding the workplace less as a physical space and more as a digital concept is the key to driving transformation. Modern technology plays a huge role in this, and we will get into that shortly, but in the meantime, we need to cover some fundamental principles and ground rules for moving forward successfully.

The need for inclusivity and balance

The gap between the cutting-edge home technology experience and the clunky and old-fashioned feel often associated with the work environment has become an industry cliché.

Some argue that against this background, you should take your lead on technology choices – devices, software, services, etc. – from tech-savvy employees, because they know what's best for them to do their jobs. The danger, however, is that they often have good ideas, but they don't know what they don't know, and tend to take a very parochial view. If you followed their lead unchecked, even in the unlikely event that

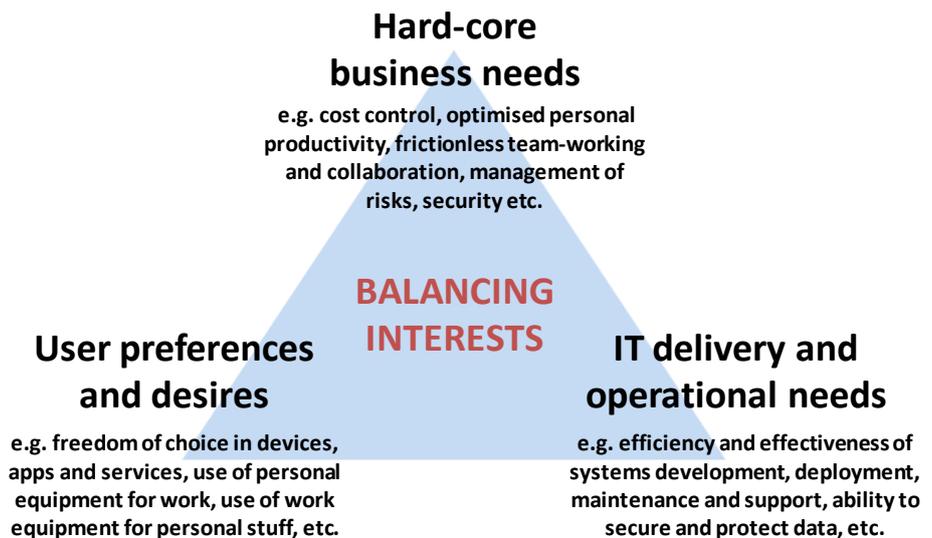
Modern technology plays a huge role.

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you could get a consensus, you would soon end up with a chaotic, unsupportable and insecure mess, plus a big compliance problem.

When thinking about the interplay between employees and technology in a workplace transformation context, it's therefore more about acknowledging that if you listen to people, then create a work environment that they actually like, they will generally perform much better. You end up with higher productivity, greater creativity, more effective decision-making, and firmer loyalty. The trick is to aim for the right balance between the user, business and IT agendas.

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The imperative that falls out of this is to ensure that workforce transformation initiatives are driven by multi-disciplinary teams, with appropriate input from all key stakeholder groups.

Building a foundation for change

You need an open and flexible systems foundation or environment, able to absorb innovation while simultaneously reducing business risk.

The challenge is to create a framework which will enable these transformations and then support them as they progress. That means an open and flexible systems foundation or environment, able to absorb innovation while simultaneously reducing business risk.

From a competitive standpoint, new point players in the financial services market, with no technology legacy, have taken this approach. Initially, the older financial institutions were able to ignore these as they could only target quite narrow use-cases. However, their technology-enabled agility is now allowing them to federate and provide a virtual full-service, which requires traditional full-service players to respond in kind, ultimately driving a broad industry shift in digital readiness.

Inevitably, this means you will need to modernise key components of your existing infrastructure, both to bring its capabilities up to date and because old technology can both hold you back and introduce risk, especially security risks.

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The good news is that a large chunk of this work has probably already been done. It happened when you digitally-enabled your customers – a necessary activity in an age where customers have been known to change banks purely on the strength of their online services or mobile apps. That customer-enablement process will have meant investing in rapid delivery, and consolidating and API-enabling your back-end systems.

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But the customer back-end is the same as the internal back-end, so why do your colleagues have less capable systems than your customers?

In short, it's because the technology they are using to access the back-end – most notably the end-point devices and the software that drives them – have their roots in designs and methods that pre-date the latest digital and mobile revolution. The way you get a modern phone or tablet to access a back-end service today, for example, is quite different to how it was done in the past – and much easier. And the same can be said about how you enable information sharing, collaboration, data visualisation, and all sorts of other productivity-enhancing functionality.

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Put simply, things we regard as totally natural when using a PC, tablet or phone running an up-to-date operating system are actually quite hard to achieve on older generations of software. This is one of the reasons why IT departments and third party software providers are reluctant or unable to offer the same rich and fully functional user experience on even a Windows 7 machine, let alone one running XP. Another reason is that they are loath to invest in technology platforms and techniques that were conceived a decade or more ago, and have already been superseded. And over time, the richness and functionality gap will inevitably widen.

Against this background, a desktop computing environment based on the thinking and technology of yesteryear represents a major point of friction, holding back the kind of change and transformation we discussed earlier on. And yet, with current systems arguably doing the job 'adequately' for now it can be difficult to justify acting on what currently looks more like an 'opportunity cost' than an acute pain point. As a result, a frequently discussed question in many organisations is the value and practicality of migrating to Microsoft's latest desktop and mobile operating system - Windows 10.

Making Windows 10 pay its way

A desktop computing environment based on the thinking and technology of yesteryear represents a major point of friction.

If you work in financial services it is likely that you already have a relationship with Microsoft and a commitment to the Windows operating system. There may be populations of Macs in specific departments and some Linux servers in the data centre, but on the desktop, it will generally be Windows. However, with many of those desktops dating to before the 2008 crisis, the question is not whether to upgrade, but which version to upgrade to.

If you are already on Windows 7, the good news is that the jump to Windows 10 should be a lot less painful than the move from XP to 7. And if you have yet to make the jump to Windows 7 (first released in 2009), you are fortunate in one significant way: it means you can now leapfrog a whole redundant technological generation by going straight to Windows 10.

We say 'redundant' because, while you can trace the lineage of Windows 7 back to XP and even Windows 95, there are several ways in which Windows 10 represents a break from what went before. In some respects, it is a change significant enough to require a mind-set shift in how we think about and manage the desktop.

Perhaps the biggest mind-set shift is to Windows Next, and the concept of continuous updates.

Perhaps the biggest of these changes is the switch to what is sometimes referred to as Windows Next, or Windows-as-a-service. This is the concept that there might never again be a major new release of Windows. Instead, Windows 10 will simply keep updating itself with new and improved capabilities, for as long as you let it do so (we will discuss the practical and control aspects in the next section).

As the rich landscape of devices continues to evolve, biometric options will fast become normal, and Windows 10 is ready to exploit this fully.

For the majority of users, the benefits of a constantly-updated platform will be significant – always up-to-date, always secure.

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Effort can be redirected towards better management of special and exceptional user scenarios that need more thought and rigour.

Then there is the inclusion of multifactor security, in this case Windows Hello. This enables IT to at last move beyond passwords, which have become a notorious weak spot. As an example of an alternative multifactor approach, many devices now have finger-print readers and face-recognition cameras; some of the latest tablets can even facially authenticate the user via twin cameras, one operating in the visible spectrum and the other in infra-red. As the rich landscape of devices continues to evolve, biometric options will fast become normal.

Lastly, a more modern software platform ensures the ability to use more modern software, and that capability extends to your IT staff too. New tools with more granular management policies, better workflows and more automation, could dramatically reshape how the IT department provides services to end-users.

Security and updates

The online security threats facing businesses have changed dramatically in the decade since Windows 7 and its ilk were designed. IT departments have typically responded by investing in tools and processes to keep the desktop secure. One of the most transformative additions to recent versions of Windows, therefore, is the policy of pushing out security and functional updates as cumulative bundles that are automatically installed. For the majority of users, the benefits of a constantly-updated platform will be significant – always up-to-date, always secure, and so on.

Allowing updates to flow freely to users' desktops clearly raises some concerns, however. What if a patch 'breaks' a critical application that the user depends on to do their job? Traditionally IT administrators have tested all updates before deployment to avoid such issues, and in many cases this will still be necessary. In order to manage the risks in this area, Microsoft provides administrators with the ability to control the pace of updates, perhaps allowing security and critical fixes to flow relatively quickly, while holding back so-called 'feature updates' (usually not critical) so the proper checks and balances can be applied before release.

An important detail of the update control process is that it can be adjusted for different types of user. For users relying on older or bespoke applications, you may choose to hold back updates for as long as you need to perform the necessary tests and fix any problems you find. At the other end of the spectrum, the risk of letting updates flow relatively quickly and freely is minimal for the segment of users that access what they need via a web-browser or a discrete set of desktop applications from mainstream software vendors (many of whom are adopting a similar continuous update approach to keep everything in step). Implementing a continuous update policy for such users means they can benefit from new productivity-enhancing features more quickly, while the administrative burden on IT is reduced dramatically.

Of course, Windows-as-a-service represents a different way of approaching desktop updates and security, and there are some caveats to be aware of. Cumulative bundling of updates, for example, means administrators no longer have the ability to accept some patches and reject others. Policies and processes therefore need to be adjusted to work around this. Implemented well, however, it means time and effort can be redirected from routine infrastructure maintenance to activities that add value, and towards better management of those special and exceptional user scenarios that need more thought and rigour.

It can be useful to think of Windows-as-a-service as the equivalent of the DevOps and continuous delivery approach.

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Your stakeholders have a different technology mind-set now. They want whatever provides the best outcome, and they expect IT to deliver on that.

The opportunity is to build a workplace fit for the 21st century.

If all of this feels a bit scary and uncomfortable, it can be useful to think of Windows-as-a-service as the equivalent of the DevOps and continuous delivery approach that most financial services firms have started to adopt to deliver fast-moving consumer applications. That took quite a big mind-set shift too, but those involved learned that once you make the adjustment, and become comfortable with a more continuous and iterative approach, you wonder why you stuck with the old methods for so long.

There is a lot more we could discuss about Windows 10 and security – for example, its use of virtualisation technology in Credential Guard, which prevents a stolen user ID from gaining full system access – and we would encourage you to take a look at some of the Further Reading material listed at the end of this document to learn more. We will, however, mention one more security-related matter as it has received a lot of attention in the press.

Some have raised concerns over the telemetry data sent back to Microsoft by Windows 10 machines, signalling the presence of a potential security risk. The shock headlines need to be put into perspective, however, as the information collected is largely used to help Microsoft help its customers, e.g. to optimise upgrade and update activity based on objective system analytics. Nevertheless, if you are concerned, there are various methods of controlling the data sent to Microsoft in an enterprise environment, so it's a case of assessing the *real* risk, then investigating your options.

The continuous future

To summarise and conclude, the financial services industry is at the point of convergence of several innovations and opportunities. Key ones include:

- The significant investments made to digitally-enable customer engagement, that now need to be leveraged for other stakeholders;
- The massive uptake of mobility and wireless connectivity, with all the flexibility that implies;
- Vastly improved operating software – both desktop and mobile, and from multiple sources – which if implemented thoughtfully could enable us to work and collaborate more effectively and securely than ever before.

At the same time, your stakeholders – whether that is customers, staff or shareholders – have a different technology mind-set now. They adopt whatever provides the best outcome, and they expect IT to deliver on that.

We are also all moving towards a future of continuous change, some of it useful but some of it more cosmetic. You need to figure out how to transform so you can accommodate as many as possible of the improvements, and be as modern, mobile and automated as is practical, without either constraining your stakeholders, compromising security, or adding too much to your workload. Indeed, you want change to reduce your workload where possible, not increase it!

At the same time, you need your IT infrastructure to be business-fit and modern enough to appeal to both customers and current or potential staff, while you also minimise risk – and old technology brings risk, whether from its inability to run modern applications or from attackers having a better grasp of its vulnerabilities.

The result of all this is an opportunity that many people in financial services IT will not have seen in a decade: the opportunity to build a workplace fit for the 21st century.

Further reading

The following documents, which you may find useful, are available from the Freeform Dynamics and Microsoft websites, or from Microsoft on request:

Windows 10: Worth The Upgrade Effort?

Published by: Microsoft

The Total Economic Impact of Microsoft Windows 10

Published by: Forrester Research

Getting to Windows 10: Microsoft's new options for upgrading and onboarding

Published by: TechTarget and Microsoft

IT-Business Alignment Revisited: Accommodating increased user influence

Published by: Freeform Dynamics

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