

Replify Accelerator Overview



Replify

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Remote Application Usability using Replify

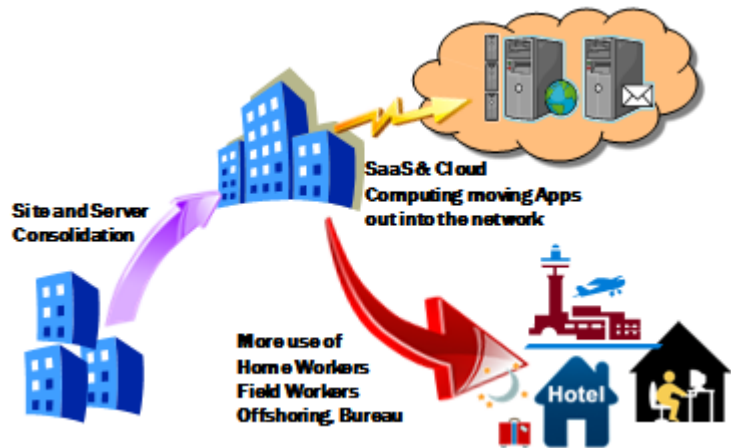
Corporate Networks are changing.

There has been a huge increase in mobile and remote working and there is no sign of the trend slowing. It is estimated that upwards of 60% of users are now based away from headquarters and the average worker is spending an average of 23 hours a week outside of their primary office¹.

Users are now frequently remote from the corporate IT infrastructure, and remote from the applications they need as part of their daily work.

There are a number of factors driving these changes. Organizations are obtaining cost benefits by minimising remote office infrastructure - moving sites and servers centrally, storage to lower cost locations, and reducing the IT complexity in their branch offices.

Cloud computing is becoming mainstream. Organizations are moving some, or all of their IT infrastructure to the cloud and outsourcing its management. Gartner suggest that over 20% of companies will outsource all IT infrastructure this way by 2012². IT companies like Microsoft, Google and Amazon are encouraging this remote use by investing heavily in cloud-based services and providing cheap applications for email and content on a rental basis. In a cloud scenario, *all* users are remote from the applications and servers and encountering the performance challenges that brings. Finally, users themselves are frequently working remotely. This is for many reasons: because they are being encouraged to work at home (saving on workplace costs), because they are working outside of office hours, or because they are field workers, travelling frequently outside any corporate office. External events such as freak weather conditions, or health scares such as the SARS and swine flu pandemics, forced temporary home-working on many companies and they have found that their infrastructure simply doesn't support it to the degree they expected.



The Rise of the Content Application

The information being transferred by organizations is also changing. Applications are putting a greater dependence on the availability of a high speed network - applications are providing richer, network based functionality. Of primary importance amongst these applications are Content Applications. SharePoint, Documentum, OpenText and other ECMs are becoming mission critical: users require fast, efficient access to the latest corporate information through these systems. Compliance and information sharing requirements mean that users must submit new and updated information back to the central content stores.



Collaboration

¹ Yankee Group, <http://www.yankeegroup.com>

² <http://www.networkworld.com/news/2010/011310-cloud-gartner.html>

Most content applications are written without the remote user in mind - they expect a high speed network with minimum latency³. These applications provide a poor use- experience when used remotely. Users are not being kept up to date with the latest information and they are deterred from meeting their compliance responsibilities regarding corporate records, and barred from effective collaboration with their co-workers.

Remote Application Usability

The increased number of remote workers and extensive use of and reliance on content applications is causing user frustration, and impeding adoption of those applications. Replify meets the needs of these remote and mobile workers. It provides *Remote Application Usability*, focusing on giving collaborating users access to the content, independent of the network availability or quality. Users can obtain the latest information efficiently from the content store and can add and update information back to the store without having to wait on or worry about the network.

Content applications are becoming a fundamental part of an organisation's infrastructure - they must be available and usable to all users, remote or local. Without Replify, users are forced to work independently from each other, avoiding any information sharing. They don't submit information back to the store, and continue to use out-of-date information and miss newly available information. They make personal updates locally as they require, and don't share these or store them back centrally. When business needs make it essential to share or pass information, users can experience long, stressful, and often unsuccessful, attempts to upload content, and perhaps run up huge telecoms bills in the process. Replify eliminates the frustrations encountered by remote users. The users are given access to the latest information and can make additions and changes which are smoothly synchronised back to the central content store. By removing a barrier to storing new and updated information in the central store, Replify also allows organisations to meet compliance requirements and encourages information sharing.



As an example take a travelling salesman. The salesman needs the latest version of the sales collateral, pricing and presentations before he attends a customer meeting. Since he isn't based in an office, he uses his 3G connection to download remotely from the corporate content store. The standard sales presentation has recently been updated. Even though the change is small - the addition of a new case study slide - the salesman must endure 10 minutes of downloads to receive the updated presentation – the entire presentation must be downloaded. The salesman makes a change of his own to the presentation – and creates a record of the

customer meeting. He does not submit these back to the corporate store – he has no patience to wait for another 10+ minute upload.

With Replify the salesman has a transformed experience. The new sales presentation is downloaded in seconds – only the changed slide is transferred across the network. The download is transparent to him – as soon as the network connects the content is brought up to date. When the salesman makes his own additional update and needs to add a new document he does not need to wait for the network – Replify will synchronise the content back to the corporate whenever the network is available, using



³ "We target high-bandwidth scenarios" – Microsoft SharePoint Blog.



network acceleration to minimise time and bandwidth demands. For the salesman the remote content application becomes usable and useful again.

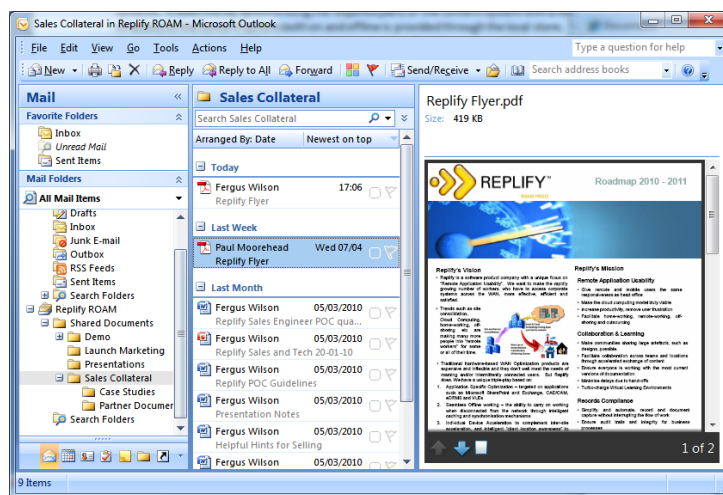
Replify focuses on providing efficient, easy-to-use access to content applications while keeping the user experience totally separate from the network availability or quality. The user can be kept up to date with the latest information from the corporate content store. They can add and update information back to the store without worrying about the network. Replify uses two key mechanisms to provide this functionality: Local Store Synchronization and Network Acceleration.

Local Store Synchronization

Replify Syncstor removes the dependency on network connectivity by synchronizing the required parts of the content system with a local store. All access to the content system both on and offline is provided through the local store. This means the user's interaction with the store is instantaneous and totally independent of the network connection. The user can add and edit content immediately, without having to wait for content to be transferred across the network, and without having to wait for the central content system to acknowledge receipt.

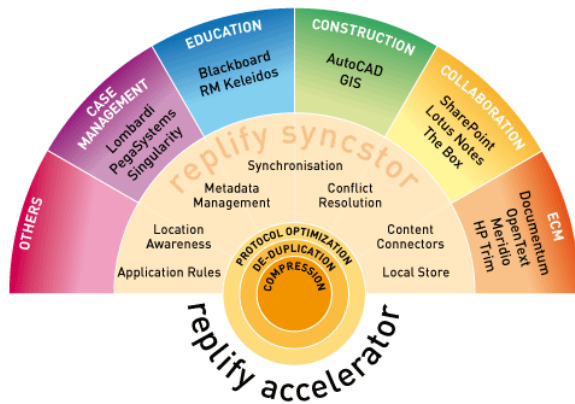
An additional benefit of using *Replify Syncstor* is its offline capability. Using its local store, *Replify Syncstor* can allow the user to add and update information even when totally disconnected from the network. Since content system access is becoming as important as email capabilities, this provides important functionality for remote and travelling users who have only intermittent access to the network.

Usability is a key feature of *Replify Syncstor*: the user experience is intuitive, non-disruptive and comfortable for the user. To maximize usability for Outlook-centric organisations, the local store is provided through a familiar interface commonly used by remote workers: Microsoft Outlook. With *Syncstor for Outlook* Users see the content from the content store within a set of Outlook folders. The content appears like messages within the folders. Users can read and update information by launching it directly from the Outlook interface.



For other organisations, the interface is provided transparently through shared folders: *Replify Syncstor* understands that some folders are local copies of remote content. All information added and updated by the user is efficiently synchronised back to the content store in the background without the user having to worry. New information added and updated by other users to the content system, is synchronised automatically into the local store when the network is available. The Replify network acceleration operating behind the scenes makes the transfer of the

information quick and efficient – consuming minimal network resources and time. A few moments in a wi-fi zone, or on a 3G dongle, will ensure that collaborators have the most recent versions, any new content, and that corporate records have been captured.



In any organization where distributed users need to collaborate around content, participate in designs or cases, meet records compliance needs or simply ensure that they have the most up-to-date information at all times, Replify's *Accelerator* and *Syncstor* products provide a flexible solution that's cost effective and easy to deploy and manage.

Network Acceleration

Replify Accelerator uses three advanced techniques to provide the highly efficient data transfer which underpins *Syncstor* and *Syncstor for Outlook*: namely protocol optimization, byte level caching and compression.

Protocol Optimization removes inefficiencies inherent in the protocol being used to transfer the information. Many protocols are verbose and chatty – using more and larger messages than are required to do the job. These inefficiencies can greatly decrease the performance of the application where network latencies and bandwidth limitations arise. By reducing the number of requests and responses, *Replify Accelerator* increases application performance across the network.



Byte-level caching minimises bandwidth demands and delays by removing the need to send the same data over and over again. Information, especially within content applications, is frequently downloaded, changed, and uploaded. Byte-caching splits the data being transferred into small blocks – which are cached on both sides of the network. Any blocks of data that have already been sent across the network in either direction, can in future be sent as short cache references. This means only changes to information need to be sent across the network. For the sales worker downloading the latest updates to sales collateral and presentations this means immediate transfer of information without delay. The mechanism is symmetrical and protocol independent so the acceleration is provided regardless of which direction content is moving, and whether it's being transferred as email, web content, ftp, drag and drop or some other means.

Finally, all information sent across the network is compressed. For many types of content e.g. text based information (HTML, XML, Word) this provides a significant further level of efficiency for information transferred remotely.



Summary

Access to content systems by remote users does not have to be a painful experience. Replify provides a user experience completely independent of network availability or quality – providing *Remote Application Usability*. A synchronised local store is combined with network acceleration which makes maximum use of any network when it is available. The combination provides offline working, a smooth, pain-free user experience and efficient synchronisation of content when possible.