



Anywhere Access to ERP Applications with Parallels RAS

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Introduction

Workforce mobility is a growing requirement for businesses of all types and sizes. To be more productive, your workers need access to applications—including business-critical enterprise resource planning (ERP) applications, such as Microsoft Dynamics, SAP, and Sage—using any device, at any time. Meanwhile, you need to safeguard and maintain control of your data and applications. To address these challenges, Parallels has developed industry-leading application and desktop delivery solutions that give your workforce always-on access to ERP applications, while also centralizing management for increased security and reduced costs.

Anywhere Access to ERP Applications

Today's employees work outside traditional times and locations, often on personal devices. This can compromise the security of sensitive applications and data.

Parallels® Remote Application Server (RAS) securely delivers Windows applications, including your business-critical ERP applications to any device, anywhere.

With centralized management, Parallels RAS lets you effectively and efficiently mobilize your workforce without compromising security and control.

- **Flexibility:** Choose the right delivery model for your ERP application. Parallels RAS lets you deploy session-based desktops and applications on Microsoft Remote Desktop Services (RDS) and virtual desktops from major hypervisors. You choose to deliver a full desktop or just the ERP applications based on your employees' needs.
- **Performance:** Parallels RAS provides users with a seamless and consistent native like—desktop experience. A built-in load balancing mechanism ensures consistent performance when delivering the published ERP application from the right Remote Desktop Session Host (RDSH), for the right user, at the right time.
- **BYOD/CYOD Support:** Give your employees the freedom to work from anywhere, with access to ERP applications and desktops on any device. By adopting a bring-your-own-device (BYOD) or choose-your-own-device (CYOD) policy, you can let your workforce choose the device that works best for them, across a wide range of OSes, such as Windows, macOS®, Linux, Raspbian, Chrome OS, iOS, and Android. In addition, Parallels HTML5 Client lets users access the published ERP application without the native Parallels client installed on the device, allowing for zero management on the end-user device.
- **Data Security and Policy Enforcement:** Reduce the risk of unauthorized access, data integrity, loss, and data leakage with secure granular access filtering and Parallels Client policy enforcements. By centralizing and securing applications and sensitive data, you can comply with regulations and corporate governance.

Centralized Management Reduces Cost and Complexity

Today's IT organizations need to deliver mobile work environments while keeping costs in check. Parallels RAS centralizes ERP applications on the datacenter, simplifying and streamlining deployment and life-cycle management while reducing operational costs.

Streamline Operations

Parallels RAS streamlines the deployment and maintenance of application and desktop delivery by providing a set of tools to manage the RDSHs and VDIs, freeing IT from lengthy and repetitive tasks.

Increased ERP Performance

One issue many businesses come across when implementing a traditional decentralized ERP solution is that it can require a fair amount of computing power and network resources. As the number of users grow, so do the number of client-server connections and the amount of data transiting on the network. This tends to result in system-performance degradation. In order to provide resilient and consistent high-performance to employees, IT departments need to increase the power of servers and networks. If these additional elements are not set-up or maintained correctly, businesses could see a sharp drop in ERP performance.

IT can address this issue by utilizing an application delivery solution such as Parallels RAS to deploy and distribute access to the ERP. Application delivery reduces the amount of data transiting on the network; all computations are done on the servers' side, keeping applications and data close to each other, while employees' clients receive just the screen updates. This substantially reduces the workload on the network and improves the overall ERP performance.

Data Security

Parallels RAS adds tools and features to increase data security without compromising the flexibility of working from any location.

- **Granular Filtering Rules:** Parallels RAS integrates with Active Directory (AD) and Azure Active Directory (AAD), offering advanced filtering options that prevent illegitimate users' access. Filtering rules allow administrators to restrict access to sensitive applications, data, and desktops by users or security groups, MAC address, IP address, and several other criteria.
- **Client Policies:** Centralized policies based on user, security group, device, and users' access location (via Secure Client Gateway) allow administrators to customize users' experiences and add the required level of security measurements.
- **Control Drive, Device, and Clipboard Redirection:** In order to mitigate data leakage from applications and desktops, local drive redirection can be disabled and not mapped to the published ERP application, ensuring that no data is saved locally and enforcing data security compliance. This also applies to devices such as printers, scanners, and serial or USB devices. IT admins can also limit the ability to copy and paste between the local device and the published ERP application.
- **Limit "Save Password":** Parallels RAS allows administrators to control whether users can save a password or not on any given connection. Passwords are never saved on a disk, but kept in memory until the user closes the application. For zero-touch deployments on client devices, Parallels HTML5 Client can also be utilized, providing access to applications from any HTML5-compatible browser and leaving no data on the end-user device.
- **Windows Client Management:** Parallels RAS provides IT admins with the ability to manage Windows users' endpoint devices (supporting Windows XPSP3 up to Windows 10). IT administrators can power on/off, log off, lock, or remotely control the device. Security-related device policies can also be set on managed devices, including the ability to disable USB ports, print screens, desktop replacement, set firewall rules and much more.
- **Desktop Replacement (Kiosk Mode):** Using Parallels RAS, IT admins can replace the desktop of a Windows end-user machine, transforming it into a secure, pseudo thin client. The IT administrator can decide which applications are allowed to run locally based on security requirements. For maximum security, the administrator can block any local operation, allowing only remote access to the applications and desktops on the servers.
- **Smart Card Authentication:** Parallels RAS makes it easy to use a smart card to authenticate users before providing access to published applications.
- **Two-Factor Authentication:** Second-level authentication provides a high level of protection via different types of security tokens. Users are required to authenticate through two successive stages to access the application lists. The second level of authentication can be provided by DualShield Deepnet, Gemalto's SafeNet, or any RADIUS server.
- **SSL Certificate/Encryption:** Parallels RAS Secure Client Gateway acts as a proxy between the Parallels Client software running on client devices and the Parallels RAS environment. The Parallels Secure Client Gateway encrypts communications using SSL.

Workforce Mobility

With Parallels unique Applification™ technology, employees can use the native touch gestures of mobile devices—such as swipe, drag, tap to click, or zoom—to interact with any delivered Windows application on both smartphones and tablets. Proprietary Lock'n'Go Magnifying Glass technology allows employees to enlarge screens, making them more productive on the go. In addition, IT administrators using Parallels RAS Quick Keypad can create customized keystroke shortcuts, providing end users with quick access to complex ERP application commands.

Guarantee High Service Levels for Critical Applications

Implementing Parallels RAS in a high-availability environment allows users to access ERP applications without downtime. Usage reports, real-time monitoring, and performance analytics let you identify and remedy issues before they impact users.

Simplified help-desk tools can provide assistance to end users by managing published sessions and processes within the same sessions in real-time. In addition, help-desk personnel can remote-control or shadow remote sessions from any device.

Conclusion

Safeguarding applications and data in a mobile environment can be challenging. Parallels RAS lets you securely deliver ERP applications to your mobile workforce while streamlining management operations and reducing costs. Scalability allows your Parallels RAS environment to grow in line with your business, while providing an optimal user experience.

Example: ERP and the Parallels RAS Environment

The delivery of ERP software—such as Microsoft Dynamics, SAP, and Sage—can be achieved by Parallels RAS allowing end users to securely access corporate resources from any device, anywhere.

For this example, the Microsoft Dynamics AX 2012R3 client, office add-ins, and Remote Desktop Service integration have been installed and configured on a Windows Server 2012R2 acting as a Parallels RAS RD Session Host, along with Parallels RAS infrastructure.

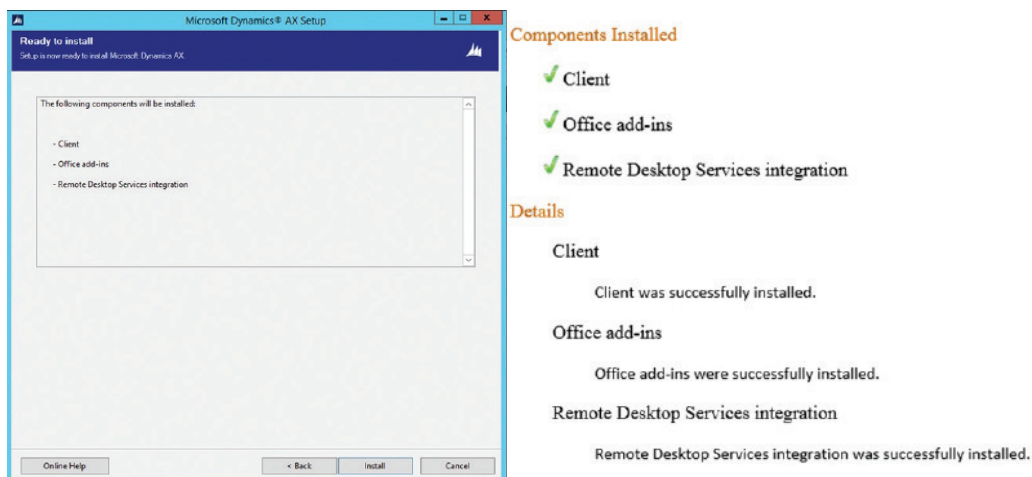
Here are the Microsoft and Parallels components installed for the below environment:

- **Microsoft Dynamics AX Client:** The interface to Microsoft Dynamics AX data and functionality.
- **Microsoft Dynamics AX Office Add-in:** Used to enable data connections, in particular from Microsoft Excel and Microsoft Word, to Microsoft Dynamics systems, allowing users to read, analyze, and edit data from and to Microsoft Dynamics systems.
- **Microsoft Dynamics Remote Desktop Services integration:** Automatically selected for installation when installing Office Add-in; used to integrate with local applications, such as Microsoft Word and Microsoft Excel, when Microsoft Dynamics AX is hosted on a Remote Desktop Server, as in this example.
- **Parallels Publishing Agent:** The Parallels RAS Publishing Agent provides load balancing of published applications and desktops.
- **Parallels Secure Client Gateway:** The Parallels RAS Secure Client Gateway tunnels all traffic needed by applications on a single port and provides secure connections.
- **Parallels RD Session Host:** A Microsoft RDSH with Microsoft Dynamics Client installed, and Parallels RAS RD Session Host Agent, which is used to collect information from the RDSH host. This is required by the Publishing Agent and transmits to it when required.
- **Parallels Client:** Parallels provides clients for different platforms, including Windows, macOS, Linux, Raspbian, Chrome OS, iOS, and Android. In addition, Parallels HTML5 Client allows users to access the published ERP application without the native Parallels client installed on the device, allowing zero management on the end-user device.

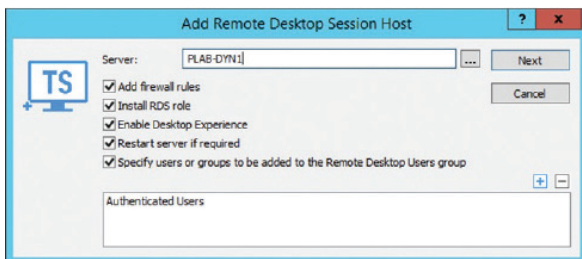
Note: You can view the complete Microsoft Dynamics AX installation guide and the complete Parallels RAS installation and administrator's guide.

The following steps were carried out to publish Microsoft Dynamics AX:

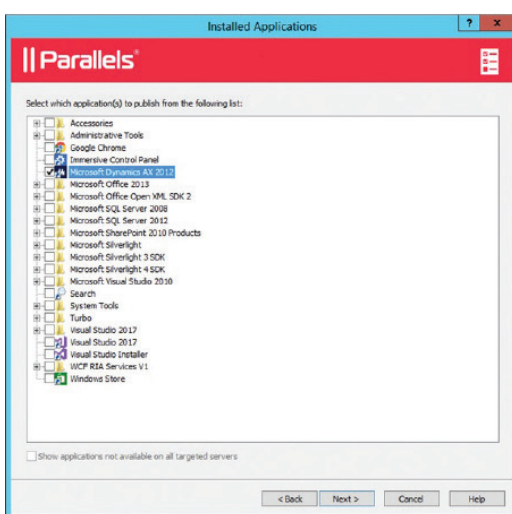
1. Microsoft Dynamics AX client-side components mentioned above have been installed successfully.



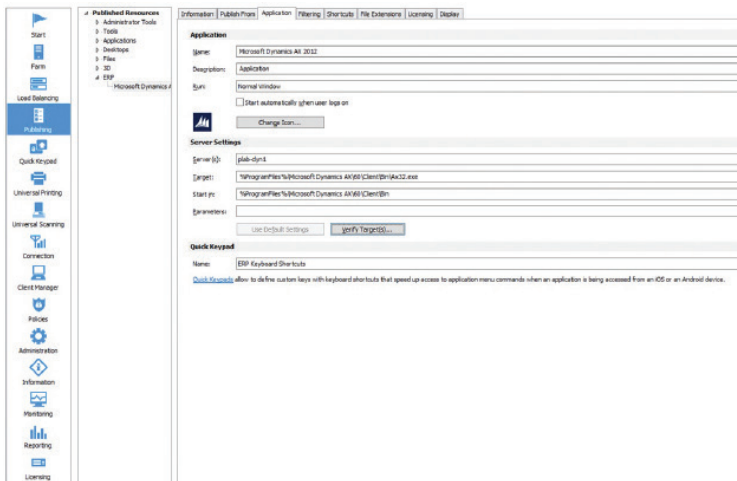
2. Deploy Parallels RAS RD Session host agent to the RDSH where the Microsoft Dynamics AX client features were installed from the Parallels RAS console or via Parallels RAS PowerShell. See more information about Parallels RAS PowerShell.



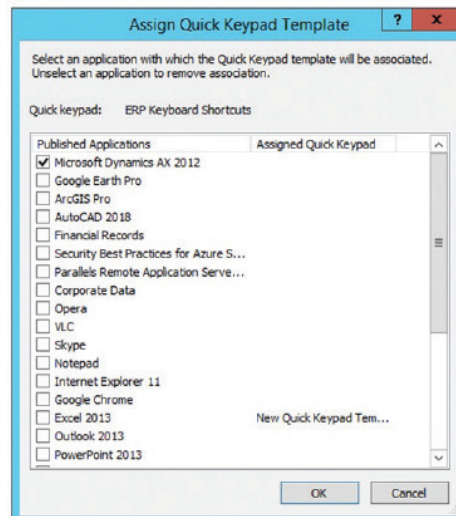
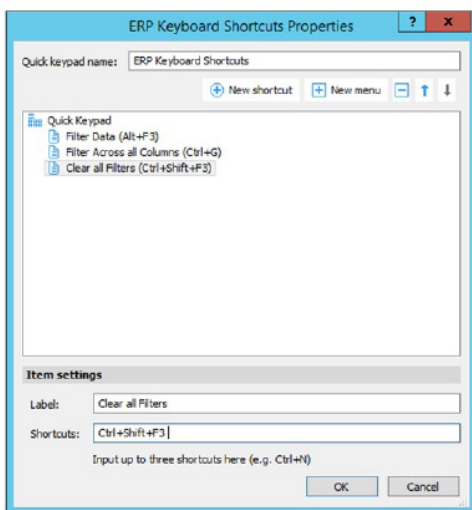
3. Once the Parallels RAS RD Session Host agent is deployed successfully, you can publish applications and desktops running on that particular RDSH. In this case, we will be publishing Microsoft Dynamics AX Client to provide access from any device, anywhere. From the Publishing Category from the Parallels RAS console, choose Add -> Application -> RD Session hosts -> choose the mentioned RDSH -> choose Microsoft Dynamics AX client.



4. Once published successfully, carry out the needed application configurations such as Filtering, Licensing, and more.



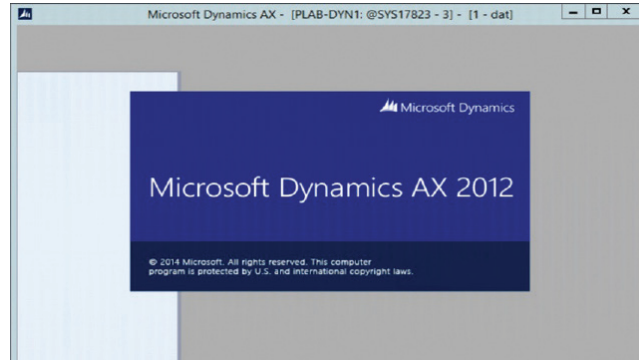
5. Since for this example we will also be providing Microsoft Dynamics access to a mobile workforce, Quick Keypad templates (with sample shortcuts) were created and assigned to the newly published ERP client. This was carried out from the Quick Keypad category from the Parallels RAS Console for three particular labels and assigned to the published Microsoft Dynamics AX client application:
- Filter Data: assigned to Alt+F3
 - Filter Across all Columns: assigned to CTRL+G
 - Clear all Filters: assigned CTRL+SHIFT+F3



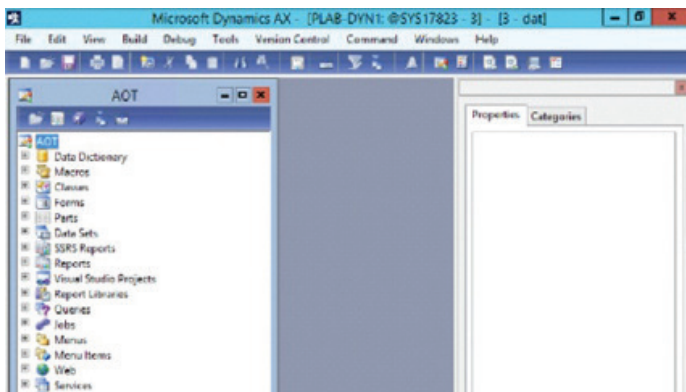
6. After applying settings, we can now have users access the published Microsoft Dynamics AX from any device, anywhere. The below screenshots illustrate a user's access from a mobile platform, accessing Dynamics securely over the internet.



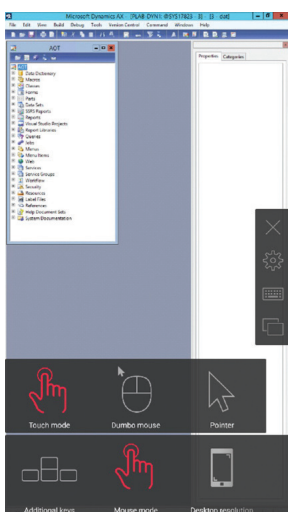
Access to Microsoft Dynamics from any device



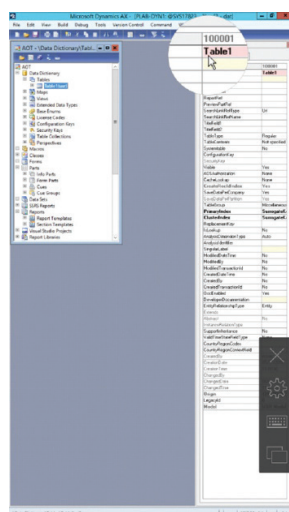
Opening Microsoft Dynamics remotely from a mobile device



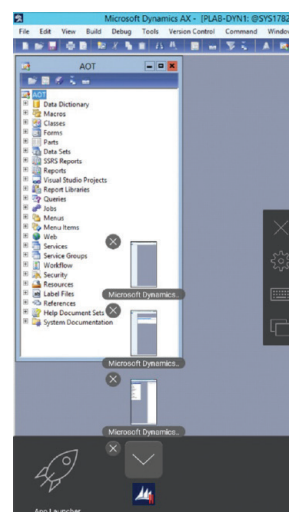
Overview of using Dynamics AX client via mobile platform



Choosing your preferred mouse mode



Using Parallels Lock'n'Go Magnifying Glass for a better UX



Easily switch between applications and different instances of the same application

Please see below for further documentation on Parallels RAS deployment:

Administrator's Guide: Step-by-step instructions for the configuration and maintenance of Parallels Remote Application Server.

Solutions Guide: Includes various high-level logical diagrams of the Parallels RAS implementation. Different implementation scenarios include one server (implementation hosting all the roles) to more secure/complex/larger setup scenarios, including role segregation, DMZ/Double Hop DMZ, 2FA, multi-site deployment, firewall ports and more.

User Guides: Including Parallels RAS Client configuration settings for different platforms, including: Windows, Mac, Android, iOS, Linux, and ChromeApp.

Try a free 30-day trial of Parallels Remote Application Server for 50 concurrent users. Choose whether to download a standalone trial to be implemented in your datacenter, a trial-in-a-box with a preconfigured VM, or to try a preconfigured trial on the cloud via Microsoft Azure or Amazon Web Services (AWS).