

# Azure RemoteApp Past, present & future



*"Let's talk ARA use cases!"*



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# Agenda

LAYING THE FOUNDATION



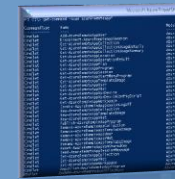
I'M AN ADMIN, WILL MY LIFE BECOME EASIER?



I'M AN END USER, WHAT CAN I EXPECT?



REAL LIFE USE CASES



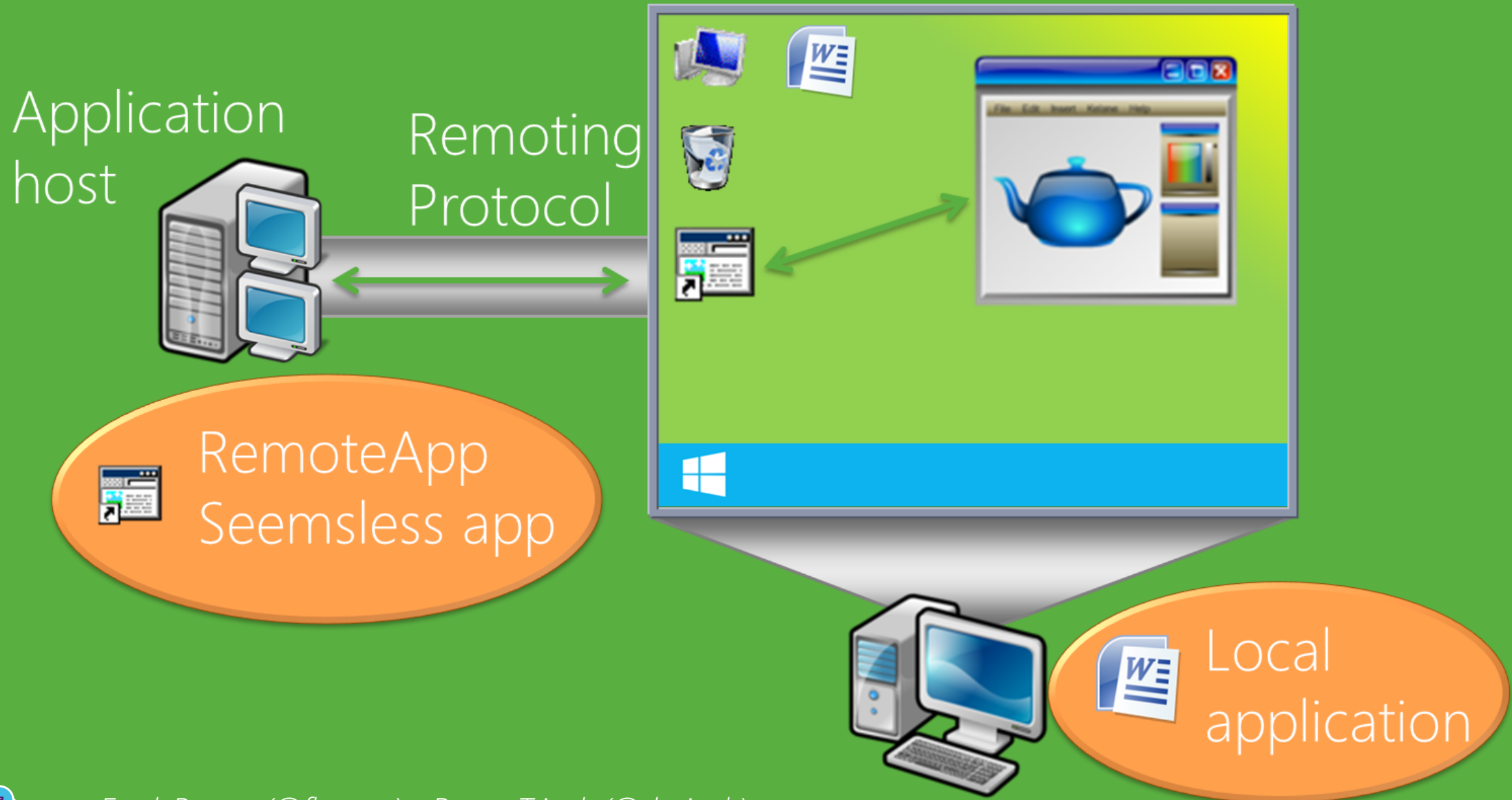
ROAD MAP & CONCLUSION





LAYING THE FOUNDATION

# What is RemoteApp technology



# Desktop Virtualization Solution Progression

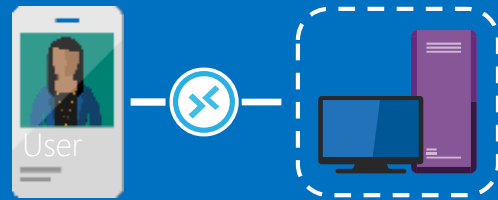
## Session-based computing



Session-based desktops and RemoteApp

Cost-effective, easy to manage

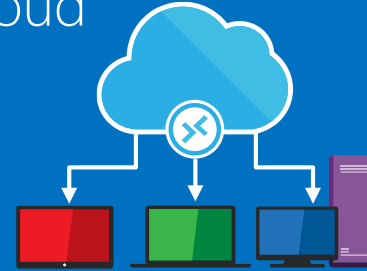
## Virtual Desktop Infrastructure



Access to pooled or personal Virtual Desktops running Windows Client OS

High performance, app compatibility

## Session-based computing in the cloud



Remote Desktop Session Host deployed on cloud infrastructure services

Customizable with minimum capital expenditure

## Cloud-based Applications



Windows Server session-based applications delivered from the Azure cloud

Turnkey solution, scale without large CAPEX



On-premises



Cloud

# Key characteristics that make up Azure RemoteApp

- Applications delivered remotely, hosted on Azure platform, as a service
- Leveraging Microsoft Remote Desktop Protocol and RemoteFX
- Various clients: Windows, iOS, Mac OS X, Android, HTML5
- Easy scaling without large capital expense
- No need to setup complex RDS infrastructure



# Let's talk about money – service plans

Offer Type	Model Attributes	Basic	Standard	Premium	Premium Plus
SKU Performance	VM Size (A3)	4 core, 7 GB	4 core, 7 GB	4 core, 7 GB	4 core, 7 GB
	Users per VM	16	10	4	2
User Priced per RemoteApp instance	Starting price	\$10	\$15	\$20	\$25
	Included hours per User	40	40	40	40
	Overage Price per Hour	\$0.175	\$0.20	\$0.30	\$0.45
	Capped Price	\$17	\$23	\$32	\$43
	Minimum Users (App Collection)	20	20	5	5





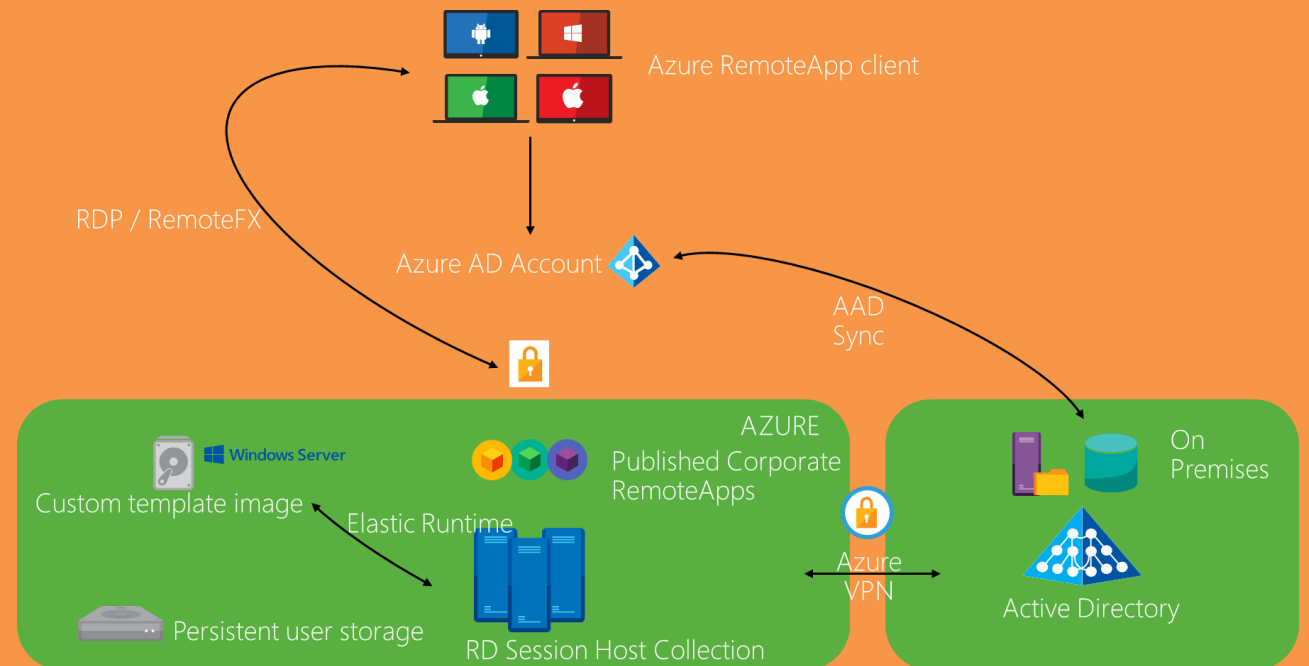


I'M AN ADMIN, WILL MY LIFE BECOME EASIER?



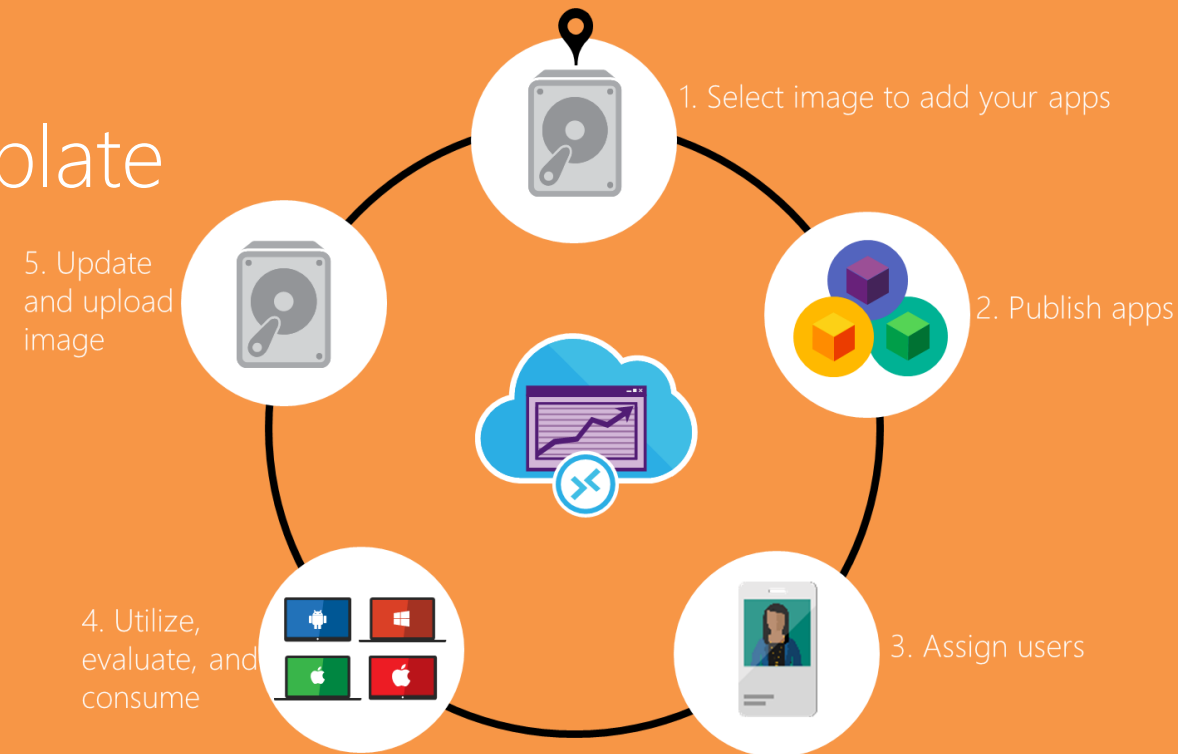
# ARA means no complex RDS infrastructure

- Microsoft sets up & maintains all RDS roles
- Microsoft is responsible for HA, Load Balancing, scaling
- Management tools: Azure Portal & PowerShell
- You are partially in control



# Application life cycle management

- An OS or application update means "downtime" after rebuilding of your collection
- Move applications away from template image by e.g. Layering, App-V.
- Small modifications can be done on the provisioned servers



```
PS C:\> Remove-AzureRemoteAppUser -CollectionName hybrid -UserUpn rdstest@themicrosoftplatform.net -Type OrgId -Alias 1b
dd7d47-8b9a-4e01-8545-478b2839f85a
PS C:\>
```

- ```
rd :  
Name      : Windows Azure MSDN - Visual Studio Professional  
Environment : AzureCloud  
Account    : [REDACTED]  
Properties : {[SupportedModes, AzureServiceManagement]}  
  
Syncing members from ARA_Collection_rds_gurus_users to Azure RemoteApp Collection opsgility  
Removing user: rdstest30@rds.gurus.com  
Removing user: rdstest32@rds.gurus.com  
Removing user: rdstest31@rds.gurus.com  
Removing user: freek@rds.gurus.com  
Adding user: rdstest50@rds.gurus.com  
Adding user: rdstest51@rds.gurus.com  
Adding user: rdstest52@rds.gurus.com  
Adding user: rdstest53@rds.gurus.com  
Sync complete!  
Users currently allowed access to Azure RemoteApp Collection opsgility:  
  
Name                                     UserIdType  
----                                     -  
rdstest52@rds.gurus.com                 OrgId  
rdstest53@rds.gurus.com                 OrgId  
rdstest41@rds.gurus.com                 OrgId  
rdstest21@rds.gurus.com                 OrgId  
rdstest23@rds.gurus.com                 OrgId  
lqqz6x7338@qz6n.ne .com               OrgId  
lqqz6x7379@qz6n.ne .com               OrgId  
lqqz6x7479@qz6n.ne .com               OrgId  
lqqz6x7229@qz6n.ne .com               OrgId  
lqqz6x7229@qz6n.ne .com
```

# Elastic runtime $\neq$ load balancing

- Template image cloned to build collection
- Not load balancing
- A3 VM's (4 cores, 7gb memory)
- Adaptive scaling is used to predict usage
- Optionally request "Capacity Mode" or discuss your needs with Microsoft
- Continuous improvements and optimizations



NAME

PLAN ?

Basic

Standard

Premium

Premium Plus

network01 (West US) ☒ Azure RemoteApp (1) ☒

JOIN LOCAL DOMAIN

YES NO





# DEMO – admin experience

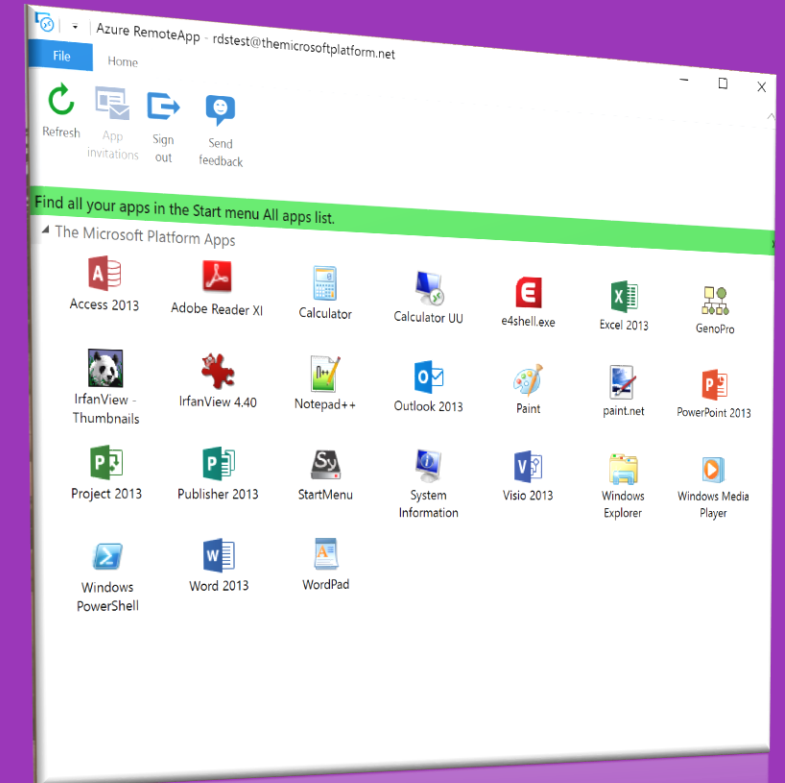




I'M AN END USER, WHAT CAN I EXPECT?

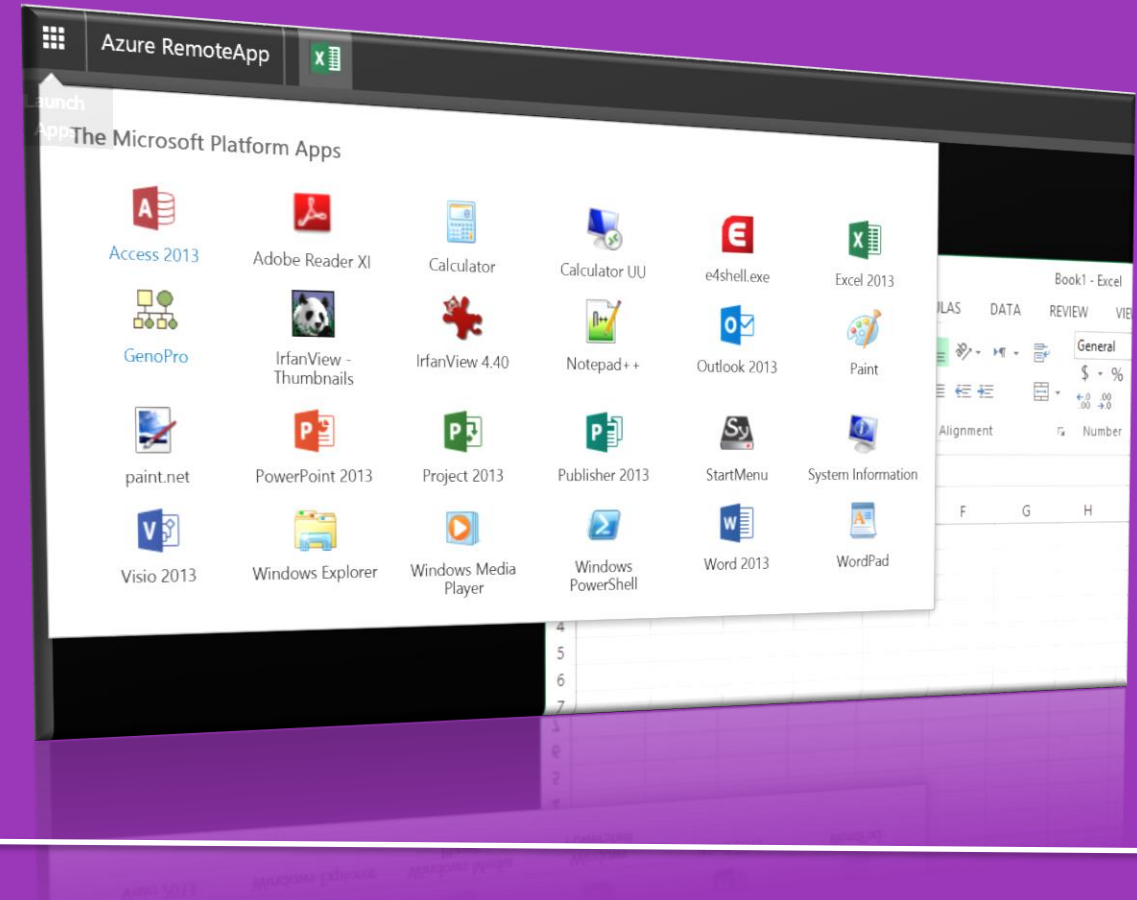
# Traditional Click Once client

- 2012 R2 RemoteApp user experience (although no UDP!)
- Cannot use mstsc or 3<sup>rd</sup> party RDP Client
- Shortcuts are placed in local Start Menu
- Ability to pin items to Start Screen



# HTML5

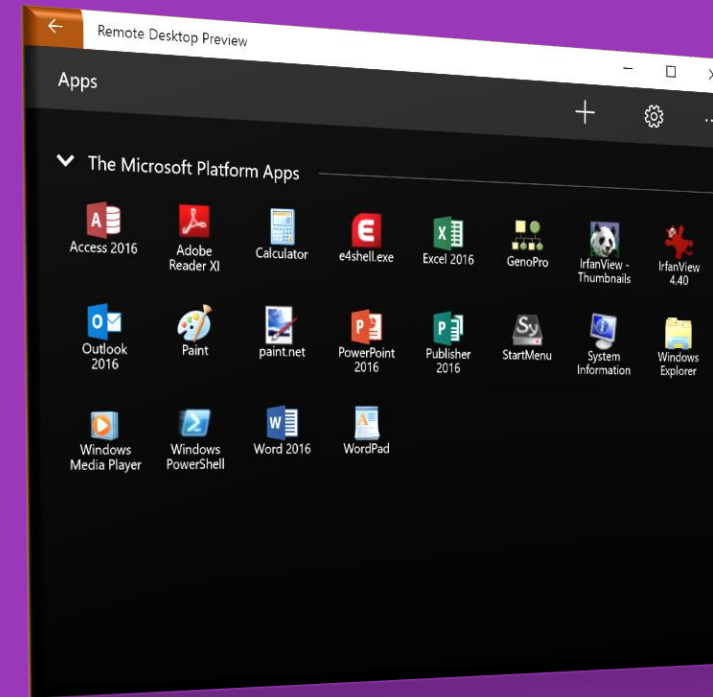
- Clientless access from Chrome, Firefox\*, IE 11\*, Edge, Safari\*
- Adds support for Linux, Chrome
- No redirection yet for printers, Local drives, Clipboard





# Universal Windows App

- Currently in preview
- Can be used for both on premises and Azure RemoteApp
- Can be used on Windows 10 Phone Continuum



# DEMO – end user experience





REAL LIFE USE CASES

# Use case 1 : small sized company

- 1000 users with 80% concurrency
- 10 applications, no App-V
- Every user uses every application
- Application back end resides on premises
- No 24x7 organization
- CYOD with a mix of Windows 7, 8 and 10





# What did we learn?

- No complex RDS backend
  - Initial setup is fast
- Fixed price per user
  - Low in initial costs
- Various client types
  - Wide range of clients available
- Limit is 500 users per collection
  - 2 collections is no issue
- 800 concurrent sessions
  - 80 RDSH servers
- No group assignment
  - not an issue
- No per App publishing
  - not an issue
- Elastic Runtime
  - not an issue
- Application back end
  - Express Route
- Windows & app updates
  - no an issue

Azure RemoteApp is a viable option in this use case



## Use case 2 : large size company

- 20.000 users with 20% concurrency
- 75 applications, 80% App-V
- Every user potentially needs to access every application
- Application back end resides on premises
- Logon storm at 9AM with ~250 users
- 24x7 organization, maintenance windows 1<sup>st</sup> Sunday of each month
- BYOD with a mix of Windows, MacOS and iOS



# What did we learn?

- No complex RDS backend
  - Fixed price per user
  - Various client types
  - Limit is 500 users per collection
  - 4000 concurrent sessions
  - No group assignment
  - No per App publishing
  - No search in ARA client
  - Elastic Runtime
  - Application back end
  - Windows & app updates
- Initial setup is fast
  - Low initial costs
  - Wide range of clients available
  - 40 collections! + Custom PowerShell
  - 400 RDSH servers
  - Custom PowerShell
  - every user sees every application
  - Search does work in local start menu
  - Could work but needs testing
  - Express Route
  - Highly dependent on Runtime mode

Azure RemoteApp could technically work, but will be very challenging



# Consider the limitations

| Resource                                                        | Default limit                             |
|-----------------------------------------------------------------|-------------------------------------------|
| Collections per user                                            | 1                                         |
| Published apps per collection                                   | 100                                       |
| Trial collection duration                                       | 30 days                                   |
| Trial collections                                               | 2 per subscription                        |
| Users per trial collection                                      | 10                                        |
| Trial template images                                           | 25                                        |
| Paid collections                                                | 3 (you can request an increase)           |
| Paid template images                                            | 25                                        |
| Users - basic tier*                                             | 400 (default)/ 800 (maximum)              |
| Users - standard tier*                                          | 250 (default)/ 500 (maximum)              |
| Users- premium tier                                             | 100 default. You can request an increase. |
| Users - premium plus tier                                       | 50 default. You can request an increase.  |
| Concurrent connections across all collections in a subscription | 5000 (you can request an increase)        |
| User data storage (UPD) per user per collection                 | 50 GB                                     |
| Idle timeout                                                    | 4 hours                                   |
| Disconnected timeout                                            | 4 hours                                   |







# CONCLUSION & ROAD MAP

# Road map

## Azure RemoteApp

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UPD Management released this week!

Azure v2 Portal

Per user Apps Assignment\*

Redistributable MSI package

UDP Support (coming back very soon!)

Full Single Sign On

UPN Mismatch fix

Azure Resource Manager (ARM) support



# Our conclusions

## Azure RemoteApp

Great turn key solution to deliver Windows Applications

Initial coasts are low, no hidden costs

It's a true "as a service" offering

Take a close look at the use case / scenario

Weigh-in current limitations vs costs

It's not an enterprise ready solution (yet?)



# THANK YOU!



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