



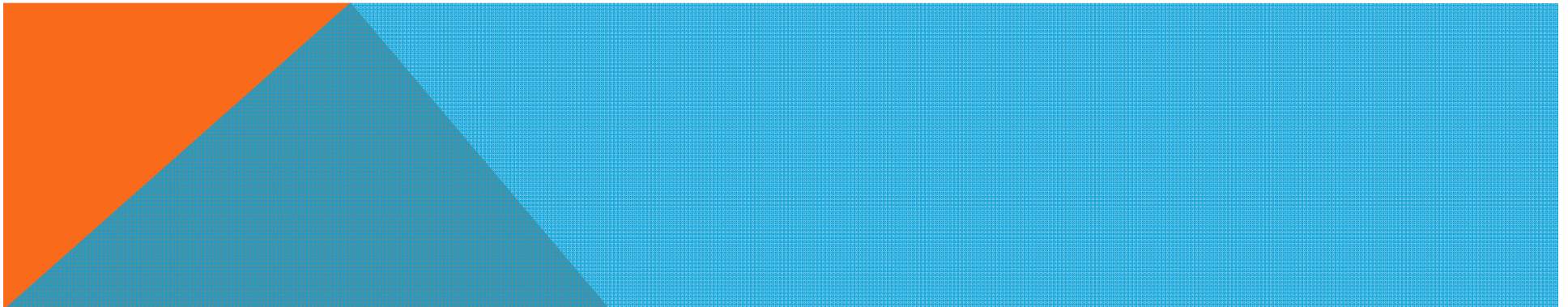
WELCOME TO:
WINDOWS SERVER CORE
AN INTRODUCTION


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HOPKINS PUBLIC SCHOOLS

AGENDA: WINDOWS SERVER CORE



- What is server core?
- Why use server core?
- How to get server core?
- Common uses for server core
- Outside the box uses for server core



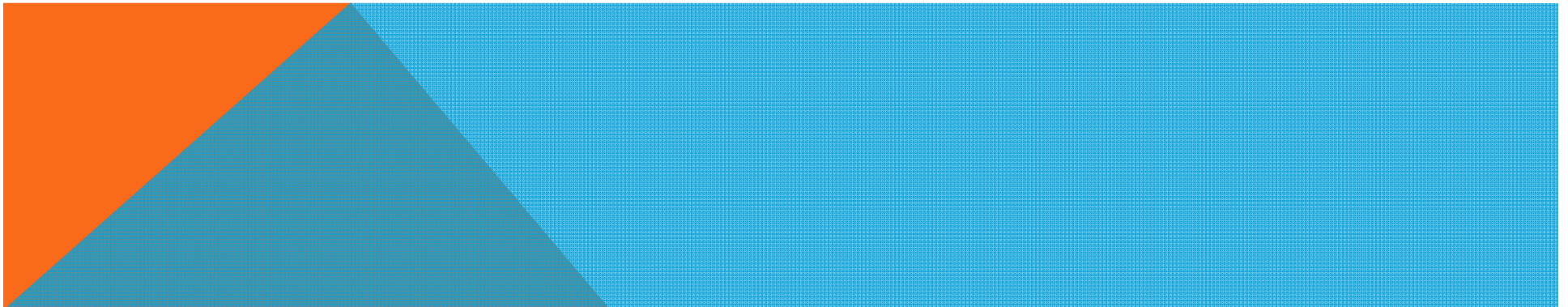
The image features a large, abstract graphic that is split diagonally from the bottom-left to the top-right. The upper-left portion is a light blue color with a fine, grid-like texture. The lower-right portion is a solid, vibrant orange color. The text "WHAT IS SERVER CORE?" is written in a bold, black, sans-serif font, oriented diagonally to follow the split line. The text is positioned in the white space between the two colored areas.

WHAT IS SERVER CORE?

WHAT IS SERVER CORE?

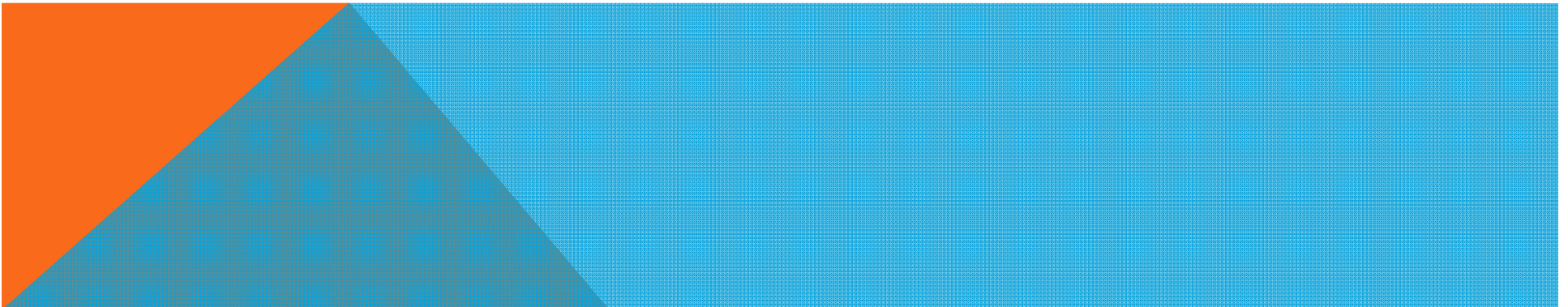
Server Core is a special version of Windows Server designed to run specific tasks.

- Available as part of Server 2008 and 2008R2



WHAT ROLES ARE AVAILABLE?

- Active Directory
- AD LDS
- DHCP
- DNS
- File Services
- Hyper V
- Print Services
- Web Server (IIS)
- AD Certificate Services (2008R2)
- Streaming Media

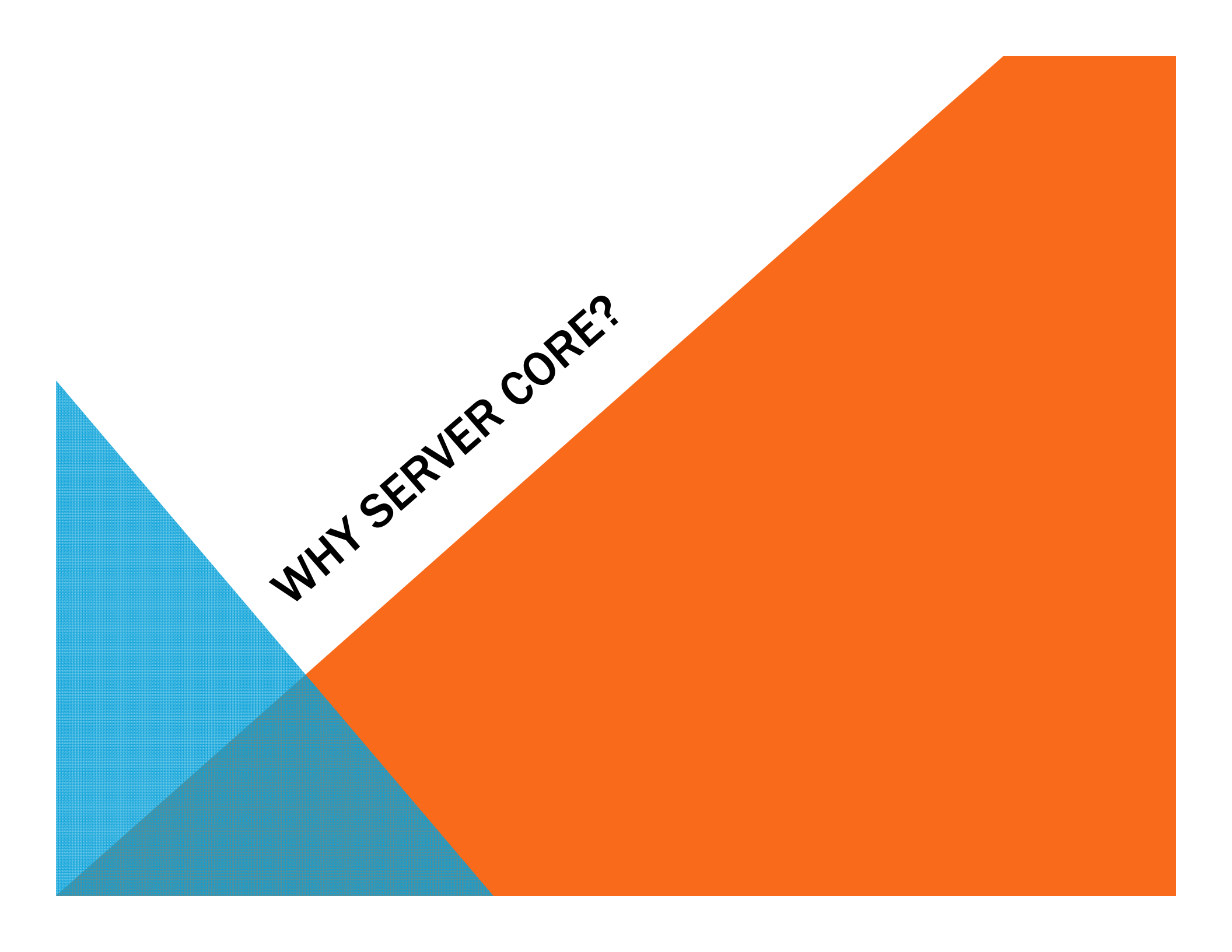


POSSIBLE USES FOR SERVER CORE...

These are “possible” uses but not necessarily approved or supported by Microsoft!

- **MSSQL Server 2008**
 - *SQL Server Denali is fully supported!! (2012 RCO)*
 - <http://sethusrinivasan.wordpress.com/2011/07/12/sql-server-denali-ctp3-on-windows-2008-r2-server-core/>
- **MYSQL/Apache/PHP Server (LAMP)**
 - *This is actually suggested by MS!*
 - <http://learn.iis.net/page.aspx/719/migrate-to-a-windows-based-platform/>

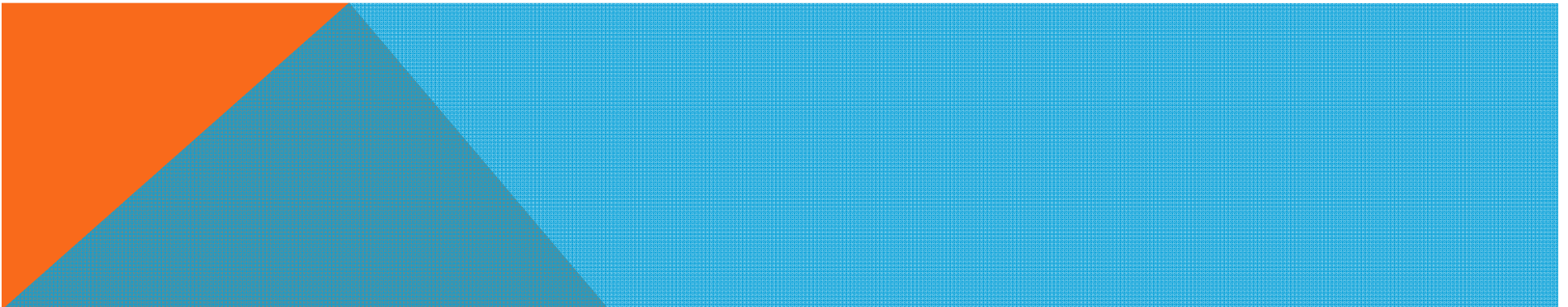




WHY SERVER CORE?

WHY SERVER CORE?

- **Smaller footprint**
- **Less surface area for attack**
- **Streamlined**
- **Less to update, Less reboots**

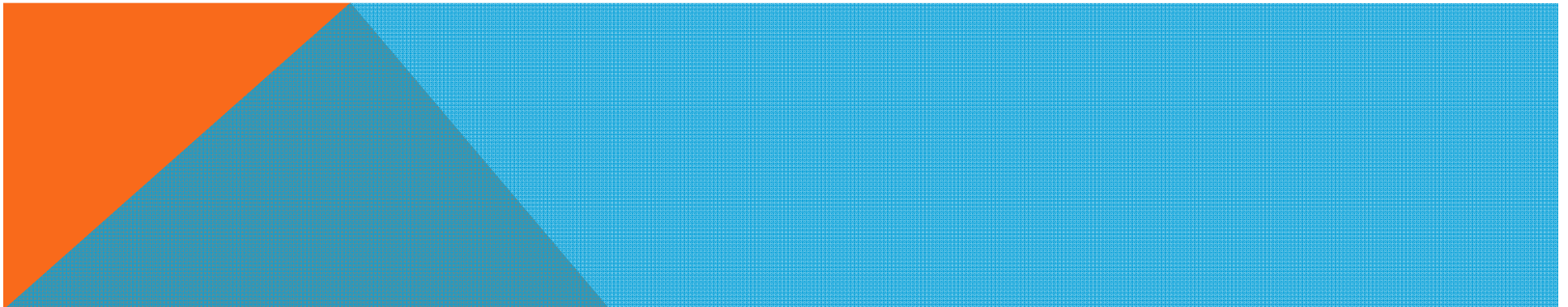




HOW TO MANAGE

HOW TO MANAGE

- Remote Server Admin Tools can be used to manage aspects of remote servers from a Windows 7 desktop.
 - This is download available from Microsoft. (formerly 'adminpack.msi')
 - <http://www.microsoft.com/download/en/details.aspx?id=7887>
 - Another good idea is to install the management framework core on older servers
 - <http://support.microsoft.com/kb/968930>
 - Powershell 2.0 and WinRM 2.0
- Command line tools can also be used. This requires a bit of research but can be very powerful. Especially good for recurring tasks.
- Powershell allows for running commands remotely as well as bulk operations
 - Powershell AD Module is especially nice!



INSTALLING POWERSHELL ON CORE

1. Enable the NetFx2-ServerCore feature (.NET 2.0)

1. `DISM /Online /Enable-Feature /FeatureName:NetFx2-ServerCore`

2. Enable Powershell

1. `DISM /Online /Enable-Feature /FeatureName:MicrosoftWindowsPowerShell`

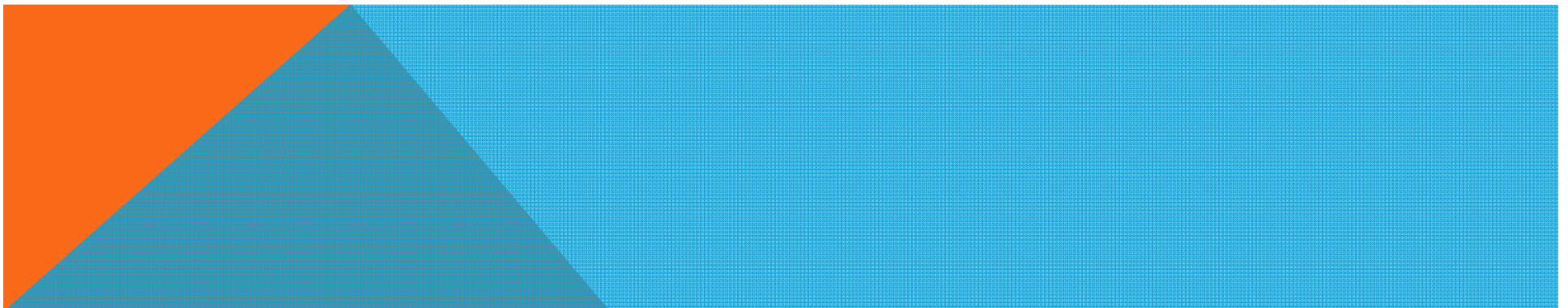
3. Verify Install by launching

1. `C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe`

2. *Yes, Powershell v2 is REALLY in the v1.0 folder...*

You can check which features are available by typing:

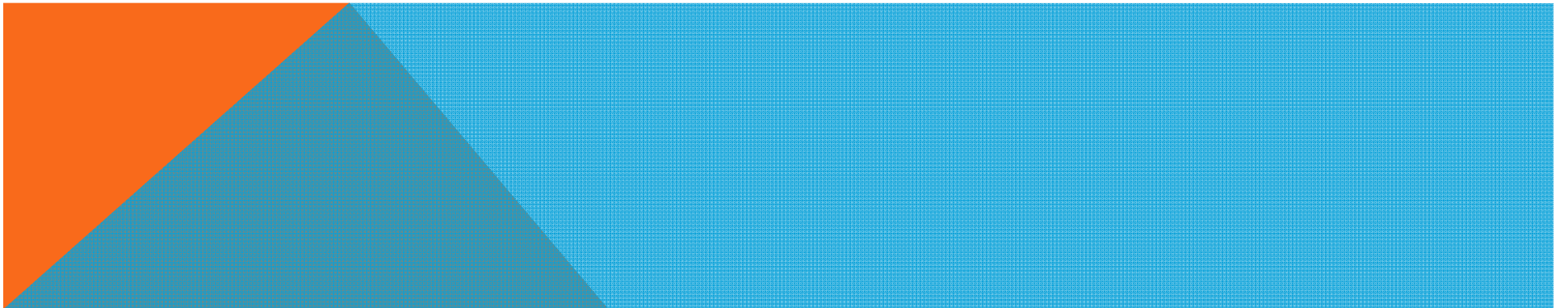
`DISM /Online /Get-Features /Format:Table`





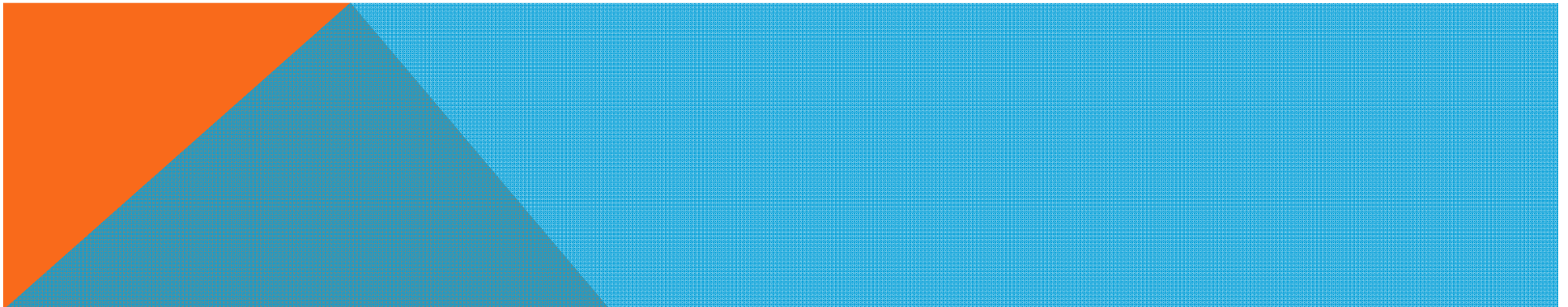
BEFORE YOU GET STARTED
A CONCEPTUAL APPROACH

Imitate>Integrate>Innovate



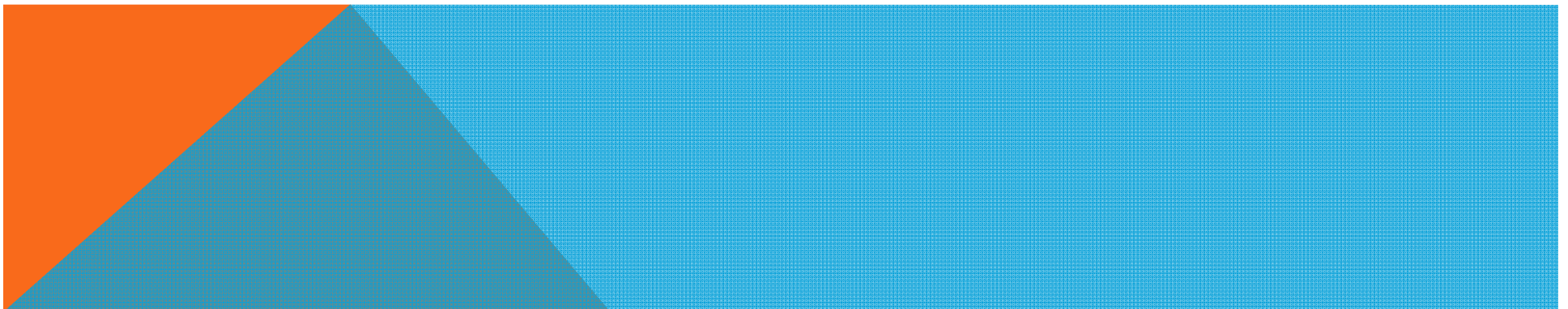
IMITATE

- Find examples online or in books and copy them in a lab environment
- Pay attention to how other environments differ from yours
- Find alternate examples of the same process and evaluate how they are different



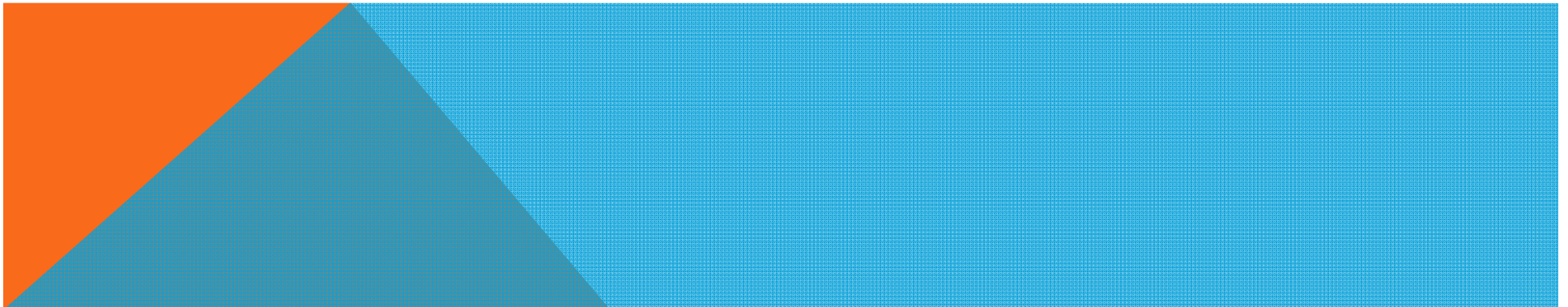
INTEGRATE

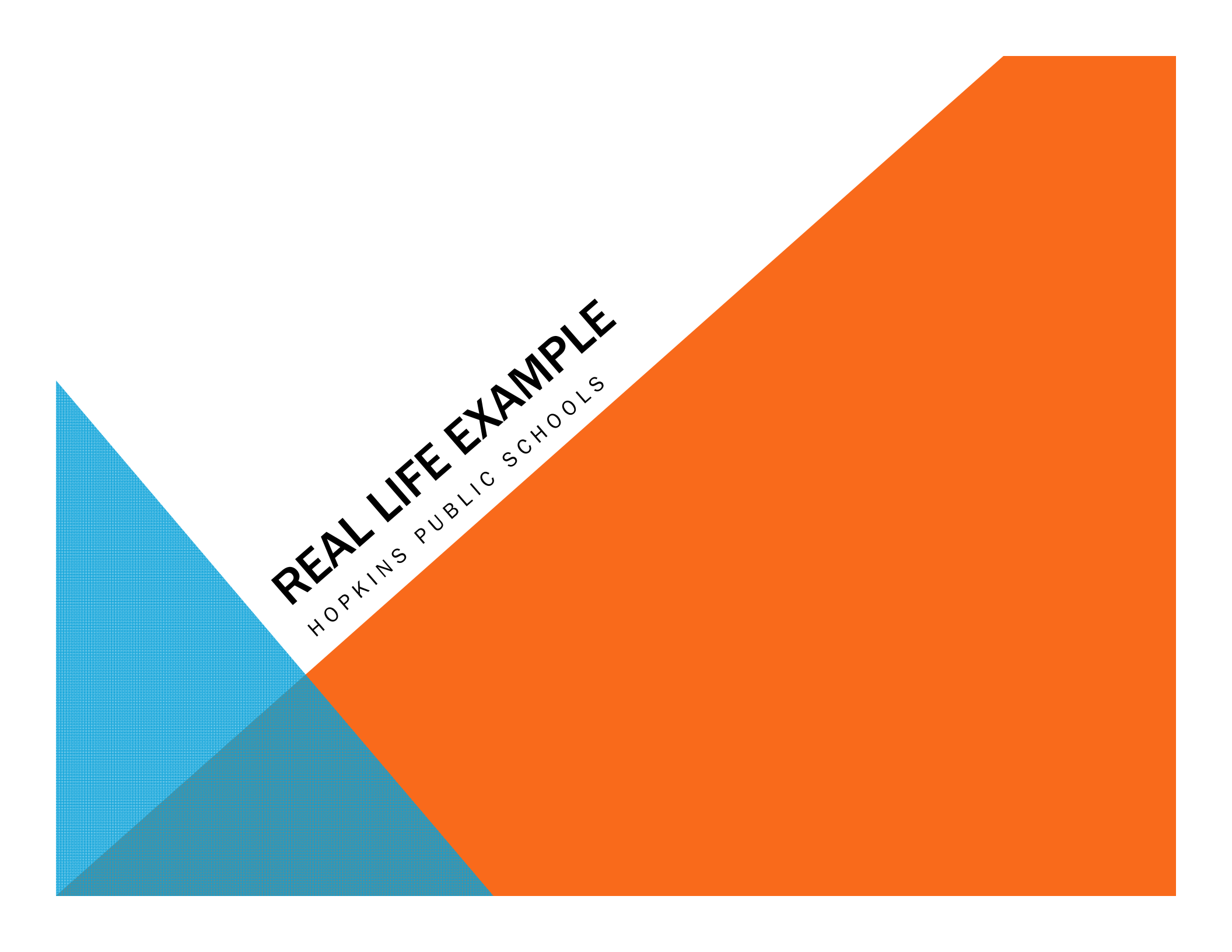
- Evaluate and Adapt to your environment
- Tailor this solution to work with as few changes as possible
 - Always stay within the bounds of the supplied documentation
- Put the solution into production



INNOVATE

- Once an organization or individual gains enough knowledge and experience innovation will occur.
 - It is important that this occur “organically” or as more of an evolution of current practices according to need.
 - If innovation is forced it will likely be cumbersome and less functional

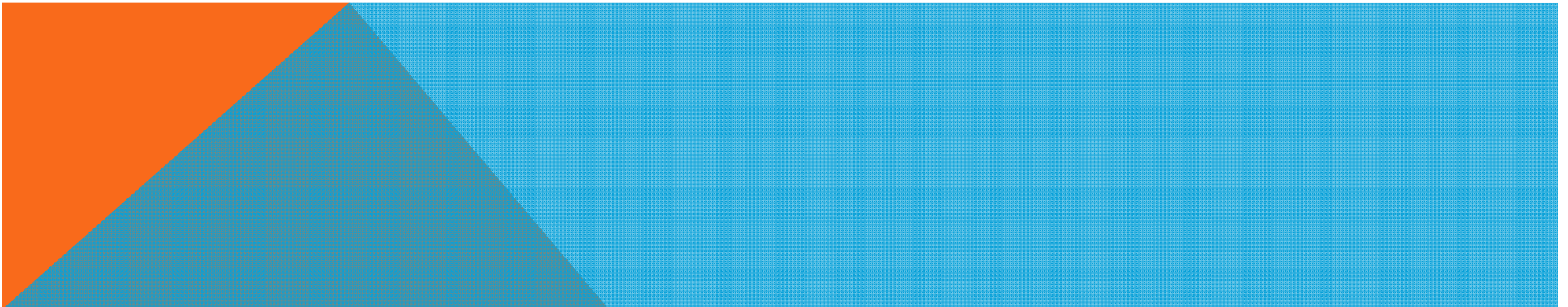




REAL LIFE EXAMPLE
HOPKINS PUBLIC SCHOOLS

EXAMPLE: HOPKINS PUBLIC SCHOOLS

- Building 3 new Domain Controllers
 - 1 physical server
 - 2 virtual servers
- The Previous virtual servers had 80GB hd's and 2GB of memory
 - **some of this increased footprint was due to multiple services being hosted on the server*
- The new VM's each consume 15GB of storage and 512MB memory
 - Allows for resources to go to larger VM's
 - Faster v-Motion
 - Potentially faster backup and restore



PUTTING IT ALL TOGETHER

DEMO

