En esta ocación mostramos como realizar la instalación de Provisioning Services en su versión 5.6, este artículo forma parte de una serie de artículos que vamos a ir publicando de forma progresiva, realizándo incapié en configuración, optimización y otros elementos de interés.

Para la realización de este proceso de instalación hemos utilizado la siguiente infraestructura:

- Servidor XenServer 5.6
- Servidor de Licencias de XenServer 5.6
- Unidad de almacenamiento para el recurso de las imágenes PVS56
- SQL Express instalado enPVS 5.6 necesario o SQL Server centralizado

En esta ocasión en lugar de instalar todos los elementos de forma inicial, hemos seguido un proceso poco habitual, es decir, lo que por norma general se realizaría sin leer documentación o revisar los elementos necesarios para su correcta implementación.

Deberemos de realizar la siguiente configuración en nuestro servidor de DHCP,

En Scope Options, modificaremos o añadiremos:

- 60 - Opción que identifica el tarjet PXE, dejaremos los valores por defecto.

- 66 - Especificaremos el FQDN o la dirección IP de nuestro servicio TFTP, este realiza la resolución DNS y devuelve una IP válida.

- 67 - Esta opción identifica el nombre del fichero bootstrap, por defecto utilizaremos el valor ARDBP32.BIN, esto es configurado manualmente.

Citrix Provisioning Services permite el delivery utilizando streaming, ello permite incrementar la flexibilidad y reducir considerablemente los costes. PVS 5.6 utiliza para las funcionalidades de Streaming un elemento Software, permitiendo la distribución de sistemas operativos de una forma eficaz.

Iniciamos el proceso de instalación arrancando la imagen ISO, desde nuestra máquina virtual ya creada con Windows 2003 Server,





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Citrix Provisioning Services - InstallShield Wizard



Citrix Provisioning Services requires the following items to be installed on your computer. Click Install to begin installing these requirements.

1 <u></u>				
Status Requirement				
Pending SQLnc				
1				
		Install	Cancel	
idemonant and a transmission of the second		water in the other other	Dip Bonder 2005 al	
🔁 D:\SQL Server 2005 Expres	is			
<u>File Edit View Favorites</u>	<u>T</u> ools <u>H</u> elp			
🔇 Back 🝷 🕤 👻 ಶ 🖉 Se	arch 🌔 Folders 🛛	s 🛯 🗙 🖉 🕯	 +	
	_			
Agaress C D:15QL Server 2005	Express			
Name 🔺	Size	Туре	Date Modified	Attrib
🛅 ja		File Folder	3/19/2010 10:35 AM	R
🗐 ReadMe.txt	1 KB	Text Document	8/8/2008 12:07 PM	R
SQLEXPR32.EXE	37,325 KB	Application	8/7/2008 7:04 AM	R
SQLEXPR.EXE	56,703 KB	Application	8/7/2008 7:07 AM	R

Ejecutando el fichero "SQLEXPR32.EXE",

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Aceptando los términos de licencia y pulsando Next, para continuar,

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Microsoft SQL Server 2005 Setup	×
Installing Prerequisites Installs software components required prior to installing SQL Server.	
SQL Server Component Update will install the following components required for SQL Server Setup:	<u> </u>
Microsoft SOL Native Client	
Microsoft SQL Server 2005 Setup Support Files	
Click Install to continue.	
Pulsando Install, para instalar,	9

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💹 Microsoft SQL Server 2005 Setup	×
Installing Prerequisites Installs software components required prior to installing SQL Server.	6
SQL Server Component Update will install the following components required for SQL Server Setup: ↑ Microsoft SQL Native Client Microsoft SQL Server 2005 Setup Support Files	
Configuring components	T
Install <u>C</u> an	cel

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Microsoft SQL Server 2005 Setup	×
Installing Prerequisites Installs software components required prior to installing SQL Server.	
SQL Server Component Update will install the following components required for SQL Server Setup:	4
 Microsoft SQL Native Client Microsoft SQL Server 2005 Setup Support Files 	
The required components were installed successfully.	
	Ŧ
Pulsando Next para continuar,	el l

Microsoft SQL Server 2005 Setup

System Configuration Check

SQL Server Setup is scanning your computer's configuration...

Realizando una revisión de los elementos de nuestro equipo,



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0	Success	13 Total 13 Success	0 Error 0 Warning	
eta	ails:			
	Action	Status	Message	Ŀ
0	Minimum Hardware Requirement	Success		
0	Pending Reboot Requirement	Success		
0	Default Installation Path Permission Re	Success		
0	Internet Explorer Requirement	Success		
0	COM Plus Catalog Requirement	Success		
0	ASP.Net Version Registration Require	Success		
0	Minimum MDAC Version Requirement	Success		
0	Edition Change Check	Success		

constinearchequeados todos los elementos necesarios y validados, pulsaremos Next para

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🖟 Microsoft SQL Server 2005	Express Edition Setup
Registration Information The following information will	personalize your installation.
The Name field must be filled	in prior to proceeding. The Company field is optional.
Name:	
EDU-WIN03BVS	
JEDO-WINGGPY5	
Company:	
,	
Hide advanced configural	tion options
, <u>.</u>	
Help	< Back <u>N</u> ext > Cancel
Especificaremos el nombre de nu	uestro server, y pulsaremos Next,

🖟 Microsoft SQL Server 2005 Express Edition Se	tup 🔀		
Feature Selection Select the program features you want installed.			
Click an icon in the following list to change how a feature is installed.			
Database Services Data Files Replication Shared Tools X Client Components X Connectivity Components X Software Development Kit	Feature description Creates the Data folder in the destination shown under Installation Path. This feature requires 99 MB on your hard drive.		
Installation path c:\Program Files\Microsoft SQL Server\	Browse Disk Cost		
Help < Back < Back Marcaremos las opciones especificadas y pulsarem	Next > Cancel		

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Microsoft SQL Server 2005 Express Edition Setup	×
Authentication Mode The authentication mode specifies the security used when connecting to SQL Server.	
Select the authentication mode to use for this installation.	
 Windows Authentication Mode Mixed Mode (Windows Authentication and SQL Server Authentication) 	
Specify the sa logon password below: Enter password:	

Confirm password:	
Help < Back Next > 0	Cancel

dEsperoific alexitos un modo mixto, y en caso del usuario SA especificaremos las credenciales,

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Representation Setup
Configuration Options Configure user and administrator accounts
Enable User Instances This option enables users without administrator permissions to run a separate instance of the SQL Server Express Database Engine.
Add user to the SQL Server Administrator role This option adds the user who is running the SQL Server Express installation program to the SQL Server System Administrator role. By default, users on Microsoft Windows Vista operating system are not members of the SQL Server System Administrator role.
Help < Back

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🖟 Microsoft SQL Server 2005 Express Edition Setup
Error and Usage Report Settings Help Microsoft improve some of the SQL Server 2005 components and services.
Automatically send Error reports for SQL Server 2005 to Microsoft or your corporate error reporting server. Error reports include information regarding the condition of SQL Server 2005 when an error occurred, your hardware configuration and other data. Error reports may unintentionally include personal information, which will not be used by Microsoft.
Automatically send Feature Usage data for SQL Server 2005 to Microsoft. Usage data includes anonymous information about your hardware configuration and how you use our software and services.
By installing Microsoft SQL Server 2005, SQL Server and its components will be configured to automatically send fatal service error reports to Microsoft or a Corporate Error Reporting Server. Microsoft uses error reports to improve SQL Server functionality, and treats all information as confidential.
<u>H</u> elp < <u>B</u> ack <u>N</u> ext > Cancel

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🖟 Microsoft SQL Server 2005 Exp	ress Edition Setup	X
Ready to Install Setup is ready to begin installation	Π.	
Setup has enough information to s change any of your installation set	tart copying the program files. To proceed tings, click Back. To exit setup, click Canc	1, click Install. To el.
The following component • SQL Server Databas (Database Services)	ts will be installed: se Services	
	< <u>B</u> ack <u>I</u> nstall	Cancel

Pulsaremos Install, para iniciar la instalación de todos los módulos necesarios,

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💹 Microsoft SQL Server 2005 Setup

Setup Progress

The selected components are being configured

Product	Status	
MSXML6		
SQL Setup Support Files	Configuring components	
SQL Native Client		
SQL VSS Writer		
SQL Server Database Services		

_ Status	
----------	--

Removing backup files			
<u>H</u> elp	<< <u>B</u> ack	<u>N</u> ext >>	Cancel

Iniciándose el proceso de instalación de componentes,

X

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💹 Microsoft SQL Server 2005 Setup

Setup Progress

The selected components are being configured

Product	Status	
MSXML6	Setup finished	
SQL Setup Support Files	Setup finished	
SQL Native Client	Setup finished	
SQL VSS Writer	Setup finished	
SQL Server Database Services	Setup finished	

	<u>H</u> elp		<< <u>B</u> ack	Next >>	Cancel
D	Jaaromoo Novt	para continuar una vo	finalizada		
	JISAI EITIUS NEXL	, para continuar una vez			

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Administrator		
Manage Your Server	😡 My Computer	
Windows Explorer	Control Panel	
Command Prompt	Printers and Faxes	
Notepad	Help and Support	
 Windows Windows Accessor Administra 	Catalog Update ies •	
Microsoft	SQL Server 2005	tion Tools
All Programs	Express Assistance	
Start 19 3 2015 Accordoromos postariormonto SQL Server Configuration Mana	ger	Managor"
Eile Action ⊻iew Help ← → 1 1 1		
SQL Server Configuration Manager SQL Server 2005 Services SQL Server 2005 Network Conf SQL Server 2005 Network Conf Protocols for SQLEXPRESS E	(Local) Protocol Name iguration Named Pipes TCP/IP VIA	Status Enabled Enabled Disabled

pessthetriennosenter a Eta alatsteal lassi corpolies messos or cesspondientes a Named Pipes y TCP/IP, pasando

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WARNING: This program is protected by copyright law and international treaties.

Pulsaremos Next, para continuar,

X

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🖟 Citrix Provisioning Services	×
License Agreement	
You must view the entire license agreement in order to continue.	×
	_
CITRIX [®] LICENSE AGREEMENT	
This is a legal agreement ("AGREEMENT") between you, the Licensed User, and Citrix Systems, Inc., Citrix Systems International GmbH or Citrix Systems Asia Pacific Pty Ltd. Your location of receipt of this product or feature release (both hereinafter "PRODUCT") or technical support (hereinafter "SUPPORT") determines the providing entity hereunder (the applicable entity is hereinafter referred to as "CITRIX"). Citrix Systems, Inc., a Delaware corporation licenses this PRODUCT in the Americas and Japan and provides SUPPORT in the Americas. Citrix Systems International GmbH, a Swiss company wholly owned by Citrix Systems, Inc., licenses this PRODUCT and provides Support in Europe, the Middle East, Africa, and	-
I accept the terms in the license agreement Print	
\bigcirc I <u>d</u> o not accept the terms in the license agreement	
InstallShield	
< <u>Back</u> <u>Next</u> > Cancel	
Puisaremos ivexi, aceptando los terminos de licencia,	

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Lunes, 21 de Junio de 2010 09:33 - Actualizado Lunes, 21 de Junio de 2010 10:10

		CITD
Please enter your information.		CIIR
User Name:		
administrator		
Organization:		
Install this application for:		
Install this application for:	this computer (all users)	
Install this application for:	this computer (all users) SRV2003DC)	
Install this application for:	this computer (all users) SRV2003DC)	
Install this application for:	this computer (all users) SRV2003DC)	

Especificaremos las credenciales y pulsaremos Next,

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🞼 Citrix Pro	ovisioning Services	×
Destinati Click Ne>	on Folder <t a="" change="" click="" different="" folder,="" folder.<="" install="" or="" th="" this="" to=""><th>CITRIX</th></t>	CITRIX
	Install Citrix Provisioning Services to: C:\Program Files\Citrix\Provisioning Services\	⊆hange
InstallShield -	< <u>Back</u>	Cancel

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Citrix Provisio	ning Services	×
Setup Type		CITPLY
Choose the se	tup type that best suits your needs.	CIIKİX
Please select a	a setup type.	
• Complete		
1	 All program features will be installed. (Requires the mos space.) 	st disk
C Custom		
1	Choose which program features you want installed and will be installed. Recommended for advanced users.	I where they
stallShield ———		
	< <u>B</u> ack <u>N</u> ext >	Cancel
leccionaremos	la opción de "Complete", y pulsaremos Next.	

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Citrix Provisioning Services		
Ready to Install the Program		citou
The wizard is ready to begin installati	ion.	CIIRİ
Click Install to begin the installation.		
If you want to review or change any exit the wizard.	of your installation settings, c	lick Back, Click Cancel to
allShield		
	A De als Te a	hall Canaal

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🞼 Citrix Pro	visioning Services	
Installing The prog	Citrix Provisioning Services ram features you selected are being installed.	TRIX
13	Please wait while the Installation Wizard installs Citrix Provisioning Services. This may take several minutes.	
	Status:	
		1
InstallShield —		
	< <u>B</u> ack <u>N</u> ext > Ca	ncel
Iniciándose e	l prceso de instalación,	

Una vez finalizado, pulsaremos Finish,

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Provisioning Services Con	figuration Wizard	X
CİTR İX [®]	The Configuration Wizard provides an easy way to setup a "basic" Server configuration.	
	For advanced configurations, see the Installation and Configuration Guide.	
	You can always run the Configuration Wizard again later from the Start Menu.	
	< <u>B</u> ack <u>Next</u> > Cancel	

Iniciándose el Wizard de configuración de PVS5.6, pulsaremos Next,

OHCP Services Specify the service that will provide IP ac Services target devices	dress assignments to Provisioning	5
Services target devices.		2
The service that runs on this compute	er]	
Microsoft DHCP		
Provisioning Services BOOTP set	ervice	
O Other BOOTP or DHCP service		
O The service that runs on another <u>com</u>	nputer	

Especificaremos que el servicio DHCP corre en otro equipo, tal y como se muestra,

Specify the service that will provide IP Services target devices.	address assignments to Provisioning	
\odot The service that runs on this compu	uter	
C Microsoft DHCP		
C Provisioning Services BOOTP	service	
${f C}$ Other BOOTP or DHCP service	e	
• The service that runs on another <u>co</u>	omputer	

Una vez seleccionada la opción, pulsaremos Next,

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Provisioning Services Configuration Wizard	×
PXE Services Specify which service will deliver this information to target devices.	
During the PXE boot process the bootstrap file name and FQDN/IP address of I TFTP server hosting the bootstrap are delivered via a PXE service or DHCP opt 66/67.	the tions
The service that runs on this computer	
Provisioning Services PXE ser <u>v</u> ice	
C The service that runs on <u>a</u> nother computer	
	1
< <u>Back</u> <u>N</u> ext >	Cancel

sespeccióicaremos lausegus elavidie las Epociedasen este equipo, pulsando Next, en caso contrario

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Server name: EDU-WIN03PVS Instance name: Instance name: Optional TCP port: Browse Sgrver name: Browse Optional TCP port: Cancel Optional TCP port: Chicket Optional TCP port: Server Instance Servers Server Instance Server Instance Server Solutional TCP Server Instance Server Solutional TCP Solutional TCP	Provisioning Services Database Server Enter the Server and	Configuration Wizar	rd		×
Specify database mirror failover partner Sgrver name: Instance name: Optional TCP gort: Optional TCP gort: Server Server Instance Server Instance Server Instance Server Instance Server Instance Server Instance Server Server Server Server Server Server Server Server	<u>S</u> erver name: <u>I</u> nstance name: Optional TCP port:	EDU-WIN03PV5		B	rowse
< Back	Specify database Server name: Instance name: Optional TCP gort	e mirror failover partne	r	B	ro <u>w</u> se
Server Instance EDU-WIN03PVS SQLEXPRESS XENSERVERWLB SQLEXPRESS	nonificaramas al conver-	noro ollo pulcoromo	< <u>B</u> ack	<u>N</u> ext >	Cancel
	QL Servers Server EDU-WIN03PVS XENSERVERWLB	Instance SQLEXPRESS SQLEXPRESS			

Seleccionaremo el server donde está creada la instancia de SQL 2005 Express,

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Server name:	EDU-WIN03PV5	Browse
Instance name:	SQLEXPRESS	
Optional TCP port:		
Optional TCP port:		
Optional TCP port:	mirror failover partner	
Optional TCP port:	mirror failover partner	Browse
Optional TCP port: Specify database Server name: Instance name:	mirror failover partner	Browse,

Una vez seleccionada, pulsaremos enNext, para continuar,

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Provisioning Servi	ces Configuration Wi	zard		×
New Store Enter a new Sto	re and default path.			
Store name:	StorePVS			
<u>D</u> efault path:	2:1EDU-PV556			rrowse
		< <u>B</u> ack	Next >	Cancel
Store name: Default path:	StorePVS Z:\EDU-PVS56	< <u>B</u> ack	E <u>N</u> ext >	O <u>r</u> owse

Especificaremos el repositorio donde almacenar las imágenes de PVS56, y pulsaremos Next,

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License Server Enter the license server h	nostname and port.	
License server name:	172.16.50.44	
License server port:	27000	
Validate license serve Validate license serve	r version and communication es for desktops if no Desktop licenses are available	

Especificaremos el servidor de licencias y pulsaremos Next,

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• Network service account	
Specified user account (Required when using a Windows Share)
User name:	
Domain:	
Password:	
Confirm password:	
C Local system account (U	lse with SAN)
Configure the database	for the account
	< <u>B</u> ack <u>N</u> ext > Cancel
mos la onción conocifica:	da v pulcaromoc Novt

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Specify networks settings.		Ś
	V B 172,16,50,43	
<u>A</u> vailable network cards for stream services:		
Enter the base port that will t are required. You must also s	be used for network communications. A total of 2 elect a port for console communications.	0 ports
Note: All servers must have t	he same port configurations.	
Eirst communications port:	6890	

Especificaremos el rango del adaptador de Red y pulsaremos Next,

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ovisioning Services Configuration Wi	zard
TP Option and Bootstrap Location Typically only one TFTP server is deploye	ed as part of Provisioning Services.
Services TFTP s	ervice
C:\Documents and Settings\All Users\A	pplication Data\Citrix\Provision Browse,
	< <u>Back N</u> ext > Canc

Marcaremos la opción de TFTP services, y pulsaremos Next,

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Specify	y at least 1 and at mos	st 4 boot servers.			ý
<u>T</u> he bo boot p	ootstrap file specifies w rocess.	vhat servers targe	t devices may c	ontact to complete	e the
	IP Address	Subnet Mask	Gateway	Port	
	172.16.50.43	0.0.0.0	0.0.0.0	6910	
	Add	Edit	emove	Move yp Move down	
	Ad <u>v</u> anced		-		

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Pulsaremos Finish para instalar y aplicar configuraciones,

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Provisioning S Finish Confirm yo	Services Configuration Wizard
	Stopping Network Services Stopping Software Stream Service Configuring Services Starting Software Stream Services Starting Network Services
ciándose el pro	< Back Finish Cancel

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Posteriormente desde el menú Start, seleccionaremos "Provisioning Services Console",

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😟 Provisioning Services Console		
🙂 Eile Action Yiew Window Help		
Provisioning Services Console	Name	Description
	There a	are no items to show in this view.
	•	
Seleccionaremos Connect to Farm		

Escrito por xavisan

Drovisioning Serv	vices Console			
E File Action Vi	ew Window Help			
+ → 🗉 🖻				
Provisioning Ser	Connect to Farm View Log File Folder View New Window from Here Refresh Export List Help	me There a	Description are no items to show in this view.	
Connect to a Provisioni Y especificaremos la	ng Services farm. correspondientes credenci	ales.		

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Connect to F	arm	×
Server Info	rmation	
<u>N</u> ame:	· · · · · · · · · · · · · · · · · · ·]
	(Name or IP address of a server on the farm.)	
Port	54321	
1 2.4	(Port configured for server access.)	
Credentials	3	
Use m	ny <u>W</u> indows credentials to login	
O Use th	hese credentials to login	
<u>U</u> sen	name:	
<u>D</u> oma	ain:	
Pass	word:	
	Save password	
🗖 Auto-I	login on application start or reconnect	
	Conn <u>e</u> ct <u>C</u> ancel <u>H</u> elp	

Una vez añadidas las distintas credenciales pulsaremos en Connect,

Escrito por xavisan

Provisioning Services Console		
😐 File Action View Window Help		
← → 🖪 🖻 😰 🖬		
Provisioning Services Console EDUFarm (172.16.50.43) Sites EDUFarm Servers vDisk Pool vDisk Pool Device Collections User Groups Views Views Stores StorePVS	Name EDUFarm (172.16	Description
Accediendo a la consola administrativa de P	VS5.6.	