

Citrix Ardence Disk Streaming

“Operating System provisioning for Servers and Workstations, the right OS at the right time for the right computer”

Server & Storage

Security & All IP

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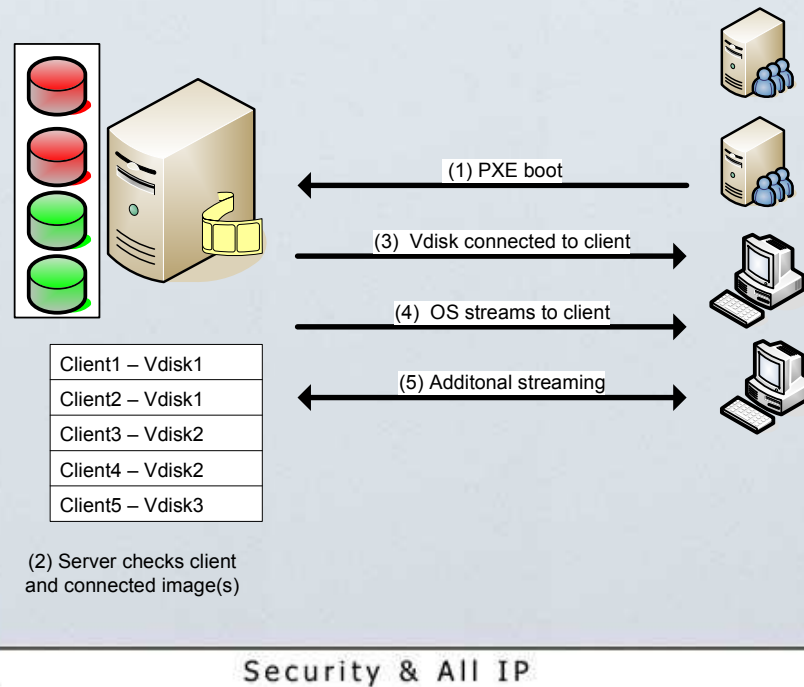


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The Virtualization Players explained, Ardence

Ardence Disk Streaming Platform

- Diskless/Network boot, Disk Streaming technology
- Client (Desktop/Server) is mounting a disk volume on the network via PXE
- Private and standard images



Ardence

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Advantages of Ardence

- Rapid Software (OS/Apps) Deployment, easy server and workstation provisioning
- Flexible provisioning: On Demand Capacity, Hardware Re-purposing
- Instant upgrades or roll-back of Operating System and (security) updates
- High Availability and Load Balancing of Ardence streaming servers
- Disaster Recovery for virtual and physical machines
- Secure server/workstation, no local harddisks disks needed
- Windows XP, 2000, 2003, Vista*, Linux RH and Novell/Suse supported
- Intel x86 and x64 support
- Clean Operating System after every restart
- Systems with the same image are 100% identical
- Support of multiple images per system, inclusive boot menu
- Lowering TCO, maintenance, provisioning, easy DR
- Less expensive disk-storage needed with standard images (VDI/DDI)

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Disadvantages of Ardence

- No work off-line capability
- High-speed LAN recommended (100Mb>)
- Not all platforms supported
- Multiple PXE/BootP solutions in same network segment will give issue's
- More expensive disk-storage needed with private images

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Scenario's for using Ardence:

- Citrix Presentation Servers
- Web Servers
- Back-up Servers
- Development / test environments
- LAB environments
- Educational environments
- Public workstations
- Secure environments
- VDI/DDI solutions

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Roadmap



Ardence 4.1

- Management API (MAPI)
- Ardence Secure Edition For 4.X
- Integrated PortBlocker
- Linux Client (32 & 64 bit)
- 64 bit Client Support (x64 Architecture)
- Vista Support

Ardence 5.0

- Admin Tool Enhancements
- PXE Boot Options
- Redundant Network Support
- 64bit Ardence Server Support
- Scalability Enhancements

Ardence 5.1

- User-based vDisk Selection
- vDisk Management Improvements
- Logging, Reporting, and Monitoring Improvements
- Localization

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The Virtualization Players explained, Arden

Why did Citrix buy Arden

- Why did Citrix buy Arden
 - DDI/DDI
 - Easy and secure migration scenario to a new Presentation Server platform

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Licensing

- Desktop Client (XP, Vista) \$ 250,00
- Desktop Client incl HA \$ 400,00
- Data Center Client \$ 600,00
- Data Center Client incl HA \$ 1000,00

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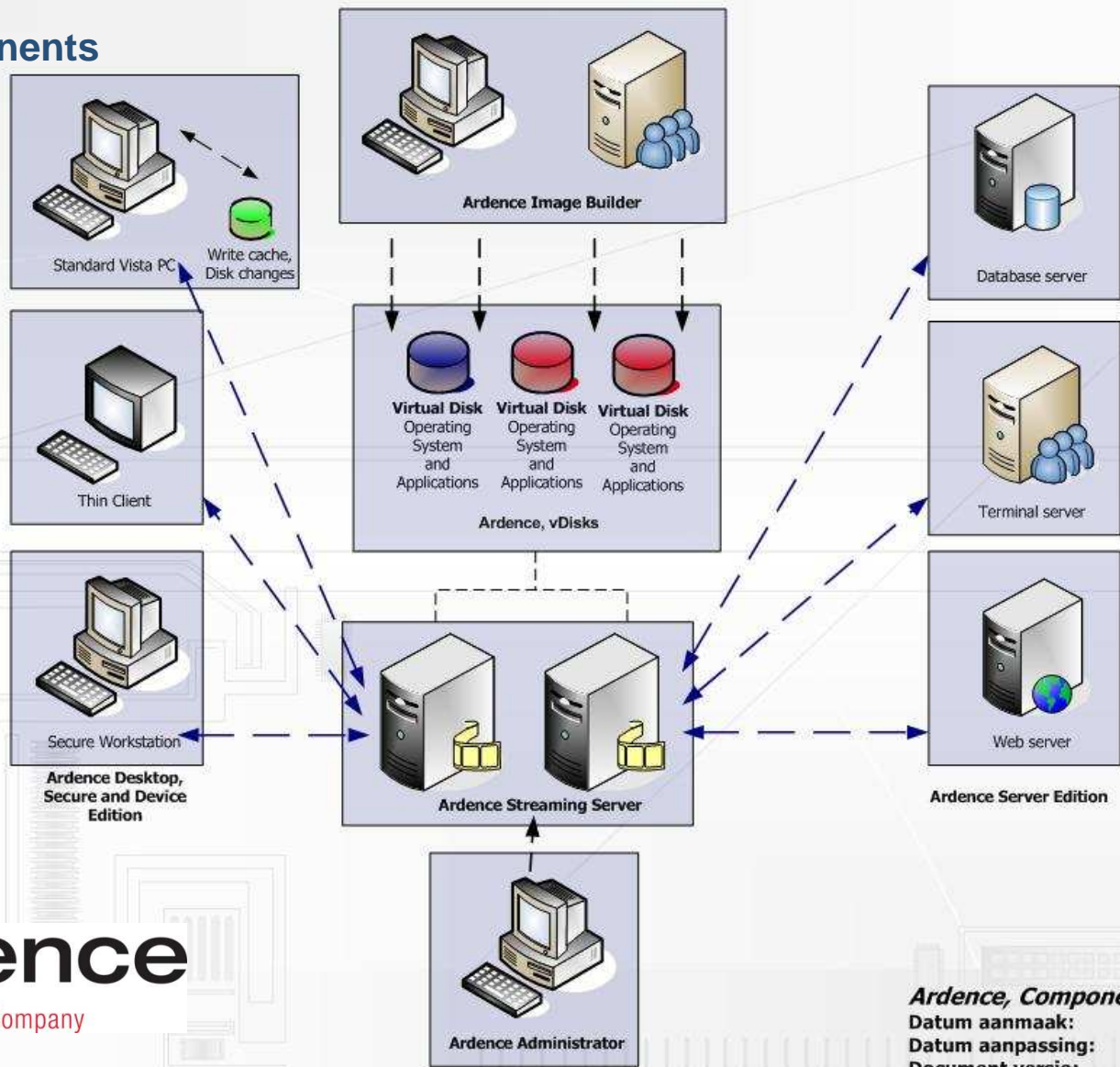
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Components



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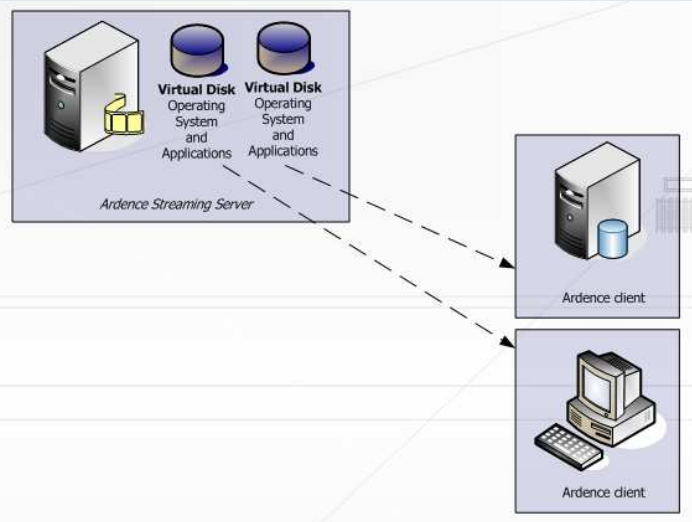
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Ardence, Components

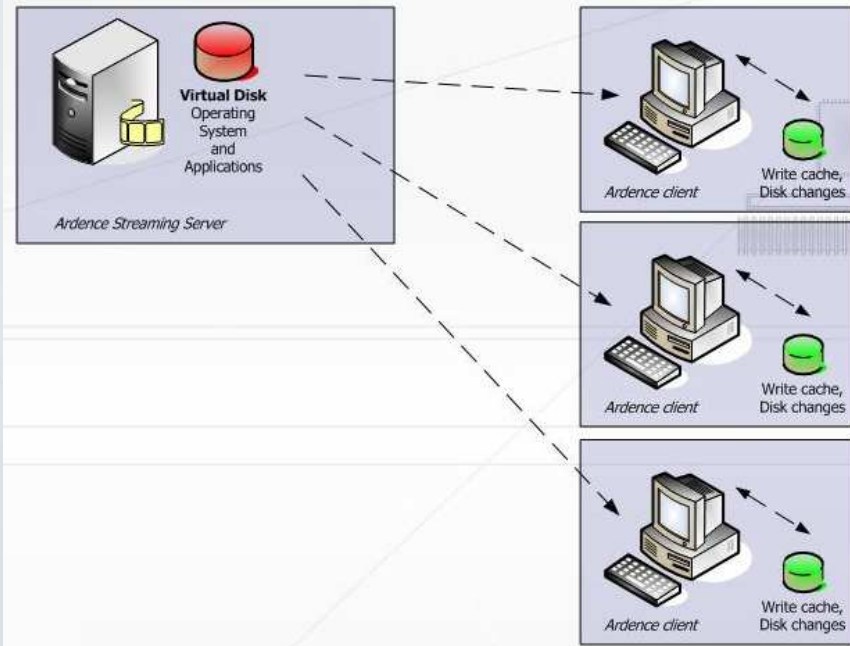
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Designers: Ruben Spruijt

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Virtual disk models



Ardence vDisk is assigned to one client.
This is called Private Image



Ardence vDisk is assigned to multiple clients.
This is called Standard Image.

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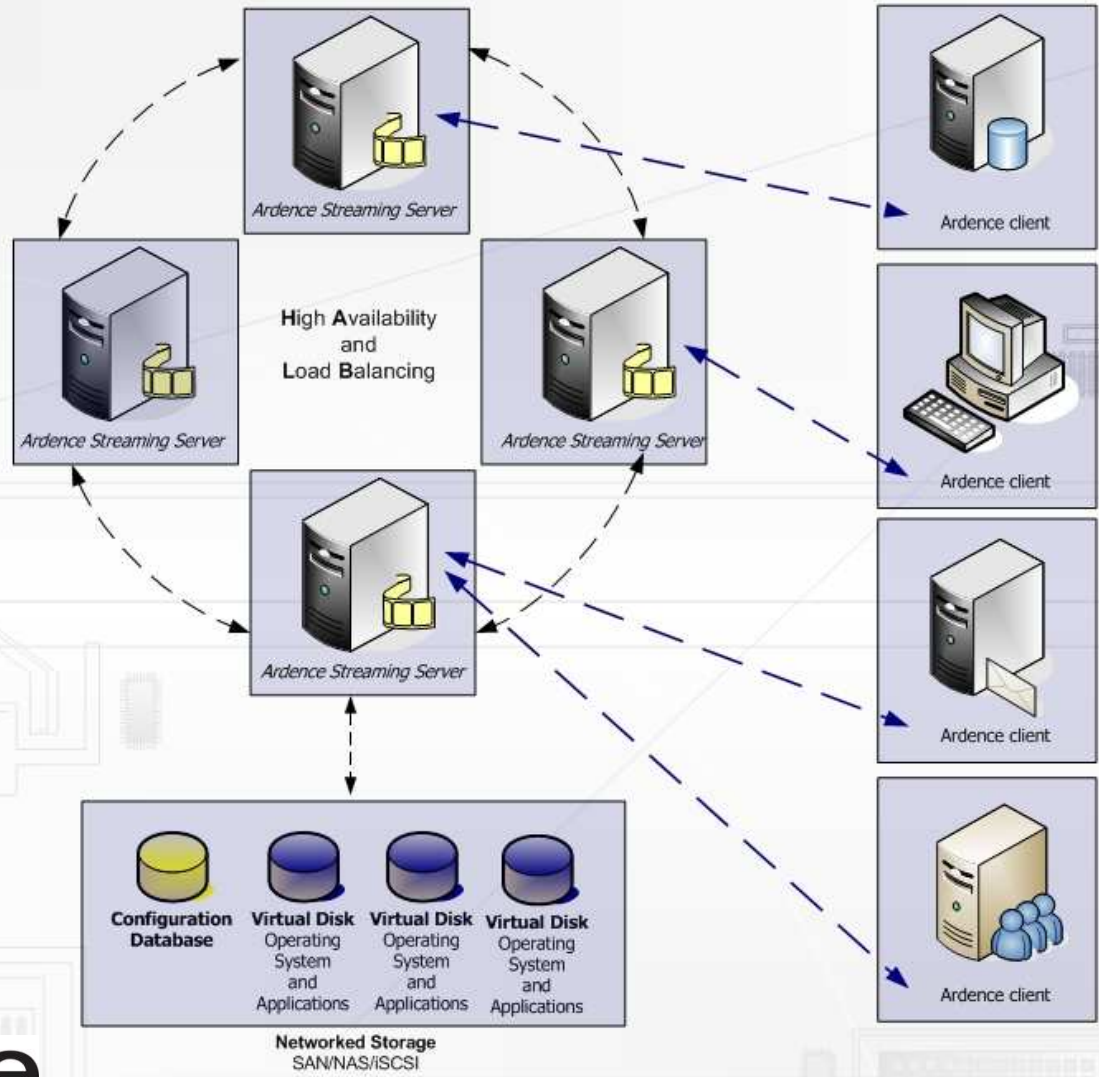
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HA and LB



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Ardence, High Availability and Load Balancing

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Advanced Features

- Common Image
 - Image for multiple hardware platforms
 - Using a common NIC that should be inserted in every system
- High Availability
 - Using multiple Ardence Servers for Load Balancing and Higher Availability
 - Additional licenses needed
 - FileShare, SAN or NAS needed
- Management API
 - Script possibilities of actions in Ardence Console
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Customer Case: Ardence & Citrix [Education]

Why Ardence came in the picture?

- Difficulties to keep servers 100% identical
- Difficulties to create and maintain unattended installation of Citrix Server
- Long period for new applications are available for end users
- No OTA process and environments available
- No quick rollback scenario's available
- Dynamic requirements for some applications (exams, specific lessons, report card processing)
- Just a few persons with real Terminal Server knowledge available

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Customer Case: Ardence & Citrix [Education]

Advantages:

- Dynamic application of Citrix Servers (extending silo's)
- Clear and easy maintenance of Citrix Servers
- Modifications can only be done on one place
- Easy implementation of updates and hotfixes
- Easy rollback scenario's
- Restart of the server is much quicker
- After a restart system is back in clean state
- Servers are always 100% identical
- Addition of a new sever is done in a few minutes

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Challenges Ardence & Customer Citrix Servers

- Personalizing Citrix Presentation Server
- Personalizing other software products like RES Powerfuse, SMS Client, HP OVO Client
- Microsoft SoftGrid Prechaching
- Two PXE systems: Ardence for Citrix Server and WDS for Vista Client
- Performance of the Server in comparison to a traditional installed server
- LAN bandwidth usage
- How much customization is necessary for user applications

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Questions?

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