QlikView Server & Publisher Enterprise Configuration

Outline

1. Authentication
2. Authorisation
   - Document – NTFS / DMS / SA
   - Data – Section Access
3. Availability
   - Clustering
   - Scalability
4. Document Organisation
   - Logical – QVD / QlikMart / QVW
   - Physical – Folders / NTFS / OTAP
5. Manageability
   - Workflow/Lifecycle
   - Delegated Administration - QEMC
   - External Task Triggers - EDX
   - Identity Management - QMS API

Presenters

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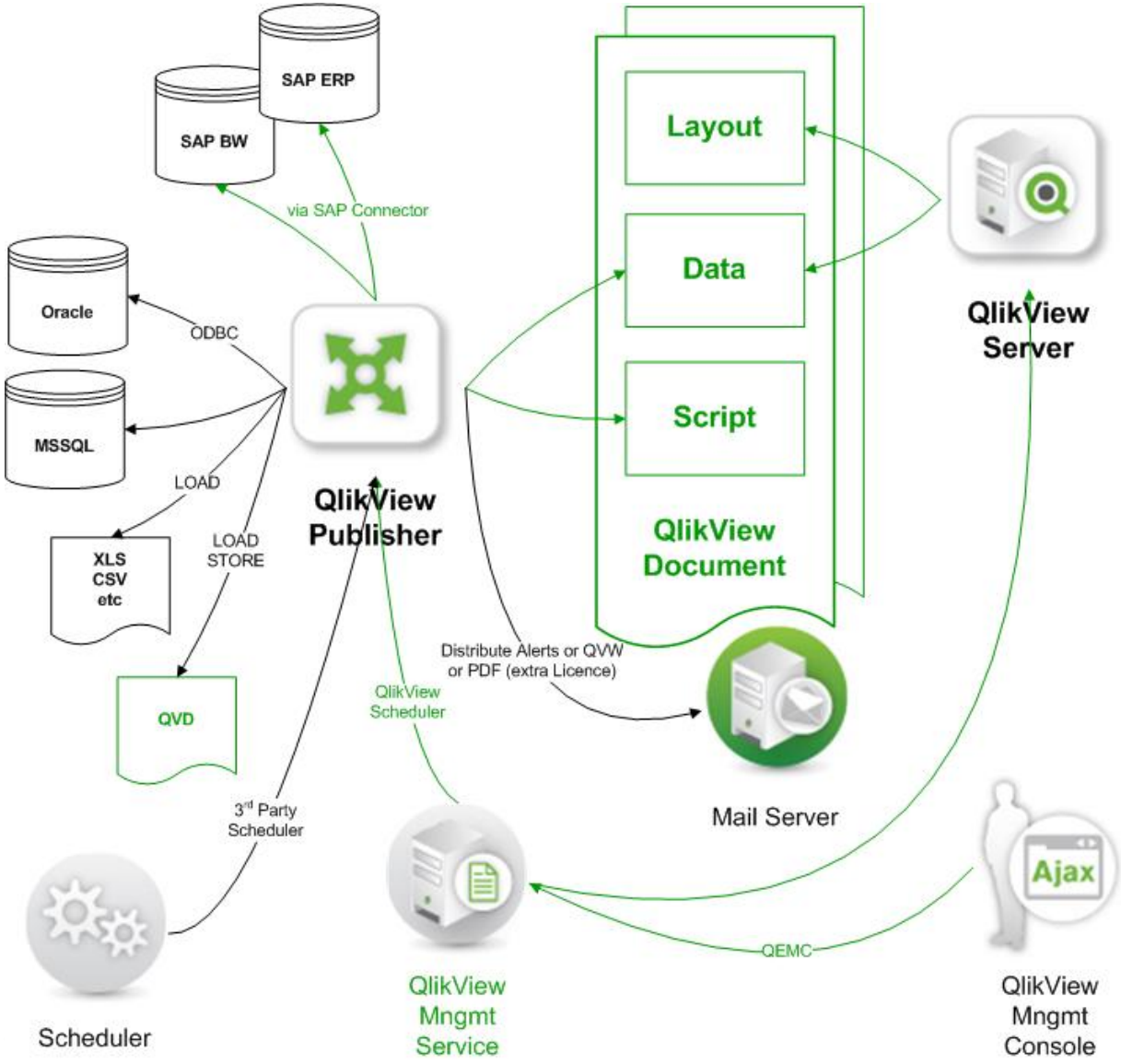
Architecture: QlikView Back-End



- **QlikView Publisher** Reload Task executes the Script in the QlikView Document and loads Data into the Document
- **QlikView Server** loads the document into RAM for fast delivery of Layout and Data to connected Clients
- Publisher can distribute PDF (extra licence) or QVW to Email Recipients and to Disk.
- Document tasks are configured using QlikView Management Console (AJAX)
- Document tasks can be scheduled internally by time or prior task status, or externally using an Enterprise Scheduler

1. Authentication

Who are you? How did you prove it?

1. Out of the Box – just works
   QlikView Desktop uses your Windows Identity
   QlikView WebServer performs NTLM Single Signon
   IIS performs Kerberos/NTLM “Windows Integrated Authentication”

2. HTTP Header - configuration
   Authentication performed by Authenticating Reverse Proxy, OR
   ISAPI filter determines identity from eg Encrypted Session Cookie

3. Ticketing – development integration
   Suitable for single documents only; does not support Document Chaining
   Does not supply AccessPoint functionality
   Suitable for embedding a document in another application

4. Reimplementation of /QvAJAXZfc/Authenticate.aspx
5. Custom Directory (forms authentication)

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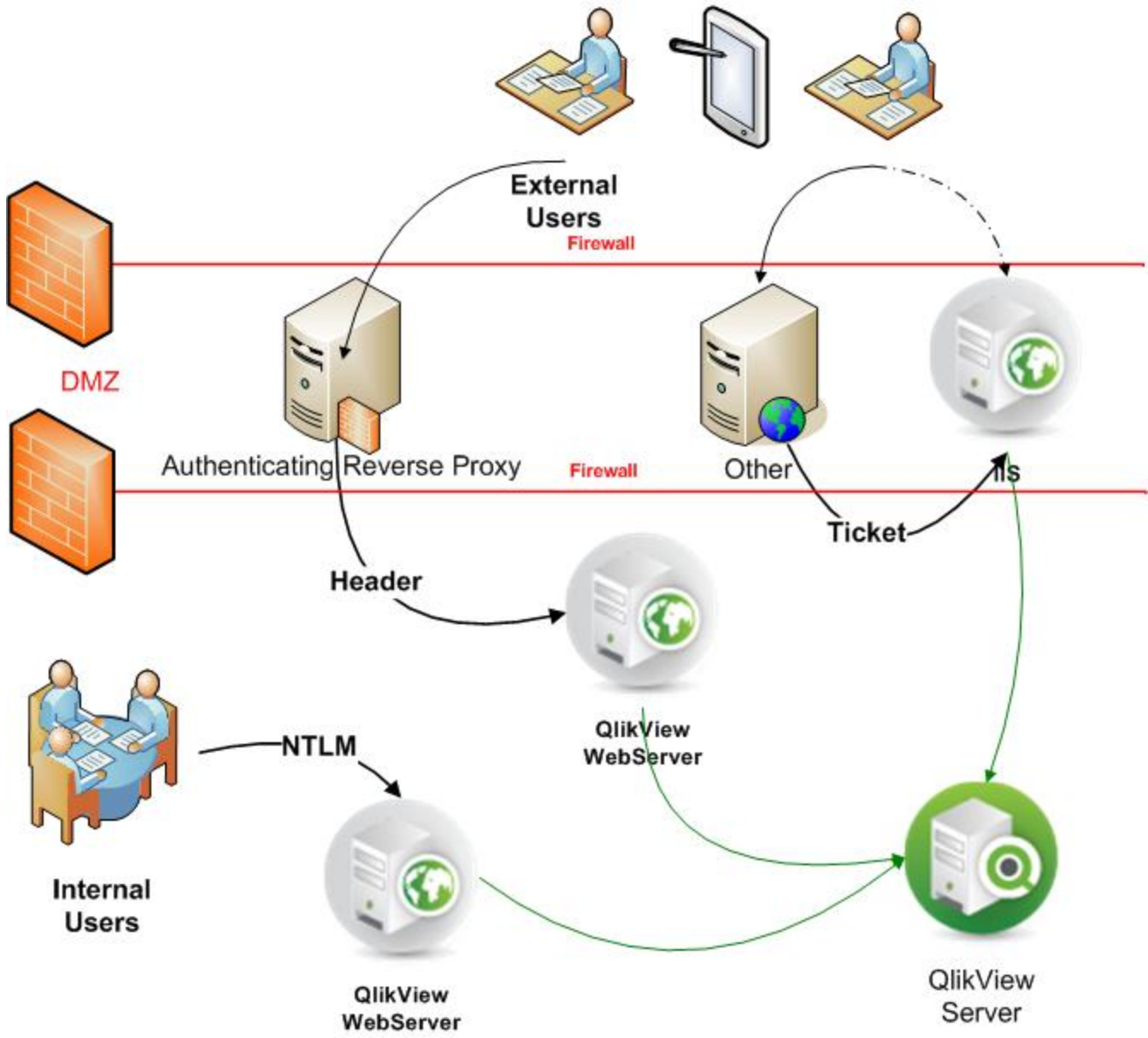
1. Authentication

Out of the Box
Internal users login to AD then use NTLM

Configuration
External users login to Proxy then use Header

Development
Integration into Other authenticating application uses Ticket

One WebServer per Authentication Method



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2.1 Authorisation

Now that we know who you are, what are you permitted to see/do?

QlikView Authorisation is two tiered:

Document Authorisation – what documents may you see & open

- NTFS Windows controls File Access

- DMS QlikView controls File Access

Data Authorisation (often called “Row Level” or “Granular” security) controls what data IN the document you can analyse

- Section Access

- Reduction tasks using QlikView Publisher

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2.1.1 Authorisation - NTFS

- QlikView Server checks the Windows permissions of the QVW and caches these for 15 minutes.
- Permissions can be set on a folder of QVWs and inherited
- Permissions can be set on the specific QVW file
- Permissions are recorded using the Security tab in the folder or document properties using Windows Explorer

- File permissions can also be set using Publisher Distribution tasks (not available with Server Reload)
- Anonymous (everyone) access can be granted to IQVS_hostname account that was created during installation

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2.1.2 Authorisation - DMS

- QlikView Server reads the Document permissions from the Meta file associated with the QVW and caches these for 15 minutes.
- Permissions are recorded for each QVW file individually
- Permissions are recorded using the Authorisation tab in the User Document properties using QEMC (only visible in DMS mode)

- Permissions can also be set using Publisher Distribution tasks
  - not available with Server Reload (no Publisher Licence)
  - only when using Server Distribution tasks (not Folder Distribution). Only the QvS writes to the Meta files.
  - Must enable “Document Upload” on QvS
- DMS supports non-Windows users, eg Identities supplied by Header or Ticket authentication
- Groups can be granted access, and this requires that the Directory Service Connector has been properly configured to access the Group Membership repository

2.2.3 Authorisation – Data – Section Access

- QlikView Script contains two sections
  - Section Access
    - ✓ Not always present; must be explicitly declared
    - ✓ Performs Authentication into the Document
    - ✓ Association of User with limited set of Field values
  - Section Application
    - ✓ Provide the Data Model

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2.2.5 Authorisation – Data – Publisher Reduction

Scenario1: CompanyX has Sales Representatives who want to inspect customer details (buying patterns, etc) while On The Road. They only need access to data of their Customers, but will be disconnected from the Network.

Scenario2: BankY has many users at many branches. They want each branch to have access only to their own data. Staff at the branches see only the data that relates to their customers.

- Publisher can perform “Reduction and Distribution” tasks so that one large document can be split into smaller documents that contain a subset of the data.
- The smaller documents perform better (less data = less RAM) and can be distributed to fileservers & email recipients.
- Only available with a Publisher Licence.

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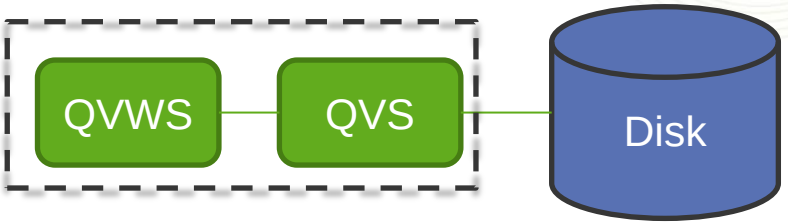
3.1.1 Availability – Clustering – Single QVS

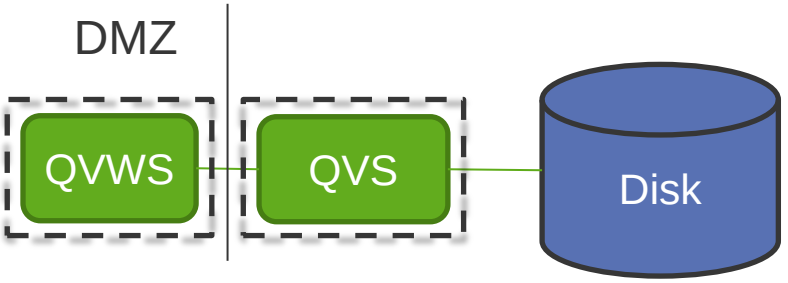
Single Server

- Simple to start with
- e.g. Small Business Edition



N-Tier

- Web Server in DMZ for security
- Web Server can easily be virtualized
- Small Business Edition compatible



Points of Interest

- More data -> Buy more memory and CPU
- QVS is VMWare certified but not recommended for production

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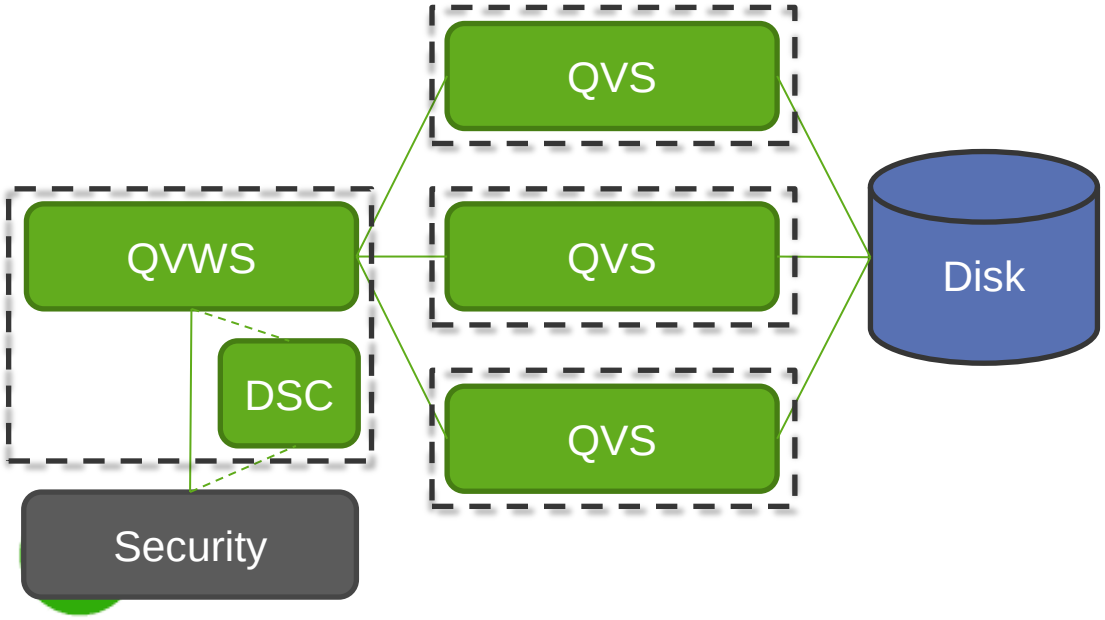
3.1.2 Availability – Clustering – Scalable QVS Cluster

- **Why Use?**
  - Scalability for more users - typically not more data
  - To scale to more data, use Loop and Reduce
  - Capacity planning is linear: test one server and scale out



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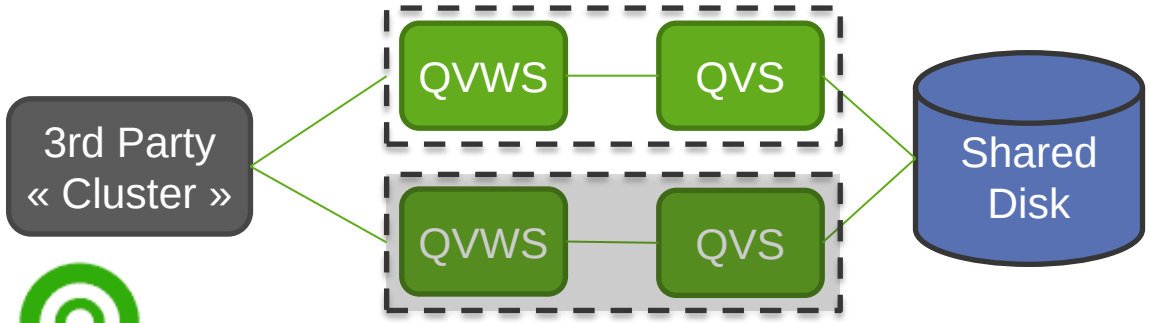
3.1.3 Availability – Clustering – High Availability Active/Passive

- **Why Use?**
  - Can't be off for more than a few minutes
  - No extra scalability in users or data
- **License**
  - No extra license - not a QVS Cluster
  - Requires external Active/Passive system with cost (MSCS Failover Cluster, **…**)
- **Points of Interest**
  - Could be done via Virtualization but a very bad idea



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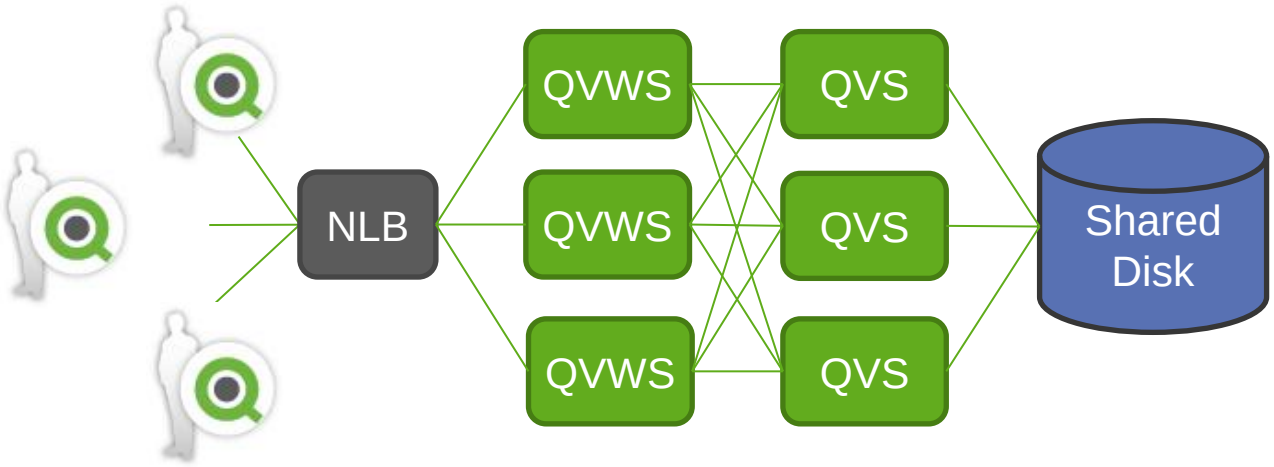
3.1.4 Availability – Clustering – High Availability Active/Active

- **Why Use?**
  - Can’t be off for more than a minute
  - Scalability is a bonus.



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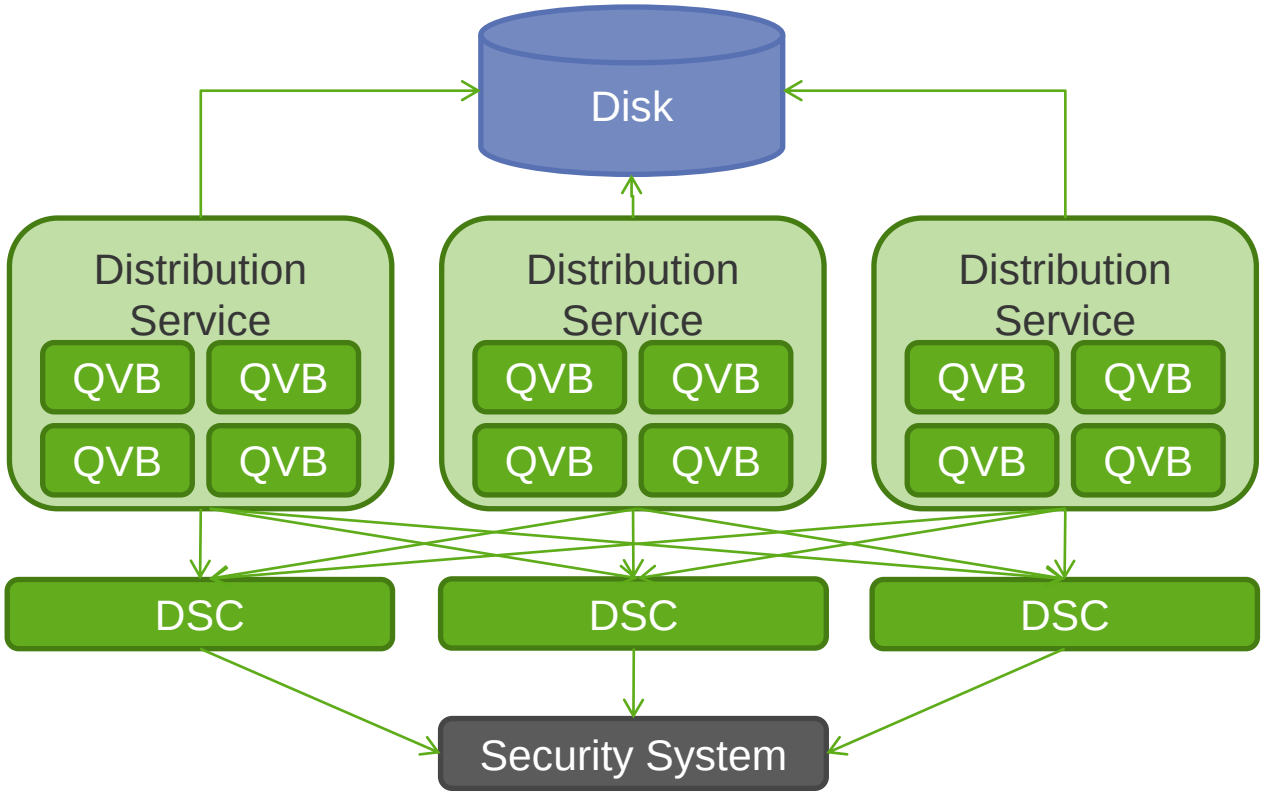
3.1.5 Availability – Clustering – Publisher Cluster

V10 introduces DSC Clustering



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3.1.5 Availability – Clustering – Summary

- What Clusters or could be Virtualized?

Component	Clusters	License required?	Virtualize?
QlikView Server	Yes	Yes	Caution
QlikView Management Service	No	n/a	Yes
Directory Service Connector	Yes	No	Yes
QlikView Web Server or IIS (AccessPoint)	External	No	Yes
QlikView Distribution Service (Publisher license)	Yes	Yes	Caution
Shared Disc	External	No	Caution

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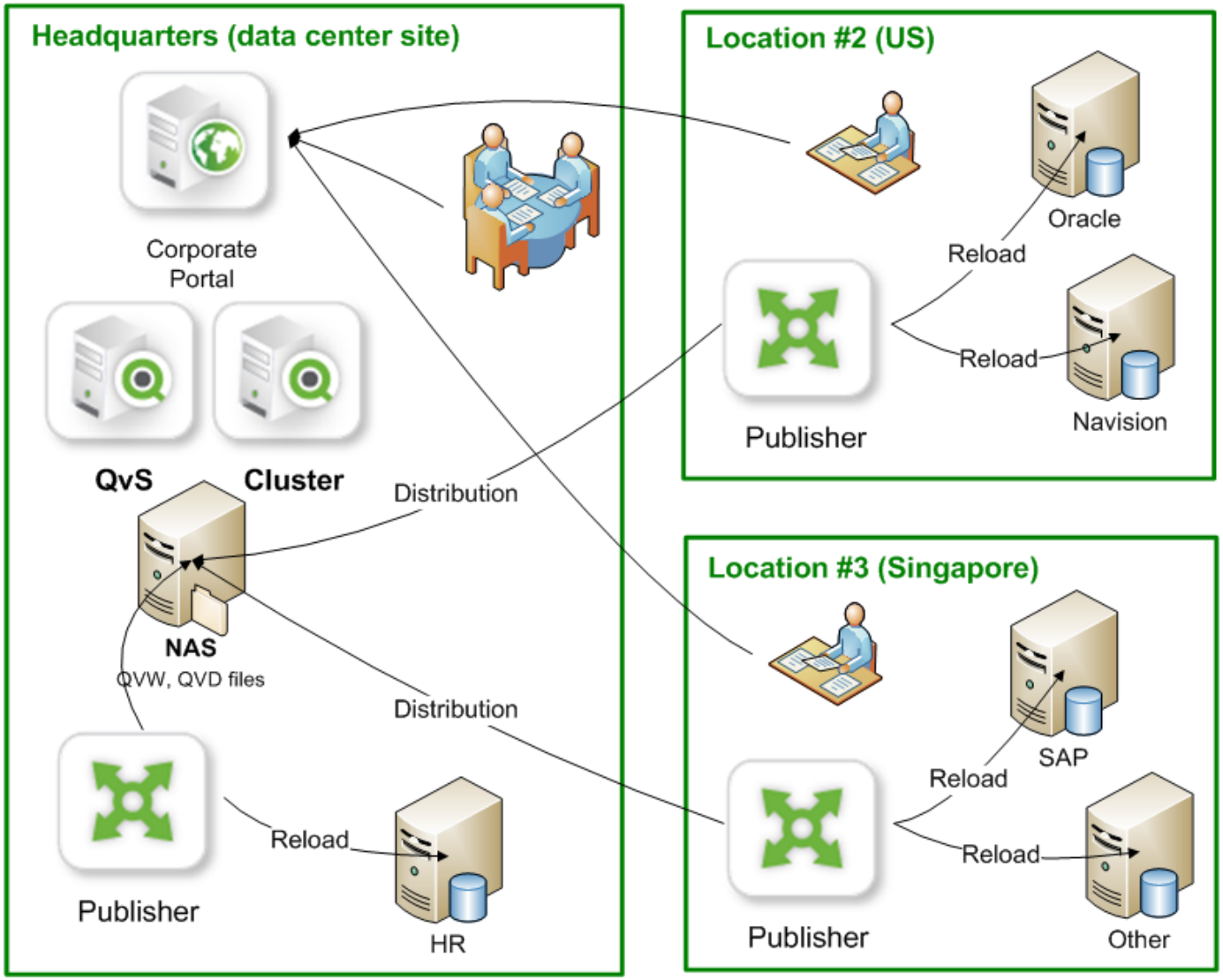
Geographically dispersed Datasources



Paint /Coatings Manufacturer:

AMS / Eindhoven / Pittsburgh

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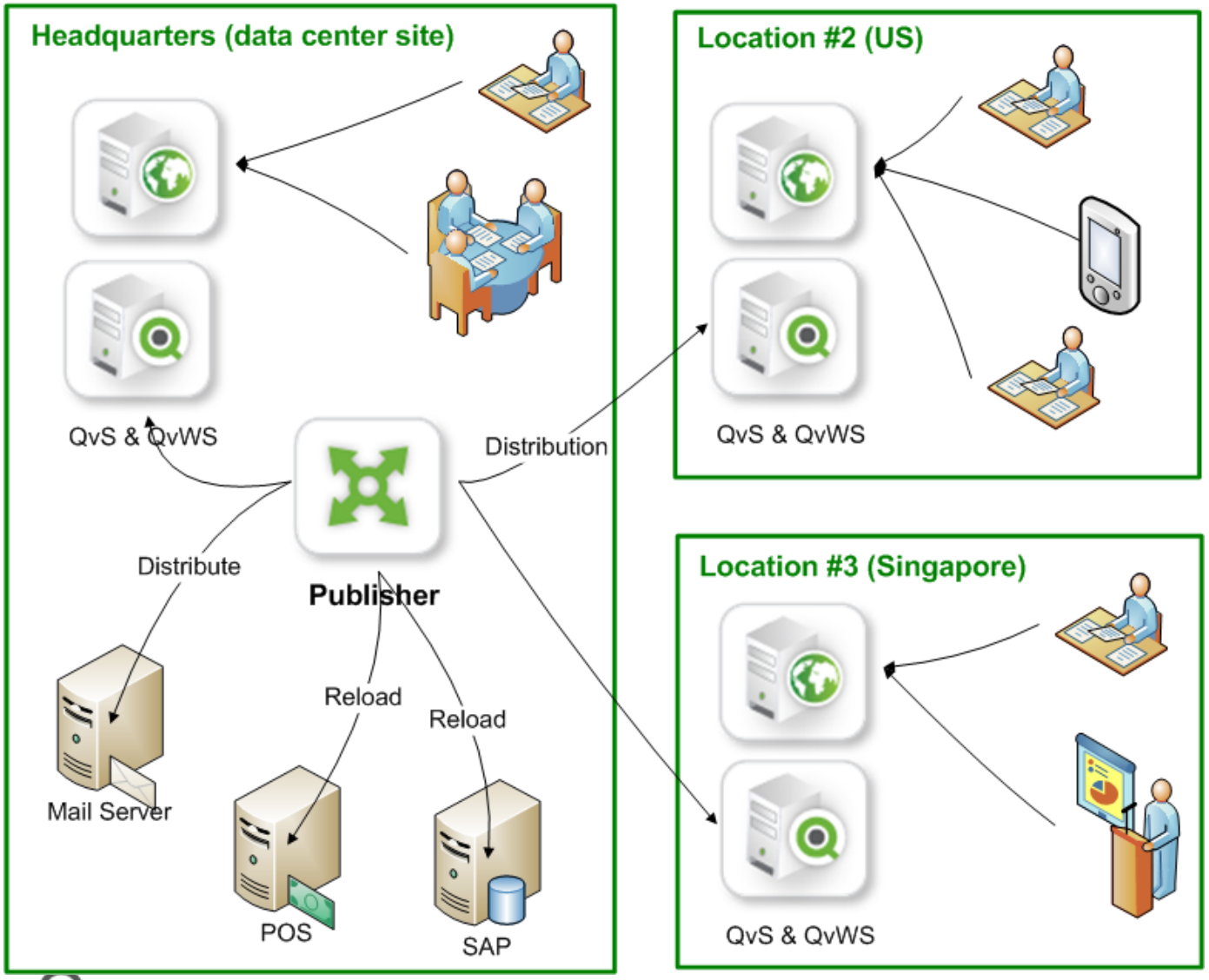
Geographically dispersed Users



Share Trader:

AMS / Sydney / Chicago / HK

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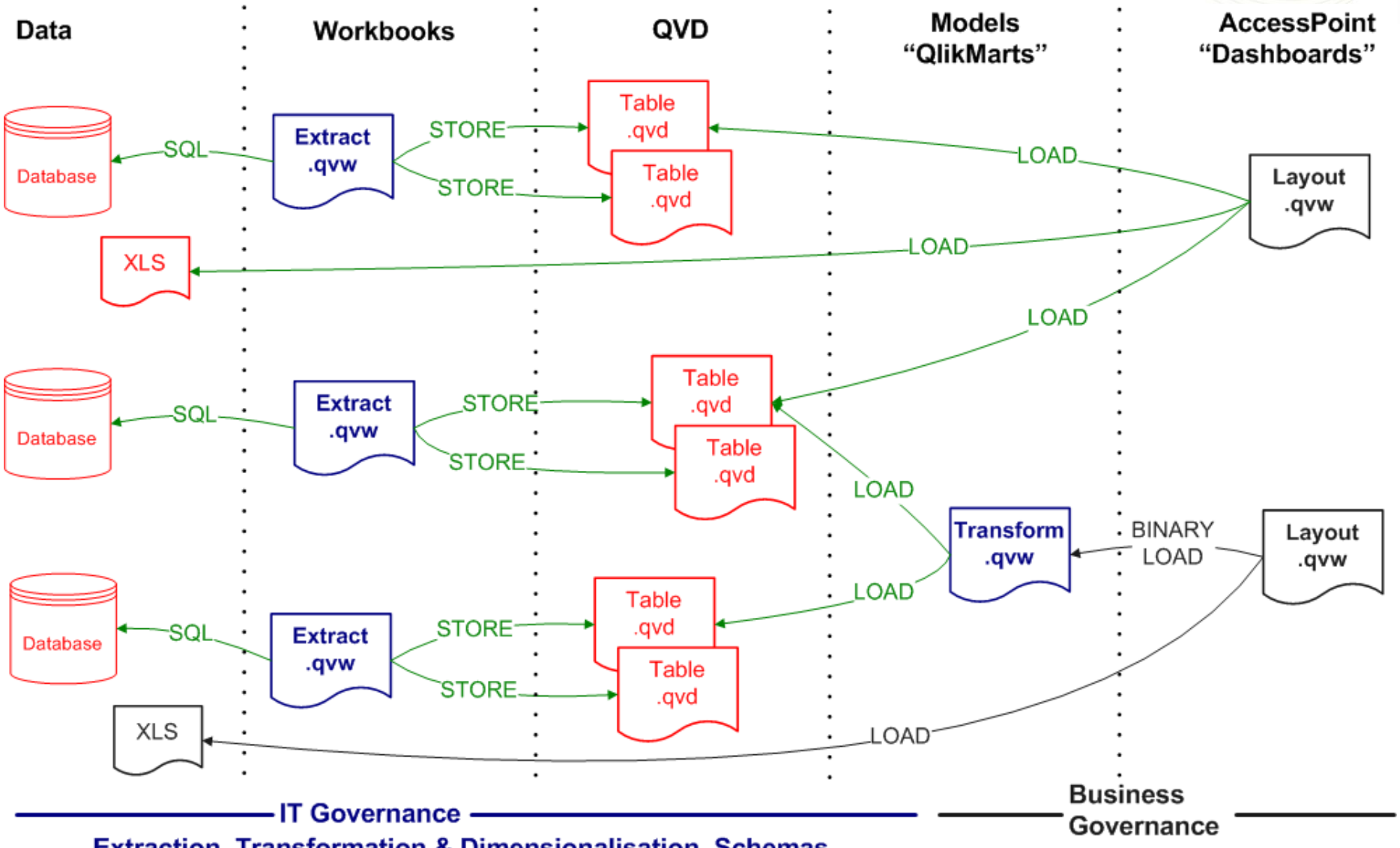
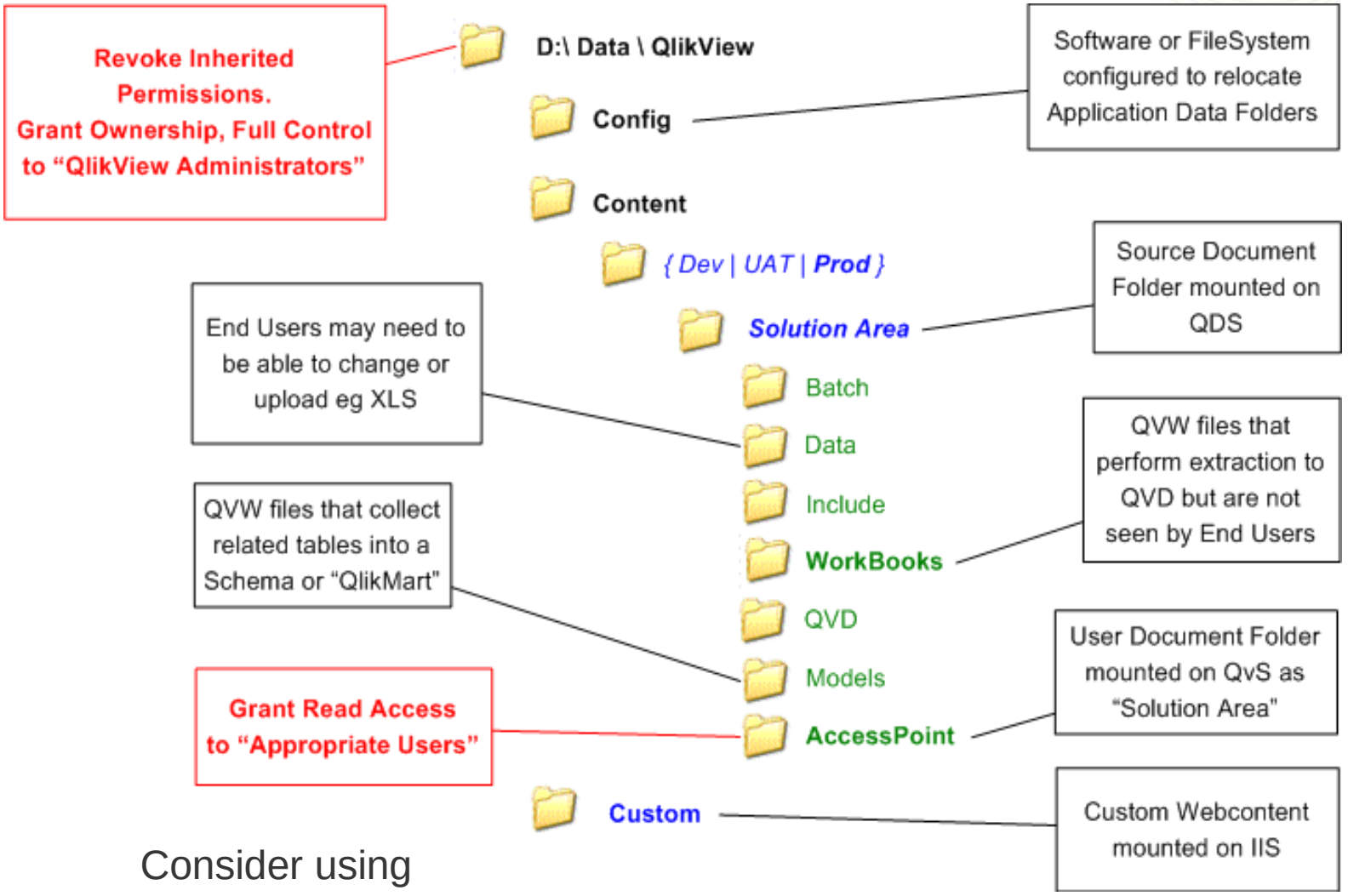
4.1 Document Organisation - Logical



4.2 Document Organisation - Physical



Consider using
\\NAS\QlikView$ for Config
\\NAS\QlikView for Content

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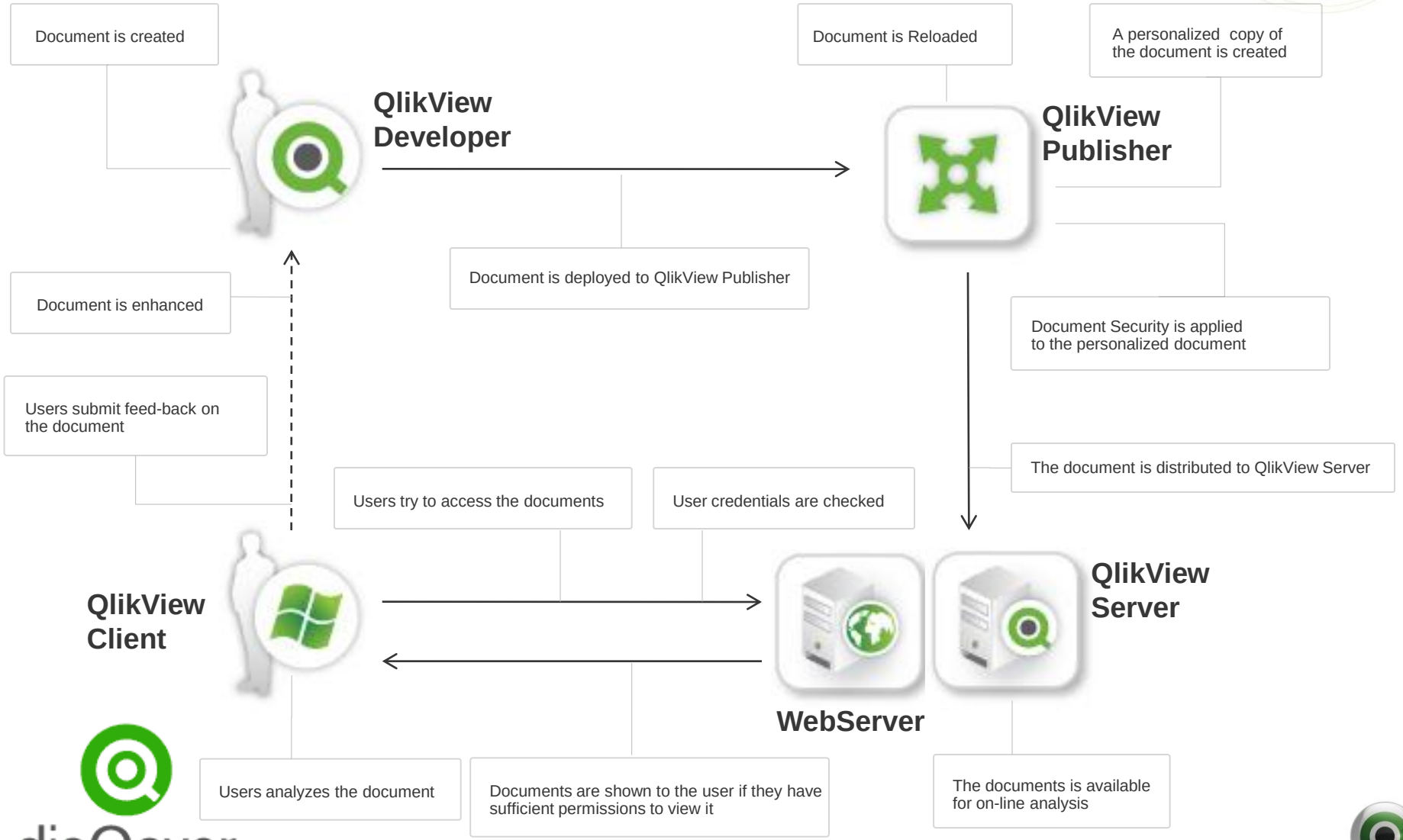
5.1 Manageability: Workflow / Lifecycle



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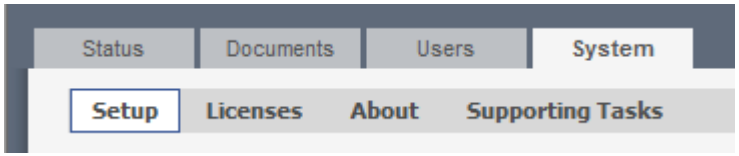
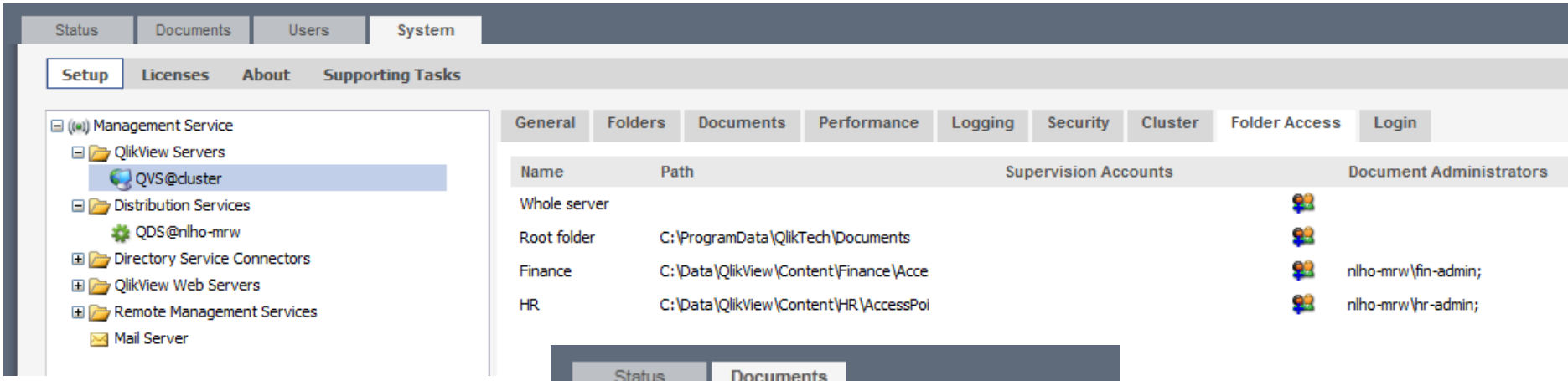
5.2 Manageability – Delegated Administration

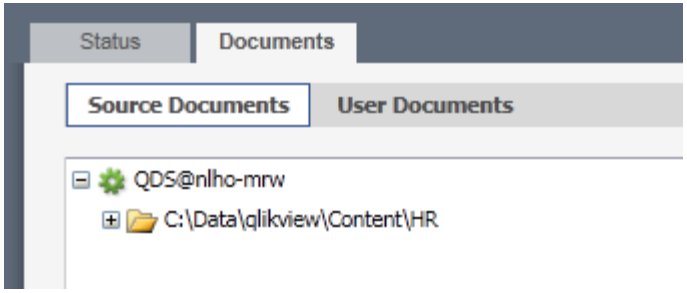
•IT (or Outsource Partner) administers the Server Configuration using QEMC

QlikView Administrators



•Business Units administer their Documents without ability to break things





Accessing QEMC as hr-admin

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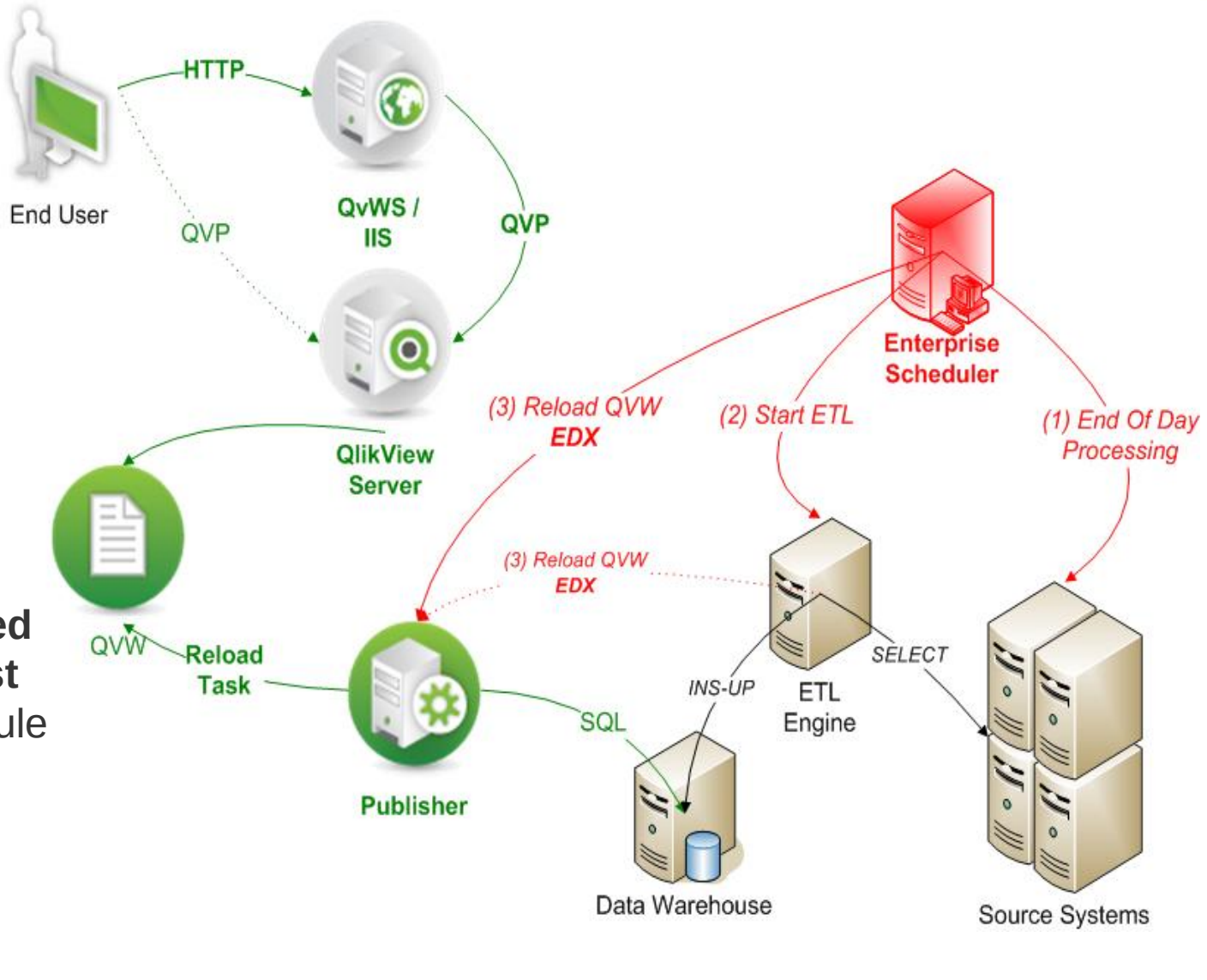
5.3 Manageability – External Task Triggers



Event Oriented instead of **Best Guess** Schedule

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5.4.1 Manageability – QlikView Management API

•Allows a developer to perform many tasks from the QlikView management console using code

•Allows the automation of dozens of admin tasks normally performed by hand

•Allows integration into other systems

•Includes access to the following

- Document Lists
- CALs
- Tasks
- DMS permissions
- System Settings

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5.4.2 Manageability – How to use the QMS API

- The management API is a web service

- You need to be familiar with a programming language that can use a web service

- Examples are provided for Visual Studio in .Net (C# or VB) but any language could be used

- Examples are installed when you select the SDK option when installing a server
  C:\Program Files\QlikView\QlikView SDK

- Help file can be found here
  C:\Program Files\QlikView\Management Service\QMSAPIDocumentation.chm

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5.4.2 Manageability – QMS API things to look out for

•You need to create a windows group on the server called “QlikView Management API” and be a member of it, this is not automatic

•If you do not have publisher you cannot access tasks via the API but you can still use EDX

•The way to interact with components and functions takes a little getting used to, follow examples to help you out

•The RC, IR and SR1 all made subtle changes to the API and this required rebuild of the application, but not a re-write

•Starting a new project requires a few set up steps so having a template is helpful

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Thank You !

For more information .....

Contact **Wim Martens** to arrange an Expert Services Consultation

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These Presentation Slides will be available for Download after the Event.

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