Securing WebFOCUS – A Primer

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Agenda

- Gain an understanding of the WebFOCUS Architecture
  - Where can security be implemented?
- Review the internal WebFOCUS repository and resource templates.
- Review securing the communications layer.
- Review how to integrate WebFOCUS with external security provider.
Discuss Security
What should we think about in regards to security?

- Encrypting the transport protocol.
  - Prevent an attacker from being able to “sniff” the network to obtain data, passwords...

- Authentication
  - Make sure that the user is who they say they are!

- Authorization
  - Make sure that the authenticated users can only do what they are permitted to do.
User requests a report from WebFOCUS. (This is done through a URL call to the WebFOCUS servlet)

WebFOCUS interprets the request that the user made, and requests the Reporting Server to execute the report.

The Reporting Server reviews the request, and determines how and where to retrieve the data. It requests the data source.

The data source processes the data request, and returns the smallest data set possible to the Reporting Server.

The Reporting Server does any additional calculations, joins... and formats it into the desired output (HTML, EXCEL, PDF...) The report is then passed back to WebFOCUS. (Once the report is returned to WebFOCUS, the “agent” on the Reporting Server is released, making its resources available to subsequent requests)

WebFOCUS delivers the report to the user.
- WebFOCUS Managed Reporting has a built in repository that manages all of the WebFOCUS content, as well as controls who has access to that content.
- This can be used on its own, or in conjunction with external security providers.
The WebFOCUS Repository contains all the WebFOCUS content: Folders, Reports, Report Objects, HTML pages, Portals and Schedules.

This is a view of the WebFOCUS Content Tree.
In the repository you can also manage WebFOCUS users and groups.

This is a view of the WebFOCUS Security Center.
On every object in the content tree, users and/or groups can be mapped to specific rules. This allows for greater control for administrators to delegate who can do what with every object in the repository. However, this can also become very complicated!
Resource Templates are there to make managing security easier.

- They allow you to easily create a content folder, portal, groups and associated rules.
- Each template creates several sub-groups that have appropriate rules already applied to the content folder and portal.
  - Administrator, Developer, Advanced User, and Basic User.
  - All you need to do is add users to the appropriate group to give them the desired access to WebFOCUS content.
- Out of the box we provide an Enterprise Template, as well as several SaaS Templates.

WebFOCUS also allows you to customize these templates, or create your own.
Resource Templates
Built-in Resource Templates
Resource Templates
Built-in Resource Templates

- Enterprise Group Administrators Can
  - Create new users (WF puts them into the parent group)
  - Edit properties of users in their parent group
  - They can see all users and add anyone to their sub-groups

- SaaS Group Administrators
  - Cannot create new users
  - Can only manage group membership of their users
Resource Templates
Consider Your User Role Requirements

**Basic User**
- Run reports (immediate, deferred, Olap)
- Save report parameters
- Access library content
- Use mobile favorites
- View and customize a portal

**Advanced User**
- Same as Basic User plus...
- Create reports* using InfoAssist from reporting objects and metadata (MFDs, business views)
- Can share with authorized users
- Basic scheduling
- Create alerts
- Upload images and documents

*Can save to My Content folder only

**Developer**
- Same as Advanced User plus...
- Create and manage content
- Edit a portal*
- Advanced Scheduling
- View rules on resources
- Upload Data
- Use the Desktop product
- Manage metadata
- Access Reporting Server resources

* Except for the SaaS Shared Portals

**Group Administrator**
Can manage users, resources, and security rules within their group but cannot run reports
- Access a portal
- Publish / unpublish resources
- Change item ownership
- Manage own users’ private content
- Manage group membership for own group
- Limited ability to create rules
- Limited access to Security Center
- Create users within their own group

* Only Enterprise group administrators
Discuss Security

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WebFOCUS Security
Where can the transport layer be encrypted?

Communications between the user and WebFOCUS can be encrypted.

Communications between WebFOCUS and the Reporting Server can be encrypted.

Depending on the RDBMS, communications between the Reporting Server and a RDBMS can be encrypted.
Discuss Security
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WebFOCUS Security
Where can authentication be done?

Authentication can be performed prior to WebFOCUS by the web server, a third party web authenticator (WebSEAL, SiteMinder...) or a token handoff from custom applications.

WebFOCUS can authenticate externally to LDAP, AD, an RDBMS or to tables in a data source.
Authentication
Pre-Authentication Support

Single Sign-on

Web Server
- IIS/Windows Auth

Web Access Mgt
- CA SiteMinder
- Tivoli WebSEAL...

OpenID
- Google, Yahoo...
- Internal Provider

Custom SSO
- SAML
- SaaS Applications
The user does not get prompted for credentials. The web browser and IIS automatically handle the authentication.
Discuss Security

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WebFOCUS can “map” groups in its internal repository back to elements in LDAP, AD, or tables in a data source. This allows integrated authorization to just about any external source.
Authentication & Authorization to LDAP
Reporting Server LDAP Provider

Testing the provider

Directory type is automatically detected
Appropriate defaults are automatically filled in to simplify configuration

Test the provider
Authentication & Authorization to LDAP
WebFOCUS Trusted Connection to the Reporting Server

WebFOCUS Administration Console

Simple one-click setting

Reporting Server edaprint.log

u=bt01234,g=Walmart;Walmart/AdvancedUser;EVERYONE,r=USR

&FOCSECUSER

&FOCSECGROUP
Administrator Maps the Value to a WebFOCUS Group

Resource Templates Can Configure the Mapping

Group DN or attribute value is mapped to WF group
Authentication & Authorization
WebFOCUS External Authorization (to the RS)

WebFOCUS Security Center

WebFOCUS groups can be mapped to external groups

User description and email pulled from external directory

Accounts for these users are automatically created when they first sign-in
WebFOCUS Data Security

- Traditional Approach
  - Rules in the MFD or Central DBAFILE

- Dynamic DBA
  - Leverages MFD Profile
  - Reads entitlements from file or Table
Security is a very broad topic, and it can be as simple, or as complex as your requirements need it to be. This presentation was merely a taste, and did not get into many areas of security that we do support.

The WebFOCUS security manual, in addition to several instructional videos, are available at https://techsupport.informationbuilders.com. These contain everything that was reviewed, and much, much more.

We have resources that can help you from our education and professional services organization. If you need a hand, please contact your account representative to point you in the right direction.
Questions?