

ORACLE®



ORACLE®

Overview of Multisite

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.

The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Oracle Training Materials – Usage Agreement

Use of this Site (“Site”) or Materials constitutes agreement with the following terms and conditions:

1. Oracle Corporation (“Oracle”) is pleased to allow its business partner (“Partner”) to download and copy the information, documents, and the online training courses (collectively, “Materials”) found on this Site. The use of the Materials is restricted to the non-commercial, internal training of the Partner’s employees only. The Materials may not be used for training, promotion, or sales to customers or other partners or third parties.
2. All the Materials are trademarks of Oracle and are proprietary information of Oracle. Partner or other third party at no time has any right to resell, redistribute or create derivative works from the Materials.
3. Oracle disclaims any warranties or representations as to the accuracy or completeness of any Materials. Materials are provided “as is” without warranty of any kind, either express or implied, including without limitation warranties of merchantability, fitness for a particular purpose, and non-infringement.
4. Under no circumstances shall Oracle or the Oracle Authorized Delivery Partner be liable for any loss, damage, liability or expense incurred or suffered which is claimed to have resulted from use of this Site of Materials. As a condition of use of the Materials, Partner agrees to indemnify Oracle from and against any and all actions, claims, losses, damages, liabilities and expenses (including reasonable attorneys’ fees) arising out of Partner’s use of the Materials.
5. Reference materials including but not limited to those identified in the Boot Camp manifest can not be redistributed in any format without Oracle written consent.

Agenda

- URL Management
- JSP Pages in Multisite Applications

Learning Objectives

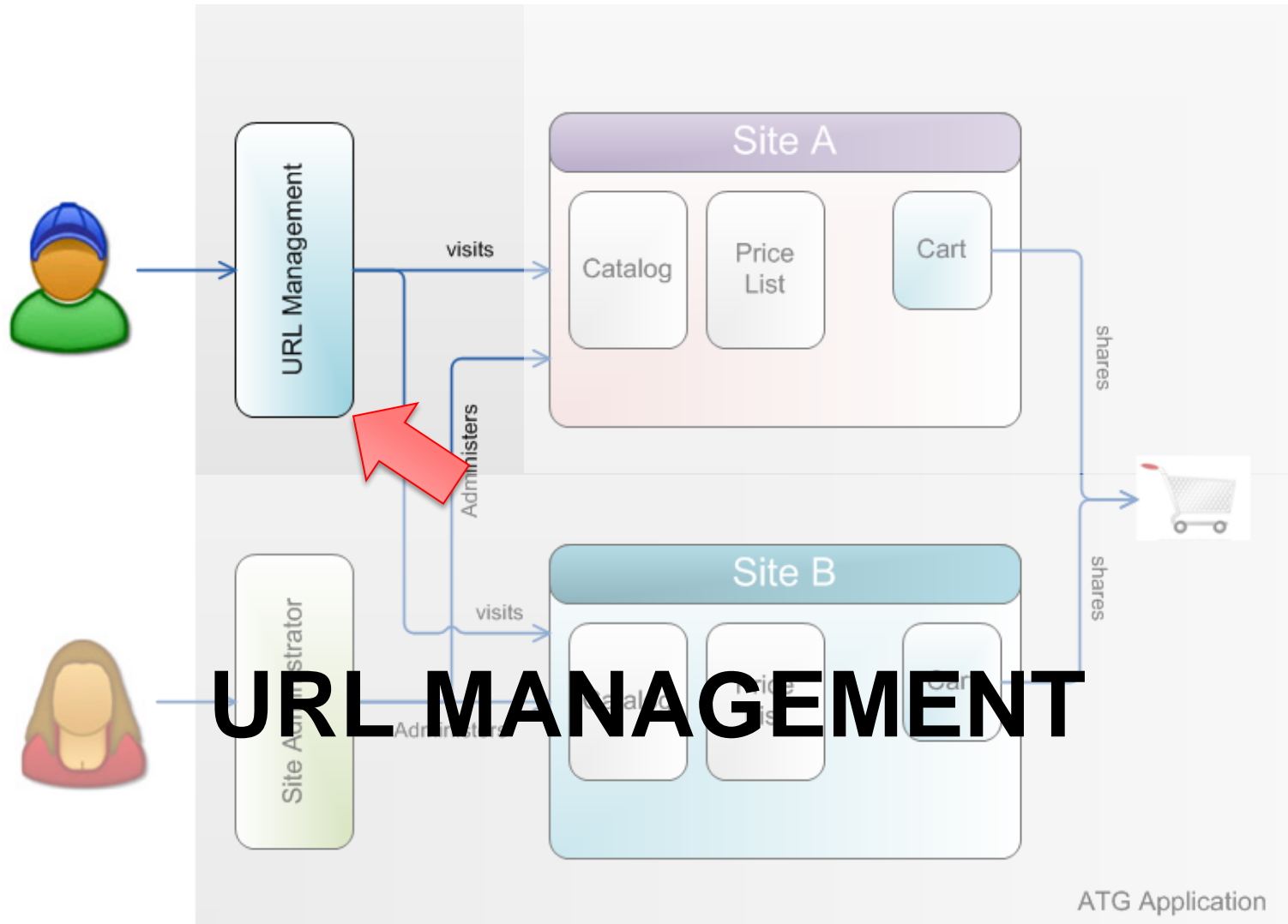
At the end of this lesson you should be able to:

- Understand the differences between a path based strategy and a domain based strategy.
- Learn about the various URLs specified in the site administrator
- Understand the role of absolute link generator to create environment appropriate absolute URLs
- Use ATG OOTB Multisite Droplets to enable multisite specific features on the front end
- Understand how Targeters, User Segments and Content Groups can leverage site specific behavior

Section 1:

URL Management





URL Management

- A multisite application must be able to quickly determine which site a given request is associated with.
- ATG platform includes a very flexible URL management system for ensuring that each request is associated with the correct site.
- There are three main approaches to making the determination:
 - Path-based strategy,
 - Domain-based strategy,
 - Sticky site parameters.

Path-Based Strategy

- The domain name is the same for all sites, and the site is keyed off the context root in the URL.
- Configure the URL management system to associate the request with a site based on the context root.
- An individual web application (*war* file) can have only one context root.
- To make it possible for all of the sites to use the same context root, ATG uses a technique called virtual context roots. The browser displays the virtual context root and the actual context root is hidden.
- Advantage:
 - This strategy makes it easy to manage cookies.
- Example:
 - www.sports.com/baseball and www.sports.com/football

Domain-Based Strategy

- Each site has a different domain name, and a request is associated with a site based on the domain name.
- This strategy is trickier to implement because by default application servers do not share cookies across domains.
- Example:
 - clothing.abcclothing.com and accessories.abcclothing.com
 - www.abcclothing.com and www.zipclothing.com
- If you are using different subdomains as in the first case above, the server can use cookies that specify only the parent domain.
- If the parent domain changes as in the second case above, ATG platform provides a mechanism called **session recovery**.

Sticky Site Parameters

- ATG provides a third mechanism which is primarily intended for development and preview environments.
- **Sticky site parameters** depend on the site being specified explicitly through a query parameter.
- The value persists throughout the session or until it is explicitly overridden.
- In production environments, this mechanism should be disabled.

Specifying URLs in Site Administration

- The Site Administration requires the following multisite specific URLs:
 - **Site Base URL** is used to resolve a browser request to a specific site.
 - **Context Root** allows you to use the single application for multiple sites and must always point to the actual context root configured in the *war*.
 - **Alternative URLs** can be used to map to the same site base URL.
 - **Redirection URLs** redirect browser requests if the site base URL is unavailable.

Site Base URL

- Site base URLs are used to resolve a web request to their appropriate site.
- These must be unique across all sites.
- Site base URLs can be:
 - Domain URL for domain based URL strategy.
 - Context root for path based URL strategy.
 - Virtual context root for path based strategy that uses the same application *war*.
- These are used to:
 - Determine the site context for each request.
 - Provide a base string value for absolute URL link generation.
 - Provides a starting point string that is transformed into staging URLs.
- The site base URL need not be the public URL.

Context Roots

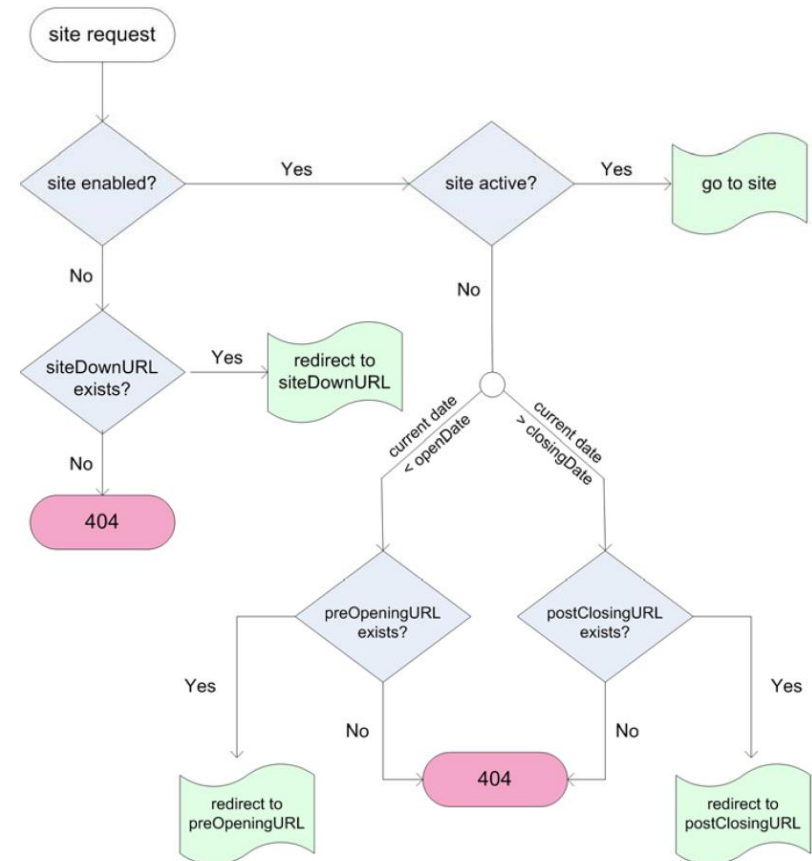
- A context root allows you to point to the web application archive (*war*) that will service the request for the site.
- If the site base URL or the alternative URL point to a virtual context root, the context root URL must point to the actual context root that is defined in the *war*.
- To use virtual context roots, you must set the **enabled** property in VirtualContextRootsService component to **true**.
- Virtual context root mapping is repository based.

Alternative URLs

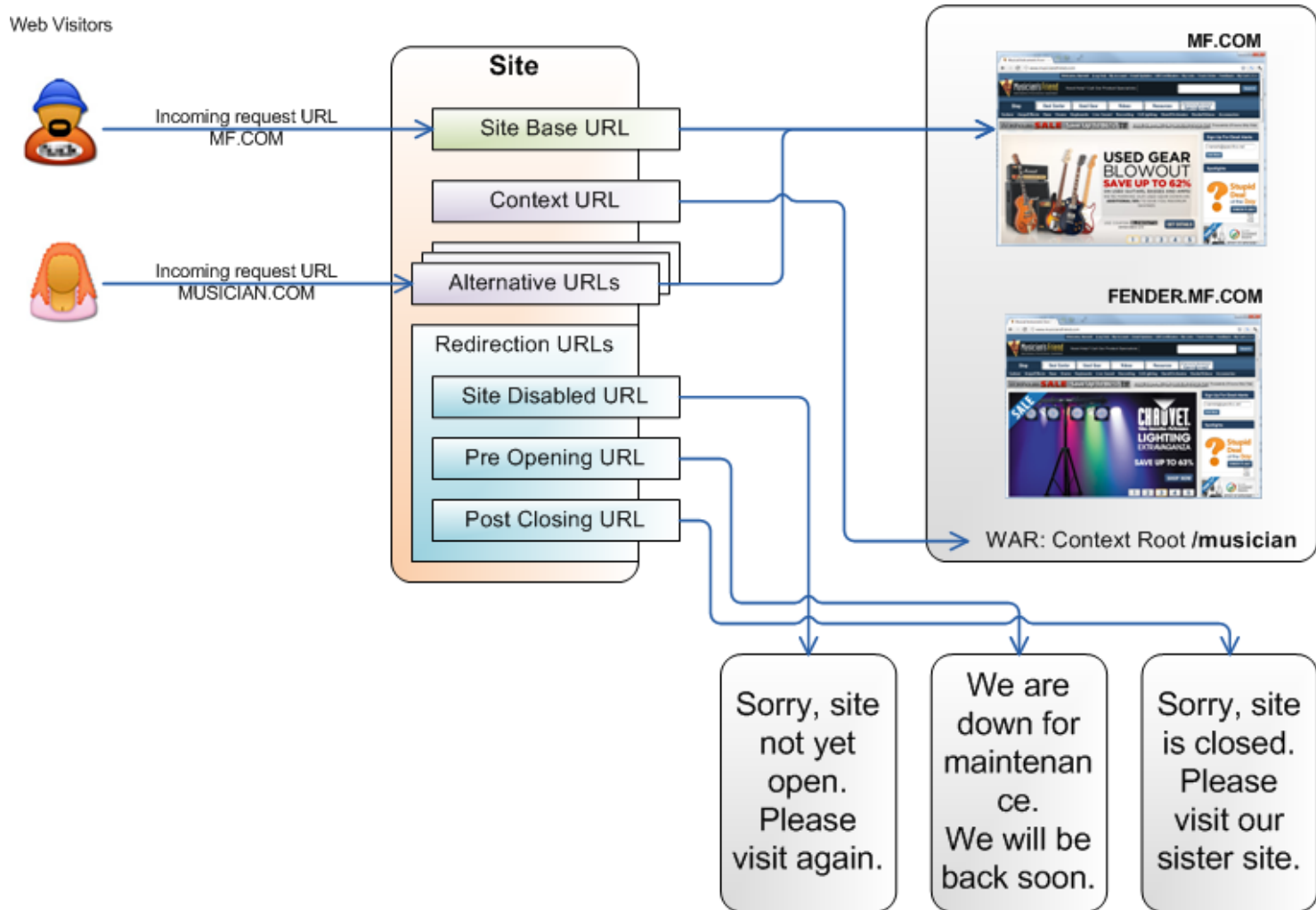
- More than one URL can map to the same site base URL.
- The list of alternative URLs provide a direct mapping to site context and allow you to add additional URLs as needed.
- The alternative URLs should not conflict with site base URLs.
- Alternative URLs:
 - Are used for site context determination.
 - Are not used in site link generation.
 - Do not require or work with transformation rules.

Redirection URLs

- The multisite application allows for the following URL properties to be specified:
 - Site disabled URL,
 - Pre opening URL,
 - Post closing URL.
- They are always full domain URLs.
- You cannot specify another site base URL or alternative URL.
- Only one redirect per request is allowed to avoid infinite loops.



URLs in Multisite



Absolute Link Generation

- Absolute links must be generated using **SiteLinkDroplet**.
- Production Servers
 - SiteLinkDroplet returns the site base URL fully qualified domain name pre-pended to the path to create an absolute URL.
- Staging Servers
 - SiteLinkDroplet follows the same logic as production server. However, site base URL values are transformed using transformation rules for staging servers.
- Preview Servers
 - On a preview server, no transformation rules are used.
 - SiteLinkDroplet appends the pushSiteParam= query string to allow the preview server pipeline to address the request.
 - It ignores the site base URL and concatenates the additional path and pushSiteParam query string variables to the current domain and port.

URL Transformation Rules

- The SiteURLManager can use a transformation rules file to transform production site URLs.
- It is generally useful for generating staging server URLs and associating them with the correct site IDs.
- For example, abcclothing-staging.com can use the same site ID and configuration as abcclothing.com.
- They apply only to portions of the domain name. They have no effect on path elements.
- They support features like replace, prepend, and append to the domain name.
- The transformations are configured in an XML file.
- URL transformations are **enabled** by default. Set `enableURLTransform=false` in SiteURLManager for production deployments.

Section 1



Check Your Understanding

Give an example of using a path-based strategy.

Answer:

www.abc.com/abc and www.abc.com/zip.

Section 1



Check Your Understanding

Give an example of using a domain-based strategy.

Answer:

www.abc.com and www.zip.com.

Section 1



Check Your Understanding

What is the technical difficulty that session recovery solves in a domain-based strategy?

Answer:

Since cookies are always domain-based, a cookie-based session does not remain the same on each of the multisite applications. Session recovery solves this.

Section 1



Check Your Understanding

What is the main difference between a site base URL and an alternative URL?

Answer:

Both help in resolving requests. Alternative URLs cannot be transformed and they are not used in link generation.

Section 1



Check Your Understanding

What droplet is used for absolute link generation and what does it do in preview environment?

Answer:

SiteLinkDroplet ignores site base URL and uses a sticky parameter-based strategy in preview environment.

Summary

- ATG platform includes a very flexible URL management system for ensuring that each request is associated with the correct site.
- A path-based strategy relies on context path to associate the request with a site, while a domain-based strategy relies on the domain name.
- Site base URL is used in the determination of which site addresses the request. It is also used in site link generation.
- ContextRoot points to the actual *war* that will handle the request associated with the site.
- Alternative URLs are pointers that all point to site but are not used in link generation.
- Redirection URLs can handle redirection when the site is down, before it opens, or after it closes.



Section 2:

JSP Pages in Multisite Applications



Page Development Overview

- The Java Server Pages (JSPs) for a multisite application must be coded in a site-aware way.
- As such the JSP page development is not significantly different.
- ATG ships with droplets that can help with this process.
- Other OOTB droplets and form handlers accept a site scope that gives you the ability to control the behavior by site.
- As mentioned earlier, targeters, slots, and scenarios have a site ID to make them site specific.

Multisite Droplets (1)

- SiteContextDroplet
 - Switches the site context based on the supplied site ID.
 - The output parameter acts as a wrapper for a new site context.
 - The new context remains in effect until the droplet exits.
- SiteLinkDroplet
 - SiteLinkDroplet can generate URLs for the current site accurately and even for other sites depending on the current site context.
 - The output param URL contains the generated URL.
- GetSiteDroplet
 - Given the site ID returns the site object. The properties of the site can be displayed or used by other page code.

Multi Site Droplets (2)

- **SitesShareShareableDroplet**
 - Tests to see if a given shareable type is shared between the current and one or more additional sites.
- **SiteldForItem Droplet**
 - Given a repository item, returns the site that the item is associated with.
 - The actual site returned depends on the values of input parameters that are used to give relative weighting to the sites in the sitelds property.
- **SharingSitesDroplet**
 - Returns sites in a sharing group specified by siteld or shareableTypeID.
 - Renders if any active site is found within the same sharing group or shares a ShareableType object with the current site.
 - Output is a collection of sites.

Example of SiteContextDroplet

- Displays a site specific targeter on another site.

```
<dsp:droplet name="SiteContextDroplet">
  <dsp:param name="siteId" param="site1"/>
  <dsp:oparam name="output">
    <dsp:droplet name="TargetingFirst">
      <dsp:param name="targeter"
        bean="/atg/multisite/SiteTargeter"/>
      <dsp:oparam name="output">
        <BR/>
      </dsp:oparam>
      <dsp:oparam name="empty">
        No content returned from the Targeter<BR/>
      </dsp:oparam>
    </dsp:droplet>
  </dsp:oparam>
  <dsp:oparam name="error">
    Unable to set site context.
    Error:&nbsp;  <dsp:valueof param="errorMessage"/>
  </dsp:oparam>
</droplet>
```

Example of SiteLinkDroplet – No Path Specified

- If current page URL is <http://firstsite.com/browse/prod.jsp>.
- MySite base URL is secondsite.com.

```
<dsp:droplet name="SiteLinkDroplet">
  <dsp:param name="siteId" value="mySite"/>
  <dsp:oparam name="output">
    <dsp:getvalueof var="newUrl" param="url"
                  vartype="java.lang.String">
      <dsp:a href="${newUrl}">">Click Here!</dsp:a>
    </dsp:getvalueof>
  </dsp:oparam>
</dsp:droplet>
```

- Generates <http://secondsite.com/browse/prod.jsp>.
- Note: Path param was not specified.

Example of SiteLinkDroplet – Path Specified, Site ID Omitted

- If current page url is <http://firstsite.com/browse/prod.jsp>.
- Note that path is </checkout/cart.jsp>.

```
<dsp:droplet name="SiteLinkDroplet">
  <dsp:param name="path" value="/checkout/cart.jsp"/>
  <dsp:oparam name="output">
    <dsp:getvalueof var="newUrl" param="url"
                  vartype="java.lang.String">
      <dsp:a href="${newUrl}">">Click Here!</dsp:a>
    </dsp:getvalueof>
  </dsp:oparam>
</dsp:droplet>
```

- Generates <http://firstsite.com/checkout/cart.jsp>.
- Note: SiteId param was not specified.

Example of GetSiteDroplet

- Checks if a given other site is active.

```
<dsp:droplet name="GetSiteDroplet">
  <dsp:param name="siteId" value="mySite"/>
  <dsp:oparam name="output">
    <dsp:getvalueof var="closeDate" param="site.closingDate"
      vartype="java.util.Date">
      <c:choose>
        <c:when test="\${System.currentTimeMillis()
          < closeDate.getTimeInMillis()}" >
          Site is still active
        </c:when>
        <c:otherwise> Site is no longer active </c:otherwise>
      </c:choose>
    </dsp:oparam>
  </dsp:droplet>
```

Multisite Properties of Other Droplets and FormHandlers

- In addition to the multisite droplets, ATG also provides site context to several other servlet beans and form handlers.
- The site context is specified using the properties.
 - sitelds: An array of site IDs.
 - siteScope: One of the following values:
 - All: Applies to all sites.
 - current: Applies to the current request's site.
 - a shareable type ID: Applies to sites that share this shareable type with the current site.
- Only one of these properties should be set. If both are set, siteScope is ignored. If neither property is set, the component is applied to all sites.

Example of Specifying SiteID and SiteScope

- SearchFormHandler has a siteIds and siteScope property extension to constrain the results of the search to the list or scope of sites.
- ATG Commerce ProductSearch form handler has these properties as well.
- The OrderLookup, ScheduledOrderLookup, and ApprovalRequiredDroplet servlet beans have siteIds and siteScope input parameters to restrict the applicable sites.
- GiftlistManager component has a siteScope property that controls how gift lists are shared between sites.

Multisite Interaction with Targeters, User Segments, and Content Groups

- Targeters, user segments, and content groups all support site-specific rules.
- For example, on user segment:
 - User segment 'Young Buyers' is defined as 10 to 15.
 - Site A may override 'Young Buyers' to 8 to 20.
 - So a user who is 18 is considered young buyer while browsing site A but not for other sites.
- On content groups, the following are provided:
 - As seen in restricts the content group to a specific site.
 - You can specify override rules by site.
 - You can use the product catalog items site ID to select or restrict by the site.
- Scenario conditions and actions are also site-aware.

Using Multisite in User Segments

Site Override Rule

The screenshot displays the 'Rules' tab of a user segment configuration window. The segment is named 'PublishingFiles:segment:fa103427'. It features two tabs: 'General' and 'Rules'. The 'Rules' tab is active, showing a list of rules. The first rule is the 'Default Rule', which includes a condition: 'People whose { age is between 10 and 15 }'. The second rule is 'Site Override Rule 1', which includes a condition: 'People whose { age is between 8 and 20 }'. Both rules have an 'Insert Action' of 'Include'. A red dashed arrow points from the 'Site Override Rule' text box to the 'Site Override Rule 1' entry in the list. At the bottom of the 'Rules' tab, there is an 'Add Override Rule' button. The bottom of the window has 'Create' and 'Cancel' buttons.

Segment
PublishingFiles:segment:fa103427

RepositoryGroups
Select Parent Clear

General Rules

Default Rule Insert Action: Include Exclude

Include
People whose { age is between 10 and 15 }

Site Override Rule 1 executes on zip Insert Action: Include Exclude

Include
People whose { age is between 8 and 20 }

Add Override Rule

Create Cancel

Using Multisite in Content Groups

Choices for As Seen On

As Seen On

Current Site ▼

Any Site

These Site(s):

Sites Sharing Shareable

Default Rule Insert Action: As Seen On Include Exclude

As Seen On - X

These Site(s): ▼ zip

Include - X

Items whose { ▼ Keyword(s) ▼ includes ▼ summer } ▼ . ▼

Default Rule Insert Action: As Seen On Include Exclude

Include - X

Items whose { ▼ Keyword(s) ▼ includes ▼ summer } ▼ . ▼

Site Override Rule 1 executes on zip

Insert Action: As Seen On Include Exclude

Exclude - X

Items whose { ▼ Keyword(s) ▼ includes ▼ camp } ▼ . ▼

Site Override Rule

As Seen On

Sites property

Default Rule Insert Action: As Seen On Include Exclude

Exclude - X

Items whose { ▼ Sites ▼ includes ▼ abc } ▼ . ▼

Using Multisite in Targeters (1)

As Seen On

Rule set for another site

Default Rule Sets

Rule Set Insert Action: As Seen On Show Hide

As Seen On

These Site(s): abc

Show

This Content Items whose { Keyword(s) includes winter }

To These People People whose { age is between 10 and 15 }

At These Times Always

Under These Conditions Always

If no content was selected, try the following rules

Rule Set Insert Action: As Seen On Show Hide

As Seen On

These Site(s): zip

Show

This Content Items whose { Keyword(s) includes snow }

To These People People whose { age is between 8 and 20 }

At These Times Always

Under These Conditions Always

Add Rule Set

Using Multisite in Targeters (2)

The screenshot displays two windows from the Oracle Targeter interface. The top window, titled "Default Rule Sets", shows a "Rule Set" configuration with the action "Show". The conditions are: "This Content" (Items whose Keyword(s) includes snow), "To These People" (People whose age is between 10 and 15), "At These Times" (Always), and "Under These Conditions" (Always). The bottom window, titled "Override Rule Sets 1", shows a "Rule Set" configuration with the action "Hide". It includes a condition "zip" in the "executes on" field. The conditions are: "This Content" (Items whose Keyword(s) includes snow and Sites does not include abc), "To These People" (People whose age is between 8 and 20), "At These Times" (Always), and "Under These Conditions" (Always). Both windows have an "Add Rule Set" button at the bottom.

Default Rule Sets

Rule Set Insert Action: As Seen On Show Hide

Show

This Content Items whose { Keyword(s) includes snow }

To These People People whose { age is between 10 and 15 }

At These Times Always

Under These Conditions Always

Add Rule Set

Override Rule Sets 1 executes on zip

Rule Set Insert Action: As Seen On Show Hide

Hide

This Content Items whose { Keyword(s) includes snow } and Sites does not include abc }

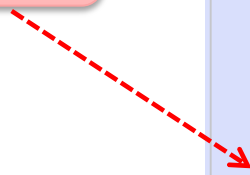
To These People People whose { age is between 8 and 20 }

At These Times Always

Under These Conditions Always

Add Rule Set

**Override
Rule Set**



Section 2



Check Your Understanding

How do you show a targeter in the context of a sister site on the current site?

Answer:

Use the SiteContextDroplet to switch the site context for the targeter.

Section 2



Check Your Understanding

What is the recommended way of embedding absolute URLs on JSP pages?

Answer:

To use the SiteLinkDroplet to generate absolute URLs.

Section 2



Check Your Understanding

A developer would like to check if a microsite is active from the parent site. What droplet should he use?

Answer:

The GetSiteDroplet.

Section 2



Check Your Understanding

What are the possible values of site scope?

Answer:

All, current, and by shareable type ID.

Section 2

Check Your Understanding

What is “As Seen In” in targeters and content group creation?

Answer:

It is used to restrict the targeter or content group for that site.

Section 2



Check Your Understanding

What is site override rule in the context of a targeter?

Answer:

It is an override targeter rule applicable to a specific site.

Summary

- The Java Server Pages (JSPs) for a multisite application must be coded in a site-aware way.
- SiteContextDroplet switches the site context based on the supplied site ID.
- SiteLinkDroplet can generate URLs for the current site accurately and even for other sites depending on the current site context.
- GetSiteDroplet returns the site object.
- Site ID and site scope allow you to specify the site context for other form handlers and droplets.
- Targeters, content groups, user segments, scenario events, and actions are all site aware.



Q&A





ORACLE IS THE **INFORMATION** COMPANY

ORACLE®