

Multi-site Sitecore solution? simplify your life!

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- Same application pool for all sites
- Item settings configuration on a site level and global level
- Sitecore modules or custom module to be configured per each site
- Code maintainability and dependency throughout the solution
- No multi-tenant out of the box
- Maintainability of index configurations for each site

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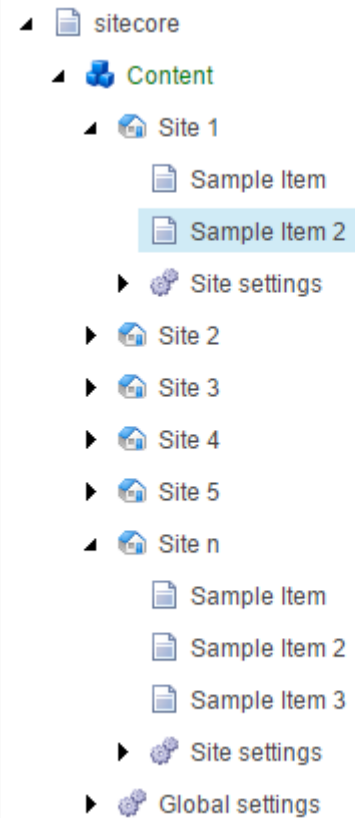
- It is possible to add multiple IIS pointing to the same Sitecore solution, but this is NOT recommended : inconsistent memory cache, possible issues with log files and other unknown sides effect
- Sitecore recommends instead of having each IIS site pointing to the same installation folder, to duplicate the installation folder for each IIS site: **requires that you have a runtime license for each site.**

<https://sdn.sitecore.net/Articles/Administration/Configuring%20Multiple%20Sites/Multiple%20IIS%20Sites.aspx>

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Item settings configuration on a site level and global level

- Define a global settings folder for all configuration settings that are common across all the sites
- Define for each site its own configuration settings folder for the settings that you can configured per site



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Sitecore modules or custom module to be configured per each site

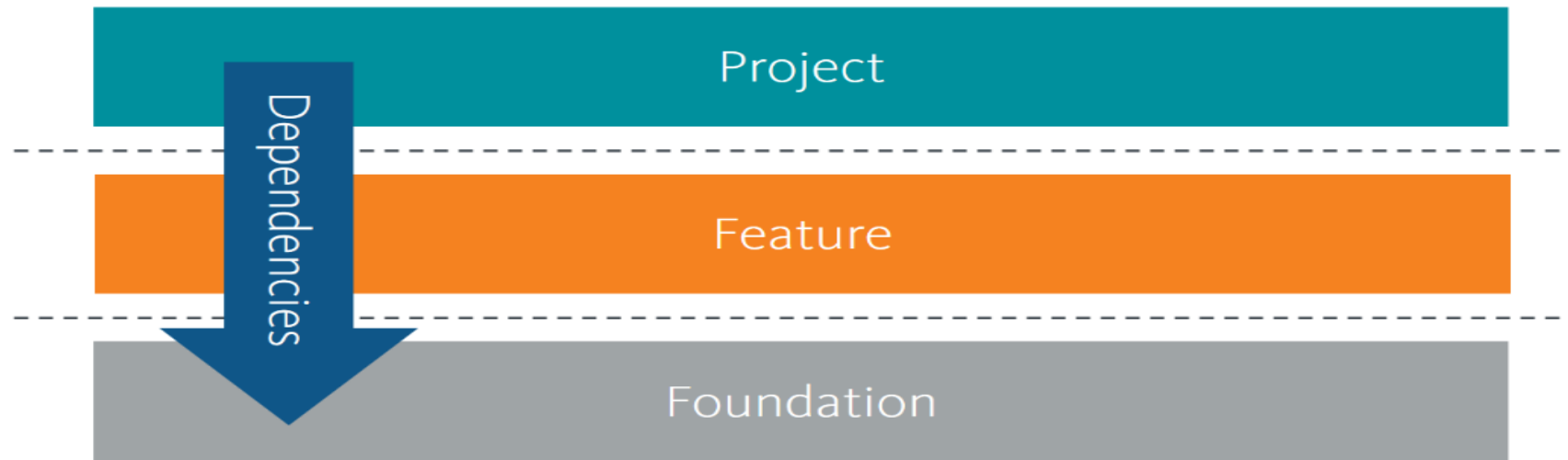
- Configure Sitecore modules per each site

```
<site name="mysite" patch:before="site[@name='website']"
  database="web"
  virtualFolder="/"
  physicalFolder="/"
  rootPath="/sitecore/content/mysite"
  startItem="/Home"
  dictionaryPath="/sitecore/content/mysite/global/dictionary"
  formsRoot="{4BC8A78C-44A7-46EB-8126-040D3F12CAA0}"
  ..... />
```

- Make sure that the custom modules are using the context site settings : robots, sitemap.xml, error pages, redirect module ...

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- Helix : <http://helix.sitecore.net/principles/architecture-principles/>

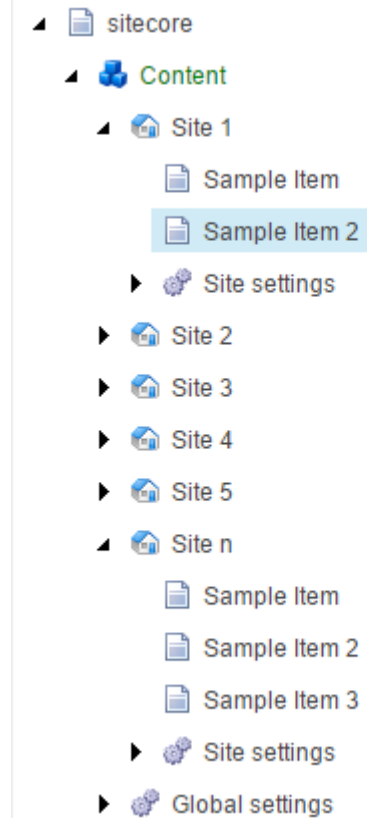


- Group specific sites functionalities in modules for better maintainability, readability or structure

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Users roles requirements:

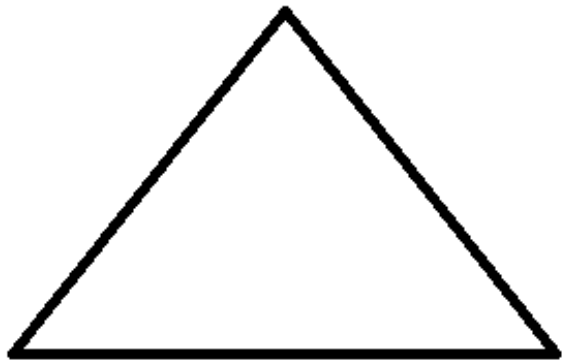
- **site 1** : admins, approvers, editors – access only to site 1
- **site 2** : admins, approvers, editors – access only to site 2
- **site 3** : admins, approvers, editors – access only to site 3
-
- **site n** : admins, approvers, editors – access only to site n





Sitecore Functional right

Sitecore Roles - example: Author,
Designer, Client Publishing



Security access
permissions on data
items - example: Media
Item has specific
security rights

Workflow security
settings - example:
setting access rights on
workflow states and
actions

Sitecore Functional right

Sitecore Roles - example: Author, Designer, Client Publishing



Security access permissions on data items - example: Media Item has specific security rights

Workflow security settings - example: setting access rights on workflow states and actions



Multi-tenant roles



Roles	Create	Read	Write	Rename	Approve	Publish	Delete	Move	Archive	A/B	Personalization	Member of built-in Roles
Site Editor												Author, Designer, Sitecore Marketer Form Author
Site Approver												Author
Site Admin												All Sitecore roles

Security access settings	
Site CW gr	Create, Write security rights for all sites
Site W gr	Write security rights for all sites
Site Admin CWRnDA gr	Create, Write, Rename, Delete, Administrative security rights for all sites

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Workflow security settings	
Site Workflow Draft gr	Define access write on Draft state of Site Workflow
Site Workflow Approval gr	Define access write on Approval state of Site Workflow

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Site [sitename] All gr	Used for assigning deny access rights to each Site

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Users Roles	Member of		
[sitename] Editor	Site Editor	Site CW gr Site & Site [sitename] all gr	Site Workflow Draft gr
[sitename] Approver	Site Approver	Site W gr & Site [sitename] all gr	Site Workflow Approval gr
[sitename] Admin	Site Admin	Site Admin CWRnDA gr & Site [sitename] all gr	Site Workflow Draft gr Site Workflow Approval gr

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Maintainability of index configurations for each site

- Sitecore.ContentSearch.config
- Sitecore.ContentSearch.DefaultConfigurations.config
- Sitecore.ContentSearch.Solr.DefaultIndexConfiguration.config
- Sitecore.ContentSearch.Solr.Index.Analytics.config
- Sitecore.ContentSearch.Solr.Index.Core.config
- Sitecore.ContentSearch.Solr.Index.Master.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site1.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site2.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site3.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site4.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site5.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.SiteN.config
- Sitecore.ContentSearch.Solr.Index.Search.Site1.config
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- 2 indexes for each site one for master database and one for web database

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- 📄 Sitecore.ContentSearch.Solr.Index.Web.config



```
<documentOptions desc="defaultSolrIndexConfiguration" ref="contentSearch/indexConfigurations/DefaultSolrIndexConfiguration/DocumentOptions
contentSearch/indexConfigurations/defaultSolrIndexConfiguration/documentOptions">
  <exclude hint="list:AddExcludedTemplate">
    <BucketFolderTemplate>{ADB6CA4F-03EF-4F47-B9AC-9CE2BA53FF97}</BucketFolderTemplate>
    <ModalDialog>{CB2FA56E-E707-4113-B6DC-EA234522E528}</ModalDialog>
  </Legal>{3E9975C0-06BB-4D4E-A862-8CF2CCF95FAB}</Legal>
  <Analytics>{C9E89B3F-69BC-4E9E-A3D8-7604166C5DDE}</Analytics>
  <Meta>{7628AC48-AC55-49B0-8631-ED3F245BA1D0}</Meta>
  <DismissableAlert>{05A4B1E9-0E79-4312-AD24-228801E76CFA}</DismissableAlert>
  <KeyValue>{6331E3C0-B20A-4E55-AF75-5CA63D2ABF9F}</KeyValue>
  <MetaTag>{B648E749-4583-40FC-8296-5D91DD8ACE6A}</MetaTag>
  <socialLink>{E305679F-5268-4083-B133-7606A10B5138}</socialLink>
  <link>{90F61F06-6C70-4497-9438-0ED022136B23}</link>
  <HTMLSiteMap>{242C3825-C257-4123-A07F-21FD2F52D9DF}</HTMLSiteMap>
  <SearchResultPage>{8F1F0E00-4D17-4F86-A535-F2C9979B7AP7}</SearchResultPage>
  <ErrorPages>{142042D8-864B-428E-80D3-4496792834F6}</ErrorPages>
  <MonitorPages>{25398279-6448-471C-8966-884130F9D8B3}</MonitorPages>
  <Folder>{A87A00B1-E6DB-45AB-8B54-636FEC3B5523}</Folder>
</exclude>
<fields hint="raw:AddComputedIndexField">
  <field fieldName="topic" returnType="string">Search.ComputedFields.TopicIndexField,Web.Search</field>
  <field fieldName="headline" returnType="text">Search.ComputedFields.HeadlineField,Web.Search</field>
  <field fieldName="ismediatitem" returnType="bool">Search.ComputedFields.IsMediaItemIndexField,Web.Search</field>
  <field fieldName="haspresentation" returnType="bool">Search.ComputedFields.HasPresentationIndexField,Web.Search</field>
  <field fieldName="hasreferreritems" returnType="bool">Search.ComputedFields.HasReferrerItemsIndexField,Web.Search</field>
  <field fieldName="contenttype" returnType="string">Search.ComputedFields.ContentTypeIndexField,Web.Search</field>
  <field fieldName="publication_year" returnType="int">Search.ComputedFields.PublicationYearIndexField,Web.Search</field>
  <field fieldName="newscategory" returnType="string">Search.ComputedFields.PressCategoryIndexField,Web.Search</field>
  <field fieldName="isinworkflow" returnType="bool">Sitecore.ContentSearch.ComputedFields.IsItemInWorkflow,Sitecore.ContentSearch<
storageType="yes" indexType="tokenized">Search.ComputedFields.ReferrerItemsWithNoPresentationInd
  <field fieldName="referreritemids" storageType="no" indexType="tokenized">Search.ComputedFields.IsImage,Web.Search</field>
  <field fieldName="vanityurltoken" returnType="string">Search.ComputedFields.VanityUrlField,ZWP.AgentBusinessLogic</field>
  <field fieldName="producttag" returnType="stringCollection">KH.Search.ComputedFields.ProductTagIndexField,KH.Search</field>
  <field fieldName="industrytag" returnType="stringCollection">KH.Search.ComputedFields.IndustryTagIndexField,KH.Search</field>
  <field fieldName="topicstag" returnType="stringCollection">KH.Search.ComputedFields.TopicTagIndexField,KH.Search</field>
  <field fieldName="typetag" returnType="string">KH.Search.ComputedFields.TypeTagIndexField,KH.Search</field>
  <field fieldName="author" returnType="string">KH.Search.ComputedFields.AuthorIndexField,KH.Search</field>
  <field fieldName="expert_field" returnType="string">KH.Search.ComputedFields.ExpertIndexField,KH.Search</field>
  <field fieldName="event_year" returnType="int">Events.Search.ComputedFields.YearIndexField,Events.Search</field>
  <field fieldName="event_category" returnType="string">Events.Search.ComputedFields.CategoryIndexField,Events.Search</field>
</fields>
```

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My project :

30 sites => 60 config files for indexes



Solution :

- Group all index search configurations, computed fields in one config : `Sitecore.ContentSearch.Solr.Index.Search.config` and use parameters for variables
- Use a separate config to define add all the indexes: `Sitecore.ContentSearch.Solr.Index.XConfiguration.config` where each parameter has the site specific value

Sitecore.ContentSearch.Solr.Index.Search.config

```
<configuration xmlns:patch="http://www.sitecore.net/xmlconfig/">
  <sitecore>
    <contentSearch>
      <configuration type="Sitecore.ContentSearch.ContentSearchConfiguration, Sitecore.ContentSearch">
        <indexTemplates hint="skip">
          <siteIndexTemplate id="$ (1)" type="Sitecore.Support.ContentSearch.SolrProvider.SwitchOnRebuildSolrSearchIndex, Sitecore.Support.391039.108482">
            <param desc="name">$(id)</param>
            <param desc="core">$(1)</param>
            <param desc="rebuildcore">$(1)_sec</param>
            <param desc="propertyStore" ref="contentSearch/indexConfigurations/databasePropertyStore" param1="$(id)" />
            <configuration ref="contentSearch/indexConfigurations/defaultSolrIndexConfiguration" />

            <strategies hint="list:AddStrategy">
              <strategy ref="contentSearch/indexConfigurations/indexUpdateStrategies/onPublishEndAsyncSingleInstance" />
            </strategies>

            <locations hint="list:AddCrawler">
              <crawler type="Sitecore.Support.ContentSearch.SitecoreItemCrawler, Sitecore.Support.107856">
                <Database>$(2)</Database>
                <Root>$(3)</Root>
              </crawler>
            </locations>
            <locations hint="list:AddCrawler">
              <crawler type="Sitecore.Support.ContentSearch.SitecoreItemCrawler, Sitecore.Support.107856">
                <database>$(2)</database>
                <root>$(4)</root>
              </crawler>
            </locations>
            <enableItemLanguageFallback>true</enableItemLanguageFallback>
            <enableFieldLanguageFallback>>false</enableFieldLanguageFallback>
          </siteIndexTemplate>
        </indexTemplates>
      </configuration>
    </contentSearch>
  </sitecore>
</configuration>
```

```
<configuration xmlns:patch="http://www.sitecore.net/xmlconfig/">
  <sitecore>
    <contentSearch>
      <configuration type="Sitecore.ContentSearch.ContentSearchConfiguration, Sitecore.ContentSearch">
        <indexes hint="list:AddIndex">
          <index ref="contentSearch/configuration/indexTemplates/siteIndexTemplate" param1="site1_web_search" param2="web" param3="/sitecore/content/site1" param4="/sitecore/media library/site1" />
          <index ref="contentSearch/configuration/indexTemplates/siteIndexTemplate" param1="site2_web_search" param2="web" param3="/sitecore/content/site2" param4="/sitecore/media library/site2" />
          <index ref="contentSearch/configuration/indexTemplates/siteIndexTemplate" param1="site3_web_search" param2="web" param3="/sitecore/content/site3" param4="/sitecore/media library/site3" />
          <index ref="contentSearch/configuration/indexTemplates/siteIndexTemplate" param1="site4_web_search" param2="web" param3="/sitecore/content/site4" param4="/sitecore/media library/site4" />
          <index ref="contentSearch/configuration/indexTemplates/siteIndexTemplate" param1="site5_web_search" param2="web" param3="/sitecore/content/site5" param4="/sitecore/media library/site5" />
          <index ref="contentSearch/configuration/indexTemplates/siteIndexTemplate" param1="siteN_web_search" param2="web" param3="/sitecore/content/siteN" param4="/sitecore/media library/siteN" />
        </indexes>
      </configuration>
    </contentSearch>
  </sitecore>
</configuration>
```

The result:

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- Sitecore.ContentSearch.Solr.Index.Search.Master.Site3.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site4.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.Site5.config
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- Sitecore.ContentSearch.Solr.Index.Search.Master.Site5.config
- Sitecore.ContentSearch.Solr.Index.Search.Master.SiteN.config
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- Sitecore.ContentSearch.Solr.Index.Search.Master.config
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- Sitecore.ContentSearch.Solr.Index.XConfiguration.config
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30 sites => 4 config files for indexes

Few more things that I learned

- Be prepared to scale: servers, code, Sitecore items architecture
- Have a check list: a new site can be added anytime
- Keep specific site functionalities isolated: code, items, configurations

