Attributes

Chris Watson

November 2018

1 Attributes for ABE Resource Server

$U_s = Subject Attributes$

Below are the defined attributes for Subjects, in the case of the ABE Resource Server:

```
\mathbf{U}_s ::= \mathrm{role} : \mathrm{Staff} \mid \mathrm{Student}
      | staffRole : Professor | Reader | Senior Lecturer | Lecturer |
                   LTS Lecturer | Research Associate | Tutor |
                   Demonstrator
      | studentRole : Tutor | Class Rep | Grad Teaching Assistant |
                       Demonstrator PG | Demonstrator UG
      | rschGroup : GIST | FATA | IDA | GLASS | CCSE
      | jobTitle : Head of School | Head of Section | Head of Theme |
                  Professor | Reader | Senior Lecturer | Lecturer |
                  LTS Lecturer | Research Associate | Tutor |
                  Demonstrator
      | jobField : Research & Teaching | Tutors & Demonstrators |
                  Associate | Professional, Administrative & Support |
                  Honorary & Visiting
      | college : College of Social Sciences | College of Arts |
                 College of Science & Engineering
                 College of Medical, Veterinary & Life Sciences
       department : DCS | DC | DE | DGES | DMS | DPA | DP
       studentLevel: 1 | 2 | 3 | 4 | MSci | Postgraduate
       accountStatus: Active | Suspended | Inactive
       enrolledCourses: 1001 | 1016 | 1017 | 1018 | 1019 | ...
                          2003 | 2007 | 2011 | 2024 | 2031 | ...
                          3004 | 3005
                          4002 | 4021 | 4022 | 4072 | 4075 | ...
                          5002 | 5004 | 5056 | 5083 | 5088 | ...
      | matriculated : <Date> : 19-09-2015
      | willGraduate : <Date> : 21-06-2019
```

```
| startDate : <Date> : 17-09-2018
| endDate : <Date> : 31-04-2019
| demonstratorClass : 1CT | 1P | 1PX | 2JP | 2OOSE
| coordinatorFor : <courseCode> : 2024 | 3005 | 5083 | ...
| headLecturerFor : <courseCode> : 1001 | 2007 | 4021 | ...
| teamOrGroup : Systems | MIG | HUSH | NS | GPG | IDI |
| CVAS | MOG | IR | ...
```

$U_e = Environment Attributes$

Below are the defined attributes for Environment, in the case of the ABE Resource Server:

```
\mathbf{U}_e ::= \text{network} : \text{External} \mid \text{Internal}
      | internalNetwork : DCS | Campus | Library | Roaming | NULL
       connection: IPv4 | IPv6 | HTTP | HTTPS
       serverEvents: Busy | Error | Normal | Urgent | Unknown |
                     Maintenance | Migration | Upgrade
      serverTime: <DateTime>: 19-09-2013 03:14:03.000Z
       deviceTime : <DateTime> : 21-06-2014 14:44:39.000Z
       requestTime: <DateTime>: 17-09-2011 22:07:41.000Z
       responseTime : <DateTime> : 04-11-2020 11:58:55.000Z
       clientLocation: GPS | IP Geolocation
       serverLocation : GPS | IP Geolocation
      device: Desktop | Laptop | Portable | Handheld | Mobile |
               Tablet | Unknown
      deviceOS: Windows | RHEL | Ubuntu | Linux | iOS | Android |
                  Other UNIX | Unknown
       request: srcAddress | srcPort | srcMac | srcClient
       locale : language | region | timezone | location
       clientInfo: version | abeVersion | keyValidity
       serverInfo: version | compatibility | storage
       abeLifespan: updatedAt | nextUpdate | supportBackDate |
                     updatedBy
       keyCreation: <DateTime>: 04-12-2018 11:58:55.000Z
       keyExpiry: <DateTime>: 03-12-2019 11:58:55.000Z
       keyUpdated: <DateTime>: 03-04-2019 11:58:55.000Z
       keyAuthority: serverId | serverName
      keyOwner : <Subject> : Owner
```

$U_r = Resource Attributes$

Below are the defined attributes for Resources, in the case of the ABE Resource Server:

```
\mathbf{U}_r ::= \min_{\mathbf{T} \in \mathcal{T}} \mathbf{U}_r ::= \min_{\mathbf{T} 
                                      | fileCount : 1 | 2 | 3 | 4 | \dots |
                                            author
Count : 1 \mid 2 \mid 3 \mid 4 \mid \dots
                                          authors: <Subject>: Author
                                           isCollaboration : True | False
                                            collaborators : <Subject> : Collaborator
                                            dateCreated: < DateTime>: 23-05-2013\ 07:00:43.000Z
                                            date Modified: < Date Time > : 01\text{-}09\text{-}2018 \ 15\text{:}41\text{:}29.000Z
                                            {\tt releaseDate: <DateTime>: 17\text{-}10\text{-}2018\ 10:00:00.000Z}
                                            isDraft : True | False
                                            title : "Such a Great Document" | "Important Report | \dots
                                            file
Size : 143,761 bytes | 14.3
MB | 2.1
GB | ...
                                           fileExtension: jpg | png | docx | txt | pdf | ...
                                            version : \langle \text{semVer} \rangle : 0.0.3 | 1.0.7 | 3.4.0 | ...
                                            modifiedBy: <Subject>: Modifier
                                            abeVersion : \langle \text{semVer} \rangle : 0.3.8 \mid 2.0.17 \mid 4.14.1 \mid ...
                                         signingAuthority: serverId | serverName
```