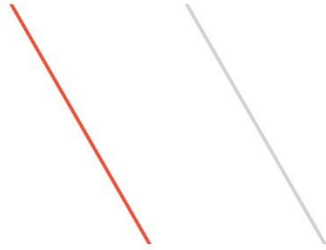


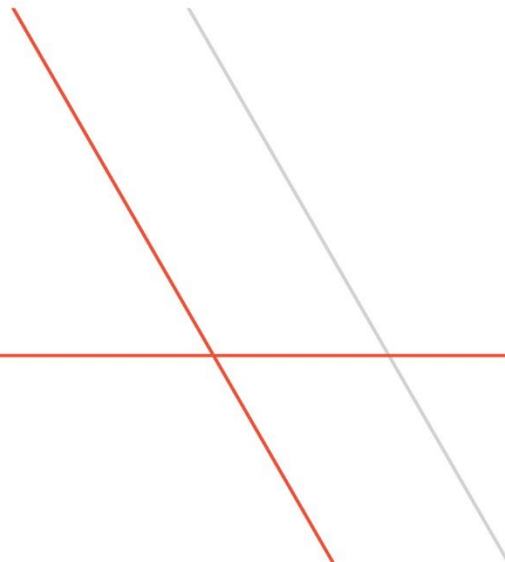
IBM z Systems



TPFUG – Name-Value Pair Support

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Date of Presentation



IBM[®]

PJ42219 – Name-Value pair support

- Why is name-value pair support being provided?
 - User written credentials support - need mechanism to manage a token or user id that is associated with an ECB.
 - Possible credentials support may be: OAUTH (open standard authorization) or SAML (Security Assertion Markup Language)
 - Capabilities can be extended beyond credentials.
- What is a name-value pair support?
 - Mechanism to save data and subsequently retrieve data using a predefined name
- What is the scope of name-value data?
 - Data is saved in memory only
 - Data is ECB unique
 - Data is lost when ECB exits.
 - Data is passed to child (or created) ECBs
 - One ECB can have multiple name-value pairs
- What are the characteristics?
 - Name of the data is a character string
 - Data is binary.
 - Data can be marked as non-displayable.
 - Total size of the name and data must fit into the name-value area for the ECB

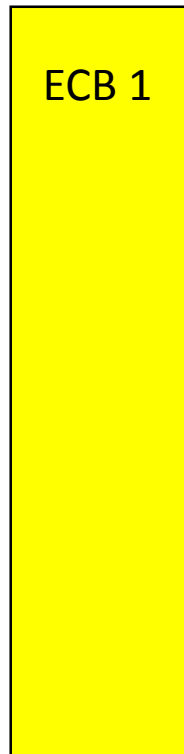
Name-value pair area

- Each ECB has a memory area where name-value pair information is stored
 - Called name-value pair area
 - Thread unique
 - Thread area is copied from parent ECB
- Size of name-value pair area is defined in SIP
 - CORREQ ENVASIZE parameter
 - ENVASIZE is size of name-value pair area for an ECB
 - Default is 256 bytes
 - Maximum size is 4096 bytes
- Size can be changed
 - ZCTKA ALTER ENVASIZE
 - IPL is required for the change to take effect.
- All name-value pairs are kept in the name-value pair area
- Name-value area is included in dumps

APIs are C functions

- **tpf_nameValueLocalSet()**
 - Set a name-value pair in the name-value pair area for the ECB
- **tpf_nameValueLocalGet()**
 - Get a data value from the name-value pair area for the ECB
- **tpf_nameValueLocalRemove()**
 - Remove a name-value pair from the name-value pair area for the ECB

Set name-value pair

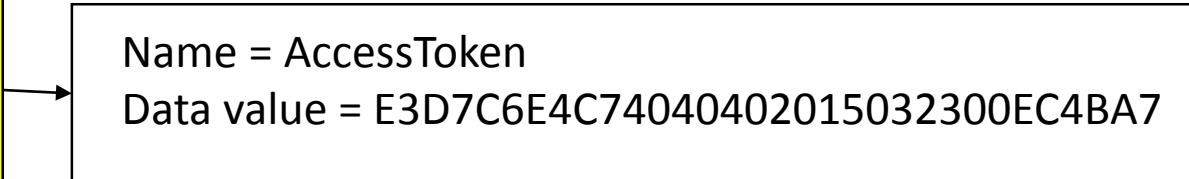


```
char *pToken = 0xE3D7C6E4C74040402015032300EC4BA7;  
int   attribute = TPF_NAMEVALUE_NON_DISPLAYABLE;
```

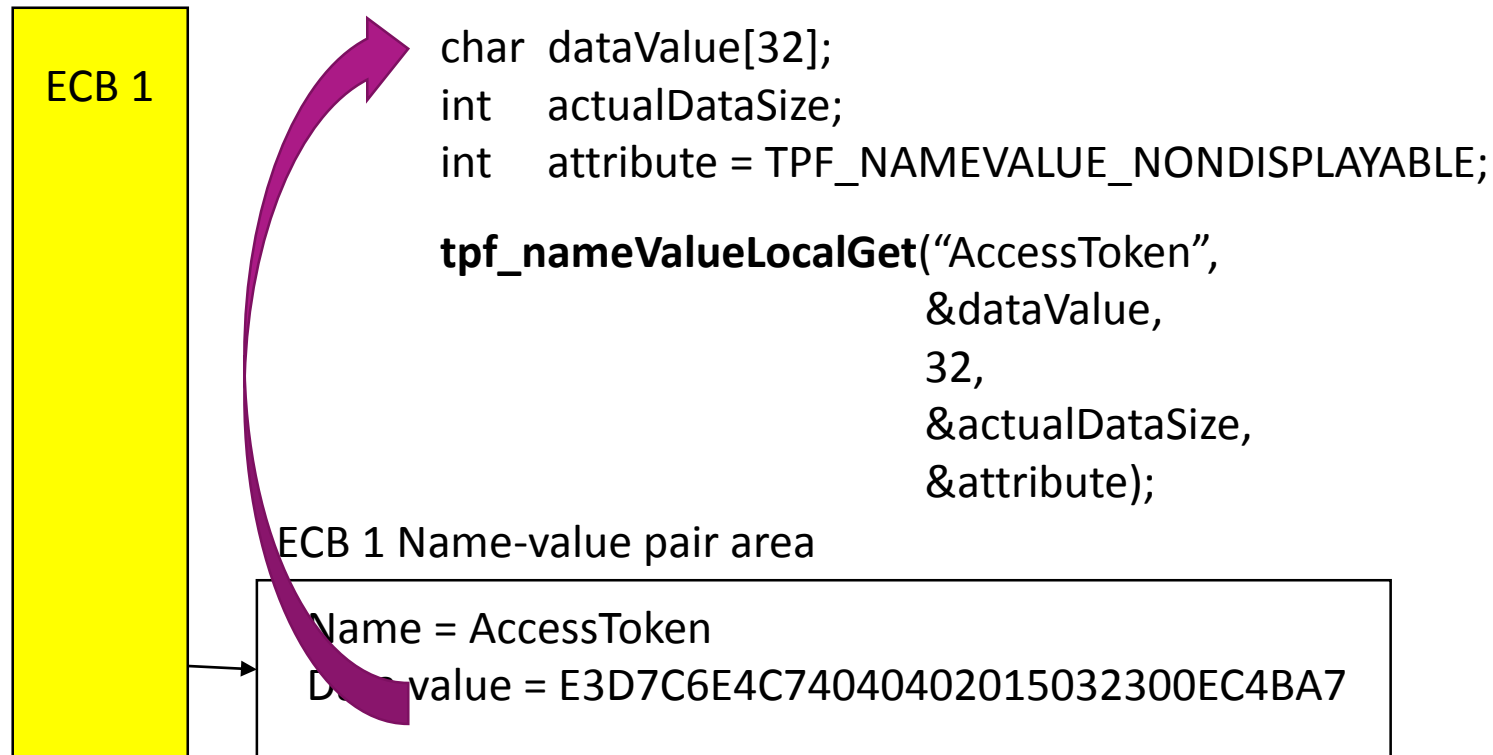
```
tpf_nameValueLocalSet("AccessToken",  
                      pToken,  
                      16,  
                      &attribute);
```



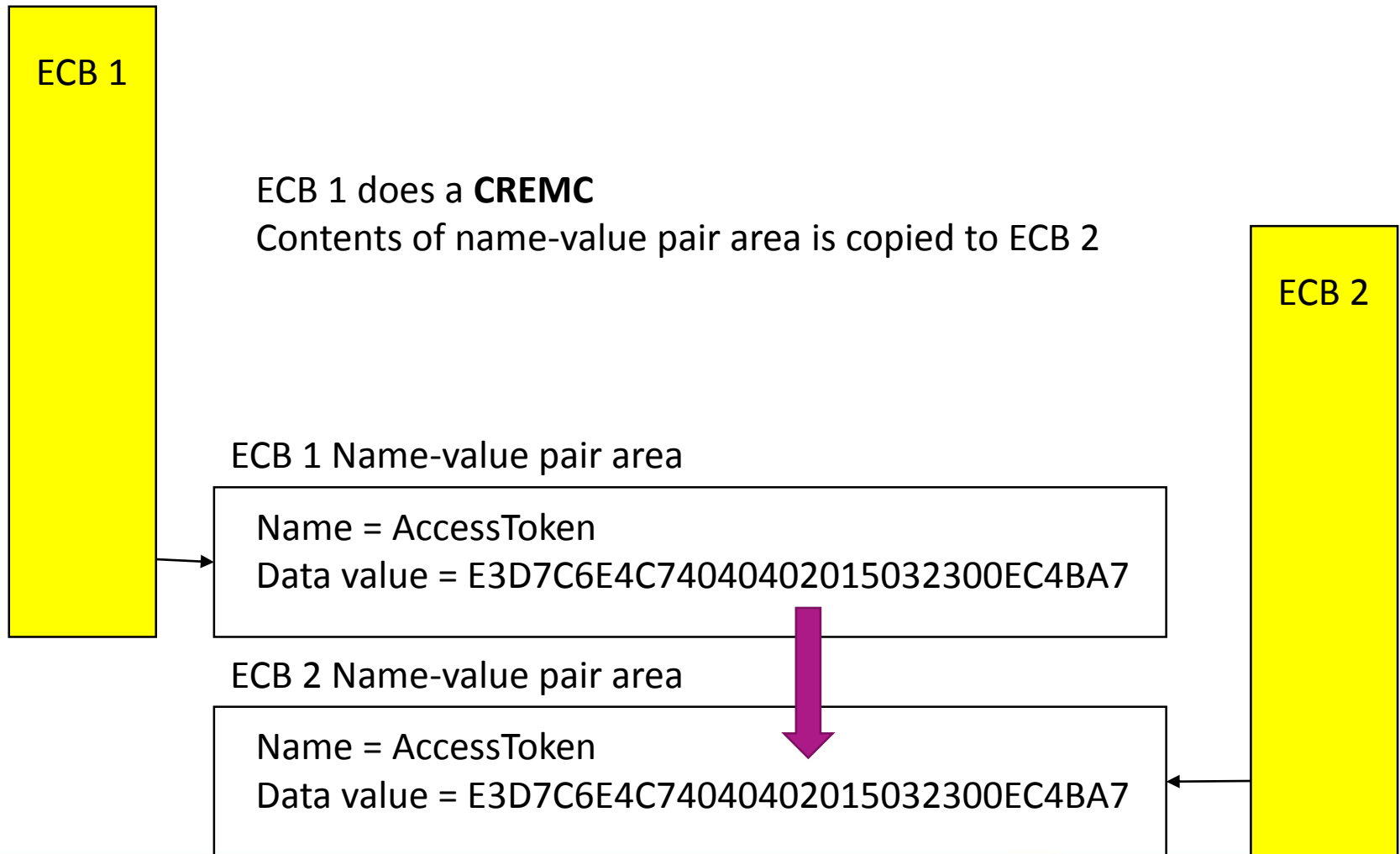
ECB 1 Name-value pair area



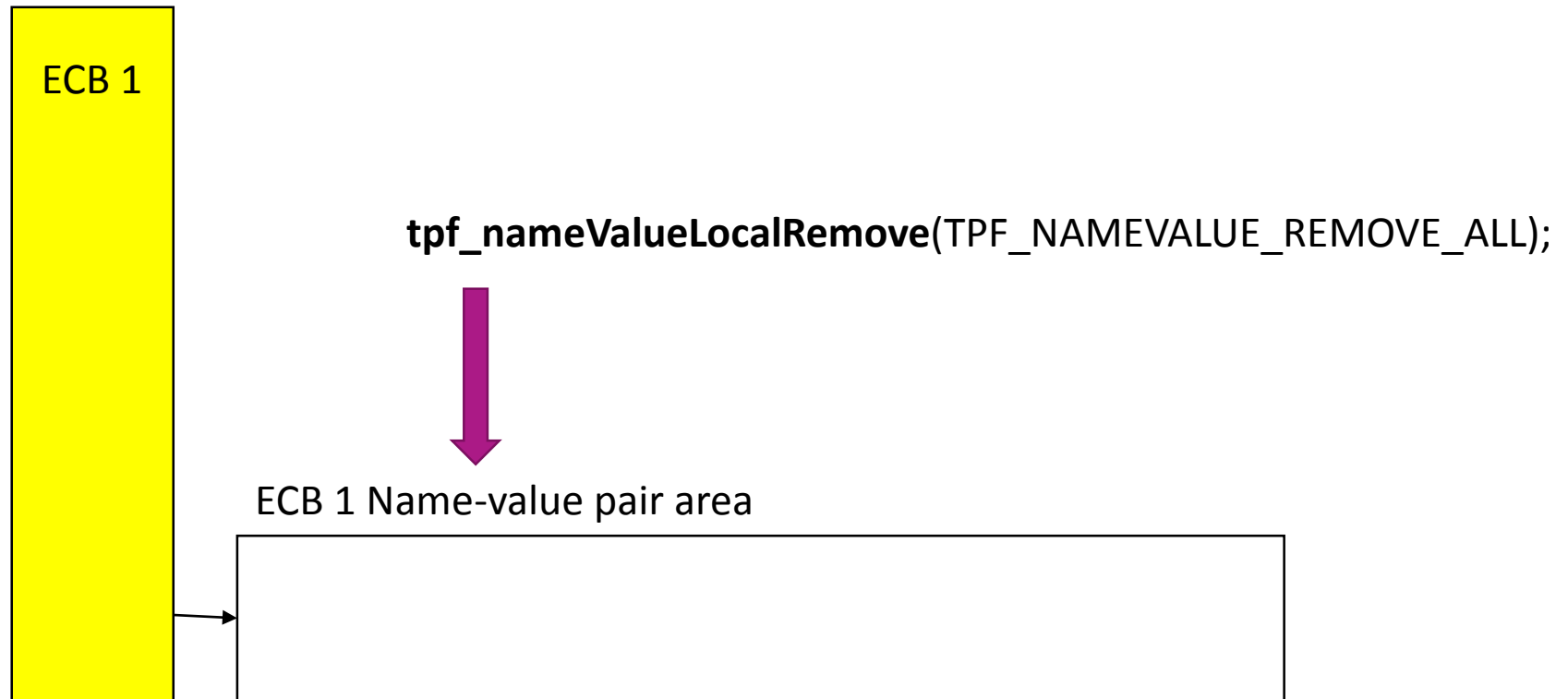
Get data value using name from name-value pair



Name-value pair passed to child ECB



Remove name-value pair



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