ngx_hash.h Documentation :

```
#define NGX_HASH_SMALL          1
#define NGX_HASH_LARGE          2
#define NGX_HASH_LARGE_ASIZE    16384
#define NGX_HASH_LARGE_HSIZE    10007
#define NGX_HASH_WILDCARD_KEY  1
#define NGX_HASH_READONLY_KEY  2
#define ngx_hash(key, c)   ((ngx_uint_t) key * 31 + c)
```

```
typedef struct {
        void            *value;
        u_short         len;
        u_char          name[1];
} ngx_hash_elt_t;


typedef struct {
        ngx_hash_elt_t  **buckets;
        ngx_uint_t        size;
} ngx_hash_t;


typedef struct {
        ngx_hash_t    hash;
        void          *value;
} ngx_hash_wildcard_t;

typedef struct {
        ngx_str_t      key;
        ngx_uint_t    key_hash;
        void          *value;
} ngx_hash_key_t;

typedef ngx_uint_t (*ngx_hash_key_pt) (u_char *data, size_t len);

typedef struct {
        ngx_hash_t              hash;
        ngx_hash_wildcard_t  *wc_head;
        ngx_hash_wildcard_t  *wc_tail;
} ngx_hash_combined_t;
```

```c
typedef struct {
        ngx_hash_t          *hash;
        ngx_hash_key_pt   key;
        ngx_uint_t           max_size;
        ngx_uint_t           bucket_size;
        char                 *name;
        ngx_pool_t          *pool;
        ngx_pool_t          *temp_pool;
} ngx_hash_init_t;

typedef struct {
        ngx_uint_t      hsize;
        ngx_pool_t     *pool;
        ngx_pool_t     *temp_pool;
        ngx_array_t      keys;
        ngx_array_t     *keys_hash;
        ngx_array_t      dns_wc_head;
        ngx_array_t     *dns_wc_head_hash;
        ngx_array_t      dns_wc_tail;
        ngx_array_t     *dns_wc_tail_hash;
} ngx_hash_keys_arrays_t;


typedef struct {
        ngx_uint_t     hash;
        ngx_str_t      key;
        ngx_str_t      value;
        u_char        *lowcase_key;
} ngx_table_elt_t;
```

<mark>Functions Defined :</mark>

```c
void *ngx_hash_find(  ngx_hash_t  *hash,
                      ngx_uint_t   key,
                      u_char      *name,
                      size_t       len
                )

void *ngx_hash_find_wc_head(  ngx_hash_wildcard_t *hwc,
                              u_char                *name,
                              size_t                len
                        )
```

```
void *ngx_hash_find_wc_tail(  ngx_hash_wildcard_t  *hwc,
                              u_char               *name,
                              size_t               len
                            )

void *ngx_hash_find_combined(  ngx_hash_combined_t  *hash,
                               ngx_uint_t           key,
                               u_char               *name,
                               size_t               len
                             )

ngx_int_t ngx_hash_init(  ngx_hash_init_t  *hinit,
                          ngx_hash_key_t  *names,
                          ngx_uint_t      nelts
                        )

ngx_int_t ngx_hash_wildcard_init(  ngx_hash_init_t  *hinit,
                                   ngx_hash_key_t  *names,
                                   ngx_uint_t      nelts
                                 )

ngx_uint_t ngx_hash_key(  u_char *data,
                          size_t  len
                        )

ngx_uint_t ngx_hash_key_lc(  u_char *data,
                             size_t  len
                           )

ngx_uint_t ngx_hash_strlow(  u_char *dst,
                             u_char *src,
                             size_t  n
                           )

ngx_int_t ngx_hash_keys_array_init(  ngx_hash_keys_arrays_t *ha,
                                     ngx_uint_t             type
                                   )

ngx_int_t ngx_hash_add_key(  ngx_hash_keys_arrays_t *ha,
                             ngx_str_t              *key,
                             void                   *value,
                             ngx_uint_t             flags
                           )
```

ngx_hash.h

ngx_core.h

ngx_errno.h
ngx_atomic.h
ngx_thread.h
ngx_rbtree.h
ngx_time.h
ngx_socket.h
ngx_string.h
ngx_files.h
ngx_shmen.h
ngx_process.h
ngx_user.h
ngx_parse.h
ngx_log.h
ngx_alloc.h
ngx_palloc.h
ngx_buf.h
ngx_queue.h
ngx_list.h
ngx_hash.h
ngx_file.h
ngx_crc.h
ngx_crc32.h
ngx_murmurhash.h
ngx_radix_tree.h
ngx_times.h
ngx_shmtx.h
ngx_slab.h
ngx_inet.h
ngx_cycle.h
ngx_resolver.h
ngx_process_cycle.h
ngx_conf_file.h
ngx_open_file_cache.h
ngx_os.h

ngx_config.h

ngx_auto_headers.h

ngx_posix_config.h

sys/types.h
sys/time.h
stdarg.h
stddef.h
stdio.h
stdlib.h
errno.h
string.h
signal.h
pwd.h