



# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

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This blog post will focus specifically on TLS and its ability to ensure the integrity, confidentiality, and authenticity of MQTT communication.

Introduction to Transport Layer Security Why Is TLS Important For IoT Security? MQTT and TLS TLS Overhead Session Resumption TLS on Constrained Devices Should I Always Use TLS with MQTT? Best Practices For MQTT Security Short answer: Yes, if you can. Long answer: If you can afford the overhead in CPU and bandwidth, then a secure communication channel is invaluable. If TLS is implemented properly on the client and server side, you ensure that no eavesdropper can intercept your communication and you get that additional layer of security that is important for applicat...

```
Ver más en hivemq .iacfm
.iacf_head{display:flex;align-items:center;gap:var(--smtc-gap-between-content-small);text-decoration-color:var(--smtc-foreground-content-neutral-primary);box-sizing:border-box;margin-bottom:var(--smtc-gap-between-content-x-small)}.iacfm .iacf_head span{flex:1 1 0;white-space:nowrap;text-overflow:ellipsis;overflow:hidden;color:var(--smtc-foreground-content-neutral-primary);font:var(--bing-smtc-text-global-body3-strong)}.iacfm .iacf_head div{display:flex;height:22px;width:22px;justify-content:center;align-items:center;transition:background 300ms ease-out;margin-right:-3px;border-radius:var(--mai-smtc-corner-list-card-default);overflow:hidden}.iacfm .iacf_head .iacf_chv{color:var(--smtc-foreground-content-neutral-primary)}[dir="rtl"] .iacfm .iacf_head svg{transform:scaleX(-1)}.rel_ent_w{margin:4px 0 9px}.rel_ent_w .rel_ent_w:focus-visible{outline-offset:-6px}.rel_ent_w .rel_ent_crs{margin:6px 0 16px}.b_top .rel_ent_w{margin-top:-4px}.b_top .rel_ent_w .rel_ent_crs{margin-top:0}.b_mm_swipable .rel_ent_w{margin:4px 0 20px}.b_rich .rel_ent_w{margin:-3px -16px 8px}.rel_ent_w .rel_ent_scr:not(.rel_ent_crs){height:50px;overflow:hidden}.rel_ent_c{white-space:nowrap;overflow:hidden;padding-left:1px;height:50px}.aqptmt:not(.rel_ent_crs) .rel_ent_c{display:flex}.rel_ent_wp .rel_ent_c{white-space:initial}.rel_ent_scr
```

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```
.rel_ent_c{overflow-y:hidden;-webkit-overflow-scrolling:touch;overflow-x:auto}.rel_ent_scr:not(.rel_e
nt_crs) .rel_ent_c{padding-bottom:12px}.b_mm_swipable
.rel_ent_c{padding-left:10px;margin-top:-2px;margin-bottom:4px}.b_rich
.rel_ent_c{padding-left:15px}.rel_ent_w.rel_ent_crs .slide,.rel_ent_w.rel_ent_crs
.slide:hover{width:auto;height:42px;border-radius:20px!important;box-shadow:none!important;overfl
ow:visible}a.rel_ent{display:inline-block;padding:0 16px 0 12px;margin:4px 8px 4px
0;border-radius:20px;border:1px solid
#ddd;text-decoration:none;overflow:hidden;height:40px;max-width:80vw}:not(#lgVidAnsContainer)>.
a.qptmt .rel_ent_c a.rel_ent{overflow:initial;display:flex}.slide
a.rel_ent{margin:0;box-shadow:none}.b_slidebar .slide .rel_ent .cico,.rel_ent
.cico,.rel_ent>img{display:inline-block;vertical-align:middle;margin:2px 8px 2px
-10px;border-radius:50%;background:#f7f7f7;flex-shrink:0}.rel_ent_tw{vertical-align:middle;font-size:
12px;color:var(--smtc-foreground-content-neutral-primary);line-height:16px;height:100%;float:right;di
splay:table}.rel_ent_t{display:table-cell;vertical-align:middle;align-content:center}.a.qptmt:not(.spl2)
.rel_ent_tw,.a.qptmt:not(.spl2) .rel_ent_tw
.rel_ent_t{overflow:hidden;text-overflow:ellipsis;white-space:nowrap}.a.qptmt:not(.spl2)
.rel_ent_tw{display:flex;overflow:hidden;text-overflow:ellipsis;align-items:center;white-space:nowrap}
.rel_ent_w:not(.spl2) .rel_ent_t strong{display:inline-block;font-weight:normal}#b_results phead
.b_attribution{padding-bottom:8px}.iaplanner .b_moreLink{margin-top:11px}.iaplanner.iarnd
.b_moreLink{margin-top:3px}.b_ans .b_rich pserp.b_mBMargin{padding:0;border-top:0}.b_ans
#vidans2 .b_rich .rel_ent_w{margin:6px 0 16px}.a.qptmt
a.rel_ent{border-color:#106ebe}.a.qptmt:not(.spl2) .rel_ent_tw,.a.qptmt:not(.spl2) .rel_ent_tw
.rel_ent_t{font-size:16px}#b_content .iacfic.mmkiaacf .iacfmit
.imgInfo{color:var(--smtc-ctrl-link-foreground-brand-rest)}#b_content .iacfic.mmkiaacf .iacfmit
a{text-decoration-color:var(--smtc-ctrl-link-foreground-brand-hover)}#b_content .iacfic.mmkiaacf
.iacfmit .imgInfo{font:var(--bing-smtc-text-global-body3)}#b_content .iacfic.mmkiaacf
.iacf_crsl[data-wptds-carousel]>div[data-wptds-carousel-scroll-container]{padding-bottom:52px}#b_c
ontent .iacfic.mmkiaacf .iacfmit{box-sizing:initial;padding-bottom:52px}#b_content .iacfic.mmkiaacf
.iacfmit
.imgInfo{text-overflow:ellipsis;display:-webkit-box;-webkit-line-clamp:2;-webkit-box-orient:vertical;alig
n-self:stretch;padding:0
var(--smtc-gap-between-content-xx-small);overflow:hidden;align-self:stretch}#b_content
.iacfic.mmkiaacf .iacfimgc{padding-bottom:var(--smtc-gap-between-content-x-small)}#b_content
.acflmgAns .salink,#b_content .acflmgAns
.iasalink{text-align:center;display:block;padding-bottom:var(--smtc-gap-between-content-medium)}#
b_content .acflmgAns .salink:hover .iasabt,#b_content .acflmgAns .iasalink:hover
.iasabt{background:var(--smtc-background-ctrl-neutral-hover)}#b_content .acflmgAns .salink:active
.iasabt,#b_content .acflmgAns .iasalink:active
.iasabt{background:var(--smtc-background-ctrl-neutral-pressed)}#b_content .acflmgAns
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
.iasabt,#b_content .acflmgAns
.iaExp_chevron{height:initial;border-radius:var(--smtc-corner-circular);background:var(--bing-smtc-b
ackground-ctrl-neutral-rest);display:inline-block;position:relative;top:0;box-shadow:initial}#b_content
.acflmgAns
.iasatxt{font:var(--bing-smtc-text-global-caption1-strong);color:var(--bing-smtc-foreground-content-br
and-rest);padding:var(--smtc-gap-between-content-x-small)
var(--smtc-gap-between-content-small);display:flex;gap:var(--smtc-gap-between-content-x-small);jus
tify-content:center;align-items:center}#b_content .acflmgAns .salink::before,#b_content .acflmgAns
.iasalink::before{border-bottom:1px solid
var(--smtc-stroke-ctrl-on-neutral-rest);width:100%;display:block;content:"";top:18px;position:relative}
#b_content .acflmgAns .svg{vertical-align:top}#b_content .acflmgAns
.svgpath{fill:var(--bing-smtc-foreground-content-brand-rest)}#b_content .acflmgAns
.iachevron,#b_content .acflmgAns
.svgicon{width:12px;height:12px;margin-left:0;position:relative;top:0}html[dir=rtl] #b_content
.acflmgAns .iachevron,html[dir=rtl] #b_content .acflmgAns .svgicon{transform:scaleX(-1)}#b_content
.acflmgAns .rel_ent_w a.rel_ent{border:1px solid var(--smtc-stroke-ctrl-on-neutral-rest)}#b_content
.acflmgAns .iaheader
.iacf_head{text-decoration-color:var(--smtc-foreground-ctrl-neutral-primary-hover)}#b_content
.acflmgAns .iaheader .iacf_head span,#b_content .acflmgAns .iaheader .iacf_head
svg{color:var(--smtc-foreground-content-neutral-primary);forced-color-adjust:auto}#b_content
.iacfic.mmkiaacf .iacf_plan .cico{border-radius:var(--mai-smtc-corner-card-default)}#b_content
.iacfic.mmkiaacf .iacf_plan .cico img{border-radius:var(--mai-smtc-corner-card-default)}#b_content
.iacfic.mmkiaacf{overflow:visible;padding:0}#b_content .iacfic.mmkiaacf
.iacf_crsI[data-wptds-carousel]{margin:0;padding-bottom:var(--smtc-gap-between-content-medium)}
#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
[data-wptds-carousel-controls]{--wptds-carousel-control-opacity:1}#b_content .iacfic.mmkiaacf
.iacf_crsI[data-wptds-carousel]>div{padding:0}#b_content .iacfic.mmkiaacf
.iacf_crsI[data-wptds-carousel] [data-direction="end"]{margin-right:-22px}#b_content
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] [data-direction="end"]
svg{transform:scaleX(-1)}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
[data-direction="start"]{margin-left:-22px}#b_content .iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
[data-direction="start"] svg{transform:scaleX(1)}#b_content .iacfic.mmkiaacf
.iacf_crsI[data-wptds-carousel]
button{background:var(--smtc-background-card-on-primary-default-rest);box-shadow:var(--bing-smtc-
shadows-card-hover-3);width:36px;border-radius:var(--smtc-corner-ctrl-lg-rest)}#b_content
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
button:hover{background:var(--smtc-background-card-on-primary-default-hover)}#b_content
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel]
button:active{background:var(--smtc-background-card-on-primary-default-pressed)}#b_content
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] button svg{transition:initial}#b_content
.iacfic.mmkiaacf .iacf_crsI[data-wptds-carousel] button svg
path{fill:var(--smtc-foreground-content-neutral-secondary);forced-color-adjust:auto}#b_content
.iacfic.mmkiaacf .iacfmit{position:absolute}#b_content .iacfic.mmkiaacf
.iacfimgc{margin:auto}#b_content .b_ans.b_imgansacf{padding:0!important}#b_content
.b_ans.b_top.b_imgansacf{background-color:initial!important}#b_content .acflmgAns .iaheader
.iacf_head{gap:0;padding:var(--smtc-gap-between-content-medium)
0;display:flex;align-items:center;box-sizing:border-box}#b_content .acflmgAns .iaheader
.iacf_head:hover{text-decoration:none}#b_content .acflmgAns .iaheader .iacf_head:hover
span{text-decoration:underline}#b_content .acflmgAns .iaheader .iacf_head:hover
.iacf_chv{background:initial}#b_content .acflmgAns .iaheader .iacf_head
div{display:flex;align-items:center;transition:background 300ms
ease-out;margin-right:-3px;border-radius:var(--smtc-corner-ctrl-rest);overflow:hidden;color:var(--bing
-smtc-foreground-content-neutral-secondary-alt)}#b_content .acflmgAns .iaheader .iacf_head
span{width:initial;flex:none;font:var(--bing-smtc-text-global-subtitle1-strong);padding-inline-start:0;ma
x-width:90%;text-overflow:ellipsis;white-space:nowrap;overflow:hidden}#b_content .acflmgAns
.iaheader .iacf_head .iacf_chv{width:22px;justify-content:center;height:22px}#b_content .acflmgAns
.rel_ent_w{margin-top:0}#b_content .acflmgAns .rel_ent_w .b_slideexp{margin:0}#b_content
.acflmgAns .rel_ent_w .btn.rounded{top:initial;margin-top:1px}#b_content .acflmgAns .rel_ent_w
.btn.next{right:-14px}#b_content .acflmgAns .rel_ent_w
.cr>div{width:36px;height:38px;border-radius:var(--smtc-corner-ctrl-lg-rest);background:var(--bing-s
mtc-background-container);box-shadow:var(--bing-smtc-shadows-card-hover-3);border:initial}#b_co
ntent .acflmgAns .rel_ent_w .cr>div:after{margin-inline-start:2px;top:0}#b_content .acflmgAns
.rel_ent_w .b_viewport{padding-top:0;margin-left:0;padding-left:0}#b_content .acflmgAns .rel_ent_w
.b_viewport
.slide{height:38px;margin-left:0;margin-inline-end:var(--smtc-gap-between-content-x-small)}#b_cont
ent .acflmgAns .rel_ent_w
a.rel_ent{border-radius:var(--smtc-corner-circular);background:var(--smtc-background-card-on-prim
ary-default-rest);padding-left:0;height:38px}#b_content .acflmgAns .rel_ent_w
a.rel_ent:hover{background:var(--smtc-background-ctrl-outline-hover)}#b_content .acflmgAns
.rel_ent_w a.rel_ent:active{background:var(--smtc-background-ctrl-outline-pressed)}#b_content
.acflmgAns .rel_ent_w .cico{margin:var(--smtc-gap-between-content-xx-small)
var(--smtc-gap-between-content-x-small) var(--smtc-gap-between-content-xx-small)
var(--smtc-gap-between-content-xx-small)}#b_content .acflmgAns .rel_ent_w
.rel_ent_tw{font:var(--bing-smtc-text-global-caption1-strong)}#b_content .acflmgAns .rel_ent_w
.rel_ent_c{padding-left:0}#b_content .acflmgAns .rel_ent_w
.b_slidebar{padding-inline-start:0}#b_content .acflmgAns .rel_ent_w .rel_ent_c
.rel_ent:first-child{margin-inline-start:var(--mai-smtc-padding-card-default);align-items:center}#b_con
tent .acflmgAns .rel_ent_w .rel_ent_t{max-width:250px}html[dir=rtl] #b_content .acflmgAns
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
.iaheader .iacf_head svg{transform:scaleX(-1)}html[dir=rtl] #b_content .acflmgAns
.iacf_crsl[data-wptds-carousel] [data-direction="end"]{transform:scaleX(-1)}html[dir=rtl] #b_content
.acflmgAns .iacf_crsl[data-wptds-carousel] [data-direction="start"]{transform:scaleX(-1)}.iacfm
.iacfmit a:focus .isp_imgcont img,.iacfm .iacfmit a:focus .iacfimgc img,.iacfm .iacfmit a:focus
.iacf_smol{outline:3px dotted #1aebff;outline-offset:-5px}.iacfm .iacfmit .cico{position:relative}.iacfm
.iacfmit
.cico::after{content:"";position:absolute;left:0;top:0;width:100%;height:100%;background:rgba(0,0,0,.
03)}.gs_card .iacfmit img,.b_wpt_container .iacfmit img,.b_acf_card .iacfmit img{transition:transform
.3s ease-out}.gs_card .iacfmit:hover .iacfimgc img,.b_wpt_container .iacfmit:hover .iacfimgc
img,.b_acf_card .iacfmit:hover .iacfimgc
img{transform:scale(1.1)}.iacfic{position:relative;height:100%;width:100%;background:#fff;overflow:h
idden;border-radius:inherit}.iacf_plan{position:relative}.iacfmit
.mimg{width:100%;height:100%;position:relative}.iacfic .iacfmit{position:absolute}.iacfic .iacfmit
.cico{border-radius:0}.iacfca{padding:var(--mai-smtc-padding-card-default);box-sizing:border-box;ov
erflow:hidden;border-radius:var(--mai-smtc-corner-card-default)}.iacfca .iacf_crsl
.iacfmit{overflow:hidden;position:relative}.iacfca .iacf_crsl .iacfmit
.cico{overflow:hidden;border-radius:var(--mai-smtc-corner-list-card-default)}.iacfca .iacf_crsl .iacfmit
.cico img{border-radius:inherit;transition:transform 300ms ease-out}.iacfca .iacf_crsl .iacfmit:hover
.cico img{transform:scale(1.1)}.iacfca .iacfmit a:focus,.iacfca .iacfmit a:focus img{outline:0}.iacfca
.iacfmit a:focus .cico::after{border-radius:inherit;box-shadow:inset 0 0 0 3px
var(--bing-smtc-background-card-on-primary-alt-rest);outline:2px solid
var(--smtc-foreground-content-neutral-secondary);outline-offset:-2px}.iacfca
[data-wptds-carousel][data-default][data-variant="Normal"]{margin:0
calc(-1*var(--mai-smtc-padding-card-default));height:auto}.iacfca
[data-wptds-carousel][data-default][data-variant="Normal"]
[data-wptds-carousel-scroll-container]{padding:0 var(--mai-smtc-padding-card-default)}.iacfca
[data-wptds-carousel][data-default][data-variant="Normal"] [data-wptds-carousel-scroll-container]
ol{width:fit-content;align-items:center}.iacfca [data-wptds-carousel][data-default]
[data-wptds-carousel-control][data-direction="end"]{margin-right:24px}.iacfca
[data-wptds-carousel][data-default]
[data-wptds-carousel-control][data-direction="start"]{margin-left:24px}.iacfca
.iacf_pag{position:absolute;bottom:8px;left:50%;transform:translate(-50%,0)}.cards.large
.iacfca{height:200px}[dir="rtl"] .iacfca .iacf_pag{transform:translate(50%,0)}.iacfm.iacfca
.iacf_crsl[data-wptds-carousel]
[data-wptds-carousel-control]{background:var(--bing-smtc-background-ctrl-neutral-rest);border:0;hei
ght:56px;width:16px;transition:width .3s;background
.3s;color:var(--smtc-foreground-ctrl-neutral-primary-hover)}.iacfm.iacfca
.iacf_crsl[data-wptds-carousel] [data-wptds-carousel-control] svg{transition:transform
.3s}.iacfm.iacfca .iacf_crsl[data-wptds-carousel]
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
[data-wptds-carousel-control]:hover{width:24px;background:var(--smtc-background-ctrl-neutral-hove
r)}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] [data-wptds-carousel-control]
path{fill:currentColor}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] ol
[data-direction="start"]{border-radius:0 8px 8px 0;margin-left:16px}.iacfm.iacfca
.iacf_crsl[data-wptds-carousel] ol [data-direction="start"] svg{transform:scale(.7)}.iacfm.iacfca
.iacf_crsl[data-wptds-carousel] ol [data-direction="start"]:hover svg{transform:scale(1)}.iacfm.iacfca
.iacf_crsl[data-wptds-carousel] ol [data-direction="end"]{border-radius:8px 0 0
8px;margin-right:16px}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] ol [data-direction="end"]
svg{transform:scale(-.7)}.iacfm.iacfca .iacf_crsl[data-wptds-carousel] ol [data-direction="end"]:hover
svg{transform:scale(-1)}.iacfm.iacfca.iacf_fb
[data-wptds-carousel-control],.iacfm.iacfca.iacf_ss .iacf_crsl[data-wptds-carousel]
[data-wptds-carousel-control]{background:var(--mai-smtc-background-ctrl-on-image-rest);color:var(--
mai-smtc-foreground-ctrl-on-image-rest)}.iacfm.iacfca.iacf_fb .iacf_crsl[data-wptds-carousel]
[data-wptds-carousel-control] path,.iacfm.iacfca.iacf_ss .iacf_crsl[data-wptds-carousel]
[data-wptds-carousel-control] path{fill:currentColor}.iacfm.iacfca .iacf_colg_crsl
[data-wptds-carousel-list]{width:fit-content}.iacfm.iacfca .iacf_colg_crsl .iacfmit{position:absolute}.iacfm
.iacf_colg_crsl
.cico{border-radius:0}.iacfm.iacfca:not(.iacfh):has(>.iacf_colg_crsl){height:100%;width:100%;padding:0;ov
erflow:hidden;border-radius:inherit}.iacfm.iacfca:not(.iacfh):has(>.iacf_colg_crsl)
.iacfmit{border-radius:0}.iacfm.iacfca:not(.iacfh):has(>.iacf_colg_crsl) [data-wptds-carousel][data-default]
[data-wptds-carousel-controls]{inline-size:calc(100% + var(--wptds-carousel-control-size) -
var(--mai-smtc-padding-card-default)*2);transform:translateX(calc(0rem +
var(--mai-smtc-padding-card-default) - (var(--wptds-carousel-control-size)/2)))
translateY(-50%)][data-wptds-carousel][data-default],[data-wptds-carousel][data-default]::before,[dat
a-wptds-carousel][data-default]::after,[data-wptds-carousel][data-default]
*,[data-wptds-carousel][data-default] *:before,[data-wptds-carousel][data-default]
*:after{box-sizing:border-box;margin:0;padding:0}[data-wptds-carousel][data-default][hidden],[data-
wptds-carousel][data-default]
[hidden]{display:none}[data-wptds-carousel][data-default][data-visually-hidden],[data-wptds-carousel
][data-default] [data-visually-hidden]{block-size:.0625rem;border:0;clip:rect(0 0 0
0);inline-size:.0625rem;margin:-.0625rem;overflow:hidden;padding:0;position:absolute}[data-wptds-c
arousel][data-default]{--wptds-carousel-control-bg-color:#fff;--wptds-carousel-control-border-color:#d
dd;--wptds-carousel-control-box-shadow:0rem .125rem .1875rem
rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#767676;--wptds-carousel-control-size:2rem;display:
block;position:relative;block-size:100%}[data-wptds-carousel][data-default]
[data-wptds-carousel-scroll-container]{overflow-x:auto;overflow-y:clip;scroll-behavior:smooth;block-si
ze:100%;-ms-overflow-style:none;scrollbar-width:none}[data-wptds-carousel][data-default]
[data-wptds-carousel-scroll-container]::-webkit-scrollbar{display:none}[data-wptds-carousel][data-def
ault]
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
[data-wptds-carousel-scroll-container]:focus-visible{outline-color:Highlight;outline-color:-webkit-focus-ring-color;outline-offset:.0625rem;outline-style:auto;outline-width:.0625rem}[data-wptds-carousel][data-default]
[data-wptds-carousel-list]{display:flex;gap:.5rem;list-style:none;block-size:100%}[data-wptds-carousel][data-default]
[data-wptds-carousel-list]>*{flex-grow:0;flex-shrink:0}[data-wptds-carousel][data-default]
[data-wptds-carousel-list]>:not([data-wptds-carousel-item]){display:none}[data-wptds-carousel][data-default]
[data-wptds-carousel-item]{block-size:100%}[data-wptds-carousel][data-default]
[data-wptds-carousel-item]>*{block-size:100%}[data-wptds-carousel][data-default]
[data-wptds-carousel-item]>img{display:block;inline-size:auto}[data-wptds-carousel][data-default]
[data-wptds-carousel-controls]{list-style:none;position:absolute;inline-size:calc(100% + var(--wptds-carousel-control-size));inset-block-start:50%;transform:translateX(calc(0rem - (var(--wptds-carousel-control-size)/2))) translateY(-50%);display:flex;align-items:center;justify-content:space-between;pointer-events:none}[data-wptds-carousel][data-default]
[data-wptds-carousel-controls]>*{flex-grow:0;flex-shrink:0}[data-wptds-carousel][data-default]
[data-wptds-carousel-control]{cursor:pointer;inline-size:var(--wptds-carousel-control-size);aspect-ratio:1;display:grid;place-content:center;border-radius:50%;background-color:var(--wptds-carousel-control-bg-color);border:.0625rem solid var(--wptds-carousel-control-border-color);box-shadow:var(--wptds-carousel-control-box-shadow);color:var(--wptds-carousel-control-fg-color);opacity:var(--wptds-carousel-control-opacity);pointer-events:all}[data-wptds-carousel][data-default]
[data-wptds-carousel-control]:active{--wptds-carousel-control-bg-color:#fff;--wptds-carousel-control-border-color:#ddd;--wptds-carousel-control-box-shadow:0rem .125rem .1875rem rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#767676}[data-wptds-carousel][data-default]
[data-wptds-carousel-control]:focus-visible{outline-color:Highlight;outline-color:-webkit-focus-ring-color;outline-offset:.0625rem;outline-style:auto;outline-width:.0625rem}[data-wptds-carousel][data-default]
[data-wptds-carousel-control] *{pointer-events:none}[data-wptds-carousel][data-default]
[data-wptds-carousel-control]>svg{display:block}[data-wptds-carousel][data-default]
[data-wptds-carousel-control][data-direction="start"]>svg{transform:scaleX(1)}[data-wptds-carousel][data-default]
[data-wptds-carousel-control][data-direction="end"]>svg{transform:scaleX(-1)}[data-wptds-carousel][data-default]
[data-wptds-carousel-control][aria-disabled="true"]{visibility:hidden;cursor:not-allowed}[data-wptds-carousel][data-default]
[data-wptds-carousel-announce]{block-size:.0625rem;border:0;clip:rect(0 0 0 0);inline-size:.0625rem;margin:-.0625rem;overflow:hidden;padding:0;position:absolute}[data-wptds-carousel][data-default][data-variant="Normal"],[data-wptds-carousel][data-default][data-variant="Full Width"]{--wptds-carousel-control-opacity:0}[data-wptds-carousel][data-default][data-variant="Normal"]:has([data-wptds-carousel-scroll-container]:focus-visible),[data-wptds-carousel][data-default][data-variant="Normal"]
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
variant="Normal"]:has([data-wptds-carousel-control]:focus-visible),[data-wptds-carousel][data-default]
[data-variant="FullWidth"]:has([data-wptds-carousel-scroll-container]:focus-visible),[data-wptds-carou
usel][data-default][data-variant="FullWidth"]:has([data-wptds-carousel-control]:focus-visible){--wptds
-carousel-control-opacity:1}[data-wptds-carousel][data-default][data-variant="Normal"][[data-snap]
[data-wptds-carousel-scroll-container]{scroll-snap-type:x
proximity}[data-wptds-carousel][data-default][data-variant="Normal"][[data-snap]
[data-wptds-carousel-item]{scroll-snap-align:center;scroll-snap-stop:always}[data-wptds-carousel][da
ta-default][data-variant="Normal"][[data-snap]
[data-wptds-carousel-item]:first-of-type{scroll-snap-align:start}[data-wptds-carousel][data-default][dat
a-variant="Normal"][[data-snap]
[data-wptds-carousel-item]:last-of-type{scroll-snap-align:end}[data-wptds-carousel][data-default][dat
a-variant="FullWidth"]
[data-wptds-carousel-scroll-container]{scroll-snap-type:x
mandatory}[data-wptds-carousel][data-default][data-variant="FullWidth"]
[data-wptds-carousel-item]{inline-size:100%;scroll-snap-align:center;scroll-snap-stop:always}[data-w
ptds-carousel][data-default][data-variant="FullWidth"]
[data-wptds-carousel-item]:first-of-type{scroll-snap-align:start}[data-wptds-carousel][data-default][dat
a-variant="FullWidth"]
[data-wptds-carousel-item]:last-of-type{scroll-snap-align:end}[data-wptds-carousel][data-default][dat
a-variant="FullWidth"]
[data-wptds-carousel-item]>{*{inline-size:100%}[data-wptds-carousel][data-default][data-bleed-inline]
[data-wptds-carousel-controls]{--control-side-gap:.25rem;inline-size:calc(100%
-
(var(--control-side-gap)*2));transform:translateX(calc(0rem
+
var(--control-side-gap)))
translateY(-50%)}[data-wptds-carousel][data-desktop]
[data-wptds-carousel-control]:hover:not([aria-disabled="true"]):not(:active){--wptds-carousel-control-
bg-color:#fff;--wptds-carousel-control-border-color:#ddd;--wptds-carousel-control-box-shadow:0rem
.125rem
.3125rem
rgba(0,0,0,.14);--wptds-carousel-control-fg-color:#111}[data-wptds-carousel][data-desktop][data-vari
ant="Normal"]:has([data-wptds-carousel-scroll-container]:hover),[data-wptds-carousel][data-desktop]
[data-variant="Normal"]:has([data-wptds-carousel-control]:hover),[data-wptds-carousel][data-deskto
p][data-variant="FullWidth"]:has([data-wptds-carousel-scroll-container]:hover),[data-wptds-carousel][
data-desktop][data-variant="FullWidth"]:has([data-wptds-carousel-control]:hover){--wptds-carousel-c
ontrol-opacity:1}[dir="rtl"]
[data-wptds-carousel][data-default]
[data-wptds-carousel-controls]{transform:translateX(calc(0rem
+
(var(--wptds-carousel-control-size)/2)))
translateY(-50%)}[dir="rtl"]
[data-wptds-carousel][data-default]
[data-wptds-carousel-control][data-direction="start"]>svg{transform:scaleX(-1)}[dir="rtl"]
[data-wptds-carousel][data-default]
[data-wptds-carousel-control][data-direction="end"]>svg{transform:scaleX(1)}[dir="rtl"]
[data-wptds-carousel][data-default][data-bleed-inline]
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

```
[data-wptds-carousel-controls]{transform:translateX(calc(0rem - var(--control-side-gap)))
translateY(-50%)};b_dark [data-wptds-carousel][data-default],.b_drk
[data-wptds-carousel][data-default]{--wptds-carousel-control-bg-color:#484644;--wptds-carousel-con
trol-border-color:#545250;--wptds-carousel-control-box-shadow:0rem .125rem .1875rem
rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#d2d0ce}.b_dark [data-wptds-carousel][data-default]
[data-wptds-carousel-control]:active,.b_drk [data-wptds-carousel][data-default]
[data-wptds-carousel-control]:active{--wptds-carousel-control-bg-color:#484644;--wptds-carousel-co
ntrol-border-color:#545250;--wptds-carousel-control-box-shadow:0rem .125rem .1875rem
rgba(0,0,0,.1);--wptds-carousel-control-fg-color:#d2d0ce}.b_dark
[data-wptds-carousel][data-desktop]
[data-wptds-carousel-control]:hover:not([aria-disabled="true"]):not(:active),.b_drk
[data-wptds-carousel][data-desktop]
[data-wptds-carousel-control]:hover:not([aria-disabled="true"]):not(:active){--wptds-carousel-control-
bg-color:#605e5c;--wptds-carousel-control-border-color:#545250;--wptds-carousel-control-box-shad
ow:0rem .125rem .3125rem rgba(0,0,0,.14);--wptds-carousel-control-fg-color:#faf9f8}.gs_card .iacfic
.iacfmit .iacfimgc,.gs_card .iacfic .iacfmit .cico,.b_wpt_container .iacfic .iacfmit
.iacfimgc,.b_wpt_container .iacfic .iacfmit
.cico{width:100%!important;height:100%!important;border-radius:0}.gs_card .iacfic .iacfmit.iacfstc
img,.gs_card .iacfic .iacfmit .iacfimgc img,.b_wpt_container .iacfic .iacfmit.iacfstc
img,.b_wpt_container .iacfic .iacfmit .iacfimgc
img{width:100%;height:100%;object-fit:cover}#slideexp1_52F3B8 .slide { margin-right: 8px;
}#slideexp1_52F3B8c .b_slidebar .slide { border-radius: 6px; }#slideexp1_52F3B8 .slide:last-child {
margin-right: 1px; }#slideexp1_52F3B8c { margin: -4px; } #slideexp1_52F3B8c .b_viewport {
padding: 4px 1px 4px 1px; margin: 0 3px; } #slideexp1_52F3B8c .b_slidebar .slide { box-shadow: 0
0 0 1px rgba(0, 0, 0, 0.05); -webkit-box-shadow: 0 0 0 1px rgba(0, 0, 0, 0.05); } #slideexp1_52F3B8c
.b_slidebar .slide.see_more { box-shadow: 0 0 0 0px rgba(0, 0, 0, 0.00); -webkit-box-shadow: 0 0 0
0px rgba(0, 0, 0, 0.00); } #slideexp1_52F3B8c .b_slidebar .slide.see_more:carousel_seemore {
border: 0px; }#slideexp1_52F3B8c .b_slidebar .slide.see_more:hover { box-shadow: 0 0 0 0px
rgba(0, 0, 0, 0.00); -webkit-box-shadow: 0 0 0 0px rgba(0, 0, 0, 0.00); }Imágenes de Puerta de
enlace de alimentación Habilitada Para MQTT con TLS mutuo Para Hvac en AlemaniaInstalación
De Enlace UteConexión MqttPasarela Modbus Rtu TcpPuerta de Enlace Industrial IoT 4G Modbus
RTU TCP MQTT OPC UA IoT AWS IoT Aliyun IoT Velocidad
...Bliiot-puerta-de-enlace-de-protocolos-industriales-placa-de-cosas-plc-modbus-RTU-TCP-a-MQTT.
jpgPuerta de Enlace Industrial IoT 4G Modbus RTU TCP MQTT OPC UA IoT AWS IoT Aliyun IoT
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? Colombia Smart EnergyPLC modbus a mqtt protocolo Industrial conversión puerta de enlace
monitoreo remoto de datos 4G ...El protocolo MQTT en la seguridad y el monitoreo de
alarmasPuerta-de-enlace-Industrial-IOT-Modbus-RTU-TCP-a-MQTT-Sparkplug-B-convertidor-comp
```

# Puerta de enlace de alimentación habilitada para MQTT con TLS mutuo para HVAC en Alemania

atible-con ...Ver todoAWS DocumentationPuertas de enlace V3 habilitadas para MQTT para Edge AWS IoT Al ofrecer ambos tipos de puertas de enlace, AWS IoT SiteWise garantiza que pueda elegir la solución que mejor se adapte a sus necesidades específicas de IoT industrial, ya sea que priorice las

MQTT Broker ofrece una opción para habilitar SSL/TLS modo de transferencia de datos cifrados para mejorar la seguridad en la capa de comunicación. El Broker trabaja con todos los certificados

Comprenda cómo usar el recurso BrokerListener para proteger las comunicaciones de agente MQTT, incluida la autorización, la autenticación y TLS.

La puerta de enlace BLE 5.0 LTE de módulo dual MKGW8 admite conmutación por error de Wi-Fi, Ethernet y 4G, conexión en cascada PoE, ideal para seguimiento de activos y ubicación en interiores.

Se diseñó para simplificar la integración del IoT y se utiliza en una amplia variedad de sectores para conectar dispositivos remotos con una huella de código pequeña y un ancho de banda de red mínimo.

Esta documentación describe los pasos necesarios para crear los certificados requeridos para habilitar la conexión segura mediante TLS en un servidor Mosquitto, configurar la autenticación mediante

Check out our step-by-step guide on how to configure MQTT TLS for Mosquitto with easy-to-follow examples and ready-to-use snippets of code.

Realice los pasos siguientes para publicar con Mosquitto utilizando la autenticación mutua. Este ejemplo le guía a través de un ejemplo de configuración de un canal MQTT que utiliza la

Web: <https://millerbel.es>

