T.I.S.P.
TeleTrusT Information Security Professional

TeleTrusT
Pioneers in IT security.

T.I.S.P. Community Meeting

Berlin, 02. - 03.11.2015

SAP Live Hacking

Christian Thiemann

Atos IT Solutions and Services GmbH

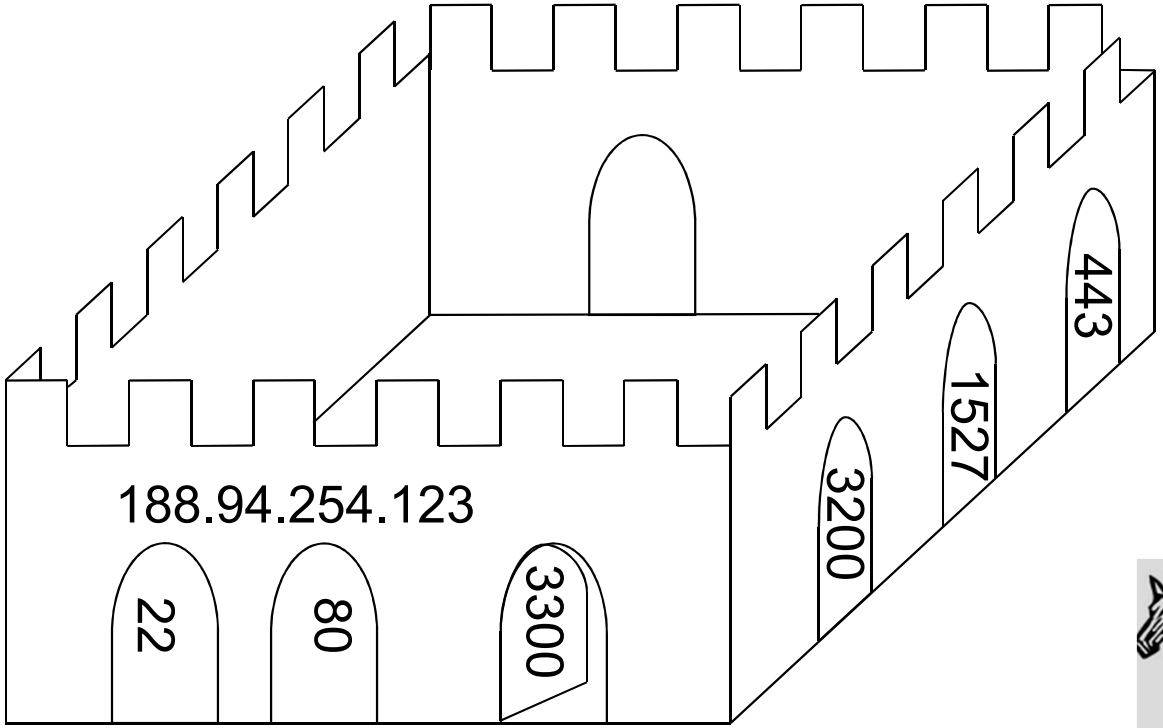
Top 11 SAP Schwachstellen

Top problems by BIZEC

- BIZEC TEC-01: Vulnerable Software in Use
- BIZEC TEC-02: Standard Users with Default Passwords
- **BIZEC TEC-03: Unsecured SAP Gateway**
- BIZEC TEC-04: Unsecured SAP/Oracle authentication
- BIZEC TEC-05: Insecure RFC interfaces
- BIZEC TEC-06: Insufficient Security Audit Logging
- BIZEC TEC-07: Unsecured SAP Message Server
- BIZEC TEC-08: Dangerous SAP Web Applications
- BIZEC TEC-09: Unprotected Access to Administration Services
- BIZEC TEC-10: Insecure Network Environment
- BIZEC TEC-11: Unencrypted Communications

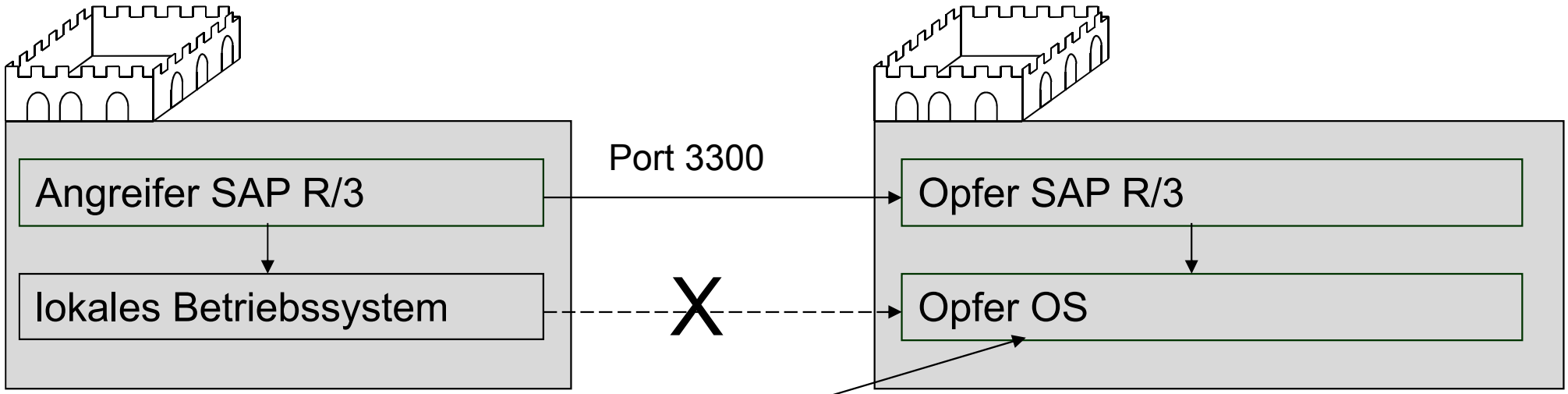
Quelle: http://www.bizec.org

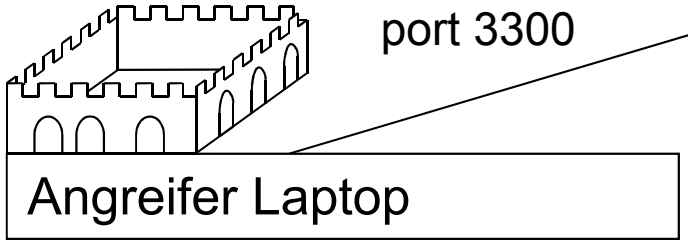
Angriff auf ein System



Start externer Programme

via RFC

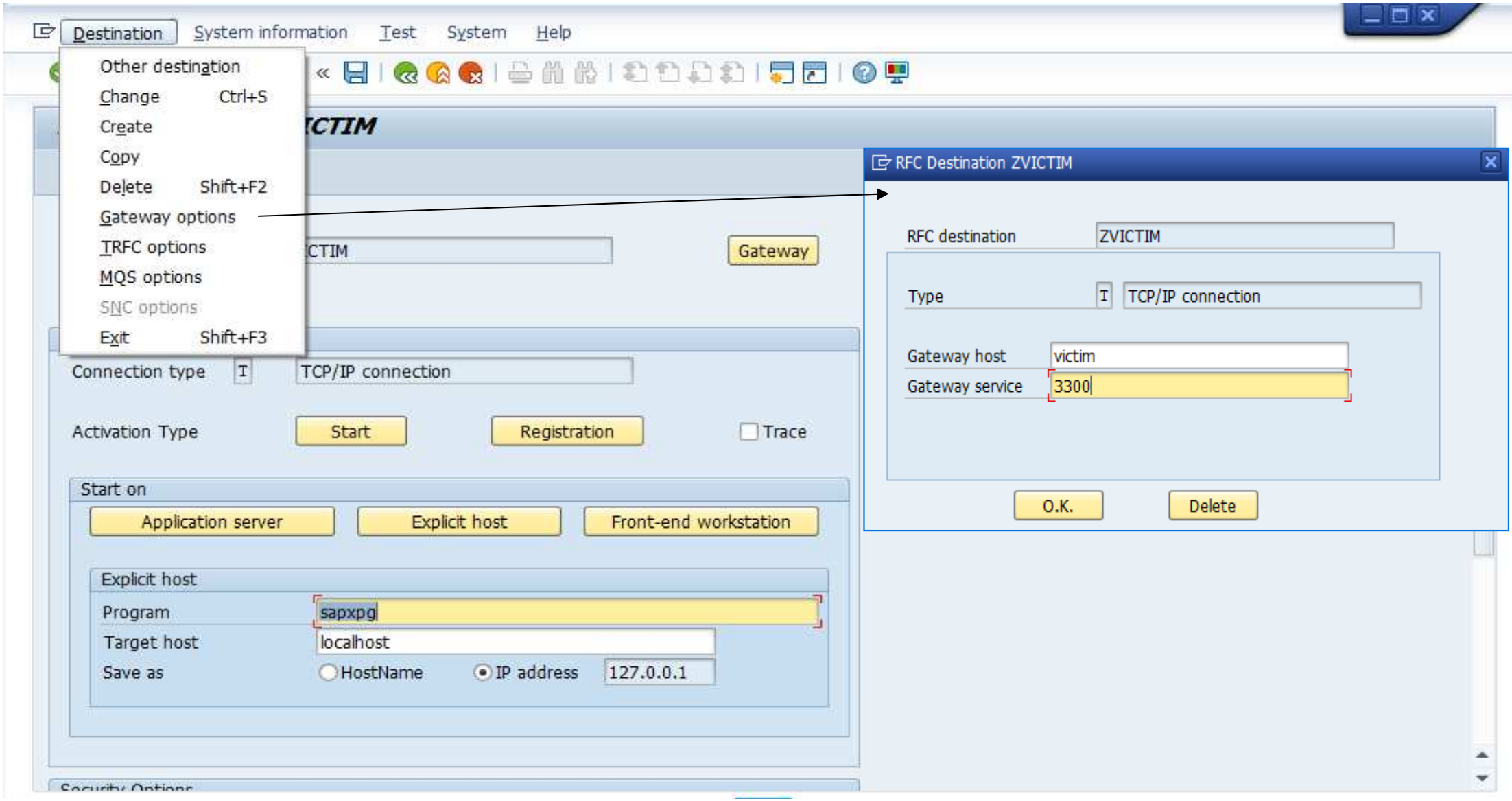




ACL (secinfo): Standard
user=*,from=*,to=*,prog=*

ACL (secinfo): Vorschlag
user=*,from=intern,to=*,prog=*

Test mit R/3 – Transaktion SM59



Test mit rfcsdk

```
#include <stdio.h>
#include <saprfc.h>
int main()
{  RFC_HANDLE rfc_handle;
   RFC_ERROR_INFO_EX   error_info;
   rfc_handle = RfcOpenEx ("TYPE=E GWHOST=victim GWSERV=3300
                           TPHOST=localhost TPNAME=sapxpg", &error_info);
   if (rfc_handle == RFC_HANDLE_NULL)
   {  printf ("Key          %s\n", error_info.key); */
      printf ("Message      %s\n\n", error_info.message);
   }
   else
   {  printf ("Secinfo not restrictive. Start of arbitrary external
programs possible.\n");
      RfcClose(rfc_handle);
   }
}
```

Start externer Programme

- Start beliebiger Programme
- Stop von SAP
- Mandanten löschen
- Umgehung des SAP Transportsystems
- Export und Veränderung von Daten
- Erstellen neuer R/3 Benutzer
- Ändern von R/3 Passwörtern

- keine Spuren

Exploit via RFC

- DEMO

Risikobehandlung

- Prüfen

Existiert das Risiko

- Akzeptieren

Geringes Restrisiko

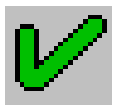
- Transferieren

Versicherung

- Ignorieren

es ist uns egal

- Beheben



Christian Thiemann

christian.thiemann@atos.net