

CWMP BOF

August 6, 2012

Redmond, WA

PWG F2F Meeting

Agenda



- CWMP BOF Overview
- CWMP Architecture Overview
- Example CWMP Management Architecture (for Printers/MFDs)
- Example CWMP Solution Components
- Current Activities
- Future Activities
- Discussion
- Next Steps
- Supplements

CWMP BOF Overview



- CWMP is a standard internet application protocol developed by Broadband Forum (BBF) for customer premise equipment (CPE).
- Standard CWMP data models for Imaging Devices can enable all brands to be remotely deployed, installed, and managed by an ACS (Auto-Configuration Server) through their entire life cycle like all other IT devices (routers, PCs, servers, smart phones, SetTops, etc.).
- CWMP BOF is providing guidance for developing the standard CWMP data models for Imaging Devices based on PWG Semantic Model.

CWMP BOF Overview



- Once each PWG-based CWMP data model for Imaging Devices has been developed, it should be proposed as a BBF project for BBF standardization.

CWMP Architecture Overview

The following figure places TR-069 in the end-to-end management architecture:

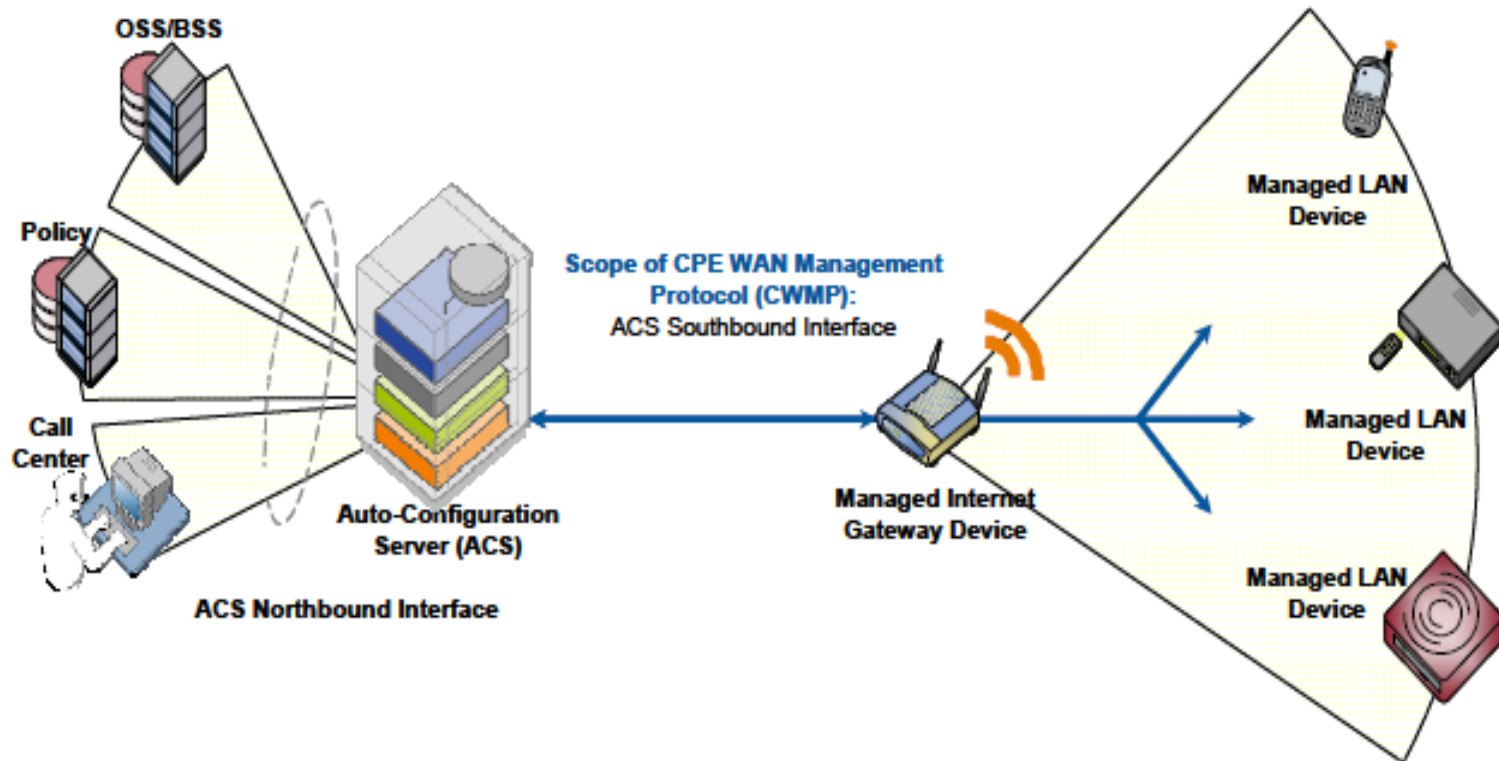
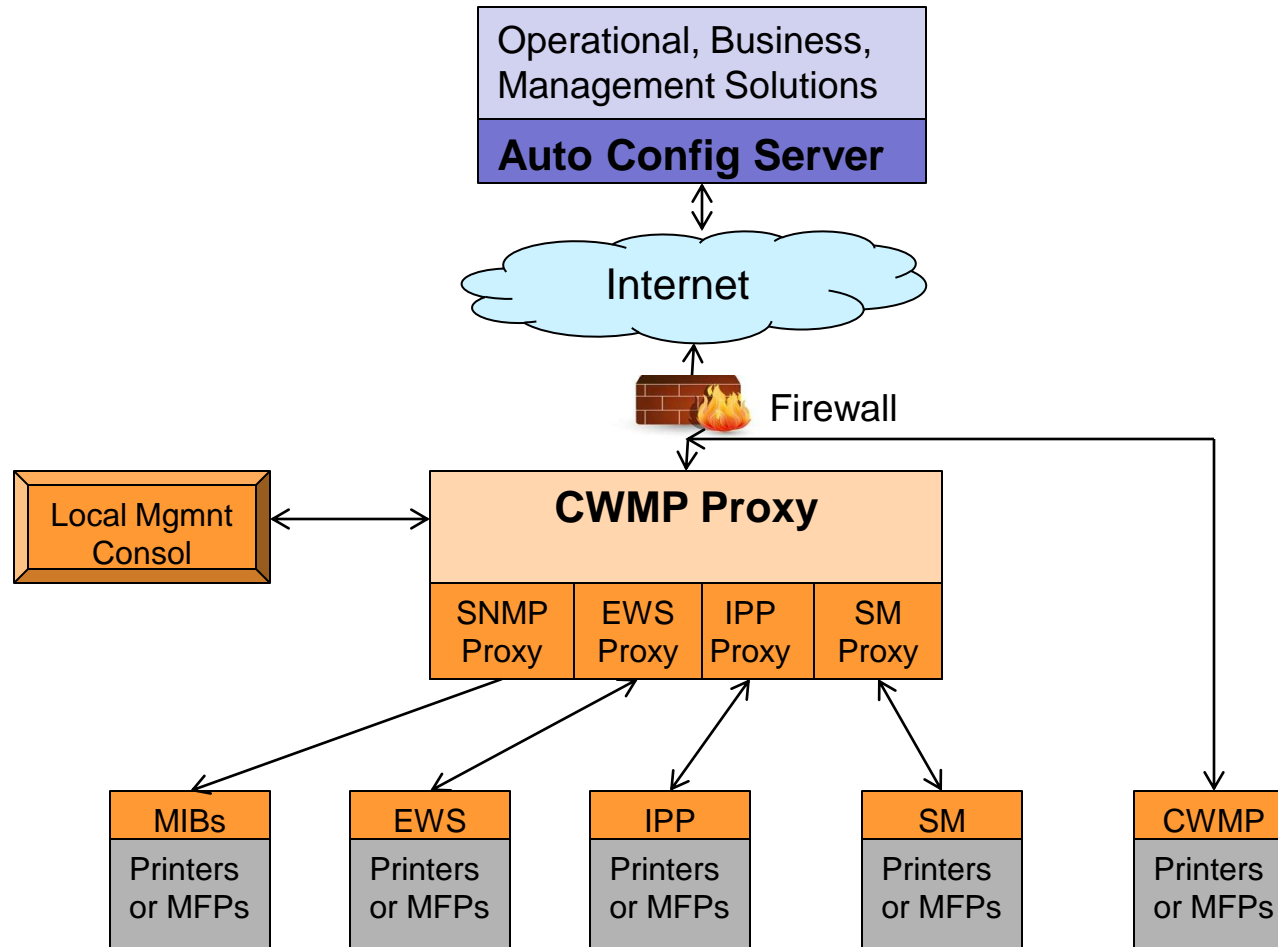


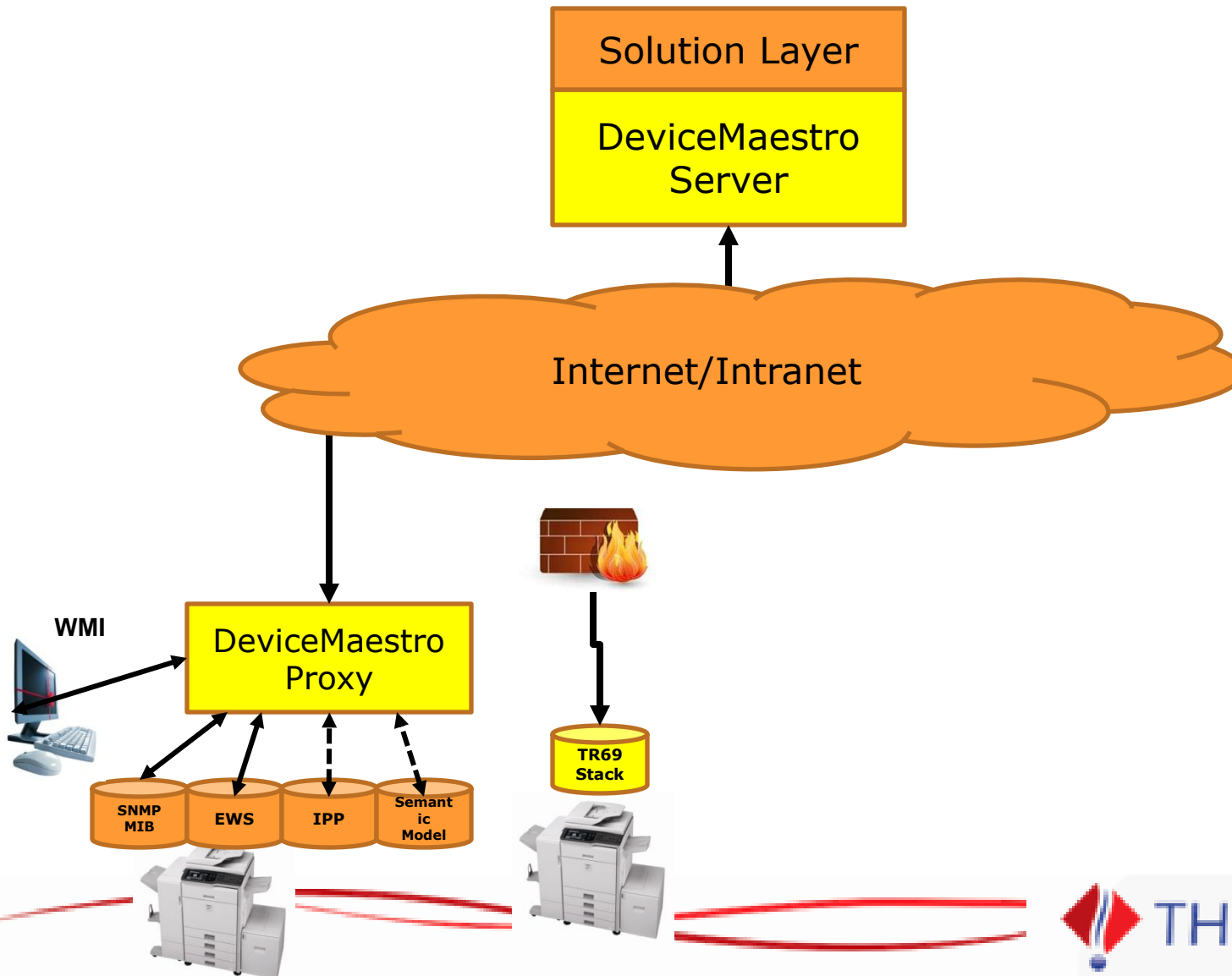
Figure 1 – Positioning in the End-to-End Architecture

- Standard interfaces to policy servers, call centers, and business applications (e.g. OSS/BSS/CRM)
- Strong security – transaction confidentiality and data integrity

Example of CWMP Management Architecture for Printers/MFDs



Example of CWMP Solution Components



Current Activities



- Developing a PWG white paper on CWMP data models for Printers and MFDs
 - Guidance for developing PWG SM / IPP based data models
- Developing a translation tool for mapping PWG SM to CWMP data models for MFDs – first phase: Print Service.
 - Translated XML file of CWMP Data Model
<ftp://ftp.pwg.org/pub/pwg/BOFs/cwmp/cwmp-data-model-20120130.xml>
- Incrementally prototyping CWMP data model for Printers via a CWMP proxy and an embedded CWMP client emulator for Printers – extending this data model as time allows.

Future Activities



- Propose the basic CWMP model translated from PWG Semantic Model as a BBF project
 - When the model has sufficient elements representing all essential components of a CWMP managed Printer/MFD
 - see next slide about SOHO data model first
 - Note: Only a BBF Principal member can propose a new BBF standards development project.
- Propose a formal liaison relationship with BBF to monitor the consistency of the full CWMP model with the PWG Semantic Model standard
 - PWG based CWMP data model should be the direction in BBF
 - PWG has the domain experts and knowledge professionals

- Should we propose a simpler model to BBF sooner?
 - Predominant approach in developing standards in BBF is to develop a SOHO model first, followed by an Enterprise model.
 - SOHO vendors in BBF such as Marvel (Printer/MFD chip set vendor) could quickly drive a non-PWG SOHO data model.
 - PWG SOHO data model == IPP/2.0 requirements in PWG SM
- Should we also require the IPP Everywhere extensions to IPP/2.0 in the PWG SOHO data model?
 - Device UUID, Geolocation, etc.
- Should we continue to plan a second PWG based Enterprise Printer data model for proposal to BBF?
 - IPP/2.1 based for remote device life cycle management
- *Issue: How can the PWG ensure a model developed in BBF remains consistent with PWG standards?*

Next Steps

- Continue discussion of SOHO CWMP data model.
- Continue update of the white paper.
- Continue to optimize and enhance the machine translation of PWG SM to CWMP data model as time allows.
- Continue incremental prototyping with demo of CWMP data model in a CWMP proxy for Printers w/ IPP support as time allows.
- Next teleconference:
Friday August 24, 10am EDT (tentative)

Supplements

(see previous CWMP BOF FTF meeting slides)